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**Electronic voting in transitional democracies
-The case of Serbia-**

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Abbreviations

CESID	Centar za Slobodne Izbore i Demokratiju
CRTA	Centar za Istrazivanje, Transparentnost i Odgovornost
DRE	Direct-Recording Electronic
EMB	Electoral Management Body
ICCPR	International Covenant on Civil and Political Rights
ICT	Information and Communication Technologies
IT	Information Technology
LEP	Law on Election of the President
LER	Law on Elections of Representatives
NVT	New Voting Technologies
OSCE	Organization for Security and Co-operation in Europe
PB	Pooling Board
REC	Republic Electoral Commission
VVPAT	Voter-verified Paper Audit Trail

1 Introduction

Information and communication technologies, which represent the core of modern societies, have inevitably influenced the way democracy is observed and consumed. Electrification of democracy and political participation offered a new tool for reaching the basic democratic standards and breaking the barriers between citizens and governments.¹ However, the implementation of information and communication technologies in the very heart of democracy – elections, except for opportunities, brought a number of obstacles and thus challenged the widely accepted view of technological advancements as a synonym for progress.² The controversy of electronic voting does not reflect only in the lack of universally accepted standards regulating its implementation, but also in the fact that due to its characteristics, electronic voting imposes certain challenges and questions the basic democratic principles. While the status of this phenomenon varies among academic community between “the new inevitable symbol of democracy”³ and the overly idealized source of democratic degradation,⁴ the undisputable fact is that the number of countries turning to this new voting channel is constantly rising.⁵ However, while the academics have been focusing on the analysis of electronic voting in the context of stable, consolidated democracies, the exploration of this phenomenon in transitional democracies is widely neglected.⁶ Fragility of democracy in these countries, which are becoming leaders in electronic voting implementation,⁷ urges the need for multidimensional approach to social phenomenon of elections and the research on potential effects and possibilities of electronic voting implementation in this specific context. The Republic of Serbia represents an example of a country in which three decades long transition from authoritarianism to democracy resulted in contemporary hybrid regime, challenging the voting cycles with its specific positioning between autocracy and democracy.⁸ The main goal of this paper is to contribute to the research on

¹ Tamara Djurickovic, “From e-Government to e-Democracy: Challenges and Opportunities for Development in Montenegro,” *International Journal of Humanities and Social Sciences* 5, no.12 (2011): 1819, DOI: 10.5281/zenodo.1058355.

² Ben Goldsmith, *Electronic Voting and Counting Technologies: A Guide to Conducting Feasibility Studies* (Washington, United States of America : International Foundation for Electoral Systems, 2011), 4. https://www.ifes.org/sites/default/files/electronic_voting_and_counting_tech_goldsmith_0.pdf (Accessed February 1, 2020).

³ Mourine Achieng and Ephias Ruhode, “The adoption and challenges of electronic voting technologies within the South African context,” *International Journal of Managing Information Technology* 5, no. 4 (2013): 3, DOI : 10.5121/ijmit.2013.5401.

⁴ Zach Bastick, “Digital Limits of Government: The Failure of E-Democracy,” in *Beyond Bureaucracy: Towards Sustainable Governance Informatisation*, ed. Alois Paulina, Leonidas Anthopoulos and Christopher Reddick (Cham, Switzerland: Springer International Publishing AG, 2017), 3. <https://arxiv.org/ftp/arxiv/papers/1803/1803.06136.pdf> (Accessed March 3, 2020).

⁵ Susanne Caarls, *E-voting handbook: Key steps in the implementation of e-enabled elections* (Strasbourg, France: Council of Europe Publishing, 2010), 7.

⁶ Jarrett Blanc, “Challenging the Norms and Standards of Election Administration: Electronic Voting,” in *Challenging the Norms and Standards of Election Administration*, ed. International Foundation for Electoral Systems (Washington, United States of America: United States Aid Agency, 2007), 12, https://www.ifes.org/sites/default/files/ifes_challenging_election_norms_and_standards_wp.pdf (Accessed March 25, 2020).

⁷ Manik Hapsara, Ahmed Imran and Timothy Turner, “E-Voting in Developing Countries : Current Landscape and Future Research Agenda,” in *Proceedings of the First International Joint Conference, E-Vote-ID 2016*, ed. Robert Krimmer et al. (Cham: Springer International Publishing AG, 2017), 36.

⁸ Nataša Golubovic and Marija Džunić, “Izazovi demokratske konsolidacije u Srbiji,” in *Ustav i demokratija u procesu transformacije*, ed. Milan Podunavac (Belgrade, Serbia: Univerzitet u Beogradu Fakultet političkih nauka, 2018), 343. https://www.researchgate.net/publication/268575470_Demokratija_konsolidacija_demokratije_i_primer_Srbije (Accessed March 30, 2020).

electronic voting in unexplored context of transitional states facing with the contemporary de-democratization phenomenon and to analyze the main challenges and benefits of e-voting implementation in the multidimensional context by providing an answer to the research question: “*How ready is Serbia to implement electronic voting?*”

The research is divided in five main parts. First part is based on the emergence of electronic democracy, electronic participation and their relation to electrification of electoral process. Furthermore this part depicts the fact that societal changes and technological innovations have been constantly reshaping the voting processes in order to achieve the basic democratic standards and that electronic voting itself has been a cause of both opportunities and challenges manifested in the practical implementation and the fact that despite several decades of implementation, the lack of universally accepted electronic voting standards is still obvious. Furthermore due to the complexity of the electoral phenomenon, the need for multidimensional approach, and thus deviation from technological determinism, is further explained and analyzed in the first section of the paper. The second part deals with the case of Serbia as a transitional democracy and describes the exploratory case study methodology, portraying it as a suitable approach to the exploration of certain phenomena in unexplored contexts through the use of different data collection methods. Subsequently, the results of conducted interviews and documentation analysis, categorized according to the four dimensions described in Robert Krimmer’s framework, are presented in the third part leading to discussion of these results in the light of theoretical framework and specific case of Serbia. The final, fifth part of the research, concludes that due to the specific context of transitional, hybrid, democracy in Serbia, deeply politicized system which is overshadowing the institutional, legal and societal aspects, imposes significant barriers to electronic voting consideration in this country.

2 Literature review

2.1. Electronic democracy

Democracy, as a system of government, has been constantly changing and adapting for the last 2.500 years.⁹ From ancient Athens in 507 B.C., till modern times, democratic values of human rights, freedoms, free and fair elections have been accepted by societies around the world.¹⁰ Even though democracy has become widely spread ideology, Francis Fukuyama's narrative regarding "the end of history" and the global acceptance of democracy, did not come true.¹¹ Whatsoever, contemporary trend of de-democratization and development of systems located in the grey zone between democracy and authoritarianism, which are becoming popular in many transitional countries, challenge the basic values of democracy.¹² Traditional deficiencies of democracy, as well as modern inclination towards de-democratization and hybrid regimes, impacted the way we perceive basic elements of contemporary democracy, and imposed the need for new solutions.

Technology has been broadly accepted by modern societies as a potential solution to many flaws and challenges of democracy, and a tool for its advancement. The fact that technology has a pivotal impact on the way contemporary societies function¹³ and that the overall social interaction is based on technology and the narrative of technology being the synonym for progress and advancement, led to technological advancements becoming a basic component of our everyday lives.¹⁴ For this reason, implementation of information and communication technologies (ICT) in domain of politics and democracy, has become an inevitable reality.¹⁵ First of all, in politics, ICT has enabled enhancement of public service provision, easier interaction with citizens, transparency, efficiency, and a shift towards different business models and processes.¹⁶ Although democracy has always been using some form of technology, the introduction of ICT in this sphere tackled the core of democracy – system of values and freedoms, and thus made digitalization of democracy challenging. The fact that modern society is based on ICT tools, made the re-design of

⁹ Robert Krimmer, Stefan Triessnig and Melanie Volkamer, "The Development of Remote E-Voting Around the World: A Review of Roads and Directions," in *E-Voting and Identity*, ed. Ammar Alkassar and Melanie Volkamer (Bochum, Germany: Springer-Verlag Berlin Heidelberg, 2007), 1.

¹⁰ Golubovic and Dzunic, "Izazovi demokratske konsolidacije u Srbiji," 350.

¹¹ Marko Kmezić, "Rule of law and democracy in the Western Balkans: addressing the gap between policies and practice," *Southeast European and Black Sea Studies* 19, no.4 (2020): 1, DOI:10.1080/14683857.2019.1706257.

¹² Golubovic and Dzunic, "Izazovi demokratske konsolidacije u Srbiji," 343.

¹³ Magdalena Musial-Karg, "The use of e-voting as a new tool of e-participation in modern democracies," *Political Science Review* 14, no. 2 (2014), 99, DOI: 10.14746/pp.2014.19.4.7.

¹⁴ Goldsmith, *Electronic Voting and Counting Technologies*, 4.

¹⁵ Ashtarout Nu'man, "A Framework for Adopting E-Voting in Jordan," *Electronic Journal of e-Government* 10, no. 2 (2012): 133, <http://connection.ebscohost.com/c/articles/87419442/framework-adopting-e-voting-jor> (Accessed February 24, 2020).

¹⁶ Djurickovic, "From e-Government to e-Democracy," 1820.

democracy inevitable¹⁷ and created a paradigm of electronic democracy as a reflection of information age.¹⁸

However, this imposes the need for defining what electronic democracy or e-democracy is. According to Garson, electronic democracy is an umbrella term which refers to wide specter of different activities.¹⁹ Within this concept it is possible to detect myriads of other fields such as electronic parliament, electronic referendum, electronic legislation, electronic petitioning, electronic surveying, electronic voting, electronic forums etc.²⁰ However, despite the existence of different definitions, the core of e-democracy should be primarily based on the maintenance and improvement of the existing democratic processes through the implementation of new technologies.²¹ For this reason, not only democratic institutions but also ordinary citizens should be able to benefit from the implementation of e-democracy. Namely, e-democracy has potential to bring efficiency and effectiveness to institutions,²² promote values of transparency and skepticism²³ and improve politics by making it more rational and effective.²⁴ Furthermore, e-democracy can also be explored in the light of human rights, freedom enhancement²⁵ and reduction of social and racial segregation through sustainable inclusion.²⁶ Despite the multiplicity of advantages that e-democracy can bring to both public institutions and society, electrification of different forms of political participation has been widely accepted as the pivotal benefit of e-democracy.

2.2. Electronic participation

Citizens' participation in democratic processes has always been the core principle of democracy. Furthermore, it would be possible to claim that democracy cannot exist without participation.²⁷ However, low level of active citizenship caused mainly by the lack of trust in politics, democracy and institutions, challenges contemporary political participation of citizens.²⁸ The introduction of ICT in democracy, and development of

¹⁷ Council of Europe, *Recommendation of the Committee of Ministers to member states on electronic democracy (e-democracy)*. *CM/Rec (2009)* (Strasbourg, France: Council of Europe, 2009), 9, <https://ec.europa.eu/migrant-integration/library/doc/recommendation-of-the-committee-of-ministers-to-member-states-on-electronic-democracy-e-democracy> (Accessed March 27, 2020).

¹⁸ Djurickovic, "From e-Government to e-Democracy," 1822.

¹⁹ Achieng and Ruhode, "The adoption and challenges of electronic voting technologies within the South African context," 1.

²⁰ Council of Europe, *Recommendation of the Committee of Ministers to member states on electronic democracy (e-democracy)*, 9.

²¹ *Ibid.*, 6.

²² *Ibid.*, 14.

²³ Sirajul Islam, "Towards a sustainable e-Participation implementation model," *European Journal of ePractice* 5, no. 10 (2008): 1. https://www.researchgate.net/publication/238704195_Towards_a_sustainable_e-Participation_implementation_model (Accessed March 25, 2020).

²⁴ *Ibid.*

²⁵ Council of Europe, *Recommendation of the Committee of Ministers to member states on electronic democracy (e-democracy)*, 14.

²⁶ *Ibid.*, 13.

²⁷ Aishatu Shuaibu, Abubakar Mohammed and Arthur Ume, "A Framework for the Adoption of Electronic Voting System in Nigeria," *International Journal of Advanced Research in Computer Science and Software Engineering* 7, no. 3 (2017): 259, DOI: 10.23956/ijarcsse/V7I3/01310.

²⁸ Musial-Karg, "The use of e-voting as a new tool of e-participation in modern democracies," 103.

electronic participation (e-participation) as a sub-category of e-democracy, created possibility for intense and motivating top-down engagement of citizens, civil society organizations and others.²⁹ Multiplicity of e-participation forms, such as electronic consultations, electronic initiatives, participatory budgeting and electronic voting, has potential to improve citizens' political activity³⁰ and decrease the existing distance between politicians, institutions and citizens, as can be seen on the existing examples of Estonia, Switzerland, Great Britain or Norway.³¹ This can further lead to the widening of the political debate,³² improved access to public agencies³³ and, thus, firmer legitimacy of political decisions.³⁴ For this reason, e-participation can make democracy more attractive to all citizens, especially younger people³⁵ and have a positive effect on public institutions' transparency and accountability³⁶ by transforming democracy from bureaucratic to participative and from exclusive to inclusive.³⁷

However, this imposes a question whether the change in the participation channel can truly be seen as a solution to the lack of participation, or the channel itself does not play a crucial role. Different approaches to this dilemma stress out the importance of the way ICT is implemented, and the concept of participants' rationality and attitude towards this occurrence as important issues. Zach Bastick believes approach to e-democracy and e-participation, which overly emphasizes its benefits and potentials, is too idealistic and does not depict the reality.³⁸ Namely, he underlines the fact that implementation of ICT in democratic participation neither brought advancements nor any incremental change to the process.³⁹ Moreover, the author believes that the cause of this lies in the way ICT is implemented. The reason may lie in the fact that the ICT implementation in modern democracies has been focused on the centuries old structures, pure political benefits and cost reduction rather than participatory process itself.⁴⁰ By focusing on technology, modern societies neglect the fact that technological developments are only enablers and not the essence of electronic democracy.⁴¹ Furthermore, this approach to electronic democracy can also create opportunities for political misuse and democratic degradation instead of enhancement.⁴² Except for the adverse implementation of ICT in democracies, concrete and objective benefits are also questionable. It is possible to claim that e-

²⁹ Musial-Karg, "The use of e-voting as a new tool of e-participation in modern democracies," 103.

³⁰ Ibid

³¹ Djurickovic, "From e-Government to e-Democracy," 1819.

³² Council of Europe, , *Recommendation of the Committee of Ministers to member states on electronic democracy (e-democracy)*, 5.

³³ Djurickovic, "From e-Government to e-Democracy," 1819.

³⁴ Musial-Karg, "The use of e-voting as a new tool of e-participation in modern democracies," 100.

³⁵ Council of Europe, *Recommendation of the Committee of Ministers to member states on electronic democracy (e-democracy)*, 11.

³⁶ Musial-Karg, "The use of e-voting as a new tool of e-participation in modern democracies," 1.

³⁷ Ibid

³⁸ Bastick, "Digital Limits of Government," 3.

³⁹ Ibid, 13.

⁴⁰ Bastick, "Digital Limits of Government," 13.

⁴¹ Council of Europe, *Recommendation of the Committee of Ministers to member states on electronic democracy (e-democracy)*, 9.

⁴² Bastick, "Digital Limits of Government," 3.

participation not only doesn't improve the level of citizens' participation, but has an overall negative effect on this process.⁴³ Namely, Bastick claims that neither of information and communication developments implemented in recent history, alluding to telephone, radio and television, haven't improved citizens' participation, even though they improved information access and reduced certain costs.⁴⁴ Other authors claim that the reason behind the e-participation idealization, lies in unrealistic perception of modern citizens as rational participants. For this reason Tamara Djurickovic believes that non-technological factors such as citizens' and institutions' trust in technology might have a far greater impact on participation than objective benefits of the technology in use.⁴⁵ Finally, Golding and Haymond share this pessimistic approach and note that electrification of democracy could only impede the accessibility to basic democratic processes of many groups in society.⁴⁶

Electronic democracy undoubtedly causes divided opinions, and while for some, e-democracy depicts a positive revolution in democracy which will enable the transformation and significant improvement of traditional democracy,⁴⁷ for others, e-democracy is an idealistic concept based on unrealistic expectations which only has potential to mitigate some of the basic democratic processes.⁴⁸ The growing trend of ICT implementation in the voting process which represents the core of democracy and the opposed views on the advantages of e-democracy, make the phenomenon of electronic voting controversial. For this reason it is necessary to get a deeper insight into the occurrence of electronic voting, as well as the benefits and challenges of its implementation.

2.3. Voting and technological advancements

Elections are often depicted as the heart of democracy.⁴⁹ Providing citizens with the opportunity to freely express their opinion and, thus, challenge position of the ruling elite, represents the essence of this process.⁵⁰ For this reason, Macintosh defines elections as a clamp between citizens, government and democracy.⁵¹ This essence of democracy remained unchanged since the times when people were publicly expressing their inclinations by using their voices, clapping their swords or changing their physical

⁴³ Matt Qvortrup, *The Politics of Participation: From Athens to E-Democracy* (Manchester, Manchester University Press, 2007), 67.

⁴⁴ Bastick, "Digital Limits of Government," 9.

⁴⁵ Djurickovic, "From e-Government to e-Democracy," 1822.

⁴⁶ Krimmer, Triessnig and Volkamer, "The Development of Remote E-Voting Around the World," 2.

⁴⁷ Musial-Karg, "The use of e-voting as a new tool of e-participation in modern democracies," 101.

⁴⁸ Krimmer, Triessnig and Volkamer, "The Development of Remote E-Voting Around the World," 2.

⁴⁹ Musial-Karg, "The use of e-voting as a new tool of e-participation in modern democracies," 104.

⁵⁰ Kmezić, "Rule of law and democracy in the Western Balkans," 5.

⁵¹ Achieng and Ruhode, "The adoption and challenges of electronic voting technologies within the South African context," 3.

position in order to indicate their opinion.⁵² Although in some parts of the world, such as Swiss Cantons, tradition of public voting is still present, massiveness of electoral process made contemporary elections the greatest and the most complicated logistical operation one country can conduct in the peace time.⁵³ Technical problems surrounding the voting and counting process, current political tendencies which additionally challenge electoral procedures, lack of legitimacy, frauds, slow procedures and other issues have inevitably led to the need for reconsiderations and implementation of different technologies in the voting process in order to eliminate challenges and enhance the overall electoral cycles by making them attractive and legitimate. However, tendency of implementing technologies in the electoral process is not new, and thus should not be confused with the current trend of ICT innovations in elections.

Since the need for the secret elections arose, different types of technologies have been considered in order to protect democratic principles of free and secret suffrage.⁵⁴ One of the first examples of any technology being implemented in elections can be found in the ancient Athens and the occurrence of ostracism, which allowed Athenians to ban another citizen from the city for 10 years.⁵⁵ Similar procedures were also practiced by the usage of wax tablets in Rome or voting tokens in Venetian Republic.⁵⁶ Although voting technologies have been changing in accordance to the needs and culture of the local population, the appearance of Australian ballot in the 19th century formalized the voting process.⁵⁷ Australian ballot is a paper ballot which depicts all possible voting choices in an equal way without giving preference to the certain option.⁵⁸ In most cases this system also requires manual recount by electoral officials.⁵⁹ Even two centuries after the occurrence of the Australian ballot, this technique still represents a quasi-standard around the World.⁶⁰ Despite its wide acceptance, the fact that Australian balloting system still faces many challenges such as high costs, delays, frauds and other issues which gain their specific form depending on the context of implementation, inspired creation of many innovations which were supposed to mitigate these defects.⁶¹ 19th century brought multiple innovations based on mechanical machines, which were aiming at advancing the voting process in Europe and the United States of America (USA).⁶² Some of the examples are George Grote with the ballot marking machine, Benjamin Jolly whose

⁵² Rober Krimmer, "The Evolution of E-voting: Why Voting Technology is Used and How it Affects Democrac," (PhD diss., Tallinn University of Technology, 2012), 16-17, https://www.researchgate.net/publication/236216941_The_Evolution_of_E-voting_Why_Voting_Technology_is_Used_and_How_it_Affects_Democracy (Accessed February 24, 2020).

⁵³ Golubovic and Dzunic, "Izazovi demokratske konsolidacije u Srbiji," 350.

⁵⁴ Krimmer, "The Evolution of E-Voting," 16.

⁵⁵ Ibid.

⁵⁶ Ibid.

⁵⁷ Goldsmith, *Electronic Voting and Counting Technologies*, 3.

⁵⁸ Krimmer, "The Evolution of E-Voting," 13.

⁵⁹ Goldsmith, *Electronic Voting and Counting Technologies*, 3.

⁶⁰ Krimmer, "The Evolution of E-Voting," 25.

⁶¹ Achieng and Ruhode, "The adoption and challenges of electronic voting technologies within the South African context," 1.

⁶² Djurickovic, "From e-Government to e-Democracy," 1819.

innovation was based on the usage of balls, and Jacob Mayers with the pull-lever machine.⁶³ Development of electrical engineering and wide usage of electricity in 20th century impacted on the creation of new technologies and, thus new ideas for the voting process transformation. In the first half of the 20th century, American architect Buckminster Fuller, started considering the potential of new technologies such as telephone, radio and television, for the remote voting.⁶⁴ This indicates that the need for the new instruments, which would challenge the lasting issues which threaten to endanger the essence of democratic elections, has always been present. Consequently, the evolution of information and communication technologies, rapid development of the internet at the end of the 20th century, occurrence of online shopping, online banking and digitalization of public services,⁶⁵ can be seen as only another attempt for electoral improvement. However, specificities which new technologies brought into the process, caused the need for the exploration of their real benefits.

2.4. Electronic voting and New Voting Technologies

The fact that ICTs have become a fundamental part of contemporary culture, reshaping democracy and providing new forms of participation, led to widely accepted opinion that their implementation in the sphere of elections is inevitable.⁶⁶ This ascertainment can be further supported by the fact that the vast majority of modern-day democracies are already implementing some form of ICTs in their voting cycles.⁶⁷ Moreover, due to the growing interest of academic society and international organizations in e-voting, some of the authors defined e-voting as a primary instrument of electronic democracy.⁶⁸ For this reason it is pivotal to understand the concept of electronic voting and the occurrences it refers to. E-voting can be considered as a sub-category of e-democracy and e-participation.⁶⁹ Qadah and Taha, narrow the definition of e-voting to the usage of computers in vote casting,⁷⁰ however, a broader definition of this phenomenon can be found in the 2004 Council of Europe's Recommendations on legal, operational and technical standards for e-voting, which referred to e-voting as the utilization of electrical means in vote casting.⁷¹ However, in 2017 Recommendations, the same institution has further widened this definition by incorporating electronic counting (e-counting) under the same term.⁷² This indicates that due to definition's change and widening over the

⁶³ Krimmer, "The Evolution of E-Voting," 20.

⁶⁴ Bastick, "Digital Limits of Government," 5.

⁶⁵ Krimmer, "The Evolution of E-Voting," 9.

⁶⁶ Nu'man, "A Framework for Adopting E-Voting in Jordan," 133.

⁶⁷ Ibid, 16.

⁶⁸ Musial-Karg, "The use of e-voting as a new tool of e-participation in modern democracies," 104.

⁶⁹ Hapsara, Imran and Turner, "E-Voting in Developing Countries," 39.

⁷⁰ Ibid.

⁷¹ Krimmer, Triessnig and Volkamer, "The Development of Remote E-Voting Around the World," 3.

⁷² Ardita Driza Maurer, "Updated European standards for e-voting. The Council of Europe recommendation Rec(2017)5 on standards for e-voting," in *Proceedings of Electronic Voting*, ed. Robert Krimmer et al. (Bregenz, Austria: Springer International Publishing AG, 2017), 153, DOI: 10.1007/978-3-319-68687-5_9.

years, e-voting phenomenon itself can be seen as dynamic. By referring to e-voting as the usage of ICTs in voting and counting processes, both the Council of Europe and the Organization for Security and Co-operation in Europe (OSCE) have counterbalanced their definitions of electronic voting, which significantly contributed to the global standardization of this phenomenon.⁷³ In order to understand the significance and the advantages of e-voting, it is necessary to provide a closer look at technologies supporting its implementation.

E-voting refers to the usage of the new voting technologies (NVT) in both controlled environments, such as machines located in polling stations, and uncontrolled environments, referring to remote voting based on technologies such as computers or smartphones.⁷⁴ Looking at controlled environments, it is possible to make a distinction between technologies which are used in voting cycles to record the voting preferences of the citizens and technologies used for vote counting.⁷⁵ The fact that, different combinations of electronic and manual voting and counting techniques are possible,⁷⁶ makes the specter of new voting technologies very broad. Although there are different classifications of the new voting technologies, for the purpose of this paper the focus will be on the categorization provided by the OSCE Handbook for the observation of new voting technologies. According to this classification, it is possible to make a distinction between two different types of technologies in controlled environment: Ballot scanning technology and Direct Recording Electronic (DRE) voting system.⁷⁷ Ballot scanning technology, introduced in 1980's,⁷⁸ enables manually marked ballots or ballots marked by the other machine to be counted by placing them into the scanner.⁷⁹ DRE voting systems have been rapidly changing over years. While DRE machines equipped with push buttons were already utilized in the USA in 1974,⁸⁰ nowadays up-to-date DRE technologies have replaced manual marking of the voting preference, with the touchscreens.⁸¹ Furthermore, this machine contains a chip or another storage medium with storages the voting program and the ballot information.⁸² Except for the electronic voting, full electronic solution also incorporates electronic vote counting.⁸³ Systems which do not use paper ballots, heavily rely on the electronic memory which is located on the separate

⁷³ Maurer, "Updated European standards for e-voting," 153.

⁷⁴ OSCE, *Handbook for the Observation of New Voting Technologies* (Warsaw: OSCE Office for Democratic Institutions and Human Rights, 2013), 6.

⁷⁵ Goldsmith, *Electronic Voting and Counting Technologies*, 3.

⁷⁶ OSCE, *Handbook for the Observation of New Voting Technologies*, 6.

⁷⁷ Ibid.

⁷⁸ Krimmer, "The Evolution of E-Voting," 22.

⁷⁹ OSCE, *Handbook for the Observation of New Voting Technologies*, 6.

⁸⁰ Krimmer, "The Evolution of E-Voting," 22.

⁸¹ OSCE, *Handbook for the Observation of New Voting Technologies*, 6.

⁸² Samuel Agbesi, Fati Tahiru and Alexander Osei-Owusu, "Investigating the feasibility of implementing e-voting system in Ghana," *International Journal of Innovation and Scientific Research*, 10, no.1 (2014): 219, <https://www.researchgate.net/publication/303984362> (Accessed April 1, 2020).

⁸³ OSCE, *Handbook for the Observation of New Voting Technologies*, 6.

hardware and keeps the log of the operation.⁸⁴ However, despite the existence of full electronic solutions, a trend of combining voting machines with the paper trails is notable among the OSCE participating states.⁸⁵ This addition to voting machines is called Voter Verified Paper Trail (VVPAT) and its main purpose is to enable citizens to verify the ballot before it is casted, as well as to enhance the security and maintain the possibility of post-electoral result audit.⁸⁶ These machines either print the confirmation and show it to the voter behind the glass screen,⁸⁷ or provide the voter with the possibility to physically remove the paper and, in some cases, require them to cast it into the voting box after verifying its content.⁸⁸

Another category of the new voting technologies refers to technologies which are used in the uncontrolled environment and which primarily rely on the internet. Remote voting is not a novelty. While the remote voting concept gained popularity after the Second World War, some cities in Europe, such as St. Gallen were using postal voting already in the 17th century.⁸⁹ However, contemporary expansion of citizens' mobility and ICT developments, created new potentials for remote voting.⁹⁰ Although some scholars often make distinction between electronic and internet voting, it is evident that internet voting represents a sub-category of electronic voting and thus can be classified as a form of new voting technology.⁹¹ Furthermore, similarly to hybrid NVT, which use VVPAT, some forms of internet voting provide citizens with the equivalent possibility of verifying whether their vote has been casted according to their preferences.⁹² However, according to Krimmer, due to its characteristics and multiplicity of challenges it faces, internet voting can be seen as the most complex form of e-voting.⁹³

Occurrence and development of new technologies has always been transforming and re-shaping democracy.⁹⁴ However, unlike other technologies, e-voting has not only changed the way we practice democracy, it has also imposed important challenges to the basic principles of democracy.⁹⁵ For this reason, it would be possible to claim that the fact that information and communication technologies have direct influence on the core of the

⁸⁴ OSCE, *Handbook for the Observation of New Voting Technologies*, 7.

⁸⁵ *Ibid.*

⁸⁶ Goldsmith, *Electronic Voting and Counting Technologies*, 7.

⁸⁷ Caarls, *E-voting handbook: Key steps in the implementation of e-enabled elections*, 11.

⁸⁸ OSCE, *Handbook for the Observation of New Voting Technologies*, 46.

⁸⁹ Krimmer, "The Evolution of E-Voting," 22.

⁹⁰ *Ibid.*, 23.

⁹¹ Musial-Karg, "The use of e-voting as a new tool of e-participation in modern democracies," 105.

⁹² OSCE, *Handbook for the Observation of New Voting Technologies*, 7.

⁹³ Krimmer, "The Evolution of E-Voting," 13.

⁹⁴ Krimmer, Triessnig and Volkamer, "The Development of Remote E-Voting Around the World," 1.

⁹⁵ Council of Europe, *Legal, Operational, and Technical standards for E-Voting* (Strasbourg, France: Council of Europe Publishing, 2004), 25,

http://www.eods.eu/library/CoE_Recommendaion%20on%20Legal,%20Operational%20and%20Technical%20Standards%20for%20E-voting_2004_EN.pdf (Accessed March 16, 2020).

electoral process, makes their implementation and, subsequently, their impact, more challenging, compared to other voting technologies.

However, in order to be able to estimate the benefits of any change, certain standards need to exist which can be used as a criteria of assessment.⁹⁶ For this reason, in order to create a wider picture of the importance of e-voting, it is necessary to analyze principles which regulate electoral processes, basic citizens' political rights, electronic voting and subsequently, the way in which electronic voting has influenced these standards.

2.5. International standardization of electoral process and e-voting

2.5.1. International standardization of voting process and political rights

Democracy has always been inextricably linked to standards.⁹⁷ The basic principles of elections are primarily defined in the Universal Declaration of Human Rights adopted by the United Nation General Assembly in 1948, International Covenant on Civil and Political Rights (ICCPR) adopted by the same organization in 1966, OSCE Copenhagen Document from 1990 and 2002 Code of Good Practice in Electoral Matters adopted by Venice Commission. Electoral standards are categorized differently by international organizations, however, their essence is the same and can be narrowed to the Article 25 of the ICCPR which defines free elections, universal suffrage, equal suffrage, secret ballot, genuine elections and periodic elections as the main standards of electoral process.⁹⁸ Free elections are the crucial element of democracy.⁹⁹ Namely, Article 21 of the Universal Declaration of Human Rights notes that citizens have right to participate in the government of their country through freely chosen representatives.¹⁰⁰ This provision is additionally confirmed in the Articles 1 and 25 of the ICCPR.¹⁰¹ Moreover, for the elections to be free, they have to meet certain requirements. First of all, ability to freely hold opinion is defined in the Article 19 of the ICCPR as a necessity.¹⁰² Additionally, freedom of expressing opinion, requiring information about electoral contestants¹⁰³ and ability to express opinion without a fear of consequential intimidation or harm¹⁰⁴ are all prerequisites of free elections. Principle of universal suffrage, which is defined in the

⁹⁶ Goldsmith, *Electronic Voting and Counting Technologies*, 17.

⁹⁷ Council of Europe, *Legal, Operational, and Technical standards for E-Voting*, 23.

⁹⁸ United Nation General Assembly, "International Covenant on Civil and Political Rights," 2200A (XXI) (1966), 2200A (XXI) <https://www.ohchr.org/en/professionalinterest/pages/ccpr.aspx> (Accessed March 16, 2020).

⁹⁹ The United Nations Centre for Human Rights, *Professional Training Series No.2 Human Rights and Elections: A Handbook on the Legal, Technical and Human Rights Aspects of Elections* (Geneva, Switzerland: Centre for Human Rights, 1994), 4. https://eos.cartercenter.org/uploads/document_file/path/8/training2enTCCoptimized.pdf (Accessed March 26, 2020).

¹⁰⁰ United Nation General Assembly, "Universal Declaration of Human Rights 217 (III) A," <http://www.un.org/en/universal-declaration-human-rights/> (Accessed March 26, 2020).

¹⁰¹ The United Nations Centre for Human Rights, *Human Rights and Elections*, 4.

¹⁰² United Nation General Assembly, "International Covenant on Civil and Political Rights," 3.

¹⁰³ *Ibid.*

¹⁰⁴ The United Nations Centre for Human Rights, *Human Rights and Elections*, 5.

Article 2 of the Universal Declaration of Human Rights¹⁰⁵ and Articles 2, 3 and 26 of the ICCPR, refers to the right of all citizens to vote or to access candidacy no matter of their race, sex, language, color, religion, nationality or any other characteristic.¹⁰⁶ These rights can only be limited by the authority in exceptional occasions such as the endangerment of national security, public order, public health and moral.¹⁰⁷ Except universal suffrage, equal suffrage, which refers to each voter possessing the same amount of votes, and each vote weighting the same value, is another important precondition for free elections.¹⁰⁸ Regarding this principle, Code of good practice in electoral matters, states that each voter has the right on one vote.¹⁰⁹ Furthermore, Article 21 of the Universal Declaration of Human Rights notes that elections need to be periodic and genuine.¹¹⁰ Request for periodicity refers to the need for elections to be held in reasonable intervals¹¹¹ which would enable citizens to express their will and enable governments to reflect citizens' preferences.¹¹² When it comes to genuine elections, this requirement refers to the need for elections to be credible and thus truly reflect citizens' will.¹¹³ Moreover, OSCE Copenhagen Document considers fair voting and vote counting as a guarantee for the integrity of elections.¹¹⁴ Finally, according to Council of Europe's Legal, Operational and Technical standards for E-Voting, secret suffrage refers to the right of each individual to keep their electoral preference as a secret and the duty of authorities to protect this right¹¹⁵ and sanction any kind of infringement such as vote buying or intimidation of voters.¹¹⁶ The idea behind the concept of secret suffrage is to disable connecting concrete voter to their voting preference.¹¹⁷ While Universal Declaration of Human Rights talks about secrecy of vote¹¹⁸ Article 25 of the ICCPR defines this concept under the term of secret ballot.¹¹⁹ Additionally, Venice Commission defines secrecy of the vote not only as voters' right, but also as their duty due to the fact that violation of this standard could lead to voting ballot disqualification and penalty.¹²⁰ Furthermore OSCE Copenhagen Document defines this standard as the heart of democracy which distinguishes democratic from other

¹⁰⁵ United Nation General Assembly, "Universal Declaration of Human Rights".

¹⁰⁶ Ibid.

¹⁰⁷ United Nation General Assembly, "International Covenant on Civil and Political Rights," 2200A (XXI) (1966), 2200A (XXI) (Accessed March 16, 2020).

¹⁰⁸ Goldsmith, *Electronic Voting and Counting Technologies*, 9.

¹⁰⁹ Council of Europe, *Code of good practice in electoral matters: Guidelines and explanatory report*, 6.

¹¹⁰ United Nation General Assembly, "Universal Declaration of Human Rights."

¹¹¹ Council of Europe, European Commission for Democracy through Law (Venice Commission), 58th Plenary Session , Venice 12-13 March 2004, Report on the compatibility of remote voting and electronic voting with the standards of the Council of Europe, (Strasbourg, 18 March 2004), 3, [https://www.venice.coe.int/webforms/documents/default.aspx?pdffile=CDL-AD\(2004\)012-e](https://www.venice.coe.int/webforms/documents/default.aspx?pdffile=CDL-AD(2004)012-e) (Accessed March 16, 2020).

¹¹² Goldsmith, *Electronic Voting and Counting Technologies*, 9.

¹¹³ Ibid.

¹¹⁴ OSCE, *Handbook for the Observation of New Voting Technologies*, 14.

¹¹⁵ Council of Europe, *Legal, Operational, and Technical standards for E-Voting*, 25.

¹¹⁶ Council of Europe, *Code of good practice in electoral matters: Guidelines and explanatory report*, 5.

¹¹⁷ Goldsmith, *Electronic Voting and Counting Technologies*, 20.

¹¹⁸ United Nation General Assembly, "Universal Declaration of Human Rights."

¹¹⁹ United Nation General Assembly, "International Covenant on Civil and Political Rights."

¹²⁰ Council of Europe, European Commission for Democracy through Law (Venice Commission), 52th Plenary Session , Venice 18-19 October 2002, Code of good practice in electoral matters: Guidelines and explanatory report (Strasbourg, 25 October 2018), 9, <https://rm.coe.int/090000168092af01> (Accessed March 16, 2020).

non-democratic regimes.¹²¹ Since these principles do not exist in a vacuum, they are impacted by other standards which are not necessarily connected to elections or political rights. In this context, Ben Goldsmith mentions standards such as freedom of expression, freedom of association, freedom of information etc.¹²² Beside legal standards, Council of Europe also defines certain safeguards such as transparency, accountability, security and public confidence.¹²³ Transparency which was highlighted in this document as one of the basic values refers to the right of different electoral stakeholders, from politicians to observers, to observe all the processes of electoral cycle in order to verify its probity.¹²⁴ Subsequently, 2003 Maastricht Ministerial Council Decision No. 5/03, underlines the importance of accountability as a standard which primarily refers to responsibility of concrete institutions to implement and observe elections.¹²⁵ Furthermore, this document deals with both the question of security and trust that society has towards the system and which provides legitimacy to the overall electoral process.¹²⁶

In order for e-voting to accomplish the same function as paper-ballot voting system, it needs to be based on the previously mentioned principles.¹²⁷ However, according to Nina Boulus-Radje, the specificity of e-voting challenges existing principles and thus represents the greatest issue of this phenomenon.¹²⁸ For this reason it is necessary to further analyze the international standards regulating the implementation of electrical voting.

2.5.2. International standardization of e-voting

Even though existing standards of human rights and voting processes, are relevant for e-voting, they need to be either modified in order to become applicable to new technologies or replaced with the new standards.¹²⁹ It goes without saying that many countries have already developed their national legislations concerning the application of e-voting, however, the only organization which has dealt with the standardization of e-voting on international level has been the Council of Europe.¹³⁰ As an organization which has been promoting and improving common European heritage since 1949, Council of Europe has issued its Recommendations on Legal, Operational and Technical Standards for

¹²¹ OSCE, *Handbook for the Observation of New Voting Technologies*, 9.

¹²² Goldsmith, *Electronic Voting and Counting Technologies*, 20.

¹²³ Council of Europe, *Legal, Operational, and Technical standards for E-Voting*, 11-17.

¹²⁴ OSCE, *Handbook for the Observation of New Voting Technologies*, 15.

¹²⁵ Ibid.

¹²⁶ Ibid.

¹²⁷ Council of Europe, *Legal, Operational, and Technical standards for E-Voting*, 23.

¹²⁸ Nina Boulus-Rodje, "Mapping the Literature: Socio-cultural, Organizational and Technological Dimensions of E-Voting Technologies," in *Proceedings of the 5th International Conference on Electronic Voting*, ed. Kripp, M., Volkamer, M and Grimm, R (Bonn, Germany: Gesellschaft für Informatik, 2012), 230.

¹²⁹ Council of Europe, *Recommendation of Recommendation of the Committee of Ministers to member states on electronic democracy (e-democracy)*, 10.

¹³⁰ Maurer, "Updated European standards for e-voting," 146.

Electronic Voting in 2004.¹³¹ These recommendations were followed by Venice Commission's report concerning the compatibility of remote and electronic voting standards with the electoral principles previously adopted by the Council of Europe.¹³² Furthermore, at 2010 biannual review meeting, specific guidelines concerning the matter of transparency and certification were adopted in order to facilitate the implementation of the recommendations embraced in 2004.¹³³ Finally, in 2015, the Council of Europe's Committee of Ministers created an ad hoc committee of legal experts on legal, operational and technical standard for e-voting –CAHVE, with the aim of analyzing and, potentially, redefining the recommendations adopted in 2004.¹³⁴ As a result, Council of Europe adopted a new set of recommendations on e-voting standards in 2017.¹³⁵ Looking at the 2004 Recommendations on Legal, Operational and Technical Standards for Electronic Voting, it is clear that these standards were categorized according to the basic voting principles of free, equal, secret and universal suffrage.¹³⁶ First of all, universal suffrage in the context of e-voting refers to the demand for uncomplicated registration process, and clear and easy-to-use voting interface.¹³⁷ These elements should enable all voters, and especially, minority groups, people with disabilities, uneducated and remote voters, to easily utilize the new voting system.¹³⁸ Secondly, when it comes to the equal suffrage and the "one person-one vote" principle, recommendations require new voting system to ensure that voter's preference will be counted only once even though they might be permitted to use different voting channels.¹³⁹ All the more, in these cases where the electoral system enables the usage of both electronic and non-electronic voting channels, mechanism for correct aggregation and vote counting needs to exist.¹⁴⁰ Furthermore, in accordance with the general voting standards, voter needs to be able to vote without being manipulated and has to have a chance to halt the voting process at any moment.¹⁴¹ This document also pays significant attention to the secret suffrage, and similarly to other international standards regulating voting procedures, highlights the importance of securing the secrecy of voters preference during the process of authentication, voting, counting and post-electoral period.¹⁴²

Except for these basic standards, this document also defines the need for procedural safeguards such as transparency, accountability, reliability, security and auditability. In

¹³¹ Maurer, "Updated European standards for e-voting," 147.

¹³² OSCE, *Handbook for the Observation of New Voting Technologies*, 14.

¹³³ Maurer, "Updated European standards for e-voting," 149.

¹³⁴ *Ibid.*

¹³⁵ *Ibid.*

¹³⁶ Council of Europe, *Legal, Operational, and Technical standards for E-Voting*, 9.

¹³⁷ *Ibid.*

¹³⁸ *Ibid.*

¹³⁹ *Ibid.*

¹⁴⁰ *Ibid.*

¹⁴¹ *Ibid.*, 10.

¹⁴² *Ibid.*

this context, some requirements are emphasized, such as the need for the general public to be familiar with the new voting procedures,¹⁴³ necessity for all citizens to be able to use the new technology,¹⁴⁴ the creation of new, independent, bodies responsible for certification,¹⁴⁵ fraud protection¹⁴⁶ and the need for e-voting to be able to provide both re-count and election repeat if necessary.¹⁴⁷

In the past decade, Recommendations on Legal, Operational and Technical Standards for Electronic Voting, were often criticized for neglecting the specificity of electronic voting by insisting on the analogy with the paper-ballot voting technology, insufficiently reflecting the fact that different voting technologies face contrasting challenges and provide excessively detailed standards which are unsuitable for all voting solutions.¹⁴⁸ Rapid development of new voting technologies, as well as the experiences provided by the systems which have already implemented these solutions, induced the need for the rethinking and redefinition of recommendations introduced in 2004. Due to the fact that the number of Council of Europe's members using ICTs in voting process is rising, this organization reviewed and clarified existing recommendations and introduced certain novelties in 2017 Recommendations. Firstly, in order to deviate from the criticism on constant referring to traditional voting method, the request for e-voting to be as reliable and secure as paper based technology was removed from the document.¹⁴⁹ Secondly, in the domain of universal suffrage, the need for the optimization of different voting options on the technological solution itself was underlined in order to additionally ensure that the new voting technology could be accessible to voters which do not possess specialized computer knowledge.¹⁵⁰ Furthermore, the role of the electoral management body (EMB) as a controller of e-voting and a body which is required to conduct all the necessary requirement, as well as the need for the consideration of compatibility between NVT and existing voting infrastructure was further emphasized.¹⁵¹ Finally, this report draws attention to the significance of national legislations which are in charge of the implementation of new standards or modification of the existing ones by making them stricter or lenient while maintaining the essential international principles concerning political rights and voting process.¹⁵²

¹⁴³ Council of Europe, *Legal, Operational, and Technical standards for E-Voting*, 10.

¹⁴⁴ *Ibid.*, 15.

¹⁴⁵ *Ibid.*, 11.

¹⁴⁶ *Ibid.*

¹⁴⁷ *Ibid.*

¹⁴⁸ Mauer, "Updated European standards for e-voting," 149.

¹⁴⁹ Council of Europe, *Recommendation of the Committee of Ministers to member states on standards for e-voting*, CM/Rec (2017) 5 (Strasbourg, France: Council of Europe, 2017), 155, https://www.coe.int/en/web/portal/news-2017/asset_publisher/StEVosr24HJ2/content/council-of-europe-adopts-new-recommendation-on-standards-for-e-voting (Accessed March 28, 2020).

¹⁵⁰ *Ibid.*

¹⁵¹ *Ibid.*

¹⁵² Council of Europe, *Recommendation of the Committee of Ministers to member states on standards for e-voting*, 156.

The overview of these standards indicates that despite the specificity of e-voting and the fact that it has been implemented around the world for several decades, universal international standards on this voting channel still do not exist. It is possible to claim that the Council of Europe did make a crucial step towards international standardization of e-voting, however, it is pivotal to underline that the recommendations issued by this organization are not legally binding, thus their impact cannot be equated by the existing standards issued by the United Nations. Furthermore, the legitimacy of e-voting can be further questioned due to the conclusion of Venice Commissions' report on the compatibility of remote and electronic voting with the standards of the Council of Europe, or the so-called "European electoral heritage", where the Commission stated that e-voting was neither permitted or forbidden from the aspect of human rights.¹⁵³ On the other hand, the real importance of the standards, as such, for democratic elections can be challenged. In 2017 Council of Europe's Recommendations, it is underlined that the compatibility of e-voting system with existing principles is not sufficient requirement for the characterization of certain elections as democratic.¹⁵⁴ For this reason it can be claimed that despite the technique used in the conduction of elections, the existence of standards in national arena, is prerequisite but not a guarantee for democratic elections. However, despite the weak standardization, trend of ICT implementation in elections is constantly rising, especially among the transitional democracies.¹⁵⁵ This leads to necessity of analyzing the real challenges and benefits which implementation of NVT brings, outside of the legal arena.

2.6. Challenges and benefits of NVT implementation

The main goal of NVT implementation in elections is to enhance the electoral cycle by bringing it closer to the basic principles of democratic elections.¹⁵⁶ Undisputedly, voting process can highly benefit from the NVT, however, new technologies are also a source of new challenges, which make their implementation controversial.¹⁵⁷ This controversy has been a cause of criticism and opposition to e-voting. While some criticize e-voting, others, like Mourine Achieng and Ephias Ruhode, tend to label it as a new symbol of democracy.¹⁵⁸ This suggests that there is a need for taking both approaches into consideration when assessing the impact of NVT implementation.

First of all, in the context of universal suffrage, e-voting is thought to be able to significantly improve the speed of voting and counting process¹⁵⁹ and enhance the

¹⁵³ Council of Europe, *Recommendation of the Committee of Ministers to member states on standards for e-voting*, 156.

¹⁵⁴ *Ibid.*

¹⁵⁵ Goldsmith, *Electronic Voting and Counting Technologies*, 1.

¹⁵⁶ *Ibid.*, 2.

¹⁵⁷ *Ibid.*

¹⁵⁸ Achieng and Ruhode, "The adoption and challenges of electronic voting technologies within the South African context," 3.

¹⁵⁹ Goldsmith, *Electronic Voting and Counting Technologies*, 6.

accessibility of the certain groups of voters. These groups vary from national minorities, people living in remote areas without polling stations nearby and citizens living abroad to illiterate, uneducated citizens and people with disabilities.¹⁶⁰ In the context of disabled citizens, implementation of advanced and sophisticated interfaces,¹⁶¹ as well as technologies such as voice recognition and fingerprint scanners, could significantly improve their access to the voting process.¹⁶² However, these advancements could also have an adverse effect and create a space for manipulations. Cases of ballots being bigger than the voting screens or manipulations with the order of the candidates presented on the device,¹⁶³ challenge the benefits of NVT in this sphere. Furthermore, in order for the new technology to satisfy the requirements of numerous groups, different interfaces would need to be implemented depending on the specific needs.¹⁶⁴ In addition, the usage of NVT would require possession of certain digital skills, which could hamper accessibility of illiterate and senior voters.¹⁶⁵ Finally, there are no empirical evidence which could prove that electronic voting implementation positively affects electoral turnout.¹⁶⁶ Namely, even though electronic voting could initially increase electoral turnout, once people get used to the new technology, the turnout will start to decline again, reaching the same level as before.¹⁶⁷ Subsequently, new technology might motivate those voters who vote occasionally, but it will not have any effect on the non-voters.¹⁶⁸

Significant number of national elections are facing the occurrence of invalid ballots which challenge the principle of equal suffrage.¹⁶⁹ The advantage of NVT in this case is that some of them, such as DRE, can make spoiled ballots impossible and casting a blanket paper ballot unintentionally, difficult.¹⁷⁰ Additionally, some forms of internet voting provide voters with the possibility of voting multiple times while counting only the last vote.¹⁷¹ However, this practice can have an adverse effect on the equal suffrage principle. Namely, multi-channel voting could become a cause of many mistakes in the process of voting material distribution, voter lists management or result tabulation.¹⁷² For this reason electoral officials would need to additionally implement efforts in order to secure the “one person-one vote” standard.

¹⁶⁰ Goldsmith, *Electronic Voting and Counting Technologies*, 5.

¹⁶¹ Blanc, “Challenging the Norms and Standards of Election Administration,” 11.

¹⁶² Goldsmith, *Electronic Voting and Counting Technologies*, 15.

¹⁶³ OSCE, *Handbook for the Observation of New Voting Technologies*, 39.

¹⁶⁴ Nu'man, “A Framework for Adopting E-Voting in Jordan,” 135.

¹⁶⁵ Bastick, “Digital Limits of Government,” 9.

¹⁶⁶ Boulus-Rodje, “Mapping the Literature,” 259.

¹⁶⁷ *Ibid.*

¹⁶⁸ *Ibid.*

¹⁶⁹ Goldsmith, *Electronic Voting and Counting Technologies*, 6.

¹⁷⁰ Blanc, “Challenging the Norms and Standards of Election Administration,” 13.

¹⁷¹ OSCE, *Handbook for the Observation of New Voting Technologies*, 10.

¹⁷² *Ibid.*, 31.

Furthermore, introduction of NVT can reduce the level of observation performed by the electoral officials and in the case of remote voting, increase the degree of voter intimidation and vote buying.¹⁷³ For this reason it would be legitimate to say that it does not necessarily increase the freedom of elections. NVT can significantly enhance the level of voting secrecy, however, this depends upon the type of NVT in use. Technologies, such as DRE voting machines can enable people with disabilities to vote independently, without the assistance of another person.¹⁷⁴ This can significantly improve the secrecy of their vote. Contrary to this, due to the inevitable characteristics of the internet, remote voting does not guarantee secrecy, since the connection between individuals and their vote could be easily identified.¹⁷⁵ However, it seems that this challenge is not necessarily exclusive to internet voting. Namely, if the order of the casted ballots can be clear from the paper audit trail, then it could be claimed that even appliances using VVPAT could jeopardize this principle.¹⁷⁶

Transparency is often underlined as the greatest challenge of NVT.¹⁷⁷ The fact that these technologies do not provide stakeholders with the possibility to observe the way in which votes are aggregated with their naked eye, contributes to widely accepted perception of NVT as a “black box”.¹⁷⁸ For this reason, e-voting cannot offer the same level of transparency as the paper-based voting system.¹⁷⁹ Furthermore, functioning and credibility of NVT represents a great challenge for electoral observers which need to gain excessive preparations and training in order to be able to perform their work.¹⁸⁰ When it comes to auditability, unlike paper-ballots, many NVT do not provide the possibility of vote re-count.¹⁸¹ Technologies such as ballot scanning devices and VVPAT equipped DRE, enable vote re-count, however, in the case of classic DRE machines and internet voting, voters would have to rely on certification and security measure, as well as on their trust in the system’s programmers.¹⁸² For this reason, the idea of making a random sample audit a mandatory requirement, can be questionable in the case of some voting technologies. The fact that these appliances are based on the software, requires their software code to be regularly checked for the possible errors or manipulations.¹⁸³ This check needs to be performed by the relevant body which would function independently

¹⁷³ OSCE, *Handbook for the Observation of New Voting Technologies*, 37.

¹⁷⁴ Goldsmith, *Electronic Voting and Counting Technologies*, 5.

¹⁷⁵ *Ibid.*, 8.

¹⁷⁶ *Ibid.*, 3.

¹⁷⁷ *Ibid.*, 20.

¹⁷⁸ *Ibid.*

¹⁷⁹ Margaret McGaley and Joe McCarthy, “Transparency and eVoting: Democratic vs. Commercial interests,” in *Proceedings of the Workshop of the ESF TED Programme*, ed. Alexander Prosser and Robert Krimmer (Bregenz, Austria: GI-Edition, 2004), 153. https://dl.gi.de/bitstream/handle/20.500.12116/29121/Proceeding_GI.47-16.pdf?sequence=1&isAllowed=y (Accessed April 20, 2020).

¹⁸⁰ Goldsmith, *Electronic Voting and Counting Technologies*, 9.

¹⁸¹ *Ibid.*, 7.

¹⁸² OSCE, *Handbook for the Observation of New Voting Technologies*, 7.

¹⁸³ *Ibid.*, 10.

of different political interests.¹⁸⁴ This indicates that due to the lack of transparency, auditability or in some cases even secrecy, the implementation of e-voting requires substantial existence of trust in certification process, impartiality of organizations providing NVT, and the counting and voting process.

In reference to reliability and fraud prevention, e-voting has potential to provide solution to the existing challenges in the processes of voter registration, voting and tabulation, however, at the same time NVT create new risks which can jeopardize the reliability of the voting process. First of all, as already mentioned, features such as fingerprint recognition or personal codes, can lower the possibility of fraudulent actions in the registration process.¹⁸⁵ Furthermore, measures such as voting time limitation can also contribute to the reliability of the voting.¹⁸⁶ Likewise, technologies which reduce the voting steps and the possibility of manual data entry errors, will subsequently improve tabulation of results.¹⁸⁷ On the other hand, manipulations and hackings are also a part of NVT's reality. These machines, and especially internet voting, are often a subject to frauds conducted by malicious software which can manipulate voter's preferences and lead to false results.¹⁸⁸ Moreover, internet voters also need to encounter challenges such as fake webpages or server failures.¹⁸⁹ Generally, phenomena such as frauds and vote manipulations are well known in voting cycles, however, while their influence on electoral results in the case of the paper-ballot voting system is primarily local, with the introduction of NVT they gained possibility to impact the process and results on the wider, national, scale.¹⁹⁰ On the other hand, whereas frauds in the voting systems based on paper ballots can be conducted by anyone, in the case of elections using NVT, technical skills and significant resources are required.¹⁹¹ In addition, it is important to note that in voting systems relying on VVPAT, voting confirmations can often disappear or be misused for vote selling or family voting.¹⁹² This indicates that even though e-voting has a potential to improve certain aspects of the voting process, it should not be seen as a panacea for all fraudulent activities.

Financial profitability of NVT implementation needs to be analyzed from two aspects. First of all, the price of NVT varies between 300 and 5000 USD, depending on the required complexity,¹⁹³ in that sense, some hybrid technologies which use VVPAT tend

¹⁸⁴ OSCE, *Handbook for the Observation of New Voting Technologies*, 11.

¹⁸⁵ *Ibid.*, 2.

¹⁸⁶ *Ibid.*, 5.

¹⁸⁷ Goldsmith, *Electronic Voting and Counting Technologies*, 6.

¹⁸⁸ France Belanger and Lemuria Carter, "Trust and risk in e-government adoption," *Journal of Strategic Information Systems* 17, no.4 (2008): 11, DOI:10.1016/j.jsis.2007.12.002.

¹⁸⁹ OSCE, *Handbook for the Observation of New Voting Technologies*, 37-40.

¹⁹⁰ Goldsmith, *Electronic Voting and Counting Technologies*, 11.

¹⁹¹ OSCE, *Handbook for the Observation of New Voting Technologies*, 35.

¹⁹² Goldsmith, *Electronic Voting and Counting Technologies*, 6.

¹⁹³ *Ibid.*, 11.

to be particularly expensive¹⁹⁴ which often makes transfer to e-voting exorbitant.¹⁹⁵ However, printing, distribution and storage of paper ballots itself can also be very expensive.¹⁹⁶ For this reason, it seems that, taking into account the lifecycle of the voting machines, governments can benefit from their implementation on the long run. On the other hand, it would be wrong to assess the profitability of this solution based only on the price of the NVT procurement, without encountering the costs of their maintenance,¹⁹⁷ employees' trainings and skilled maintenance workers' salaries.¹⁹⁸ Sensitivity of these machines, which often require to be stored under certain conditions in order to be protected from humidity, water, heat or cold, represents an additional expenditure which also needs to be taken into consideration.¹⁹⁹

The analysis of the challenges and benefits e-voting brings, indicates that the implementation of the ICT in the voting cycles has both significant potential to enhance, and at the same time, hamper the electoral process by introducing a certain dose of complexity which produces numerous new issues. Taking into account that the main purpose of e-voting implementation should be the improvement of the electoral cycles, the impediments these voting channels bring, challenge the expediency if their implementation. However, the assessment of ICT implementation in the elections cannot be based only on the written standards, or challenges and benefits of one technology or softer solution. Since NVT do not function in vacuum, it is necessary to step out of the technological perspective and consider all mentioned aspects in a rather specific, intricate, environment by taking into consideration multiplicity of other dimensions such as politics, legal framework, culture and society which directly and indirectly influence democracy, and thus, elections.²⁰⁰

2.7. Factors influencing the adoption of NVT

Each analysis of public sector innovation implementation requires taking into account the specific factors and context of particular country.²⁰¹ However, due to multidisciplinary nature of elections, and the fact that elections represent core stone of every democracy, potential implementation of e-voting requires specific approach.²⁰² Considerations of e-voting implementation cannot be limited to basic replacement of paper-based system with

¹⁹⁴ Blanc, "Challenging the Norms and Standards of Election Administration," 15.

¹⁹⁵ Goldsmith, *Electronic Voting and Counting Technologies*, 11.

¹⁹⁶ *Ibid*, 4.

¹⁹⁷ *Ibid*, 10.

¹⁹⁸ Blanc, "Challenging the Norms and Standards of Election Administration," 14.

¹⁹⁹ Goldsmith, *Electronic Voting and Counting Technologies*, 10.

²⁰⁰ Council of Europe, *Recommendation of the Committee of Ministers to member states on electronic democracy (e-democracy)*, 10.

²⁰¹ Alexander Schellong, 2007, "Extending the Technology Enactment Framework," Johann Wolfgang Goethe- University, January. https://www.researchgate.net/publication/252587378_Extending_the_Technology_Enactment_Frameworkpdf(Accessed February 23, 2020).

²⁰² Achieng and Ruhode, "The adoption and challenges of electronic voting technologies within the South African context," 4.

electronic voting.²⁰³ Studying complex phenomena, such as electronic voting, requires much broader approach and imposes a challenge of defining all dimensions which can be relevant for the analysis. Looking at the existing literature on e-voting, it is possible to conclude that the vast majority of authors focus on technological challenges and opportunities of e-voting.²⁰⁴ This technology-centric approach neglects other factors influencing e-voting, which are being often labeled as even more important in the context of this complex phenomenon.²⁰⁵ Studies focusing merely on technological dimension highlight technology as a primary solution to all electoral challenges, without taking socio-political, organizational and cultural aspects of elections into account.²⁰⁶ While developing the technology enactment framework, Jane Fountain underlines the importance of keeping the holistic approach towards innovations in public sector, and making distinction between technological aspects and perceptions which different stakeholders have towards this new technology, since these perceptions are the ones which will determine the final outcome of the innovation acceptance.²⁰⁷ However, this doesn't mean that technological elements of innovation should be ignored, but rather that it is pivotal to take other dimensions into account when dealing with e-voting.²⁰⁸ It goes without saying that the same criticism can also be appointed to studies which tend to neglect technological dimension, and focus solely on socio-political aspects of e-voting.²⁰⁹ The fact that potential implementation of e-voting in electoral cycles imposes multiple challenges and impacts human rights, trust and political interests, leads to conclusion that holistic approach to this phenomena is pivotal.²¹⁰ However, this holistic approach also imposes a challenge of identifying those dimensions which are truly relevant and thus need to be taken into consideration when exploring the influence of electronic voting on the voting system in case.

An example of holistic approach can be found in the work of Ben Goldsmith. Namely, Goldsmith's book "Electronic voting and counting Technologies" focuses on the feasibility of the NVT implementation.²¹¹ According to the author, structure of every study on feasibility of e-voting implementation differs, primarily, from the context of the implementation.²¹² However, Goldsmith underlines the necessity of holistic approach and suggests implementation of electronic voting in multiple stages, starting from "decision in principle", "pilot project" and finishing with "decision on adoption".²¹³ Furthermore,

²⁰³ Krimmer, "The Evolution of E-Voting," 8.

²⁰⁴ Hapsara, Imran and Turner, "E-Voting in Developing Countries," 46.

²⁰⁵ Ibid.

²⁰⁶ Ibid, 47.

²⁰⁷ Schellong, "Extending the Technology Enactment Framework," 8.

²⁰⁸ Hapsara, Imran and Turner, "E-Voting in Developing Countries," 37.

²⁰⁹ Goldsmith, *Electronic Voting and Counting Technologies*, 7.

²¹⁰ Hapsara, Imran and Turner, "E-Voting in Developing Countries," 36.

²¹¹ Goldsmith, *Electronic Voting and Counting Technologies*, 10.

²¹² Ibid, 12.

²¹³ Ibid.

the stage which is labeled as crucial – “decision in principle”, requires analysis of multiple dimensions such as technical feasibility, beneficiality, financial feasibility and stakeholders’ acceptance.²¹⁴

Similarly, Robert Krimmer developed a conceptual framework in the form of Mirabilis flower which explores the phenomenon of e-voting implementation through four macro dimensions: technology, law, politics and society.²¹⁵ This conceptual framework enables identification of both challenges and opportunities e-voting can face in one society by looking at multiple dimensions which effect and are effected by e-voting.²¹⁶ Subsequently, by looking at these four dimensions, it is possible to analyze electronic voting not only as a technological occurrence but also as a complex socio-political phenomenon which inevitably erases barriers between legal, technological, societal and political dimensions.²¹⁷ Furthermore, this conceptual framework also highlights the importance of different stakeholders which enable and affect implementation of electronic voting.²¹⁸

The inevitable importance of stakeholders in the potential implementation of any public sector innovation has been stressed out throughout the academic literature. By modifying the already mentioned framework of Jane Fountain, Hirokazu Okumura stressed out the crucial importance of policy makers, administration, workers and citizens on the enactment of any public sector innovation.²¹⁹ Furthermore, due to the fact that electronic voting influences citizens’ rights, political priorities and legal context²²⁰ it is pivotal to take a wide palette of stakeholders into account. In his e-voting conceptual framework Robert Krimmer defines five main categories of stakeholders: voters, politicians, election managers, vendors, media representatives and election observers.²²¹ Introducing these actors into the analysis of potential electronic voting implementation enables us to take their concerns and personal perspectives into consideration.

Both Ben Goldsmith and Robert Krimmer, stress out the importance of the holistic approach, however, framework suggested by Goldsmith is rather focused on the implementation of electronic voting, which requires time, resources and formation of special teams.²²² Moreover, while the first, crucial, stage of feasibility study, described in the Goldsmith’s book, depicts different dimensions which need to be taken into consideration, issues of technical and financial feasibility tend to take primacy over other

²¹⁴ Goldsmith, *Electronic Voting and Counting Technologies*, 12.

²¹⁵ Krimmer, “The Evolution of E-Voting,” 12.

²¹⁶ Ibid.

²¹⁷ Goldsmith, *Electronic Voting and Counting Technologies*, 6.

²¹⁸ Krimmer, “The Evolution of E-Voting,” 11.

²¹⁹ Schellong, “Extending the Technology Enactment Framework,” 5.

²²⁰ Goldsmith, *Electronic Voting and Counting Technologies*, 27.

²²¹ Krimmer, “The Evolution of E-Voting,” 12.

²²² Goldsmith, *Electronic Voting and Counting Technologies*, 27.

socio-political elements. Contrary to this, conceptual framework which can be found in the work of Krimmer, is primarily focused on describing different dimensions which need to be explored when considering potential implementation of electronic voting. Furthermore, this approach balances both technical and socio-political context, creating a solid base for holistic approach to this complex phenomenon. For this reason, this study will focus primarily on the context described in the Mirabilis framework introduced by Robert Krimmer, while widening it with the content described in Ben Goldsmith's work. In order to understand the way different dimensions, defined in Krimmer's framework, influence electronic voting, it is necessary to take a closer look at each of them separately.

2.7.1. Technological dimension

In order to understand different perspectives of e-voting implementation in public sector, it is important to take both technological and socio-political aspects into consideration.²²³ While authors such as Ashtarout Nu'man claim that technology does not play a crucial role in e-voting introduction considerations,²²⁴ Ben Goldsmith underlines that every feasibility study of e-voting implementation has to be based on technological dimensions of the voting technology.²²⁵ In order to create a full picture of the potential e-voting influence, it is necessary to make an in-depth analysis of the existing electoral system.²²⁶ This analysis would enable us to understand the advantages, challenges and the needs of the existing voting technology.²²⁷ Furthermore, it would be necessary to explore the way in which these needs can be addressed by the existing technology in use, and whether this technology can provide a solution.²²⁸ Subsequently, the perspective on e-voting also has to be analyzed. The fact that electronic voting with all the complexity and challenges it introduces, does not necessarily need to be seen as a remedy to the existing voting procedures, requires the analysis of the advantages, challenges and opportunities e-voting can provide to the existing electoral system.²²⁹

According to Marija Miletic, when taking technological dimension of e-voting into consideration, it is pivotal to explore the context of the institutions conducting elections and their capacities, since this aspect tends to be one of the problems in e-voting implementation.²³⁰ In this context it is necessary to focus on two elements - staff and infrastructure. First of all, due to the fact that e-voting requires the existence of information technology (IT) skills, it is important to assess the extent to which the existing

²²³ Schellong, "Extending the Technology Enactment Framework," 3.

²²⁴ Nu'man, "A Framework for Adopting E-Voting in Jordan," 134.

²²⁵ Goldsmith, *Electronic Voting and Counting Technologies*, 31.

²²⁶ Ibid

²²⁷ Ibid

²²⁸ Ibid.

²²⁹ Ibid.

²³⁰ Marija Miletic et al., "Scaffolding E-Voting in Developing Countries," *Management: Journal of Sustainable Business and Management Solutions in Emerging Economies* 24, no. 2 (2019): 50, DOI: 10.7595/management.fon.2019.0006.

EMB staff possess these skills.²³¹ Furthermore, since a large number of IT staff will be required, it is important to explore the possibilities and capacities of EMB to either recruit new people with required skills or to provide trainings for existing employees regarding not only IT skills but also the assessment, maintenance and the usage of the new system.²³² Secondly, the existing infrastructure should be explored, such as the current possession of computers within the EMB or the NVT storage capacity.²³³

Furthermore, since e-voting could exclude the large groups of voters and thus infringe one of the most crucial values of democracy – equal accessibility,²³⁴ Krimmer adds another opinion to be considered within this domain referring to the possibility of voters to use new technologies.²³⁵ Due to the fact that e-voting is based on technology usage, parts of the society which are illiterate, poorly educated or intimidated by the new voting technologies, tend to see the new system as a barrier rather than advancement.²³⁶ For this reason it is important to take into consideration the overall literacy and especially the computer literacy of the society as well as the percentage of the voters which possess access to ICTs, computers and internet.²³⁷ The lack of the familiarity with these advancements could not only endanger the equal suffrage, but can also require foreign assistance during the voting process and thus potentially endanger the secrecy of the vote.²³⁸

2.6.2. Legal dimension

Legal dimension represents a crucial component of every electoral process.²³⁹ As a framework which regulates the whole process, it has to be regulated unambiguously and in detail.²⁴⁰ Only well-defined legal framework can provide authorities with legitimacy, voters with all necessary information²⁴¹ and democracy with needed stability.²⁴² Due to the importance legal contexts has in regulating the whole system, e-voting implementation cannot be seen as a simple replacement of the old legal articles with the

²³¹ Goldsmith, *Electronic Voting and Counting Technologies*, 33.

²³² *Ibid.*, 41.

²³³ *Ibid.*, 33.

²³⁴ Nina Boulus-Rodje, "Mapping the Literature: Socio-cultural, Organizational and Technological Dimensions of E-Voting Technologies," in *Proceedings of the 5th International Conference on Electronic Voting*, ed. Kripp, M., Volkamer, M and Grimm, R (Bonn, Germany: Gesellschaft für Informatik, 2012), 223.

²³⁵ Krimmer, "The Evolution of E-Voting," 13.

²³⁶ Goldsmith, *Electronic Voting and Counting Technologies*, 9.

²³⁷ OSCE, *Handbook for the Observation of New Voting Technologies*, 19.

²³⁸ *Ibid.*

²³⁹ Miletic et al, "Scaffolding E-Voting in Developing Countries," 54.

²⁴⁰ Leontine Loeber, "Legislating for E-Enabled Elections: Dilemmas and Concerns for the Legislator," in *Proceedings of the First International Joint Conference, E-Vote-ID 2016*, ed. Robert Krimmer et al. (Bregenz, Austria: Springer International Publishing AG, 2016), 215.

²⁴¹ Krimmer, "The Evolution of E-Voting," 13.

²⁴² Loeber "Legislating for E-Enabled Elections," 215.

new ones.²⁴³ Potential introduction of electronic voting represents a great challenge to both domestic legal framework and international electoral standards.²⁴⁴

For this reason, every consideration of new electronic voting system introduction needs to begin with the analysis of existing legal framework in order to understand how feasible would it be to integrate new technology in the existing legal system.²⁴⁵ However, the way in which voting procedure has been defined varies from country to country. While in some countries electoral law regulates the voting process in detail, in others this law defines only the general principles, while thorough regulation of the voting process is left to electoral authority.²⁴⁶ Commonly in societies which have been using paper-ballot voting system for a long period of time, electoral law and accompanying legislations are the ones which regulate voting procedures in greater detail, often disabling different technological innovations.²⁴⁷ Although in certain cases technology has been modified to fit the existing legal framework, commonly the legal framework is the one which has to be changed.²⁴⁸ This imposes certain doubts and challenges especially when the existing legislative explicitly requires implementation of the paper-ballot voting system. One of the main challenges, every legal system needs to face, is the potential impact of electronic voting on basic democratic values. Namely, values such as general, free, equal and direct elections, are mainly integral part of the country's constitution.²⁴⁹ As constitutional guarantees, these values should not be modified,²⁵⁰ however, if they are defined in the lower acts, such as electoral legislations, their compatibility with the new technology becomes questionable.²⁵¹ For this reason it is necessary to take into account the variety of dilemmas legislative system will encounter. These dilemmas can range from more general issues such as whether new system should potentially be implemented on the territory of the whole country or on the local level²⁵² or if the usage of the electronic voting would be obligatory or voluntary,²⁵³ to the issues of digital signatures, certification,²⁵⁴ vendors' responsibility,²⁵⁵ data protection,²⁵⁶ source code assessment,²⁵⁷ security mechanisms and safeguards.²⁵⁸ One of the commonly referred situations, which depicts the challenges

²⁴³ Loeber "Legislating for E-Enabled Elections," 210.

²⁴⁴ Goldsmith, *Electronic Voting and Counting Technologies*, 19.

²⁴⁵ *Ibid.*, 43.

²⁴⁶ OSCE, *Handbook for the Observation of New Voting Technologies*, 17.

²⁴⁷ Goldsmith, *Electronic Voting and Counting Technologies*, 43.

²⁴⁸ *Ibid.*, 43.

²⁴⁹ Loeber, "Legislating for E-Enabled Elections," 208.

²⁵⁰ *Ibid.*, 206.

²⁵¹ OSCE, *Handbook for the Observation of New Voting Technologies*, 17.

²⁵² Loeber, "Legislating for E-Enabled Elections," 205.

²⁵³ Goldsmith, *Electronic Voting and Counting Technologies*, 41.

²⁵⁴ International Institute for Democracy and Electoral Assistance, *Introducing Electronic Voting: Essential Considerations* (Stockholm: International IDEA, 2011), 26, <https://www.idea.int/sites/default/files/publications/introducing-electronic-voting.pdf> (Accessed March 23, 2020).

²⁵⁵ OSCE, *Handbook for the Observation of New Voting Technologies*, 21.

²⁵⁶ *Ibid.*

²⁵⁷ *Ibid.*, 23.

²⁵⁸ Goldsmith, *Electronic Voting and Counting Technologies*, 43.

which legislators need to be faced with, is when the results of the new voting system would need to be challenged and audited.²⁵⁹ The question of priority between paper ballots and electronic results which would raise in this occasion, is only one of the numerous dilemmas national systems would need to encounter.²⁶⁰

Furthermore, the fact is that potential implementation of e-voting in national legal systems would affect not only electoral legislation and basic democratic values but also it would require reconsideration of other layers of legislation in parallel. New voting technology would influence certification mechanism, procurement, transparency and criminal law as well.²⁶¹ In this sense, due to voting irregularities and frauds, which could increase with the implementation of the new system, modifications of the criminal law and its regulations concerning the IT system attacks would be required.²⁶² Furthermore, due to the new system, central electoral commission and other electoral bodies would have new responsibilities and new independent institutions, which would deal with software code and IT issues, would potentially need to be introduced.²⁶³

However, even if the initial decision would be to make the necessary change in the existing legal framework, change adoption procedure could become another challenge. Namely, in most of the contemporary democracies, general voting rules are defined in the regulations adopted by the national parliament.²⁶⁴ Conversely, administrative and technical regulations concerning voting procedures are adopted on the lower administrative levels.²⁶⁵ Subsequently, it would be challenging to define which level of governance would be in charge of adopting legislation concerning the new voting technology.²⁶⁶ This question is significant because parliamentary procedures could last long and become a significant barrier to required law's adoption.²⁶⁷ Due to the fact that legal context is closely tied to politics, and that important issues such as transferring to electronic voting, tend to easily become politicized,²⁶⁸ it is crucial to take a deeper look at political dimension.

2.7.3. Political dimension

One of the focal points of technological determinists, such as Jane Fountain, is that every government will be strongly motivated to implement technological innovations in public

²⁵⁹ OSCE, *Handbook for the Observation of New Voting Technologies*, 21.

²⁶⁰ Goldsmith, *Electronic Voting and Counting Technologies*, 43.

²⁶¹ Loeber, "Legislating for E-Enabled Elections," 212.

²⁶² OSCE, *Handbook for the Observation of New Voting Technologies*, 22.

²⁶³ Goldsmith, *Electronic Voting and Counting Technologies*, 10 .

²⁶⁴ Loeber, "Legislating for E-Enabled Elections," 209.

²⁶⁵ *Ibid*, 208.

²⁶⁶ *Ibid*.

²⁶⁷ Goldsmith, *Electronic Voting and Counting Technologies*, 44.

²⁶⁸ Loeber, "Legislating for E-Enabled Elections," 209.

sector.²⁶⁹ According to her study, innovations are so attractive to politicians that they would be willing to implement them even if this would endanger their own political interests.²⁷⁰ Consequently, public sector innovation implementation is inevitable, and although different factors might slow it or even postpone it, they cannot prevent it.²⁷¹ However, taking into account specific nature of e-voting as a form of innovation and the overall impact it has on society and democracy, it is important to consider these claims in the specific context of e-voting. Namely, contrary to the Jane Fountain's approach, it would be possible to claim that politics and politicians are potentially the greatest barrier to electronic voting implementation.²⁷² According to Robert Krimmer, almost all of the technological innovations in the 19th century were rejected by the political elites because, even though they found them to be interesting, they did not perceive them as sufficiently useful.²⁷³ The reason behind this opposition could be found in their political interests.

More than in any other case, legislations concerning the elections, and electoral procedures, affect the interests of political parties due to the implications which these regulations have on their position.²⁷⁴ Among others, most commonly cited reasons for opposition are the lack of trust in technology²⁷⁵, lack of trust in the independence and capacity of electoral bodies,²⁷⁶ loss of vote shares²⁷⁷ and power decline.²⁷⁸ Contrary to this, political parties which are in favor of electronic voting believe that advocating this idea could bring them a first mover advantage and image of progressive party which is embracing technological advancements.²⁷⁹ Moreover, Carl Grafton notes that even if electronic voting could bring benefits to the overall democracy, if political parties believe that the new system could harm their position, they will not be willing to support it.²⁸⁰ For this reason, according to Ben Goldsmith, the thorough feasibility study of electronic voting would need to analyze perspectives of all political parties in the country.²⁸¹ However, if this is not possible, then it would be useful to at least take a look at perspectives of the main ruling and opposing parties.²⁸² Finally, even though political interests have the power to postpone, modify or suspend legal procedures,²⁸³ eventually,

²⁶⁹ Carl Grafton, "Shadow Theories" in Fountain's Theory of Technology Enactment, " *Social Science Computer Review* 21, no. 4 (2003): 413, DOI.org/10.1177/0894439303256567.

²⁷⁰ Ibid.

²⁷¹ Ibid.

²⁷² Miletic et al, "Scaffolding E-Voting in Developing Countries," 50.

²⁷³ Krimmer, "The Evolution of E-Voting," 22.

²⁷⁴ Ibid.

²⁷⁵ OSCE, *Handbook for the Observation of New Voting Technologies*, 19.

²⁷⁶ International Institute for Democracy and Electoral Assistance, *Introducing Electronic Voting*, 16.

²⁷⁷ Krimmer, "The Evolution of E-Voting," 27.

²⁷⁸ Ibid, 10.

²⁷⁹ Ibid, 26.

²⁸⁰ Grafton, "Shadow Theories" in Fountain's Theory of Technology Enactment," 412.

²⁸¹ OSCE, *Handbook for the Observation of New Voting Technologies*, 26.

²⁸² Ibid, 26.

²⁸³ Grafton, "Shadow Theories" in Fountain's Theory of Technology Enactment," 415.

the implementation of the new voting system will depend on the acceptance of the main electoral actors – voters.²⁸⁴ Their role is further discussed in the following section.

2.7.4. Societal dimension

The importance of social dimension in the analysis of potential implementation of electronic voting is crucial. Based on all the unsuccessful examples of e-voting implementation world-wide, it is possible to conclude that even when the implementation of NVT is economically beneficial, technologically feasible, legally enforceable and politically supported, if the new system is lacking citizens' support, the implementation of NVT becomes nothing but a wasted investment.²⁸⁵ This means not legislators, nor politicians, but voters are in the center of elections. Without the involvement of the main actors, there is no sustainable democracy,²⁸⁶ and for that reason it is pivotal to understand the way society perceives electronic voting, since negative attitude towards this phenomenon could be the biggest challenge for e-voting implementation. Specific characteristic of this dimension is that it deals, similarly as political dimension, with perceptions. Different theoretical frameworks, such as Roger's diffusion of innovation framework²⁸⁷ or Davis's Technology Acceptance Model²⁸⁸ that deal with factors influencing the adoption of technological innovations, note that perception of technology, and not the objective characteristics of technology, is the factor which determines the final adoption.²⁸⁹ Subsequently, in the context of e-voting, trust is highlighted as the crucial issue.²⁹⁰

Electronic democracy is often seen as a tool for trust building between citizens and voting cycles.²⁹¹ However, citizens around the world tend to be skeptical towards e-democracy.²⁹² For this reason, it is important to analyze different aspects of trust as a phenomenon which impacts the way citizens perceive electronic voting. Multidimensionality of the trust concept plays a crucial role in electronic voting adoption.²⁹³ Although trust has multiple perspectives, trust in technology, usability,

²⁸⁴ Yu-Qian Zhu, Anik Azizah and Bo Hsiao, "Examining multi-dimensional trust of technology in citizens' adoption of e-voting in developing countries," *Information Development* 1, no.16 (2020): 22, DOI: 10.1177/0266666920902819.

²⁸⁵ Goldsmith, *Electronic Voting and Counting Technologies*, 49.

²⁸⁶ Shuaibu, Mohammed and Ume, "A Framework for the Adoption of Electronic Voting System in Nigeria," 259.

²⁸⁷ Achieng and Ruhode, "The adoption and challenges of electronic voting technologies within the South African context," 5.

²⁸⁸ Kristin Vogelsang, Melanie Steinhuser and Uwe Hoppe, "A Quantitative Approach to Examine Technology Acceptance," (paper presented at the Thirty Fourth International Conference on Information Systems, Milano, Italy, 15-18 December 2013), https://www.researchgate.net/publication/280876917_A_Quantitative_Approach_to_Examine_Technology_Acceptance

²⁸⁹ Achieng and Ruhode, "The adoption and challenges of electronic voting technologies within the South African context," 5.

²⁹⁰ Zhu, Azizah and Hisao, "Examining multi-dimensional trust of technology in citizens' adoption of e-voting in developing countries," 2.

²⁹¹ Shuaibu, Mohammed and Ume, "A Framework for the Adoption of Electronic Voting System in Nigeria," 259.

²⁹² Hapsara, Imran and Turner, "E-Voting in Developing Countries," 37.

²⁹³ Zhu, Azizah and Hisao, "Examining multi-dimensional trust of technology in citizens' adoption of e-voting in developing countries," 2.

security, secrecy and trust in government, are often labeled as most important layers of this concept.²⁹⁴

A prerequisite for the adoption of electronic voting is the existence of trust in the voting technology.²⁹⁵ Trust in technology is a complex phenomenon which is based on the expectations of the individual that technology is reliable, secure and useful.²⁹⁶ These expectations are mainly based on the past experiences and future expectations regarding the way new system could function.²⁹⁷ If citizens do not believe that voting technology could provide accurate information and secure transactions, they will not be willing to interact with the new technology, which would derogate the electoral system's legitimacy.²⁹⁸ Consequently, it is possible to conclude that trust in democracy is dependent on trust in technology. The risks which e-voting could bring, as well as some previous experiences from other countries, provide legitimacy to these considerations. Namely, in contrast to paper-ballot voting, in the eyes of many voters electronic voting is still a "black-box" full of challenges, and security is only one of them.²⁹⁹ The fact that electronic voting does not allow observing the way votes have been aggregated, the way software has counted the votes³⁰⁰ and the audit and check of the results,³⁰¹ makes the security of the process questionable. Besides security, voters often tend to doubt the benefits of electronic voting due to the challenges it imposes to their privacy and secrecy of their votes. If voters believe that the usage of the new system would negatively influence their security and privacy they wouldn't be willing to use it,³⁰² moreover, they would find it risky.³⁰³

Except for the multidimensional concept of trust in technology, perceptions of usability and ease of use, also play a significant role in the acceptance of new technology. The already mentioned theoretical frameworks which deal with the overall acceptance of technological advancements, highlight the fact that users would be willing to use the newly introduced technology only if it would not require any additional effort.³⁰⁴ Furthermore, if citizens believe that electronic voting would make the existing voting process intricate, they would be less likely willing to support its implementation.³⁰⁵

²⁹⁴ Nu' man, "A Framework for Adopting E-Voting in Jordan," 134.

²⁹⁵ Goldsmith, *Electronic Voting and Counting Technologies*, 33.

²⁹⁶ Zhu, Azizah and Hisao, "Examining multi-dimensional trust of technology in citizens' adoption of e-voting in developing countries," 2.

²⁹⁷ Ibid.

²⁹⁸ Goldsmith, *Electronic Voting and Counting Technologies*, 13.

²⁹⁹ Zhu, Azizah and Hisao, "Examining multi-dimensional trust of technology in citizens' adoption of e-voting in developing countries," 4.

³⁰⁰ Goldsmith, *Electronic Voting and Counting Technologies*, 10.

³⁰¹ Ibid, 7.

³⁰² Zhu, Azizah and Hisao, "Examining multi-dimensional trust of technology in citizens' adoption of e-voting in developing countries," 5.

³⁰³ Ibid.

³⁰⁴ OSCE, *Handbook for the Observation of New Voting Technologies*, 38.

³⁰⁵ Ibid, 20.

However, specificity of electronic voting influences voters' perception of new technology's accessibility. On one hand, theoreticians such as Cetinkaya claim that modern society would not experience any technological difficulties with using new voting technology,³⁰⁶ however, as previously discussed electronic voting can both ameliorate and hinder voting accessibility of the certain groups of voters.

Finally, voters' attitude towards electronic voting will not be created solely by their perception of new technology, but also by their attitude towards national institutions which are implementing new voting system. Where there is no trust in EMB, the introduction of e-voting might only cause further dissatisfaction.³⁰⁷ Unfulfilled promises, dishonesty and frauds may cause additional distrust among society towards political readiness and professionalism in the implementation of new system.³⁰⁸ Furthermore, according to Robert Krimmer citizens might fear that new technology will enable electoral administration to rig the elections.³⁰⁹ For this reason it would be possible to claim that trust in new technology is conditioned by the pre-existing trust in electoral institutions. Nevertheless, variety of studies, such as pilot study conducted in Columbia, indicate the opposite. This particular study has shown that even though citizens did not trust their government, they expressed strong adherence towards electronic voting.³¹⁰ For this reason, the connection between these two phenomena is contentious and needs to be further explored.

An in-depth analysis of all four dimensions defined in the Robert Krimmers' conceptual framework, shows clear dependence between these perspectives and, thus, pivotal importance of the holistic approach towards potential implementation of electronic voting. While technological dimension provides an overview of challenges voting system in case is facing, detailed analysis of existing legal framework would depict how challenging it would be to regulate new electronic voting system. Legal perspective is dependent on political context which is primarily based on individual interests of political parties. These interests can both ameliorate and hamper potential implementation of electronic voting, however, even if the analysis of technological, legal and political dimension show positive perspective of e-voting implementation, an in-depth analysis of citizens' perspectives towards this phenomenon could show that electronic voting implementation could become just another barrier to democracy. For this reason it would be possible to conclude that even though all four perspectives influence potential e-voting

³⁰⁶ Nu'man, "A Framework for Adopting E-Voting in Jordan," 134.

³⁰⁷ International Institute for Democracy and Electoral Assistance, *Introducing Electronic Voting*, 18.

³⁰⁸ France Belanger and Lemuria Carter, "Trust and risk in e-government adoption," *Journal of Strategic Information Systems* 17, no.4 (2008): 167, DOI:10.1016/j.jsis.2007.12.002.

³⁰⁹ Krimmer, "The Evolution of E-Voting," 27.

³¹⁰ Loeber, "Legislating for E-Enabled Elections," 234.

implementation, social and political factors, can be seen as a crucial factors which could indicate the readiness to use and implement the new system.

2.8. E-voting and de-democratization in the context of transitional countries

The number of countries implementing e-voting and conducting e-voting pilot schemes is constantly increasing.³¹¹ What's more, most of the countries are already using some form of contemporary technologies in electoral cycles, at least in the process of voters' registration and results' tabulation.³¹² The global leader in e-voting implementation is USA which has been using NVT for over several decades,³¹³ however, the interest for e-voting among European countries is visibly rising. Switzerland has been conducting pilot projects and implementing e-voting since 2000, Belgium has implemented e-voting in elections on all levels and Estonia became the first country in the world to introduce legally binding internet voting in 2005 in order to secure an additional voting channel and enable utilization of the existing infrastructure.³¹⁴ Furthermore, some forms of NVT have also been implemented in Russia and Norway.³¹⁵ Similarly, Asian countries such as Indonesia, Nepal, Pakistan and Kazakhstan have been utilizing NVT, including the world's most populous democracy, India, which has been implementing contemporary voting technologies in electoral cycles since 1999.³¹⁶ In addition, Brazil introduced e-voting more than two decades ago, and many countries in Africa, such as Nigeria, are currently considering switching to this technology.³¹⁷ These data indicate that voting electrification is not a new phenomenon and that countries around the world have been perceiving NVT as a beneficial voting channel for more than two decades.

However, the opposite trend can also be noted. Many countries which have conducted pilot studies or have been using e-voting for several years or even decades, decided to switch back to traditional paper-ballot voting system.³¹⁸ Countries such as Netherlands, Kazakhstan, Germany, Bulgaria, Finland³¹⁹ and Ireland³²⁰ are only some of the examples. While the reasons for this occurrence are numerous, hacking, electoral frauds and public critique are the most commonly referred ones.³²¹ This can lead to two conclusions, firstly, the advantages of e-voting are questionable, and secondly, the introduction of ICTs in electoral process is not necessarily an inevitable reality as it is often characterized.

³¹¹ Caarls, *E-voting handbook*, 7.

³¹² OSCE, *Handbook for the Observation of New Voting Technologies*, 5.

³¹³ Musial-Karg, "The use of e-voting as a new tool of e-participation in modern democracies," 105.

³¹⁴ *Ibid*, 107.

³¹⁵ Goldsmith, *Electronic Voting and Counting Technologies*, 1.

³¹⁶ *Ibid*.

³¹⁷ Krimmer, "The Evolution of E-Voting," 22.

³¹⁸ Caarls, *E-voting handbook*, 7.

³¹⁹ Krimmer, "The Evolution of E-Voting," 24.

³²⁰ Goldsmith, *Electronic Voting and Counting Technologies*, 1.

³²¹ Krimmer, "The Evolution of E-Voting," 24.

Even though, e-voting can be depicted as a global phenomenon, the vast majority of the academic research has been focused on e-voting implementations and repercussions in developed consolidated democracies, characterized by the existence of the voting cycles conducted in accordance with all prescribed democratic electoral standards.³²² Contrary to this, there is a clear lack of research on e-voting implementation in transitional and fragile democracies.³²³ This represents a crucial deficiency and challenge of the e-voting research for multiple reasons. First of all, the context of research in these countries is remarkably different. Namely, due to the fact that democratic institutions and voting processes, core-stones of democratic transformation, are often fragile and unstable in transitional societies, electoral cycles tend to be confronted with challenges which are significantly different from the challenges consolidated democracies are facing.³²⁴ Secondly, the rank of transitional countries opting for e-voting implementation has surpassed the number of developed democracies using this technology.³²⁵ For this reason it could be concluded that due to the range of e-voting implementation and specificity of the context, the analysis of e-voting phenomenon in these countries is both necessary and challenging.

Furthermore, in the specific context of transitional democracies, it is also necessary to explore the phenomenon of de-democratization and creation of hybrid or elastic regimes. According to the research conducted by the International Institute for Democracy and Electoral Assistance, the level of democracy is severely declining around the world.³²⁶ This decline, which contrasted existing presumptions that the fall of Berlin Wall and the third wave of democratization will necessary lead to the global acceptance of democracy,³²⁷ significantly impacted both long-standing consolidated democracies and countries in transition.³²⁸ Looking only at European continent, according to the above mentioned research, more than half of the countries have been experiencing democratic erosion, while, Hungary, Turkey, Poland, Serbia and Romania are being labeled as the most extreme cases.³²⁹ However, due to the existing fragility of democracy in transitional settings, global trend of de-democratization can have a particularly adverse effect on democratic processes in these democracies.³³⁰ Occurrences such as ethnic conflicts, nationalism, economic crisis and de-democratization in transitional countries, led to the

³²² Hapsara, Imran and Turner, "E-Voting in Developing Countries," 36.

³²³ Blanc, "Challenging the Norms and Standards of Election Administration," 12.

³²⁴ Ibid.

³²⁵ Hapsara, Imran and Turner, "E-Voting in Developing Countries," 36.

³²⁶ Kmezić, "Rule of law and democracy in the Western Balkans," 1.

³²⁷ Ibid, 4.

³²⁸ Cengiz Günay and Vedran Dzihic, "Decoding the authoritarian code: exercising 'legitimate' power politics through the ruling parties in Turkey, Macedonia and Serbia," *Southeast European and Black Sea Studies* 16, no.4 (2016): 2, DOI: 10.1080/14683857.2016.1242872.

³²⁹ International Institute for Democracy and Electoral Assistance, *The Global State of Democracy: Addressing the Ills, Reviving the Promise* (Stockholm, Sweden: International IDEA, 2019), 212, DOI.org/10.31752/idea.2019.31.

³³⁰ Blanc, "Challenging the Norms and Standards of Election Administration," 12.

creation of hybrid regimes, situated between democracy and authoritarianism.³³¹ According to Marko Kmezić, the specificity of these regimes is portrayed in the co-existence of both democratic institutions, electoral processes, and democracy which is often portrayed as a “facade”.³³² For this reason research on e-voting implementation in transitional countries, and especially those countries which are additionally burdened with the de-democratization process which inevitably influences all democratic processes, is both necessary and demanding.

Western Balkan region, with all these characteristics, represent an interesting field for academic research on e-voting implementation in transitional settings. Countries located in the Western Balkans region, especially the Republic of Serbia, have been in transitional process to democracy for more than three decades,³³³ severely impacted by the global trend of democratic roll-back³³⁴ and facing many challenges in the electoral process since the introduction of multi-party system.³³⁵ Furthermore, the fact that 2020 Freedom House Report, characterized Serbia as a hybrid regime,³³⁶ makes the exploration of e-voting concept in this country even more challenging. For this reason, taking all specificities into account, this research explores the possibility of e-voting implementation in the context of the Republic of Serbia, by answering the main research question: *How ready is Serbia to implement electronic voting?* In order to provide an answer to this question, and maintain the necessary holistic approach, this paper also deals with the sub question: *What are the challenges and benefits of e-voting implementation in Serbia?*” by analyzing four dimensions defined in the Robert Krimmer’s e-voting conceptual framework.

However, due to the fact that e-voting phenomenon has not been previously explored in the Republic of Serbia, as well as the lack of the academic research of this occurrence in the distinct context of transitional countries, specific methodological approach, which will be further explored in the following chapter, is required.

³³¹ Günay and Dzihic, “Decoding the authoritarian code,” 2.

³³² Kmezić, “Rule of law and democracy in the Western Balkans,” 7.

³³³ *Ibid.*, 13.

³³⁴ Martin Russell, “Serbia at risk of authoritarianism?,” “European parliament, European Parliamentary Research Service, 02.05.2019, [https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI\(2019\)637944](https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI(2019)637944).

³³⁵ Kmezić, “Rule of law and democracy in the Western Balkans,” 2.

³³⁶ Freedom House, *Nations in Transition 2020: Dropping the democratic facade* (Washington, United States of America, 2020), 3. https://freedomhouse.org/sites/default/files/2020-04/05062020_FH_NIT2020_vfinal.pdf (Accessed May 10, 2020).

3 Methodology

3.1. Feasibility study in the form of exploratory case study and the data collection methods

The main objective of this study is to analyze the possibility of electronic voting implementation in the Republic of Serbia, by providing answer to the research question: “*How ready is Serbia to implement electronic voting*”. In order to answer this question four dimensions introduced in Krimmer’s conceptual framework, will be analyzed in the context of voting cycles in the Republic of Serbia. Due to the specific characteristics of this topic which deals with implementation of complex phenomenon in unexplored context, feasibility of electronic voting implementation in Serbia will be studied using exploratory case study methodology.

Case study method has been primarily developed in social science.³³⁷ Some of the first case studies were conducted in the field of anthropology around 1900.³³⁸ However, today case study methodology is used not only in social sciences, such as psychology or anthropology, but also in more practice-oriented fields such as social work or business studies.³³⁹ Despite the existence of divergence in definition and perception of case study as a research method, most of the academic work agrees that case study can be seen as a method that involves an in-depth study of contemporary phenomenon using multiple sources of evidence in real life context.³⁴⁰ What makes case study method additionally specific is that it can be implemented in situations where this border between specific phenomenon and the context, in which this phenomenon is explored, is not always clear.³⁴¹ For this reason case study method is acceptable for exploring the influence of e-voting in different, often overlapping, dimensions. According to Yin case study method is suitable for an in-depth analysis of social phenomena.³⁴² Only by exploring phenomenon through multiple dimensions and through various lenses, the researcher would be able to understand its essence.³⁴³ Furthermore, Yin makes a difference between three types of case studies: exploratory, explanatory and descriptive.³⁴⁴ Due to the fact that e-voting was not explored thoroughly in the past in the context of the Republic of

³³⁷ Rolf, Johansson, “Case study methodology” (speech at the “Methodologies in Housing Research” International Conference, Stockholm, 22-24.09.2003), https://pdfs.semanticscholar.org/d626/9b0bb5dc2ec5ecc1a7fbd0e44b326726a6d3.pdf?_ga=2.144923447.223332464.1590416765-1022880466.1570703798 (Accessed April 23, 2020).

³³⁸ Ibid.

³³⁹ Ibid.

³⁴⁰ Harald Mahrer and Robert Krimmer, “Towards the enhancement of e-democracy: identifying the notion of the ‘middleman paradox’,” *Information Systems Journal* 15, no. 1 (2005): 32, DOI: [10.1111/j.1365-2575.2005.00184.x](https://doi.org/10.1111/j.1365-2575.2005.00184.x).

³⁴¹ Robert Yin, *Case Study Research and Application: Design and Methods* (London, United Kingdom: SAGE Publications, Inc., 2018), 45.

³⁴² Ibid, 33.

³⁴³ Pamela Baxter and Susan Jack, “Qualitative Case Study Methodology- Study Design and Implementation for Novice Researchers,” *The Qualitative Report* 13, no.4 (2008): 554, <http://www.nova.edu/ssss/QR/QR13-4/baxter.pdf> (Accessed April 23, 2020).

³⁴⁴ Baxter and Jack, “Qualitative Case Study Methodology,” 556.

Serbia, and that existing academic studies were only focused on certain aspects of this phenomenon, holistic approach that this study tends to acquire, requires implementation of exploratory case study type.

Exploratory research is the type of case study which can be used in occasions which lack relevant theories or knowledge about the researched case.³⁴⁵ According to Yin, the main characteristic of exploratory research is that this type of research tends to explore certain phenomena and the context in which this phenomena take place.³⁴⁶ Moreover, researcher does not have to possess predefined set of questions during the research which enables usage of different data collection methods.³⁴⁷ This represents additional advantage of the case study method. According to Rolf Johansson the essence of the case study is that it can use different levels of techniques, methods, strategies and theories in approaching one topic.³⁴⁸ This characteristic, which is often labeled as “triangulation”³⁴⁹ enables case study method to deal with variety of evidence, such as: documents, artifacts, interviews, direct observations or participants’ observations.³⁵⁰ Data collection is a crucial part of every case study.³⁵¹ Exploring multiple data sources enhances credibility of qualitative studies which are often criticized for simplicity and bias.³⁵² However, the right data collection method will depend upon the topic and the specific context in which this topic is explored.³⁵³

Due to the overall goal of this study and the fact that it is dealing with unexplored social phenomenon in the specific cultural context, interviews with stakeholders as well as documentation review are found to be the suitable data collection methods.

3.2. Documentation review

First of all, the fact that we live in a record-keeping society, makes documents analysis a suitable data source for case studies.³⁵⁴ Document analysis refers to systematic review and evaluation of different documents in order to gain understanding and analyze the meaning of the content.³⁵⁵ Documents can exist in different forms, from letters, maps and television scripts to books, academic papers and photo albums.³⁵⁶ Except for this diversity in forms,

³⁴⁵ Yin, *Case Study Research and Application*, 46

³⁴⁶ Ibid, 43.

³⁴⁷ Ibid.

³⁴⁸ Jahansson, “Case study methodology”.

³⁴⁹ Ibid.

³⁵⁰ Yin, *Case Study Research and Application*, 45.

³⁵¹ Annabel Bhamani, “Using interviews as research instrument,” *E-journal for Research Teachers* 2, no.1 (2005): 2, <https://www.semanticscholar.org/paper/Using-interviews-as-research-instruments/Kajornboon/57e187565ff9c19fb9d7673b964cd77f485bcab0> (Accessed March 22, 2020).

³⁵² Glenn Bowen, “Document Analysis as a Qualitative Research Method,” *Qualitative Research Journal* 9, no. 2 (2009): 28, DOI 10.3316/QRJ0902027.

³⁵³ Bhamani, “Using interviews as research instrument,” 1.

³⁵⁴ Yin, *Case Study Research and Application*, 156.

³⁵⁵ Bowen, “Document Analysis as a Qualitative Research Method,” 27.

³⁵⁶ Ibid.

there are many other reasons which make documentation analysis a beneficial data collection method.

First of all documentation review is considered to be one of the most efficient data collection methods, due to the time and cost benefits it provides.³⁵⁷ Furthermore, this method provides coverage of long time and events span.³⁵⁸ Subsequently, today most of the documents are highly available and accessible, due to the fact that their usage does not require any authors' permission and that they are widespread on the internet and in the public domain.³⁵⁹ Finally, documentation is a stable source of data and this stability is based on the fact that researcher cannot alter what has already been written.³⁶⁰

However, the fact is that documentation as a data source also possesses certain weaknesses. First of all, documentation can be biased³⁶¹ which means that it could present information tailored towards specific audience, and subjective stances of authors.³⁶² On the other hand, researcher can also be biased in selecting documents for review.³⁶³ Furthermore, this method has often been criticized for not providing sufficient details which could be used to answer the research question.³⁶⁴ Lastly, it seems that even though nowadays most of the documents are easily accessible, approach to some of the crucial sources of information may still be deliberately prohibited.³⁶⁵ Although it seems that advantages of documentation analysis outvie the challenges, the user of this approach still needs to be cautious. Researcher who opts for this data collection method should be aware that not every document is suitable for the context of the specific research and that content of documents is necessarily accurate and precise.³⁶⁶

Due to the nature of this study which requires analysis of different dimensions, documentation review data collection method was heavily utilized. In order to explore the challenges current voting technology is facing with, publications of OSCE and national organizations in charge of electoral observations were analyzed. The scope of the documentation analysis regarding the current voting process was focused on the electoral cycles which took place in the last decade (2010-2020). Furthermore academic papers and official statistics dealing with the level of technological literacy and ICT accessibility in Serbia were used as indicators of technological readiness. Legal dimension analysis was primarily based on the existing legal framework regulating

³⁵⁷ Bowen, "Document Analysis as a Qualitative Research Method," 31.

³⁵⁸ Ibid.

³⁵⁹ Ibid.

³⁶⁰ Ibid.

³⁶¹ Yin, *Case Study Research and Application*, 156.

³⁶² Ibid.

³⁶³ Ibid.

³⁶⁴ Bowen, "Document Analysis as a Qualitative Research Method," 31.

³⁶⁵ Ibid.

³⁶⁶ Ibid.

parliamentary and presidential elections in Serbia. Moreover, national constitution as well as other legal acts were also taken into consideration. Similarly, existing reports of non-governmental organizations on trust in democratic institutions, as well as research conducted by Marija Miletic on societies' perception of e-voting, were used in order to explore society's attitude towards national institutions, technology and e-voting implementation. Conversely, when it comes to political dimension, due to the unexplored nature of e-voting, several interviews conducted by Radio Television of Serbia were utilized, however, due to the lack of written sources, the exploration of this dimension heavily relied on interviews.

3.3. Interviews

Due to the specificity of the case study method, interviews are believed to be the most important source of data collection.³⁶⁷ Based on the degree of structuring there are three different categories of interviews: structured, semi-structured, and unstructured interviews.³⁶⁸ Due to the characteristics of the unstructured interviews and the fact that topic of this study deals with primarily different perceptions of political, social, legal and technological stakeholders, unstructured interviews are thought to be most useful data collection method. Namely, structured interviews provide the same format of questions to all interviewees, which enables researcher to control questions, answers and, subsequently, their aggregation.³⁶⁹ However, structured and semi-structured interviews can also be seen as rigid method which hampers in-depth data collection.³⁷⁰ For this reason, most of the exploratory case studies tend to turn to unstructured interviews.³⁷¹

Namely, as a method which has been developed in anthropology and sociology, unstructured interviews explore different social realities.³⁷² Starting from the view that reality is socially constructed³⁷³ unstructured interviews are used as a tool to access peoples' experiences, inner perceptions, feeling of reality and understand their complex behavior.³⁷⁴ What makes the unstructured interviews specific is that they do not require the existence of predefined set of questions.³⁷⁵ However, this does not mean that researcher should be unprepared, on the contrary, unstructured interviews require thorough preparation and literature review which would enable the researcher to gain an

³⁶⁷ Yin, *Case Study Research and Application*, 162.

³⁶⁸ Yan Zhang and Barbara Wildemuth, "Unstructured Interviews," in *Applications of social research methods to Questions in Information and Library Science*, ed. Barbara Wildemuth (Santa Barbara: ABC-CLIO, LLC, 2017), 1. https://books.google.de/books?hl=sr&lr=&id=uv98DQAAQBAJ&oi=fnd&pg=PA239&dq=unstructured+interviews&ots=VUR_LzaT6eg&sig=VoBuo46bJehUhzUqqT6FyZE48Uk&redir_esc=y#v=onepage&q&f=false (Accessed April 2, 2020).

³⁶⁹ Bhamani, "Using interviews as research instrument," 4.

³⁷⁰ Ibid.

³⁷¹ Yin, *Case Study Research and Application*, 162.

³⁷² Zhang and Wildemuth, "Unstructured Interviews," 1.

³⁷³ Ibid, 9.

³⁷⁴ Ibid, 1.

³⁷⁵ Zhang and Wildemuth, "Unstructured Interviews," 2.

in-depth understanding of the phenomenon in case.³⁷⁶ The interviews are conducted by the researcher keeping the main purpose and the scope of the issue in mind.³⁷⁷ Furthermore, although formal set of questions is not used in this method, it is still possible to create aide memoire, as a general reminder of the scope and issues researcher would like to discuss with the interviewee.³⁷⁸ Except for these benefits, the fact that interviews are targeted towards specific actors, enables the researcher to focus directly on the case study topic.³⁷⁹

However, despite previously mentioned benefits, it goes without saying that interviews also impose certain challenges to data collection process. First of all, interviewer can be biased and thus poorly articulate certain questions.³⁸⁰ Furthermore, the results of the conducted interviews could be inaccurate due to the poor recall.³⁸¹ Finally, Yin underlines reflexivity as an additional threat due to tendency of some interviewees to provide those information which would suite researcher's own preferences.³⁸² However, due to the exploratory nature of this study, and the fact that it deals with different dimensions which are heavily based on different actors' perceptions, unstructured interviews are seen as a useful data collection method. Moreover, already discussed documentation analysis, can provide contextual background for interviews and become an inspiration for new questions.³⁸³

Since the topic of e-voting has been scarcely analyzed in the context of Serbia, unstructured interviews imposed as valuable data source. For the purpose of answering the research question, interviews were conducted with variety of stakeholders concerning all four dimensions defined in Krimmer's "Mirabilis" conceptual framework. Overall 14 unstructured interviews were conducted in the period between 1.4.2020 and 1.6.2020, using telephone and skype calls as well as face-to-face approach. While the data collection on technological, social and legal dimension relied primarily on the interviews with certain interest groups such as organizations gathering citizens with disabilities, non-governmental organizations in charge of election observation and academic community, in order to deeper explore the political aspect of research and possible interests of political elites, interviews were conducted with the representatives of political parties. Five political parties agreed to take part in the research: Party of united pensioners of Serbia, Green party, Serbian league, Liberal Democratic Party and Free Citizen's movement. Even though the numerical scope of the interviewed parties could be disputed, the fact

³⁷⁶ Zhang and Wildemuth, "Unstructured Interviews," 2.

³⁷⁷ Ibid.

³⁷⁸ Ibid.

³⁷⁹ Yin, *Case Study Research and Application*, 157.

³⁸⁰ Ibid.

³⁸¹ Ibid.

³⁸² Ibid.

³⁸³ Bowen, "Document Analysis as a Qualitative Research Method," 30.

that these parties belong to different political specters, and that both ruling parties as well as opposition took part in the research, make their contribution valuable.

3.4. Case of Serbia

In order to further examine the possibility of e-voting implementation in Serbia it is necessary to analyze the specificity of democracy in this country as well as the broader importance which elections have in post-conflict Serbian and Balkan societies. Serbia belongs to the group of Southeastern European, or more specifically, Western Balkan, countries in which democratic transition began in 1990's, after several decades of single-party socialistic regime.³⁸⁴ Elections in Serbia, and generally in the region of Western Balkans, have not been only crucial component of transition from authoritarian to democratic system, but also a pivotal element of peace building in post-conflict region of formal Yugoslavia.³⁸⁵ Undoubtedly, the third wave of democratization has brought democratic institutions and legitimacy to democratic processes in this region, however, contrary to foreknowledge, current trends in this region has proven that democratic transition does not necessarily lead to liberal democracy.³⁸⁶ Namely, since mid-2000's and, especially, after the economic crisis in 2008, the region has witnessed the rise of large number of hybrid regimes, while constant trend of democratic erosion is still present.³⁸⁷ According to Freedom House reports, the process of authoritarian aggression in this region, which began in 2013,³⁸⁸ was further deepened in 2016, resulting in the fact that five countries, including Serbia, were categorized as "partially free" in 2019 Freedom House Report.³⁸⁹ Furthermore, almost three decades after the commencement of democratic transformation in Western Balkans, political freedoms are at their lowest level, while instead of democratic, contemporary regimes are often characterized as competitive authoritarian.³⁹⁰ Even though de-democratization develops particular characteristics in post-war transitional Balkan circumstances, it is not specific only for this region, but can be observed in the wider global and European context.³⁹¹ While these processes can be observed in the light of global phenomena, some authors believe that de-democratization in these countries is just a continuity with the previous authoritarian regimes, however, the fact is that these trends in Western Balkan and in Serbia, have directly impacted electoral processes. Namely, according to Marko Kmezić, established regimes, while providing democratic institutions and electoral processes, obstruct basic

³⁸⁴ Golubovic and Dzunic, "Izazovi demokratske konsolidacije u Srbiji," 359.

³⁸⁵ Othon Anastasakis, "Election Consolidation in the Post-Communist Balkans," *Caucasus International* 3, no. 4 (2014): 21, https://www.sant.ox.ac.uk/sites/default/files/progress_obstacles.pdf (Accessed March 31, 2020).

³⁸⁶ Kmezić, "Rule of law and democracy in the Western Balkans," 1.

³⁸⁷ Günay and Dzihic, "Decoding the authoritarian code: exercising 'legitimate' power politics through the ruling parties in Turkey, Macedonia and Serbia," 2.

³⁸⁸ *Ibid.*, 3.

³⁸⁹ Russell, "Serbia at risk of authoritarianism?," 3.

³⁹⁰ Kmezić, "Rule of law and democracy in the Western Balkans," 2.

³⁹¹ International Institute for Democracy and Electoral Assistance, *The Global State of Democracy*, 212.

political and individual rights, and thus represent only democratic facade which mitigates citizens' perception towards elections.³⁹² Frequent electoral frauds, pressure and intimidation of voters on one hand, and regular elections, following procedures and multiparty competition on the other hand, represent a challenge, and impose a question of the real possibility of democratic improvement of the elections which are often referred to as a democratic facade.

Looking at Serbia, the first multi-party elections were held in 1990, while this country was still a part of the Yugoslavian federation.³⁹³ However, those first democratic elections led to the creation of semi-authoritarian regime which was ruling the state during the wars in the 90's.³⁹⁴ Revolution inspired by the society's inclination towards liberal democracy, which overthrew the regime of Slobodan Milosevic in 2000, marked the beginning of democratization.³⁹⁵ The up-building of democratic institutions and regular electoral cycles, indicated the stable tempo of democratic development, which stepped into the phase of democratic consolidation after the adoption of the 2006 Constitution, which is still in force.³⁹⁶ Since the 2000, 11 parliamentary elections were held in Serbia based on the paper-ballot voting system.³⁹⁷ The last presidential elections were conducted in 2017, while the last parliamentary elections, which are also the fifth early elections since 2000 and the third elections in only four years, were held in 2016.³⁹⁸ These numbers indicate the frequency of electoral cycles in Serbia, and thus, the important role elections play in political sphere.

However, democratic consolidation in Serbia did not have an expected epilogue, rather, it has shown that democratic transition does not always lead to liberal democracy. Namely, the previously mentioned research conducted by the International Institute for Democracy and Electoral Assistance in 2019, characterized democratic back sliding in Serbia as "dramatic".³⁹⁹ Furthermore, in 2020, Freedom House' Nation in Transition report, Serbia was classified as non-democratic, or hybrid country for the first time in the last two decades.⁴⁰⁰ This organization marked Serbia as the fourth country with the highest democratic decline in the world after Nicaragua, Tanzania and Venezuela.⁴⁰¹ For this reason it would be legitimate to even reconsider classifying Serbia as a transitional

³⁹² Kmezić, "Rule of law and democracy in the Western Balkans," 7.

³⁹³ Centar za slobodne izbore i demokratiju (CeSID), *Oko izbora 20* (Belgrade, Serbia: Centar za slobodne izbore i demokratiju, 2018), 7, <http://www.cesid.rs/wp-content/uploads/2018/09/Oko-izbora-20.pdf> (Accessed April 2, 2020).

³⁹⁴ Tibor Ordogh, "Serbia: A Consolidated Democracy?," *International Relations and Diplomacy* 5, no. 7 (2017): 426, DOI: 10.17265/2328-2134/2017.07.004.

³⁹⁵ Ibid.

³⁹⁶ Ibid.

³⁹⁷ Centar za slobodne izbore i demokratiju (CeSID), *Oko izbora 20*, 7.

³⁹⁸ Ibid.

³⁹⁹ International Institute for Democracy and Electoral Assistance, *The Global State of Democracy*, 35.

⁴⁰⁰ Freedom House, *Nations in Transition 2020: Dropping the democratic facade*, 3.

⁴⁰¹ Freedom House, *Democracy in Retreat: Freedom in the World 2019* (Washington, USA: Freedom House, 2019), 6, <https://freedomhouse.org/report/freedom-world/2019/democracy-retreat> (Accessed March 31, 2020).

country. The main reason for this lies in the elections in this country and the irregularities which characterize them.⁴⁰² Reports made by the European Union's institutions, international and national electoral observers, indicate that even though elections as such exist, political freedoms of citizens are respected and the results reflect the voters' will, the whole process is accompanied by serious irregularities.⁴⁰³ Furthermore, when it comes to these irregularities, a constant trend of their increase over the years can be noted.⁴⁰⁴ Problems which electoral process in this country faces range from biased media, non-transparent voting registers, misuse of public funds⁴⁰⁵ to intimidation of voters, vote buying,⁴⁰⁶ parallel voting lists creation⁴⁰⁷ and fraudulent voting and counting process.⁴⁰⁸ These problems are documented in the reports made by both international and domestic organizations such as OSCE, Center for Research, Transparency and Accountability (CRTA) and The Center for Free Elections and Democracy (CESID). Although limited OSCE missions underline the general regularity of the electoral process, deficiencies regarding voters' register, free media and political rights of the certain groups such as minorities and people with disabilities, are repeated in the yearly reports.⁴⁰⁹ However, due to the fact that OSCE observation missions in Serbia have been limited to only few observers (in 2017 presidential elections this number was six), domestic organizations, which tend to send several hundred of observers to every election, criticize these reports claiming that the challenges electoral cycles in Serbia are facing with are significantly deeper.⁴¹⁰ According to them, due to the size of the OSCE observation mission, their reports are not able to encounter the vitality and massiveness of other irregularities which tend to dramatically endanger the electoral process.⁴¹¹ Some of the examples they highlight, and which will be further described in the next part of the research, are voters not being identified,⁴¹² the usage of special pens for ballot identification⁴¹³, taking photos of ballots,⁴¹⁴ fraudulent vote counting⁴¹⁵ as well as intimidation and punishment of those

⁴⁰² Freedom House, *Democracy in Retreat: Freedom in the World 2019*, 13.

⁴⁰³ Golubovic and Dzunic, "Izazovi demokratske konsolidacije u Srbiji," 356.

⁴⁰⁴ Tamara Brankovic and Zeljka Cvejic, *Izbori u Srbiji: Demokratija zamagljena kampanjom* (Belgrade, Serbia: Centar za istrazivanje, transparentnost I odgovornost, 2018), 6, http://cрта.rs/wp-content/uploads/2018/11/Prvi-deo_Izbori-u-Srbiji-demokratija-zamagljena-kampanjom.pdf(Accessed April 2, 2020).

⁴⁰⁵ Golubovic and Dzunic, "Izazovi demokratske konsolidacije u Srbiji," 356.

⁴⁰⁶ Brankovic and Cvejic, *Izbori u Srbiji: Demokratija zamagljena*, 3.

⁴⁰⁷ Aleksandar Ivkovic, Nikola Cuckic and Nikola Burazer, "Shadow Report: State of Democracy in Serbia 2019," European Western Balkans, CSP, 8.https://europeanwesternbalkans.rs/wp-content/uploads/2019/10/State-of-Democracy-2019.pdf?fbclid=IwAR0VFOcWp2Bs1umr5FBuNaS73buiJXaDDNNFtae_PuXIQ430SXghH8jnk5k (Accessed March 30, 2020).

⁴⁰⁸ Ibid.

⁴⁰⁹ OSCE/ODIHR, *Republic of Serbia: Parliamentary elections 2020* (Warsaw, Poland: OSCE, 2020), 2, <https://www.osce.org/odihr/elections/serbia/442735?download=true> (Accessed April 1, 2020).

⁴¹⁰ Centar za istrazivanje, transparentnost I odgovornost, *Predsednicki izbori 2017: Izvestaj CRTA posmatracke misije gradjani na strazi* (Belgrade, Serbia: CRTA, 2017), 6 , <https://cрта.rs/zavrzni-izvestaj-o-predsednickim-izborima-2017-godine/> (Accessed April 2, 2020).

⁴¹¹ Ibid, 6.

⁴¹² Ibid, 7.

⁴¹³ Centar za istrazivanje, transparentnost I odgovornost, *Predsednicki izbori 2017: Izvestaj CRTA posmatracke misije gradjani na strazi* (Belgrade, Serbia: CRTA, 2017), 41 , <https://cрта.rs/zavrzni-izvestaj-o-predsednickim-izborima-2017-godine/> (Accessed April 2, 2020).

⁴¹⁴ Brankovic and Cvejic, *Izbori u Srbiji: Demokratija zamagljena kampanjom*, 35.

⁴¹⁵ Ibid.

voters who choose not to vote for the particular party.⁴¹⁶ Furthermore, European Commission in its 2019 annual report on Serbia, pointed out that, almost all of the OSCE recommendations for the improvement of the electoral cycles in Serbia still need to be addressed.⁴¹⁷ More precisely, the analysis done by CRTA show that out of 39 recommendations made by OSCE concerning the 2014, 2016 and 2017 elections, only one recommendation has been fully adopted and implemented.⁴¹⁸ Unfavorable reports made by national and international election observers impacted on international organizations and academics increasingly considering Serbia as a country of illiberal, hybrid or elastic authoritarianism.⁴¹⁹ The main characteristic of these hybrid regimes is the co-existence between democratic institutions and elections on one side and violation of human rights, electoral irregularities, violation of political freedoms, lack of free media and intimidation of voters and political opponents on the other.⁴²⁰ Irregularities which characterized electoral cycles caused the rise of citizens' dissatisfaction with electoral process which was primarily expressed through voting abstinence and peaceful protests.⁴²¹ The mistrust in the results of the 2016 parliamentary elections led to protests organized by the majority of the opposition parties.⁴²² Repetition of these irregularities at the presidential elections in 2017 and the accusations of the 300.000 uncounted votes, led to another mass protest and additional deterioration of the citizens' trust in electoral procedures and governmental bodies regulating them.⁴²³ Finally, physical attack on the leader of the biggest opposition party in 2018, sparked the most massive protest in the country after the fall of the authoritarian regime of Slobodan Milosevic in 2000.⁴²⁴ Protests, which have been held since 8th of December, were primarily based on the request for free and fair elections⁴²⁵ and protestors accused the Government of Serbia and the President Aleksandar Vucic for authoritarianism, intimidation of the opposition and media, corruption and electoral fraud.⁴²⁶ Subsequently, the majority of political parties left the Parliament in February of the same year, claiming that they would return to the institutions once the prerequisites for the fair elections were established.⁴²⁷ However, negotiations between the leading coalition and opposition, organized by the Open Society Foundation Serbia, Faculty of Political Science and subsequently, European Union, did

⁴¹⁶ Kmezić, "Rule of law and democracy in the Western Balkans," 6.

⁴¹⁷ European Union. European Commission, *Serbia 2019 Report* (Brussels, Belgium: European Union, 2019), 3, <https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/20190529-serbia-report.pdf> (Accessed March 31, 2020).

⁴¹⁸ Brankovic and Cvejic, *Izbori u Srbiji: Demokracija zamagljena kampanjom*, 12.

⁴¹⁹ Jasmin Mujanovic, " The EU and the Crisis of Democracy in the Balkans," *SAGE journals* 9, no.1 (2018): 10, <https://doi.org/10.1177/2041905818764698> (Accessed April 3, 2020).

⁴²⁰ Golubovic and Dzunic, "Izazovi demokratske konsolidacije u Srbiji," 343.

⁴²¹ OSCE/ODIHR, *Republic of Serbia: Early Parliamentary Elections 2016* (Warsaw, Poland: OSCE, 2016), 3, <https://www.osce.org/odihr/elections/serbia/256926?download=true> (Accessed April 1, 2020).

⁴²² Ibid.

⁴²³ Centar za istraživanje, transparentnost I odgovornost, *Predsednicki izbori 2017: Izvestaj CRTA posmatracke misije gradjani na strazi*, 7.

⁴²⁴ Russell, "Serbia at risk of authoritarianism?," 2.

⁴²⁵ Ibid.

⁴²⁶ Ibid.

⁴²⁷ Russell, "Serbia at risk of authoritarianism?," 1.

not bring any results.⁴²⁸ Consequently, the vast majority of political parties in the country announced that they would boycott the parliamentary elections which were initially scheduled for the April 2020, due to the lack of preconditions for democratic elections.⁴²⁹ Furthermore, this crisis of democracy and political tensions, led OSCE's Needs Assessment Mission to recommend the deployment of considerably larger election observation mission for the forthcoming 2020 elections in the country.⁴³⁰ Contrary to the OSCE mission which observed the 2017 presidential elections with 6 observers, for 2020 elections this organization is planning to deploy, except for the core team, 30 long term observers and 200 short term election day observers.⁴³¹

To conclude, voting has been an important element not only in the process of Western Balkan's transition to democracy, but also in peace building. However, global trend of de-democratization has impacted the already fragile transitional democracies in Western Balkan. Categorization of Serbia as a country experiencing dramatic decline of democracy, has been primarily based on the electoral irregularities which are highlighted in the reports of both international organizations such as OSCE, Freedom House, European Union and domestic organizations, political parties and academics. Characterization of this country as a hybrid or elastic authoritarian regime challenges the core of democracy and imposes a question regarding the real need and implications of the e-voting introduction into electoral cycles. Moreover, the fact is that, even though, electoral irregularities in this country have been intensified in the last couple of electoral cycles, they have been present since the introduction of the multi-party system. Furthermore, since Serbia is defined by its constitution as an electoral democracy,⁴³² the existence of elections as such, enable constant and objective rethinking of the possibilities for their improvement. However, due to this specific context, it is important to explore the implication e-voting implementation could have on the voting processes in the regime which is no longer depicted as democratic. For this reason, democratic decline, electoral irregularities and ongoing political and electoral crisis in Serbia, should not be perceived as a barrier, but rather as an opportunity which can enrich the analysis of e-voting in the specific context of transitional or even hybrid authoritarian regime. Complexity of political occurrences, historical meaning which elections have in the context of this country, and the fact that electrification of elections has not been a topic of neither political nor academic interest, make the analysis of e-voting implementation both relevant and challenging.

⁴²⁸ Ivkovic, Cuckic and Burazer, "Shadow Report: State of Democracy in Serbia 2019," 8.

⁴²⁹ European Commission. *Serbia 2019 Report*, 5.

⁴³⁰ OSCE/ODIHR, *Republic of Serbia: Parliamentary election 2020*, 36.

⁴³¹ *Ibid.*, 3.

⁴³² *Ibid.*

4. Results

4.1. Technological dimension

4.1.1. Challenges and opportunities of the voting technology in use

Reports provided by the OSCE and domestic organizations regarding 2012, 2014, 2016 and 2017 elections in the Republic of Serbia as well as the interviews conducted with different electoral stakeholders, offer different perspectives of the same occurrences. However, both sources of analysis highlight certain number of challenges current voting technology is facing with. Although most of the challenges are identified in the voting and counting processes, the vast majority of interviewees underline the problems preceding the voting process.

First of all, paper-ballot technology which is currently in use, does not guarantee universal suffrage, since it imposes certain obstacles to national minorities and citizens with disabilities. 17 percent of Serbian citizens belong to national minorities, with Hungarians, Roma and Bosnians being the largest groups.⁴³³ Although the 2006 Constitution of Serbia guarantees the same political rights to every citizen,⁴³⁴ many national minorities have not been able to accomplish their voting rights since their names on the voting lists were often written only in Serbian language and with Cyrillic script, contrary to the law.⁴³⁵ Namely, according to the Article 60 of the Law on Elections of Representatives (LER), in municipalities where national minorities represent the majority of inhabitants, voting material needs to be printed in the languages spoken by minorities.⁴³⁶ For this reason in 2014, five parties representing Albanian minority boycotted the elections in southern Serbia.⁴³⁷ Although, voting lists were modified to allow recording of the voters' names in 15 languages spoken by national minorities, there are still many reports of names being misspelled to such extent that it was not possible to find the voters on the voting lists.⁴³⁸

Since 2012, OSCE observers have been stressing out the importance of enhancing voting conditions for the citizens with disabilities.⁴³⁹ As stated by Branka Brkic, from the Serbian center for the blind, citizens with disabilities represent 10 percent of the Serbian population, which numerically makes them potentially a significant electorate.⁴⁴⁰

⁴³³ OSCE/ODIHR, *Republic of Serbia: Parliamentary election 2020*, 10.

⁴³⁴ Narodna Skupština Republike Srbije, „Ustav Republike Srbije“, *Sluzbeni glasnik Republike Srbije* 98 (2006): 9, https://www.paragraf.rs/propisi/ustav_republike_srbije.html (Accessed April 20, 2020)

⁴³⁵ OSCE/ODIHR, *Republic of Serbia: Parliamentary and early presidential elections 2012* (Warsaw, Poland: OSCE, 2012), 9, <https://www.osce.org/odihr/elections/92509> (Accessed April 1, 2020).

⁴³⁶ Republika Srbija, “Zakon o izboru narodnih poslanika,” *Sluzbeni glasnik Republike Srbije* 35 (2000): 8, https://www.paragraf.rs/propisi_download/zakon_o_izboru_narodnih_poslanika.pdf (Accessed April 20, 2020).

⁴³⁷ OSCE/ODIHR, *Republic of Serbia: Early Parliamentary Elections 2014* (Warsaw, Poland: OSCE, 2014), 20, <https://www.osce.org/odihr/elections/serbia/118968?download=true> (Accessed April 1, 2020).

⁴³⁸ *Ibid.*, 8.

⁴³⁹ *Ibid.*, 22.

⁴⁴⁰ Branka Brkic (Secretariate of the Serbian centre for the blind), in telephone discussion with the author, Belgrade May 7, 2020.

According to CRTA's 2018 Report, more than 56 percent of the voting pools were physically inaccessible to disabled voters.⁴⁴¹ Except for the physical obstacles, access to the current system is also challenging for visually impaired voters who cannot vote without the assistance of another person.⁴⁴² According to the Article 72 of the LER, voters with disabilities can bring another person along to the pooling station and they can vote instead of them.⁴⁴³ However, this practice can significantly endanger the secrecy of the vote. In 2017 disabled voters were allowed to vote with the assistance of guide dogs, however, only after providing pooling boards with the specific certificate of skills.⁴⁴⁴ Interviewed organizations representing disabled citizens' interests claim that this step did not make any practical improvement. According to Nikola Djordjevic, from Belgrade City Organization of the Blind, and Gordana Rajkov, Director for political development and planning at the Center for independent living, number of the guide dogs in Serbia is insignificant⁴⁴⁵ and their price is exorbitant.⁴⁴⁶ Furthermore, the fact that the role of these dogs is only to guide voter towards pooling station,⁴⁴⁷ depicts the severity of disabled voters' position and the need for its improvement. Furthermore, Nikola Djordjevic believes that solution for their problems can also be solved in the existing system by the analogy with the regional solutions and the introduction of special pallets, however, according to him, the lack of institutional will in this context is obvious.⁴⁴⁸

Except for these groups of voters, in 2017 presidential elections, citizens were not able to vote on 11 percent of the pooling stations, since they were not on the voting lists⁴⁴⁹, or in some cases, due to the unknown individuals who have already voted instead of them.⁴⁵⁰ Natan Albahari, from Free Citizens' Movement, claims that this problem is especially noticeable at the local level and adds that frequently votes of deceased citizens are counted in favor of certain political parties.⁴⁵¹ These problems are directly connected to other issues such as non-transparent voting registers and the lack of the pooling board members' training.

Since 2012 elections, OSCE has been expressing concerns regarding accuracy and transparency of voting registers.⁴⁵² Namely, since the creation of the first single unified

⁴⁴¹ Brankovic and Cvejic, *Izbori u Srbiji: Demokratija zamagljena kampanjom*, 36.

⁴⁴² Ibid, 36.

⁴⁴³ Republika Srbija, "Zakon o izboru narodnih poslanika," 10.

⁴⁴⁴ Centar za slobodne izbore I demokratiju (CeSID), *Oko izbora* 20, 62.

⁴⁴⁵ Nikola Djordjevic (Belgrade City Organization of the Blind), in telephone discussion with the author, Belgrade May 3, 2020.

⁴⁴⁶ Gordana Rajkov (Director for Political Development and Planning at the Center for independent living Serbia), in telephone discussion with the author, Belgrade May 5, 2020.

⁴⁴⁷ Branka Brkic (Secretariate of the Serbian center for the blind), in telephone discussion with the author, Belgrade May 7, 2020.

⁴⁴⁸ Nikola Djordjevic (Belgrade City Organization of the Blind), in telephone discussion with the author, Belgrade May 3, 2020.

⁴⁴⁹ Centar za istraživanje, transparentnost I odgovornost, *Predsednicki izbori 2017: Izvestaj CRTA posmatracke misije gradjani na strazi*, 27.

⁴⁵⁰ Centar za slobodne izbore I demokratiju (CeSID), *Oko izbora* 20, 80.

⁴⁵¹ Natan Albahari (International secretary of the Free citizen's movement and the candidate for the member of the National Parliament), in discussion with the author, Belgrade May 15, 2020.

⁴⁵² OSCE/ODIHR, *Republic of Serbia: Presidential Election 2017* (Warsaw, Poland: OSCE, 2017), 20, <https://www.osce.org/odihr/elections/serbia/322166?download=true> (Accessed April 1, 2020).

voter register in 2012, voting registers have been updated on the municipal level and maintained by the Ministry of Public Administration and Local Self-Government.⁴⁵³ However, due to the fact that OSCE was not allowed to monitor the process of voting registers' compilation and that the Law on Personal Data Protection does not allow public scrutiny of the register,⁴⁵⁴ OSCE, national observers as well as various stakeholders have been expressing doubts in its accuracy.⁴⁵⁵ This mistrust is based on the rising number of voting invitations being sent to the addresses of people voting abroad or citizens which have passed away decades ago.⁴⁵⁶

Furthermore, vote buying, pressure and intimidation of the voters as well as the violation of secret suffrage have been noted in reviewed documents. According to OSCE reports, all electoral cycles have been marked by the vote buying.⁴⁵⁷ According to many allegations activists of the ruling Serbian Progressive Party have been distributing material goods such as hygienic packages, oil, flour and sugar to citizens as well as providing them with free transportation and free medical treatments in exchange for the vote on the election day.⁴⁵⁸ Furthermore, based on the previous electoral cycles, OSCE has expressed serious concerns regarding the possibility of carousel voting on the following 2020 parliamentary elections.⁴⁵⁹ President of the Green party, Goran Cabradi, portrays carousel voting in Serbia as “public secret” since everyone is aware of its existence, and yet, competent institutions are not reacting upon it.⁴⁶⁰ For this reason Cabradi believes that the existing system neither provides a chance for participants to prove, nor control, this occurrence.⁴⁶¹

Both OSCE and local organizations have been expressing concerns regarding the pressure and intimidation of voters. This pressure to vote for the governing coalition, was especially noticeable in the case of Roma and Slovak national minorities in 2017 elections.⁴⁶² Furthermore, these organizations have also noted the existence of ruling party's pressure on the public sector employees and the intimidating presence of the Serbian Progressive Party's activists at the polling stations.⁴⁶³ Albahari underlines the significance of this issue which influences not only citizens employed in public sector, but also the ones working in certain private companies which are closely tied to the ruling

⁴⁵³ OSCE/ODIHR, *Republic of Serbia: Parliamentary and early presidential elections 2012*, 9.

⁴⁵⁴ OSCE/ODIHR, *Republic of Serbia: Early Parliamentary Elections 2014*, 8.

⁴⁵⁵ OSCE/ODIHR, *Republic of Serbia: Early Parliamentary Elections 2016*, 2.

⁴⁵⁶ Centar za istraživanje, transparentnost i odgovornost, *Predsednički izbori 2017: Izvestaj CRTA posmatracke misije gradjani na strazi*, 27.

⁴⁵⁷ OSCE/ODIHR, *Republic of Serbia: Early Parliamentary Elections 2016*, 19.

⁴⁵⁸ OSCE/ODIHR, *Republic of Serbia: Presidential Election 2017*, 13.

⁴⁵⁹ OSCE/ODIHR, *Republic of Serbia: Parliamentary election 2020*, 2.

⁴⁶⁰ Goran Cabradi (President of the Green party), in telephone discussion with the author, Belgrade May 5, 2020.

⁴⁶¹ Ibid.

⁴⁶² OSCE/ODIHR, *Republic of Serbia: Presidential Election 2017*, 13.

⁴⁶³ Brankovic and Cvejic, *Izbori u Srbiji: Demokratija zamagljena kampanjom*, 39.

parties.⁴⁶⁴ In order to express their loyalty and inclination towards political parties, and subsequently keep their jobs, these citizens are expected to deliver a photo of their ballot or to provide a list of voters who will support same party on the elections.⁴⁶⁵ Moreover, the pressure is not only conducted by political parties, but also by pooling boards' members who in some situations suggested to voters who to vote for.⁴⁶⁶ For this reason in 2012, 2014 and 2017 reports, OSCE expressed the need for the prevention and investigation of this practice.⁴⁶⁷ Subsequently, according to the research conducted by CRTA in 2018, 54% of the interviewees claimed that political activists forced pressure on them during the voting day.⁴⁶⁸

When it comes to secrecy, reports of national organizations differ from the OSCE reports. While OSCE reports focus on inadequate design of the voting screens which do not ensure secrecy,⁴⁶⁹ CESID and CRTA express multiple concerns regarding this issue. These problems range from the usage of mobile phones⁴⁷⁰ and the existence of cameras at the pooling stations,⁴⁷¹ to the creation of parallel voters' lists by pooling boards,⁴⁷² usage of voting pens with different ink color,⁴⁷³ and pooling boards staff providing confidential information to political activists.⁴⁷⁴

Even though OSCE noted that the vote counting was conducted in transparent and orderly manner, they also expressed the need for the improvement of the counting process' accuracy.⁴⁷⁵ Namely the analysis of the documents show that accusations of fraud and the requests for the voting results' annulment seem to be common practice in the voting cycles. Namely in 2012, presidential candidate Tomislav Nikolic claimed that more than 3.000 ballots were not counted.⁴⁷⁶ Similarly, in 2016 parliamentary elections 3.072 ballots were not counted while there were often more voting ballots in the voting box than the voters on the voting lists.⁴⁷⁷ Subsequently, according to CESID the counting problem was

⁴⁶⁴ Natan Albahari (International secretary of the Free citizen's movement and the candidate for the member of the National Parliament), in discussion with the author, Belgrade May 15, 2020.

⁴⁶⁵ Ibid.

⁴⁶⁶ Sladjana Mladenovic, "Posmatranje izbornih ciklusa u Srbiji 2012-2017.godine: Ključni akteri, nalazi i preporuke," *Srpska politička misao* 4, no. 62 (2018): 158, <https://doi.org/10.22182/spm.6242018.7> (Accessed April 2, 2020).

⁴⁶⁷ OSCE/ODIHR, *Republic of Serbia: Presidential Election 2017*, 18.

⁴⁶⁸ Centar za istraživanje, transparentnost i odgovornost, *Predsednicki izbori 2017: Izvestaj CRTA posmatracke misije gradjani na strazi*, 40.

⁴⁶⁹ OSCE/ODIHR, *Republic of Serbia: Presidential Election 2017*, 19.

⁴⁷⁰ Mladenovic, "Posmatranje izbornih ciklusa u Srbiji 2012-2017.godine," 157.

⁴⁷¹ Centar za slobodne izbore i demokratiju (CeSID), *Oko izbora* 20, 80.

⁴⁷² Brankovic and Cvejic, *Izbori u Srbiji: Demokratija zamagljena kampanjom*, 35.

⁴⁷³ Centar za istraživanje, transparentnost i odgovornost, *Predsednicki izbori 2017: Izvestaj CRTA posmatracke misije gradjani na strazi*, 41.

⁴⁷⁴ Mladenovic, "Posmatranje izbornih ciklusa u Srbiji 2012-2017.godine," 158.

⁴⁷⁵ OSCE/ODIHR, *Republic of Serbia: Early Parliamentary Elections 2016*, 21.

⁴⁷⁶ OSCE/ODIHR, *Republic of Serbia: Parliamentary and early presidential elections 2012*, 18.

⁴⁷⁷ OSCE/ODIHR, *Republic of Serbia: Early Parliamentary Elections 2016*, 18.

evident in 2 percent of the voting stations largely due to the fact that citizens were taking the ballots outside of the voting station.⁴⁷⁸

When it comes to distant voting, according to the current system, Serbian citizens located in foreign countries can register at the local diplomatic mission of Serbia in order to cast a vote.⁴⁷⁹ However, people often tend to refrain from voting due to the short registration time frame as well as the requirement that minim 100 citizens have to be registered at the same diplomatic mission in order for the pooling stations to be opened.⁴⁸⁰ For this reason, only 11.590 people used remote voting in 2017 presidential elections.⁴⁸¹ Albahari believes that complicated distant voting system is one of the biggest barriers of the Serbia electoral system.⁴⁸² According to him introduction of postal voting would significantly change both electorate body and the political campaign.⁴⁸³ However, Dusan Spasojevic, lecturer at the Faculty of Political Science, believes that the introduction of distant voting in the existing system would be impossible due to the impact this would have on political interests.⁴⁸⁴

4.1.2. Challenges and opportunities of e-voting technology

The interviews conducted with different electoral stakeholders depict variations in the context of opportunities and challenges of e-voting implementation regarding the analyzed challenges existing system faces. However, it is possible to find a certain pattern especially among the answers provided by the academic community. Dusan Spasojevic believes that e-voting would make the voting process in Serbia faster, easier and transparent especially at the local level.⁴⁸⁵ Similarly, Djordjo Zujovic from the Liberal Democratic Party, considers e-voting as a potential solution to multiple malversations which are present at the pooling stations.⁴⁸⁶ Interestingly, despite the challenges voting and counting process faces, almost all interviewees see participation increase as the most significant benefit of e-voting implementation in Serbia. Executive director of CESID, Bojan Klacar notes that even though low turnout characterizes all electoral cycles around Europe, the voting turnout in Serbia is still below European average.⁴⁸⁷ For this reason he sees e-voting as a mean of turnout increase especially in the context of younger people

⁴⁷⁸ Centar za slobodne izbore i demokratiju (CeSID), *Oko izbora 20*, 112.

⁴⁷⁹ OSCE/ODIHR, *Republic of Serbia: Parliamentary and early presidential elections 2012*, 9.

⁴⁸⁰ Brankovic and Cvejic, *Izbori u Srbiji: Demokratija zamaqljena kampanjom*, 40.

⁴⁸¹ Ibid.

⁴⁸² Natan Albahari (International secretary of the Free citizen's movement and the candidate for the member of the National Parliament), in discussion with the author, Belgrade May 15, 2020.

⁴⁸³ Ibid.

⁴⁸⁴ Dusan Spasojevic (Lecturer at the Faculty of Political Sciences, University of Belgrade), in skype discussion with the author, Belgrade May 12, 2020.

⁴⁸⁵ Ibid.

⁴⁸⁶ Djordjo Zujovic (Manager of the municipal pooling boards, Liberal Democratic Party), in telephone discussion with the author, Belgrade May 13, 2020.

⁴⁸⁷ Bojan Klacar (Executive director of Center for free elections and democracy), in skype discussion with the author, Belgrade May 6, 2020.

and citizens with disabilities.⁴⁸⁸ Similarly, Albahari believes that system which would make the voting process interesting and attractive, would positively impact younger citizens which are the ones traditionally refraining from voting.⁴⁸⁹ On the other hand, organizations representing disabled citizens claim that e-voting would enable these groups an equal access to the voting process and protection of their votes' secrecy.⁴⁹⁰ Subsequently, they strongly believe that e-voting would restore dignity to disabled voters.⁴⁹¹ However, participation as such cannot be seen as a solution to the existing procedural challenges expressed in the reports of domestic and international observers. Moreover, Zoran Stojiljkovic, professor at the Faculty of Political Sciences, underlines that participation has to be analyzed in the wider societal context and the domain of trust.⁴⁹²

When it comes to the challenges of e-voting implementation, it is also possible to note a pattern between the answers provided by academics and political parties. Namely, except for the e-voting implementation costs⁴⁹³ and potential technological issues,⁴⁹⁴ significant number of interviewees expressed concerns regarding the impact of e-voting on security of the voting process. In this context Sladjana Mladenovic, researcher at the Institute for Political Studies, refers to the procurement tenders and the reliability of voting machines. Namely, according to her, Serbian society is highly corrupted, and previous experiences have proven that in most of the cases, procurements in the public sector have been conducted by those firms which were closely tied to the members of the ruling political parties.⁴⁹⁵ For this reason the quality, reliability and security of new voting machines would be questionable.⁴⁹⁶ Subsequently, Albahari notes that due to security issues, some form of paper trail would need to be retained and utilized in parallel with NVT.⁴⁹⁷ However, Bojan Klacar concludes that even though security can be largely seen as a dominant issue surrounding e-voting phenomenon, the lack of citizens' trust needs be considered as the primary problem of e-voting implementation in the context of Serbia.⁴⁹⁸

⁴⁸⁸ Bojan Klacar (Executive director of Center for free elections and democracy), in skype discussion with the author, Belgrade May 6, 2020.

⁴⁸⁹ Natan Albahari (International secretary of the Free citizen's movement and the candidate for the member of the National Parliament), in discussion with the author, Belgrade May 15, 2020.

⁴⁹⁰ Branka Brkic (Secretariate of the Serbian center for the blind), in telephone discussion with the author, Belgrade May 7, 2020.

⁴⁹¹ Ibid.

⁴⁹² Zoran Stojiljkovic (PhD Professor at the Faculty of Political Sciences, University of Belgrade), in telephone discussion with the author, Belgrade May 7, 2020.

⁴⁹³ Branka Brkic (Secretariate of the Serbian center for the blind), in telephone discussion with the author, Belgrade May 7, 2020.

⁴⁹⁴ Natan Albahari (International secretary of the Free citizen's movement and the candidate for the member of the National Parliament), in discussion with the author, Belgrade May 15, 2020.

⁴⁹⁵ Sladjana Mladenovic (PhD Researcher at the Institute for Political Studies), in telephone discussion with the author, Belgrade May 16, 2020.

⁴⁹⁶ Ibid.

⁴⁹⁷ Natan Albahari (International secretary of the Free citizen's movement and the candidate for the member of the National Parliament), in discussion with the author, Belgrade May 15, 2020.

⁴⁹⁸ Bojan Klacar (Executive director of Center for free elections and democracy), in skype discussion with the author, Belgrade May 6, 2020.

4.1.3. Institutional capacities

Except for the challenges current voting technology is facing as well as the opportunities and barriers of e-voting implementation, it is necessary to analyze the capacity of the institutions governing the electoral process. According to the legal framework regulating the elections, Republic Electoral Commission (REC) represents the main responsible body in this context, along with the Pooling Boards (PB) which are appointed by the REC.⁴⁹⁹ Political parties represented in the parliament are in charge of appointing 16 members of REC for four-year term, in proportion to the number of the seats held in the parliament.⁵⁰⁰ Conversely, new members of pooling boards are determined for each election separately.⁵⁰¹ While both OSCE and CESID noted that REC has been conducting elections in transparent and efficient manner,⁵⁰² certain concerns have been expressed regarding the independence, malfunctions and competencies this body possesses. Namely, both OSCE and CRTA have expressed doubts in the impartiality of REC due to its direct dependency on the National Assembly and the influence of political parties.⁵⁰³ In 2020 Report, OSCE Needs Assessment Mission marked the professionalism of this body as questionable⁵⁰⁴ mainly due to the fact that at the 2017 elections this institution showed strong inclination towards the ruling coalition.⁵⁰⁵ The interviews conducted with academics and former REC members indicate that connection between this body and the Parliament of Serbia is the main cause of deeper issues which justify the concerns expressed by international observers. Namely, former REC member and lawyer, Dejan Djokic, stated that REC as an institution doesn't exist, but is created only before every electoral cycle.⁵⁰⁶ However, during its creation the impact of the political interests is obvious since instead of opting for experts capable of enhancing the REC itself, political parties are appointing "party fighters" to REC.⁵⁰⁷ Furthermore, Spasojevic notes that the lack of professionalism and continuity as well as the existing dependence on political interests, make REC an institution in charge of administrating the elections, without any capability of enhancing or redefining the existing electoral processes.⁵⁰⁸ This would mean that any kind of REC's initiative directed towards the change of the existing voting processes, would require motivation and courage, which is largely missing.⁵⁰⁹

⁴⁹⁹ OSCE/ODIHR, *Republic of Serbia: Parliamentary and early presidential elections 2012*, 7.

⁵⁰⁰ OSCE/ODIHR, *Republic of Serbia: Parliamentary and early presidential elections 2012*, 6.

⁵⁰¹ Centar za slobodne izbore i demokratiju (CeSID), *Oko izbora 20*, 47.

⁵⁰² *Ibid.*, 52.

⁵⁰³ Brankovic and Cvejic, *Izbore u Srbiji: Demokratija zamagljena kampanjom*, 14.

⁵⁰⁴ OSCE/ODIHR, *Republic of Serbia: Parliamentary election 2020*, 2.

⁵⁰⁵ *Ibid.*

⁵⁰⁶ Dejan Djokic (Lawyer and the former member of Republic Electoral Commission), in telephone discussion with the author, Belgrade May 15, 2020.

⁵⁰⁷ *Ibid.*

⁵⁰⁸ Dusan Spasojevic (Lecturer at the Faculty of Political Sciences, University of Belgrade), in skype discussion with the author, Belgrade May 12, 2020.

⁵⁰⁹ Dejan Djokic (Lawyer and the former member of Republic Electoral Commission), in telephone discussion with the author, Belgrade May 15, 2020.

Furthermore, Djokic claims that the same challenges surrounding the functioning of REC, become extreme at the level of local pooling boards.⁵¹⁰

Concerns regarding the reliability of PBs were marked in the previous reports due to the lack of safeguard of sensitive electoral material, which is often stored in the house of the PB chairperson before the election, which creates space for additional irregularities.⁵¹¹ Additionally, all three organizations claimed that PB members did not receive adequate training, which caused serious irregularities such as ultra violet lamps⁵¹² and special sprays⁵¹³ not being used, voters' identities not being checked,⁵¹⁴ voting boxes being unsealed,⁵¹⁵ and PB members pressuring voters to vote for the certain option.⁵¹⁶ Sladjana Mladenovic notes that only the fact that in 2019, after three decades of electoral democracy, obligatory REC's and PB's trainings were agreed during the moderated dialogue between the ruling parties and opposition, indicates that Serbian society is still far away from advanced innovations such as e-voting.⁵¹⁷ Even though Djokic does underline the lack of PB's training and the overall unprofessionalism of REC as an issue, he strongly believes that these factors are not a source of the large amount of voting and counting irregularities.⁵¹⁸

Furthermore, the exploration of e-voting implementation also has to take into account technical possibilities and knowledge of both public sector and citizens of Serbia. First of all, according to Djordje Mitrovic, and Emilija Manic, Serbia has one of the lowest index of ICT development in Europe and Western Balkans region.⁵¹⁹ Even though different strategies and development programs exist, in reality little is done to improve the current situation.⁵²⁰ Furthermore, the investments in ICT are far below the EU average.⁵²¹ For this reason, public institutions, including REC, are facing the lack of modern ICT architecture and human resources.⁵²² For example, most of the institutions are equipped with

⁵¹⁰ Dejan Djokic (Lawyer and the former member of Republic Electoral Commission), in telephone discussion with the author, Belgrade May 15, 2020.

⁵¹¹ OSCE/ODIHR, *Republic of Serbia: Early Parliamentary Elections 2016*, 18.

⁵¹² Ibid.

⁵¹³ Brankovic and Cvejic, *Izbore u Srbiji: Demokratija zamagljena kampanjom*, 35.

⁵¹⁴ Mladenovic, "Posmatranje izbornih ciklusa u Srbiji 2012-2017. godine," 157.

⁵¹⁵ Ibid.

⁵¹⁶ Centar za slobodne izbore i demokratiju (CeSID), *Oko izbora 20*, 80.

⁵¹⁷ Sladjana Mladenovic (PhD Researcher at the Institute for Political Studies), in telephone discussion with the author, Belgrade May 16, 2020.

⁵¹⁸ Dejan Djokic (Lawyer and the former member of Republic Electoral Commission), in telephone discussion with the author, Belgrade May 15, 2020.

⁵¹⁹ Djordje Mitrovic and Emilija Manic, "Industrija informaciono-komunikacionih tehnologija u Centralnoj I Istocnoj Evropi: razvoj I klasifikacija zemalja," in *Perspektive održivog makroekonomskog razvoja Republike Srbije*, ed. Miomir Jaksic (Belgrade, Serbia: Ekonomski fakultet u Beogradu, 2020), 328, http://cid.ekof.bg.ac.rs/wp-content/uploads/2020/02/Zbornik_Perspektive-odrzivog-makroekonomskog-razvoja-RS_PRESS-4.pdf (Accessed April 20, 2020).

⁵²⁰ Ibid.

⁵²¹ Goran Pitic, Nebojsa Savic and Srđan Verbić, "Digital transformation and Serbia," *Ekonomika preduzeća* 66, no. 1 (2018): 114, DOI:10.5937/EKOPRE1802107P.

⁵²² Republic of Serbia, Ministry of Public Administration and Local-self Governments, *Program razvoja elektronske uprave u Republici Srbiji za period od 2019 do 2022 godine I Akcioni plan za njegovo sprovođenje* (Belgrade, Serbia: Ministry of Public Administration and Local-self Governments, 2019), 42, <http://mduls.gov.rs/wp-content/uploads/Program-razvoja-e-uprave-za-period-od-2019-do-2022.pdf> (Accessed April 19, 2020).

computers, however, these computers are obsolete and the investment in new ICT infrastructure had not been included in the Program of e-government development until 2022, despite marking this problem as crucial.⁵²³ Similarly, in spite of the official inclination towards public sector digitalization, it is estimated that country lacks more than 20.000 IT experts.⁵²⁴ According to the research conducted by the Ministry of Public Administration and Local Self-Government, 14 out of 21 analyzed public sector institutions claimed that they are in lack of IT experts.⁵²⁵ Furthermore, this research also showed that statistically on the local level 1 out of every 63 newly employed public sector workers was an IT expert.⁵²⁶ Except for the lack of ICT equipment and IT experts, deficit of computer literacy also represents one of the major challenges.⁵²⁷ Namely, according to 2019 research 600 out of 15.200 public sector employees had never used computer before.⁵²⁸ For this reason, research conducted by Marija Miletic, showed that 60 percent of the interviewed citizens were concerned about the capacities and IT skills of the public institutions.⁵²⁹ The lack of IT experts represents one of the REC's crucial challenge. However, this occurrence can be connected to the existing relation between REC and the Parliament. According to Klacar, due to the lack of continuity, REC doesn't possess its own IT, legal or political departments.⁵³⁰ Subsequently, even if some of the REC members were IT experts, they would primarily have to perform their work in accordance with the interests of political parties.⁵³¹ For this reason Klacar strongly believes that REC would not have human resources required for the implementation of e-voting.⁵³² However, not all interviewees agreed with the criticism appointed towards REC. Stefan Krkobabic, a member of the ruling political coalition, claims that both REC and the overall electoral processes function in accordance to all democratic and European standards.⁵³³ Conversely, Mladenovic believes that instead of democratic standards, partitocracy, reflected in REC, should be seen as the main advantage of this body.⁵³⁴ Namely, partitocracy, expressed in the fact that REC members are primarily fighting for their own

⁵²³ Ministry of Public Administration and Local-self Governments, *Program razvoja elektronske uprave u Republici Srbiji za period od 2019 do 2022 godine I Akcioni plan za njegovo sprovođenje*, 25.

⁵²⁴ Pitic, Savic and Verbic, "Digital transformation and Serbia," 114.

⁵²⁵ Ministry of Public Administration and Local-self Governments, *Program razvoja elektronske uprave u Republici Srbiji za period od 2019 do 2022 godine I Akcioni plan za njegovo sprovođenje*, 23.

⁵²⁶ *Ibid*, 53.

⁵²⁷ *Ibid*, 36.

⁵²⁸ *Ibid*, 23.

⁵²⁹ Marija Miletic et al., "Scaffolding E-Voting in Developing Countries," *Management: Journal of Sustainable Business and Management Solutions in Emerging Economies* 24, no. 2 (2019): 59, DOI: 10.7595/management.fon.2019.0006.

⁵³⁰ Bojan Klacar (Executive director of Center for free elections and democracy), in skype discussion with the author, Belgrade May 6, 2020

⁵³¹ Dejan Djokic (Lawyer and the former member of Republic Electoral Commission), in telephone discussion with the author, Belgrade May 15, 2020.

⁵³² Bojan Klacar (Executive director of Center for free elections and democracy), in skype discussion with the author, Belgrade May 6, 2020

⁵³³ Stefan Krkobabic (Candidate for the member of the National Parliament – Party of united pensioners of Serbia), in telephone discussion with the author, Belgrade May 7, 2020.

⁵³⁴ Sladjana Mladenovic (PhD Researcher at the Institute for Political Studies), in telephone discussion with the author, Belgrade May 16, 2020.

political interests, leads to some form of reciprocal control over the functioning of this institution and its members.⁵³⁵ Even if it would be possible to agree with the statement that REC has been tailored according to the existing norms adopted by the State, the fact is that in the existing context, these norms disable professionalism and independence of REC's members and limit their work on protection of particular political interests. For this reason Zoran Stojiljkovic sees REC as a crypto-politic institution unable to analyze, suggest or conduct any change.⁵³⁶

4.1.4. ICT skills of voters in Serbia

Finally, due to the importance of the voters' IT skills for e-voting, it is necessary to analyze Serbian society in the context of ICT accessibility and digital literacy. First of all, 4 percent of citizens are illiterate, 54 percent of male and 44 percent of female citizens have high school education, whereas 10 percent acquired university diplomas.⁵³⁷ According to the 2019 research conducted by the Statistical Office of the Republic of Serbia, more than 50 percent of citizens are computer illiterate.⁵³⁸ Furthermore, only 37.5 percent of the citizens have used ICTs in order to utilize public sector services.⁵³⁹ Subsequently, data collected by the same institution showed that 93.7 percent of households possess mobile phone, 49 percent laptop and 73.1 percent computer.⁵⁴⁰ However, every fifth citizen has never used computer.⁵⁴¹ According to Nikola Djordjevic and Gordana Rajkov, this problem becomes especially notable in the case of the disabled citizens, since the number of blind people using computer is very low,⁵⁴² thus, electronic literacy can become a significant obstacle for the e-voting usage.⁵⁴³ When it comes to internet, it is important to note that Serbia is ranked last among the Western Balkan countries regarding the broadband internet access.⁵⁴⁴ According to the International Telecommunication Union, internet in Serbia is not only much slower compared to the

⁵³⁵ Sajama Mladenovic (PhD Researcher at the Institute for Political Studies), in telephone discussion with the author, Belgrade May 16, 2020.

⁵³⁶ Zoran Stojiljkovic (PhD Professor at the Faculty of Political Sciences, University of Belgrade), in telephone discussion with the author, Belgrade May 7, 2020.

⁵³⁷ Statistical Office of the Republic of Serbia. "Republika Srbija Profil 2019," http://devinfo.stat.gov.rs/SerbiaProfileLauncher/files/profiles/sr/1/DI_Profil_Republika%20Srbija_EURSRB.pdf (Accessed April 19, 2020).

⁵³⁸ Ibid, 6

⁵³⁹ Ivana Damjanovic, "Increasing Transparency and Accountability with ICTs: A Case from Serbia," in *Multi-Level (e)Governance: Is ICT a means to enhance transparency and democracy? Proceedings of the Central and Eastern European eDem and eGov Days 2016*, ed. Alexander Balthasar et. al (Wien: Austrian Computer Society, 2016), 6.

⁵⁴⁰ Miladin Kovacevic et al., *Upotreba informaciono-komunikacionih tehnologija u Republici Srbiji: Domacinstva, Pojedinci, Preduzeca 2019* (Belgrade, Serbia: Statistical Office of the Republic of Serbia, 2019), 10, <http://publikacije.stat.gov.rs/G2019/Pdf/G201916014.pdf> (Accessed April 19, 2020).

⁵⁴¹ Ministry of Public Administration and Local-self Governments, *Program razvoja elektronske uprave u Republici Srbiji za period od 2019 do 2022 godine I Akcioni plan za njegovo sprovođenje*, 22.

⁵⁴² Nikola Djordjevic (Belgrade City Organization of the Blind), in telephone discussion with the author, Belgrade May 3, 2020.

⁵⁴³ Bojan Klacar (Executive director of Center for free elections and democracy), in skype discussion with the author, Belgrade May 6, 2020.

⁵⁴⁴ Jorje Mestrovic, "Broadband adoption, digital divide, and the global economic competitiveness of Western Balkan countries," *Economic Annals*, 60, no. 207 (2015): 107, DOI:10.2298/EKA1507095M.

rest of the Europe (26.3 kbps versus 178.0 kbps), but also three times more expensive per megabyte transmission.⁵⁴⁵ Furthermore, contrary to the national average speed of 26.3 kbps, very few households possess internet connection speed faster than 10 kbps.⁵⁴⁶ Moreover, according to Statistical Office of the Republic of Serbia, in 2019, 80 percent of the households had access to internet,⁵⁴⁷ however, every fourth citizen has never used internet.⁵⁴⁸

Despite the official statistics, Stojiljkovic believes that 60 percent of Serbian citizens possess all digital tools and skills required for the usage of e-voting.⁵⁴⁹ Moreover, he believes that official statistics are created in order to discourage potential reforms.⁵⁵⁰ Similarly, a part of political parties would agree with these assertions, stating that official data does not depict the reality and that Serbian society possess a satisfying level of digital literacy.⁵⁵¹ Conversely, Zujovic believes that the fact that even many pooling stations in Serbia are inaccessible due to the lack of paved roads, describes the reality in Serbia and inevitably makes digital literacy an important issue.⁵⁵² According to Bojan Klacar, low national rate of internet penetration makes taking certain NVT, such as internet voting, into consideration practically impossible.⁵⁵³ Furthermore, Klacar underlines the fact that people older than 65, which traditionally possess lower digital skills, are still the majority in Serbian society.⁵⁵⁴ For this reason, Krkobabic, from United Pensioner's Party, believes that if e-voting would be immediately implemented, it would cause discrimination of one part of the society, and thus endanger the principle of universal suffrage.⁵⁵⁵

4.2. Legal dimension

Legal framework regulating the elections in the Republic of Serbia is primarily based on the 2006 Constitution, 2000 Law on Elections of Representatives (LER) and 2004 Law on Election of the President (LEP).⁵⁵⁶ However, other acts such as Law on Unified Voter's Register, Law on Financing of Political Activities, Law on Single Electoral Roll, Law on

⁵⁴⁵ Pitic, Savic and Verbic, "Digital transformation and Serbia," 114.

⁵⁴⁶ Mitrovic, "Broadband adoption, digital divide, and the global economic competitiveness of Western Balkan countries," 109.

⁵⁴⁷ Kovacevic, *Upotreba informaciono-komunikacionih tehnologija u Republici Srbiji*, 12.

⁵⁴⁸ Ministry of Public Administration and Local-self Governments, Program razvoja elektronske uprave u Republici Srbiji za period od 2019 do 2022 godine I Akcioni plan za njegovo sprovođenje, 22.

⁵⁴⁹ Zoran Stojiljkovic (PhD Professor at the Faculty of Political Sciences, University of Belgrade), in telephone discussion with the author, Belgrade May 7, 2020.

⁵⁵⁰ Ibid

⁵⁵¹ Stefan Krkobabic(Candidate for the member of the National Parliament – Party of united pensioners of Serbia), in telephone discussion with the author, Belgrade May 7, 2020.

⁵⁵² Djordjo Zujovic (Manager of the municipal pooling boards, Liberal Democratic Party), in telephone discussion with the author, Belgrade May 13, 2020.

⁵⁵³ Nenad Zoric, "Elektronsko glasanje u Srbiji- realnost ili fantastika," Sputnik News, 07.04.2017, <https://rs-lat.sputniknews.com/komentari/201704071110672860-sve-o-elektronskom-glasanju/>

⁵⁵⁴ Bojan Klacar (Executive director of Center for free elections and democracy), in skype discussion with the author, Belgrade May 6, 2020.

⁵⁵⁵ Stefan Krkobabic(Candidate for the member of the National Parliament – Party of united pensioners of Serbia), in telephone discussion with the author, Belgrade May 7, 2020.

⁵⁵⁶ Tinatin Ninua, *Serbia: overview of political corruption*, (Transparency International, 2014), 4, <https://knowledgehub.transparency.org/helpdesk/serbia-overview-of-political-corruption> (Accessed March 30, 2020).

Political Parties, Broadcasting Law,⁵⁵⁷ Law on Public Gathering and REC's rules and instructions⁵⁵⁸, also regulate parts of the electoral process. According to Mladenovic, the amount of different legal acts add to the complexity and mismatch between different regulations.⁵⁵⁹ Furthermore, lawyer Dejan Djukic, claims that not only are the legal acts in this sphere mutually unadjusted, but the articles of the same laws are often contradictory.⁵⁶⁰ However, due to the OSCE reports highlighting Constitution, LER and LEP, as three basic legal acts in the electoral context⁵⁶¹, the focus of this analysis was fundamentally based on these documents.

First of all, when it comes to basic democratic values, they are primarily defined in the Constitution. According to the Article 52 every citizen of legal age has right on universal, equal, free, direct and secret suffrage.⁵⁶² The same content can be found in the Article 2 of LER⁵⁶³ and the Article 1 of LAP.⁵⁶⁴ In the Constitution, these rights are defined in neutral way which implies that they can also be implemented in the context of electronic voting. However, in the lower level regulations, these basic values are also connected to the implementation of the specific technology.

When it comes to the voting technology, Constitution does not explicitly require the usage of any specific technology. For this reason, the implementation of new voting technology would not require any constitutional changes. However, lower legal acts, LER and LAP explicitly connect all voting procedures to the usage of paper ballots. Because of that Article 55 of LER specifies that voting process needs to be performed by the usage of paper ballots.⁵⁶⁵ Description, design, printing, packing and control of these ballots are further described in Articles 59 and 60.⁵⁶⁶ Furthermore, the rest of the articles which regulate the process of voting boxes' usage, voting, identification, and counting are all tailored by the usage of the paper ballot voting technology and for this reason the introduction of e-voting would require redefinition of the whole LER.

Same can be concluded in the case of LEP which heavily relies on all of the procedures defined in LER.⁵⁶⁷ Furthermore, while Articles 15 and 16 of this Law explicitly define the usage of paper ballots for voting, Article 18 requests the usage of voting boxes for the

⁵⁵⁷ OSCE/ODIHR, *Republic of Serbia: Parliamentary and early presidential elections 2012*, 5.

⁵⁵⁸ OSCE/ODIHR, *Republic of Serbia: Presidential Election 2017*, 4.

⁵⁵⁹ *Ibid.*, 14.

⁵⁶⁰ Dejan Djokic (Lawyer and the former member of Republic Electoral Commission), in telephone discussion with the author, Belgrade May 15, 2020.

⁵⁶¹ OSCE/ODIHR, *Republic of Serbia: Parliamentary and early presidential elections 2012*, 4.

⁵⁶² Narodna Skupstina Republike Srbije, "Ustav Republike Srbije," " 9.

⁵⁶³ Republika Srbija, "Zakon o izboru narodnih poslanika," 1.

⁵⁶⁴ Republic of Serbia, "Zakon o izboru predsednika Republike," *Sluzbeni glasnik Republike Srbije* 111 (2007): 1, https://www.paragraf.rs/propisi_download/zakon_o_izboru_predsednika_republike.pdf (Accessed April 10, 2020).

⁵⁶⁵ Republika Srbija, "Zakon o izboru narodnih poslanika," 7.

⁵⁶⁶ *Ibid.*, 8.

⁵⁶⁷ OSCE/ODIHR, *Republic of Serbia: Parliamentary and early presidential elections 2012*, 4.

vote casting.⁵⁶⁸ Apart from these three articles, traditional voting technique is not mentioned, however the fact that Article 8 defines that this legal act will use the same procedures defined in LER,⁵⁶⁹ indicates that the change of LER will impact the process of presidential election.

Except for these two laws, other legal acts such as the Law on Local Elections, which in Article 34, requires voters to circularize the number in front of the preferred candidate list on the paper ballot, and to fold the paper ballot before inserting it into the voting box, would also need to be modified for the introduction of e-voting.⁵⁷⁰

Due to the fact that LER explicitly defines the usage of paper ballot voting system, and the existing dependence between LER and LAP, it would be possible to assume that the implementation of e-voting would require extensive changes of the existing legal framework. This imposes questions regarding the legislative procedures, the impact of these modifications on the other legal acts and the capacity of bodies which would be in charge of passing these modifications. Even though the existing legal framework largely relies on the traditional paper ballot voting system, conducted interviews indicate that stakeholders do not see this as a barrier to e-voting implementation. Djokic claims that it would be possible to enforce all the necessary changes through very short and clear amendments.⁵⁷¹ These amendments should only define the basic principles of e-voting while other institutions such as REC, with the help of IT experts, would then issue detailed regulations concerning the implementation and usage of e-voting in the existing system.⁵⁷² Furthermore, the fact that National Assembly reduced the electoral threshold from 5 to 3 percent in 2020, indicates that modifications of the electoral legal framework are possible.⁵⁷³ However, the fact is that the introduction of e-voting would affect other legal acts, in this context Milan Jovanovic, Professor at the Faculty of Political Sciences, underlines the existing acts regulating electoral bodies and personal data.⁵⁷⁴ Contrary to the academic assumptions, Djokic believes that criminal law would not have to be changed.⁵⁷⁵ Namely, due to the fact that most of the offenses, even in the sphere of cybercrime, have already been regulated by the existing legal framework, the

⁵⁶⁸Republic of Serbia, “Zakon o izboru predsednika Republike,” 3.

⁵⁶⁹Ibid, 2.

⁵⁷⁰Republic of Serbia, “Zakon o lokalnim izborima,” *Sluzbeni glasnik Republike Srbije* 129 (2007): 5, https://www.paragraf.rs/propisi_download/zakon_o_lokalnim_izborima.pdf (Accessed April 20, 2020).

⁵⁷¹Dejan Djokic (Lawyer and the former member of Republic Electoral Commission), in telephone discussion with the author, Belgrade May 15, 2020.

⁵⁷²Ibid.

⁵⁷³Natan Albahari (International secretary of the Free citizen’s movement and the candidate for the member of the National Parliament), in discussion with the author, Belgrade May 15, 2020.

⁵⁷⁴Milan Jovanovic (PhD Professor at the Faculty of Political Sciences, University of Belgrade), in skype discussion with the author, Belgrade May 5, 2020.

⁵⁷⁵Dejan Djokic (Lawyer and the former member of Republic Electoral Commission), in telephone discussion with the author, Belgrade May 15, 2020.

implementation of e-voting would not require introduction of any novelties into the legal system.⁵⁷⁶ Nevertheless, even if we assume that the necessary modifications of the existing legal system would not represent a challenge, the fact is that the National parliament is the institution in charge of passing these modifications.⁵⁷⁷ This indicates that any potential consideration of legal reforms would depend on the interests and agreements between political parties.

4.3. Political dimension

Legal and systematic changes at the end, mainly rely on political willingness to opt for these modifications. According to Rasim Ljajic, the Deputy Prime Minister, the existing government does recognize the need for the change of electoral rules and procedures which would guarantee free elections and legitimate electoral results.⁵⁷⁸ However, can this change also refer to the implementation of ICTs in the electoral process? Looking outside of the e-voting scope, the willingness of political elites in Serbia to opt for the implementation of ICT in the public sphere is questionable. Namely, on one hand authors such as Djordje Mitrovic, believe that there is no clear politics in the domain of ICT implementation in Serbia⁵⁷⁹, while on the other hand, Dr. Ivana Damnjanovic from the Faculty of Political Sciences in Belgrade underlines that since the beginning of the 21st century, political elites in Serbia have been showing strong inclination towards the implementation of ICT innovations in the public sector.⁵⁸⁰ However, topic of electronic voting has not been detected in the public sphere. The only organization which has publicly expressed the inclination towards the implementation of ICT in the voting process is the “1 od 5 miliona” movement. Namely, in March 2020 Valentina Rekovic, a member of this movement, announced that this organization would request from REC to implement electronic ID readers on the following parliamentary elections looking up to the model which has been already used in Montenegro.⁵⁸¹ According to Valentina Rekovic, these readers would be connected to the voting registers and would primarily be used in order to prevent carousel voting.⁵⁸² Furthermore, all representatives of political parties in the research expressed positive attitude towards the possibility of e-voting implementation. However, their inclination towards this phenomenon has been largely connected to the criticism of the current leading parties or opposition. Stefan Krkobabic,

576 Dejan Djokic (Lawyer and the former member of Republic Electoral Commission), in telephone discussion with the author, Belgrade May 15, 2020.

577 Ibid.

578 Radio Televizija Srbije, “Ljajić: Stalo nam je do vraćanja poverenja u izborni proces,” RTS, 13.01.2020. <https://www.rts.rs/page/stories/sr/story/9/politika/3808266/ljajic-stalo-nam-je-do-vracanja-poverenja-u-izborni-proces.html>.

579 Djordje Mitrovic, Na putu ka blagostanju 4.0.- Digitalizacija u Srbiji (Belgrade, Serbia, Friedrich Ebert Stiftung, 2017), 10. <http://library.fes.de/pdf-files/bueros/belgrad/13415.pdf> (Accessed April 19, 2020).

580 Ivana Damnjanović, “Democratic innovations in Serbia: a misplaced trust in technology,” *Contemporary Politics* 25, no. 1 (2018): 5, DOI: 10.1080/13569775.2018.1544028.

581 FoNet, “Rekovic: Elektronskim citacima spreciti “ringispil glasanje” ,” *Danas* , 03.03.2020. <https://www.danas.rs/politika/rekovic-elektronskim-citacima-sprecati-ringispil-glasanje/>

582 Ibid.

a member of the ruling coalition, underlines implementation of e-voting in Serbia as inevitable, characterizing it as an “imperative of modern times”, however, at the same time, claiming that e-voting is only a tool which would improve the minor challenges mainly noted by those parties which are losing the elections.⁵⁸³ Goran Cabradi, president of the Green party, notes that this party would be willing to support e-voting implementation in the future if the security of this voting channel would be proven.⁵⁸⁴ On the other hand, he doubts in the readiness of the ruling parties to accept the implementation of e-voting since, according to him, this would eliminate the full control over the electoral process which parties possess in the current system.⁵⁸⁵ Similarly, Natan Albahari from the Free Citizens’ Movement, believes that the implementation of NVT would be possible only once the existing ruling structures are replaced.⁵⁸⁶ This data show that, even though political parties in Serbia express positive attitude towards e-voting, at the same time they consider political interests to be the main barrier of its implementation.

On the other hand, academic community as well as the non-governmental organizations see deeper interests and even fear in the political parties’ attitude towards e-voting phenomenon. According to the executive director of CESID the current electoral process which hasn’t been changed for the last two decades, suits political parties since it provides them with control over the elections.⁵⁸⁷ Furthermore, he believes that the implementation of e-voting would lead to the larger participation of young people, people with disabilities and those citizens living outside of Serbia.⁵⁸⁸ However, this benefit would become a challenge in political sphere, since it would enhance the accessibility of those groups of citizens which traditionally refrain from voting and whose inclinations are still unknown to political parties.⁵⁸⁹ For this reason, both ruling parties are opposition would not be motivated to support the implementation of e-voting, primarily due to the fear that e-voting implementation would not enhance their political position.⁵⁹⁰ Jovanovic further explains that all political parties, while in opposition, gladly accept the ideas coming from the academic community and non-governmental organizations, however, once they come to power they refrain from implementing these ideas due to their unknown impact on party’s rating.⁵⁹¹ For this reason he believes that while parties will express a positive

⁵⁸³ Stefan Krkobabic (Candidate for the member of the National Parliament – Party of united pensioners of Serbia), in telephone discussion with the author, Belgrade May 7, 2020.

⁵⁸⁴ Goran Cabradi (President of the Green party), in telephone discussion with the author, Belgrade May 5, 2020.

⁵⁸⁵ Ibid.

⁵⁸⁶ Natan Albahari (International secretary of the Free citizen’s movement and the candidate for the member of the National Parliament), in discussion with the author, Belgrade May 15, 2020.

⁵⁸⁷ Bojan Klacar (Executive director of Center for free elections and democracy), in skype discussion with the author, Belgrade May 6, 2020.

⁵⁸⁸ Ibid.

⁵⁸⁹ Ibid.

⁵⁹⁰ Dusan Spasojevic (Lecturer at the Faculty of Political Sciences, University of Belgrade), in skype discussion with the author, Belgrade May 12, 2020.

⁵⁹¹ Milan Jovanovic (PhD Professor at the Faculty of Political Sciences, University of Belgrade), in skype discussion with the author, Belgrade May 5, 2020.

attitude towards e-voting, they would claim that due to the adverse electoral process, Serbia is still not ready for e-voting implementation, while at the same time, once in power, they will not do anything to enhance the electoral procedures and create a firm ground for e-voting implementation.⁵⁹² Except for the fear of unknown, Sladjana Mladenovic believes that two other issues have to be taken into account when analyzing political interests in this sphere. First of all, implementation costs could be seen as one challenge, however, it is important to note that the e-voting topic itself would stand out of the traditional political narratives which are exclusively based on the European integrations and Kosovo territory dispute.⁵⁹³ She depicts this assertion with the fact that in the past political parties which have focused on the ideas outside of the “acceptable” narrative, have never been accepted and supported.⁵⁹⁴ Finally, according to Dusan Spasojevic, the fact that only two political parties provide citizens with the option of online membership, indicates that political parties in Serbia “...are ignoring e-democracy, and not even thinking about e-voting.”⁵⁹⁵

4.4. Societal dimension

Even if political will to implement e-voting solutions exists, citizens’ attitude towards this question, as well as their trust in public institutions and elections remains the crucial field which needs to be explored. In that context, research conducted by CRTA in 2019 has shown that trust in democracy is rising in Serbian society, especially among younger population.⁵⁹⁶ According to this research, besides 51 percent of citizens being in favor of democracy, 43 percent believe that Serbia should turn to autocracy and strong leaders.⁵⁹⁷ However, despite the rising support for democratic regime, trust in democratic institutions is still very low, which Bojan Klacar from CESID sees as the greatest barrier to e-voting implementation in Serbia.⁵⁹⁸ Namely, in accordance with the research conducted by this organization in 2017, Serbian Army enjoys the highest level of trust in the society.⁵⁹⁹ Conversely, the Government, President, Parliament and political parties have the lowest trust rate among citizens.⁶⁰⁰ For example, only 25 percent of the citizens trust the National

⁵⁹² Milan Jovanovic (PhD Professor at the Faculty of Political Sciences, University of Belgrade), in skype discussion with the author, Belgrade May 5, 2020.

⁵⁹³ Sladjana Mladenovic (PhD Researcher at the Institute for Political Studies), in telephone discussion with the author, Belgrade May 16, 2020.

⁵⁹⁴ Ibid.

⁵⁹⁵ Dusan Spasojevic (Lecturer at the Faculty of Political Sciences, University of Belgrade), in skype discussion with the author, Belgrade May 12, 2020.

⁵⁹⁶ Instinomer, “Raste poverenje gradjana u demokratiju, ali ne i u institucije,” Instinomer.rs, 26.03.2019, <https://www.istinomer.rs/arhiva/raste-poverenje-gradjana-u-demokratiju-ali-ne-i-u-institucije/>

⁵⁹⁷ Vujo Ilic, “Gradjani Srbije o izborima i bojkotu,” CRTA.rs, 11.04.2019. <https://crtars.rs/gradjani-srbije-o-izborima-i-bojkotu/>

⁵⁹⁸ Zoric, “Elektronsko glasanje u Srbiji.”

⁵⁹⁹ Center for free elections and democracy, United States Agency International Development, *Javno mnjenje Srbije: Politicki aktivizam gradjana Srbije* (Belgrade, CeSID, 2017), 35, <http://www.cesid.rs/wp-content/uploads/2017/06/POLITI%C4%8CKI-AKTIVIZAM-GRA%C4%90ANA-SRBIJE-2017.pdf> (Accessed April 18, 2020).

⁶⁰⁰ Ibid, 36.

Parliament, while more than 56 percent of citizens do not trust political parties.⁶⁰¹ This data is crucial because it indicates that those actors which have pivotal roles in electoral process, enjoy the lowest level of trust among citizens. Conversely, it is interesting to note that despite the critical approach observers have towards REC and PBs, the vast majority of citizens expressed positive attitude towards these institutions.⁶⁰² Still, the percentage of people who positively characterized the work of REC is not significant, namely, according to this research, while 27 percent of citizens expressed satisfaction with REC, almost the same number of people expressed dissatisfaction.⁶⁰³ However, Spasojevic underlines that the low level of trust in democratic institution is not a novelty, but a phenomenon which has been present for the last two decades.⁶⁰⁴ Furthermore, this data is significant in the context of e-voting. According to Professor Jovanovic, without the citizens' trust in democratic institutions, e-voting is nothing but utopia.⁶⁰⁵

Negative attitude citizens have towards democratic institutions has also impacted the way they perceive elections. Namely, in CESID's 2017 research, more than 50 percent of the interviewees expressed distrust in electoral process in Serbia.⁶⁰⁶ According to CESID's research, unfairness and voting irregularities are the main reason behind the expressed dissatisfaction.⁶⁰⁷ However, interviewed stakeholders stress out different causes of this phenomenon. Zoran Stojiljkovic believes that due to the overall political atmosphere characterized by constant accusations, citizens do not believe in the anonymity of the voting process.⁶⁰⁸ Spasojevic adds that the trust in electoral process is further deepened by the significantly slow vote counting procedures.⁶⁰⁹ Additionally, Aleksandar Djurdjev claims that citizens are alienated from the voting process due to the fact that they perceive elections as highly monopolized process.⁶¹⁰ Finally, executive director of CESID notes that due to citizens not believing that even the obviously empty glass voting box is truly empty, shows the extent of distrust which, according to him, can be often characterized

⁶⁰¹ Center for free elections and democracy, United States Agency International Development, *Javno mnjenje Srbije: Politicki aktivizam gradjana Srbije* (Belgrade, CeSID, 2017), 36, <http://www.cesid.rs/wp-content/uploads/2017/06/POLITI%C4%8CKI-AKTIVIZAM-GRA%C4%90ANA-SRBIJE-2017.pdf> (Accessed April 18, 2020).

⁶⁰² Centar za istrazivanje, transparentnost I odgovornost (CRTA), *Ucesce gradjana u demokratskim procesima u Srbiji* (Belgrade, Serbia: CRTA, 2018), 7, <https://crta.rs/wp-content/uploads/2019/03/U%C4%8De%C5%A1%C4%87e-gra%C4%91ana-u-demokratskim-procesima-u-Srbiji-2018..pdf> (Accessed May 10, 2020).

⁶⁰³ Centre for free elections and democracy, United States Agency International Development, *Javno mnjenje Srbije*, 27.

⁶⁰⁴ Dusan Spasojevic (Lecturer at the Faculty of Political Sciences, University of Belgrade), in skype discussion with the author, Belgrade May 12, 2020.

⁶⁰⁵ Milan Jovanovic (PhD Professor at the Faculty of Political Sciences, University of Belgrade), in skype discussion with the author, Belgrade May 5, 2020.

⁶⁰⁶ Dusan Spasojevic (Lecturer at the Faculty of Political Sciences, University of Belgrade), in skype discussion with the author, Belgrade May 12, 2020.

⁶⁰⁷ Instinomer, "Raste poverenje gradjana u demokratiju, ali ne I u institucije."

⁶⁰⁸ Zoran Stojiljkovic (PhD Professor at the Faculty of Political Sciences, University of Belgrade), in telephone discussion with the author, Belgrade May 7, 2020.

⁶⁰⁹ Dusan Spasojevic (Lecturer at the Faculty of Political Sciences, University of Belgrade), in skype discussion with the author, Belgrade May 12, 2020.

⁶¹⁰ Aleksandar Djurdjev (President of the Serbian league political party), in telephone discussion with the author, Belgrade May 12, 2020.

as paranoid.⁶¹¹ Moreover, Vujo Ilic, CRTA's researcher claims that according to data this organization gathered, 70 percent of the voters believe that 2017 presidential elections were characterized by voting irregularities.⁶¹² However, half of the interviewees believe that these irregularities did have an impact on the voting results.⁶¹³

When it comes to the trust in e-voting and its multidimensionality, there is a lack of academic research on this topic in the context of Serbia. In this sense it is possible to highlight the research on e-voting in developing countries, conducted by Marija Miletic in 2019 conducted on the sample of 152 citizens. Despite the limited numeric scope of the sample, this research can be seen as a solid indicator of societies' attitude towards e-voting, and a base for the future detailed research on societal perspectives towards e-voting in this country. This research has shown that Serbian citizens have positive attitude towards e-voting. Namely, 80 percent of the interviewees believe that e-voting is useful, while 84 percent would be willing to use e-voting system.⁶¹⁴ Moreover, respondents claimed that e-voting is more beneficial than traditional paper-based voting system.⁶¹⁵ 78 percent of citizens expressed belief that NVT would be easy to use and that e-voting would enhance transparency and efficiency of the electoral process.⁶¹⁶ Furthermore, respondents also believe that e-voting can positively affect citizens' participation by enhancing the turnout and enabling easier access to the voting process to citizens with disabilities.⁶¹⁷ On the other hand, as the author of this research highlights, the crucial obstacle of e-voting implementation in Serbia is the lack of citizens' trust in security of NVT.⁶¹⁸ Namely, 64 percent of citizens believe that e-voting can easily become a subject of security risks, such as hacking.⁶¹⁹ However, it is necessary to stress out the fact that this research was primarily based on the citizens' perception towards phenomenon of e-voting, and not on the implementation of this phenomenon in the context of the Republic of Serbia. For this reason, by analogy with the attitude Serbian citizens have towards democracy, and the fact that even though citizens do support democracy, they don't trust democratic institutions in Serbia, it would be possible to say that even though citizens in Serbia do support e-voting, their attitude towards this phenomena in the context of Serbia is still unclear. Expressed doubts in the security of e-voting are significant in the context of electoral processes in Serbia. According to Milan Jovanovic, if citizens would believe that e-voting implementation would endanger secrecy of the vote, enable manipulations

⁶¹¹ Bojan Klacar (Executive director of Center for free elections and democracy), in skype discussion with the author, Belgrade May 6, 2020.

⁶¹² Vujo Ilic, "Gradjani Srbije o izborima I bojkotu," CRTA.rs, 11.04.2019. <https://crt.rs/gradjani-srbije-o-izborima-i-bojkotu/>

⁶¹³ Ibid.

⁶¹⁴ Miletic et al, "Scaffolding E-Voting in Developing Countries," 60.

⁶¹⁵ Ibid.

⁶¹⁶ Ibid, 57.

⁶¹⁷ Ibid, 60.

⁶¹⁸ Ibid.

⁶¹⁹ Ibid.

and forgery, then the introduction of e-voting would become unproductive.⁶²⁰ Furthermore, Spasojevic believes that, since majority of NVT disable result' audit and the observation of the counting process, it could assumed that skeptical Serbian society would not be willing to accept their usage.⁶²¹

5. Discussion

The review of the relevant documentation and conducted interviews have proven the complexity of e-voting phenomenon analysis and legitimized multidisciplinary approach to this topic. The analysis of four dimensions influencing e-voting implementation in the context of Serbia, can lead to three conclusions: firstly, the analysis has shown that e-voting implementation faces crucial challenges in all four dimensions. Secondly, certain hierarchy can be distinguished between these dimensions in the context of Serbia and finally, e-voting implementation in this country necessarily needs to be explored in the wider context of de-democratization process and the rise of hybrid regime.

The analysis of technological dimension indicated that the challenges current voting system in Serbia faces can be reduced to three main issues: accessibility, political pressure and irregularities concerning the voters' identification, vote counting and carousel voting. These issues endanger the basic democratic standards of universal, equal and secret suffrage as well as the existence of free and genuine elections. Conducted interviews as well as the review of the relevant literature on NVT, have proven that e-voting can be legitimately considered as an innovation capable of mitigating identified issues. However, except for this hypothetical complement between existing challenges and technological solutions, assessment of technological dimension has to be based on the competent institution's capacity to implement this innovation.⁶²² In this sense, the research has indicated that Republic Electoral Commission, electoral body which would be in charge of implementing e-voting, de facto does not exist except during the elections, has no IT department, no temporary experts, hasn't been providing efficient training to employees for two decades, and most importantly, despite its competencies, does not have possibility of implementing any change which would defy interests of parliamentary majority. Furthermore, regarding the fact that stakeholders have expressed opposed opinions concerning digital literacy and ICT usage in Serbian society, official statistics state that both computer literacy and internet access in Serbia are still at dissatisfying level, which

⁶²⁰ Milan Jovanovic (PhD Professor at the Faculty of Political Sciences, University of Belgrade), in skype discussion with the author, Belgrade May 5, 2020.

⁶²¹ Dusan Spasojevic (Lecturer at the Faculty of Political Sciences, University of Belgrade), in skype discussion with the author, Belgrade May 12, 2020.

⁶²² Miletic et al, "Scaffolding E-Voting in Developing Countries," 60.

can lead to assumption that implementation of e-voting would endanger the principle of universal suffrage.

When it comes to legal dimension, the fact that basic democratic values and political rights are defined by the National Constitution, suits the possible implementation of e-voting.⁶²³ Furthermore, interestingly, despite electoral legal framework being extensive, contradictory and very specific when it comes to implementation of paper ballot voting technology, interviewed legal experts did not express concerns regarding the normative complexity of potential modifications.⁶²⁴ Moreover, contrary to dominantly accepted expectations that e-voting implementation would also impact wider legal framework, especially criminal law,⁶²⁵ interviewees expressed belief that this impact would be minimal.⁶²⁶ However, as in the case of technological dimension, concerns were primarily expressed regarding the fact that required modifications would need to be passed in the Parliament, which inevitably also connects this dimension to political interests.

Trust, which has been underlined as the crucial factor in social dimension,⁶²⁷ in the context of e-voting implementation in Serbia represents a pivotal issue. Despite existing research showing significant inclination towards e-voting, at the same time citizens have expressed concerns regarding the security of this technology.⁶²⁸ This may represent a great barrier to e-voting implementation, since Goldsmith defines trust in accuracy and security of NVT as a pre-condition for its usage.⁶²⁹ However, this issue has to be seen as a consequence of the two decades long mistrust in all democratic institutions in Serbia and especially elections. According to Sladjana Mladenovic, political leaders in Serbia are the main cause of the social polarization and the spread of mistrust.⁶³⁰ Citizens' alienation from democratic processes is caused by the absolute domination of the political interests in all social spheres, which causes Serbian society to lose a sense of sovereignty over electoral procedures.⁶³¹ This is why academics believe that, despite the general positive attitude towards e-voting phenomenon, skeptical Serbian citizens would not be willing to

⁶²³ OSCE, *Handbook for the Observation of New Voting Technologies*, 17.

⁶²⁴ Dejan Djokic (Lawyer and the former member of Republic Electoral Commission), in telephone discussion with the author, Belgrade May 15, 2020.

⁶²⁵ OSCE, *Handbook for the Observation of New Voting Technologies*, 22.

⁶²⁶ Dejan Djokic (Lawyer and the former member of Republic Electoral Commission), in telephone discussion with the author, Belgrade May 15, 2020.

⁶²⁷ Zhu, Azizah and Hisao, "Examining multi-dimensional trust of technology in citizens' adoption of e-voting in developing countries," 2.

⁶²⁸ Miletic et al, "Scaffolding E-Voting in Developing Countries," 60.

⁶²⁹ Goldsmith, *Electronic Voting and Counting Technologies*, 13.

⁶³⁰ Sladjana Mladenovic (PhD Researcher at the Institute for Political Studies), in telephone discussion with the author, Belgrade May 16, 2020.

⁶³¹ Ibid.

use any new voting channel, which would, according to Jovanovic, make e-voting implementation utopia.⁶³²

Interviews conducted with the leading parties and opposition, has proven their positive attitude towards e-voting phenomenon, however, this inclination has been connected to the doubts in the interests of “the other” political parties, which indicates that this sphere is highly politicized. Interestingly, the increase of participation, which is widely seen as the main benefit of e-voting implementation in Serbia, academic community and non-governmental organizations mark as the greatest barrier to political interests. This directly contrasts the claims made by technological determinists that political parties, regarding their interests, would be highly motivated to implement any technological advancement in public sector if this innovation would enhance the welfare of the society.⁶³³ The potential access of new voters in electoral arena due to the features or attractiveness of NVT, would question the position of all political parties, which at the moment have firm control over the electoral process and overview of its actors. For this reason it would be possible to assume that contrary to positive responses, political parties would not be willing to support e-voting. However, in the context of Serbia, this leads to a greater challenge.

Summary of research results indicate that political interests have a dominant role in all analyzed dimension and that four dimensional framework introduced by Robert Krimmer, in the context of Serbia can be reduced to political dimension. Political interests are the ones dictating the allowed narratives in public sphere, causing societal distrust and insecurity, derogating professionalism of those institutions which would hypothetically be in charge of e-voting implementation, dictating legislative changes and hindering the possibility of electoral cycles’ enhancement due to the existing firm control over the electoral process. It goes without saying that elections are primarily field of political interests and that the existence of these interests are inevitable in every society, however, what makes them different in this case is the extent of their domination over all societal and institutional aspects. This is what makes the exploration of e-voting in transitional countries different from stable, consolidated democracies. The observed domination of political interests over other dimensions is in line with Mladenovic’s claim that Serbia is partitocratic system. Namely, Mladenovic believes that partitocary, or complete domination of political parties in all segments of life, which eliminated the existence of the rule of law, represents the greatest challenge of democratic transition and the overall

⁶³² Milan Jovanovic (PhD Professor at the Faculty of Political Sciences, University of Belgrade), in skype discussion with the author, Belgrade May 5, 2020.

⁶³³ Grafton, “ Shadow Theories” in Fountain’s Theory of Technology Enactment,” 413.

enhancement of electoral processes.⁶³⁴ According to Klacar, the presence of political parties in all aspects is maintained by the elections held almost every year, which creates an impression of life under constant electoral campaign and challenges democratic standard of periodic elections.⁶³⁵ This points to the allegations made by Zoran Stojiljkovic that Serbian transition to democracy has been captured by authoritarian regime lacking institutions and elections.⁶³⁶

However the question can be posed regarding the influence these occurrences have on e-voting implementation. Namely, according to interviewed academics, democracy in Serbia as well as electoral cycles, are facing the number of challenges ranging from biased media and unequal electoral conditions⁶³⁷ to institutional collapse and partitocracy.⁶³⁸ All of these challenges, additionally lead to voting and counting irregularities, which can be hypothetically mitigated by the implementation of NVT, however, at the same time these challenges cause degradation of democratic institutions and society's trust which are the basis of e-voting implementation. For this reason de-democratization in Serbia, as characterized by the international institutions and academics, is directly in connection with the un-readiness of Serbia to implement e-voting, since while e-voting can be seen as a solution to existing procedural challenges, wider problems would make its implementation problematic or even counterproductive. In this sense, Mladenovic believes that without the provision of solutions to these crucial problems, e-voting implementation would only cause additional challenges and become just an advanced feature of democratic facade.⁶³⁹ For this reason the co-existence between electoral cycles, positive attitude towards e-voting and dysfunctional institutions and partitocracy, causes the need for the deliberation concerning the real prerequisites of the e-voting implementation readiness and the expediency of e-voting as a technology for democratic improvement in those transitional systems oriented towards de-democratization.

⁶³⁴ Sladjana Mladenovic (PhD Researcher at the Institute for Political Studies), in telephone discussion with the author, Belgrade May 16, 2020.

⁶³⁵ Bojan Klacar (Executive director of Center for free elections and democracy), in skype discussion with the author, Belgrade May 6, 2020.

⁶³⁶ Zoran Stojiljkovic (PhD Professor at the Faculty of Political Sciences, University of Belgrade), in telephone discussion with the author, Belgrade May 7, 2020.

⁶³⁷ Dusan Spasojevic (Lecturer at the Faculty of Political Sciences, University of Belgrade), in skype discussion with the author, Belgrade May 12, 2020.

⁶³⁸ Sladjana Mladenovic (PhD Researcher at the Institute for Political Studies), in telephone discussion with the author, Belgrade May 16, 2020.

⁶³⁹ Ibid.

6. Conclusion

Development of information and communication technologies and their domination in contemporary societies, made the implementation of innovations in democracy inevitable. The crucial importance of citizens' participation in democratic processes, characterization of voting as the "heart of democracy,"⁶⁴⁰ as well as the significant benefits introduced by the electrification of elections, created an image of e-voting as the "new symbol of democracy."⁶⁴¹ However, if the main purpose of e-voting implementation, as another tool for the electoral cycles' enhancement, would be to reach the essential democratic standards,⁶⁴² then it would be possible to claim that the multiplicity of challenges this innovation brings to electoral process evokes its main purpose. While the growing global trend of de-democratization and development of hybrid regimes located in the grey zone between democracy and authoritarianism is significantly influencing transitional democracies and challenging their democratic processes, these fragile systems are the ones widely turning to e-voting.⁶⁴³ This urges the need for the fulfilment of the blank space in e-voting research and the exploration of its character in this specific contexts.

Categorization of Serbia as hybrid regime,⁶⁴⁴ captured state,⁶⁴⁵ crypto political system,⁶⁴⁶ decades long transition to democracy⁶⁴⁷ as well as contemporary political crisis and the fact that electoral processes in this country were a factor of peace building,⁶⁴⁸ required the analysis of the potential e-voting implementation in a wider, socio-political multidimensional context. However, this approach indicated that e-voting implementation in this country would face multiple barriers and that the transitive nature of democracy in this country is inevitably connected to the observed phenomenon. Unprofessional electoral bodies, without continuity, capacities and human resources, lack of political interest, low level of citizens' digital skills, poor ICT infrastructure, significant distrust in democratic institutions and elections, and complex, contradictory electoral legal framework largely based on the implementation of the paper ballot technology, all depict the severity of these barriers and lead to conclusion that currently Serbia is not ready to implement e-voting.

⁶⁴⁰ Musial-Karg, "The use of e-voting as a new tool of e-participation in modern democracies," 104.

⁶⁴¹ Achieng and Ruhode, "The adoption and challenges of electronic voting technologies within the South African context," 3.

⁶⁴² Goldsmith, *Electronic Voting and Counting Technologies*, 1.

⁶⁴³ Hapsara, Imran and Turner, "E-Voting in Developing Countries," 36.

⁶⁴⁴ Freedom House, *Nations in Transition 2020*, 3.

⁶⁴⁵ Natan Albahari (International secretary of the Free citizen's movement and the candidate for the member of the National Parliament), in discussion with the author, Belgrade May 15, 2020.

⁶⁴⁶ Zoran Stojiljkovic (PhD Professor at the Faculty of Political Sciences, University of Belgrade), in telephone discussion with the author, Belgrade May 7, 2020.

⁶⁴⁷ Kmezić, "Rule of law and democracy in the Western Balkans," 13.

⁶⁴⁸ Anastasakis, "Election Consolidation in the Post-Communist Balkans," 21.

However the research also indicated that transitional nature of democracy in Serbia, characterized by the strong politicization and domination of political interests in every aspect, can be the factor differentiating the research in this context from the implementation of e-voting in consolidated, stable democracies. This strong role of political interests in the context of the fragile democratic society can be considered as the basic cause of institutional dysfunction, citizens' distrust, scepticism and the fact that the main benefit of e-voting implementation in Serbia- improved electoral accessibility, is considered as a threat to the position of political parties. The fact that main opportunities of this phenomenon would potentially be perceived in political arena as the main barriers, directly opposes technological determinism and confirms the thesis that despite wider societal benefits, political actors would oppose the implementation of e-voting if it would endanger their own political interests.⁶⁴⁹ The challenges current voting process faces could be characterized as procedural and hypothetically solvable by the introduction of NVT, however the fact is that in the essence, these challenges are not requiring faster or easier voting solutions, but the accomplishment of the basic democratic standards and legitimacy.

For this reason, it would be possible to claim that the implementation of e-voting in Serbia is not only a question of readiness but also a question of objective usefulness. E-voting still represents a controversial phenomenon, without universally accepted standards, whose benefits, without the existence of legitimate institutions and trust and due to the lack of transparency and secrecy, can easily become challenges. Despite the core purpose of enhancing democratic processes, the implementation of this phenomenon in fragile systems already burdened with deeper problems overshadowing the procedural challenges, could be counterproductive. For this reason it would be possible to claim that due to the systematic problems surrounding democracy in Serbia, which inevitable reflect on the electoral cycles, instead of becoming a new symbol of democracy, e-voting would become just a new part of the existing democratic facade.

⁶⁴⁹ Grafton, "“Shadow Theories” in Fountain’s Theory of Technology Enactment,” 412.

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