

E-DEMOCRACY AND INTERNET ACCESS IN EU LAW: STRENGTHENING DEMOCRATIC PARTICIPATION IN THE DIGITAL AGE

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Summary: Nowadays Internet technologies are developing so much that they cover new social relations. Human life is undergoing rapid digitalisation, which inevitably leaves an imprint on the protection of fundamental rights. Political life is no exception either. Today the legal experience shows that the European states are already offering various effective mechanisms and solutions to strengthen their democratic principles, which are based precisely on Internet technologies, in which the concept of e-democracy (“electronic democracy”) is increasingly becoming an urgent topic of research. In this research, the authors will analyse on how the Internet access can ensure a dialogue between citizens and the government, as well as strengthen the EU’s democratic principles in the digital world. Moreover, the authors will also focus on the law enforcement experience of different European states in order to bring out their positive aspects that can become effective guidelines for building an appropriate mechanism for the participation of EU citizens in political life through Internet technologies.

Keywords: Internet technologies, Internet access, electronic democracy, electronic voting, electoral law, democratic deficit

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1 Introduction

In the middle of the twentieth century, a historical treaty ("the Treaty of Paris") was concluded, which served as the starting point for the creation of the European Coal and Steel Community ("ECSC"), establishing reconciliation between France and Germany. After a certain period of time, the community of European states radically transformed into the EU, which includes 27 Member States after the withdrawal of the United Kingdom ("Brexit"). The European Union as we know it today, its activities, organisation and nature are the result of decades of European integration. Integration is shaped by both political and judicial decisions and is in constant flux. The historical milestones of integration are linked to major political decisions that have resulted in the adoption of international treaties between Member States. These treaties have always changed the direction of integration structures in a fundamental way. The EU has acquired expanded powers, especially after the signing of the Lisbon Treaty ("TFEU").¹ TFEU has established the principle of democracy as one of the key principles for the development of further European integration.² The Lisbon Treaty enhances the democratic legitimacy of the European Union both at the "input" by moving towards parliamentarism and emphasising the principle of democratic representation, and at the "output" by strengthening the protection of individual rights. The Primary law provides for the right of citizens' initiative (Article 11(4) TEU). The role of national parliaments (in particular to monitor compliance with the rules on the division of powers between the European Union and the Member States) and of the European Parliament (by introducing the 'ordinary legislative procedure' for the adoption of secondary legislation, the European Parliament has become an equal partner of the Council) has been strengthened. The Court of Justice's power of review has also been extended, with the simplification of the rules on individual access to justice. With the entry into force of the Lisbon Treaty, the Charter of Fundamental Rights of the European Union (Article 6 TEU) became legally binding, containing a catalogue of human rights that both the Union and the Member States (when acting within the scope of Union law) must respect. We observe, that within the sixty years that separate these two fundamental agreements, the European institutions have changed quite a lot. For example, the European Parliament was

1 See also HAMULÁK, Ondrej. "It Smells Like State Spirit" - EU within and after the Lisbon Saga. In *Harmonization and unification of law in the European Context*. Bratislava: Comenius University, 2011, pp. 87-97. ISBN 978-80-7160-307-8.

2 MAYORAL, Juan. Democratic improvements in the European Union under the Lisbon Treaty Institutional changes regarding democratic government in the EU. *Robert Schuman Centre for Advanced Studies. European University Institute*, 2011, pp. 1-10.

created and elected on the basis of universal suffrage, strengthening the EU's democratic principles. At the same time, the complexity of the European political and legal system has increased significantly, and it has become necessary to duly reflect the interrelationship of the supranational, national and regional levels within the framework of a single political and legal system of a new (peculiar) type (*sui generis*).³ In other words, nowadays we are witnessing a more complex, but at the same time more future-oriented Europe. From an economic project created in the bosom of the coal and steel economy and subsequently encompassing the entire economic sector, the European integration began to increasingly acquire the features of a political and legal organisation⁴, especially in the post-Lisbon era, when the EU Charter on Fundamental Rights (CFR) acquired the power of the primary source of the EU law⁵ and the EU constitutional system was enriched by the significant mechanisms reflecting and securing the compliance with the rule of law principles.⁶

Despite the fact that the EU has assumed the responsibility to protect the fundamental rights of its citizens and has gradually turned from an economic project into a human rights organisation, the political and legal history of the EU is not developing so smoothly. Some researchers even focus on the gap between the EU citizens and European institutions, which is largely explained by researchers in terms of the EU's democratic deficit. In particular, speaking about the EU's democratic deficit, Frederic Esposito notes that the reason lies in the imbalance between the competencies that the Member State transfers to the EU, on the one

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- 3 PEROČEVIĆ, Katarina. EUROPEAN UNION LEGAL NATURE: EU AS SUI GENERIS – A PLATYPUS-LIKE SOCIETY. *InterEULawEast*, 2017, vol. 4, no. 2, pp. 101–116. Available at: <https://hrcak.srce.hr/file/284437>. See also HAMULÁK, Ondrej. Lessons from the “Constitutional Mythology” or How to Reconcile the Concept of State Sovereignty with European Integration. *Danube: Law and Economics Review*, 2015, vol. 6, no. 2, pp. 75–90. ISSN 1804-6746. DOI 10.1515/danb-2015-0006.
 - 4 See also ŠIŠKOVÁ, Naděžda (ed.) *The process of constitutionalisation of the EU and related issues*. Groningen: Europa Law Publishing, 2008. ISBN 9789076871875; or ŠIŠKOVÁ, Naděžda. The EU Concept of the Rule of Law and the Procedures *de lege lata* and *de lege ferenda* for its Protection. *International and Comparative Law Review*, 2019, vol. 19, no. 2, pp. 116–130. DOI: 10.2478/iclr-2019-0017.
 - 5 DOUGLAS-SCOTT, Sionaidh. The European Union and Human Rights after the Treaty of Lisbon. *Human Rights Law Review*, 2011, vol. 11, no. 4, pp. 645–682. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2458384. See also HAMULÁK, Ondrej. Idolatry of Rights and Freedoms – Reflections on the Autopoietic Role of Fundamental Rights within Constitutionalization of the European Union. *Protecting Human Rights in the EU. Controversies and Challenges of the Charter of Fundamental Rights*. Berlin, Heidelberg: Springer, 2014, pp. 187–198. ISBN 978-3-642-38901-6. DOI 10.1007/978-3-642-38902-3_11.
 - 6 SEHNÁLEK, David. The Interpretation of the Rule of Law in the Rule of Law Review Cycle and the EU Justice Scoreboard. In János Bóka. *The Supranational Interpretation of the Rule of Law*. Budapest: Central European Academic Publishing, 2024, pp. 174–194. <https://dx.doi.org/10.54237/profnet.2024.jbrol>. See also HAMULÁK, Ondrej; CIRCOLO, Andrea. Challenges and Possibilities of Enforcing the Rule of Law within the EU Constitutional Edifice – the Need for Increased Role of Court of Justice, EU Charter and Diagonality in Perception. *The EU in the 21st Century*. Cham: Springer International Publishing, 2020, pp. 155–169. ISBN 978-3-030-38398-5.

hand, and the weak democratic legitimisation of the benefits received from this transfer, on the other hand.⁷ At the same time, Stephen C. Sieberson emphasizes that: “Of the identified concerns over democratic legitimacy, many have not been fully or even partially addressed. The open items may be seen as falling into two categories: those that need not be dealt with, and those that must. (...) To one degree or another, it must be acknowledged that as long as these matters remain unaddressed, the EU will continue to be viewed by some commentators as a system that suffers from a democratic deficit”.⁸

Moreover, it should be noted that the problem of democratic imbalance is increasingly aggravated by the gradual development of IT technologies.⁹ The active discussions about the digital sovereignty of the EU in academic and political circles are reflecting these developments.¹⁰ In particular, today the development of digital technologies poses new challenges to the EU, which has taken a central place on the agenda of politicians. In this context, the EU faces a difficult task – ensuring fundamental human rights in the digital world under the “hegemony” of the American digital giants (GAFAM), and, consequently, protecting its democratic principles in the digital world. As G. Metakides points out: “It was during the decade of the 2010s that the GAFAM and their Chinese counterparts have attained their full dominance. Now, at the start of 2021, we have GAFAM with a 7.6 trillion market value, strengthened during the pandemic and projecting a doubling in sales by the end of the decade”.¹¹ In such circumstances, the EU should consider developing effective mechanisms to ensure a real dialogue between its citizens and EU institutions, on the one hand, and citizens and national authorities of its Member States, on the other hand. In this context, the Internet becomes the very means, the correct and effective use of which can strengthen the democratic principles of the EU and strengthen its digital sovereignty.

The authors of this study believe that the EU’s digital policy should not rely mainly on the protection of personal data in order to develop and strengthen the

7 ESPOSITO, Frédéric. *Vers un nouveau pouvoir citoyen? Des référendums nationaux au référendum européen*, Bruxelles, Academia-Bruylant, 2007.

8 SIEBERSON, Stephen C. The Treaty of Lisbon and its Impact on the European Union’s Democratic Deficit. *Columbia Journal of European Law*, 2008, vol. 14, no. 3. Available at: <https://ssrn.com/abstract=1628869>.

9 RAMIRO TROITIÑO, David; KERIKMÄE, Tanel; HAMULÁK, Ondrej. *Digital Development of the European Union: An Interdisciplinary Perspective*. Cham: Springer, 2023, 381 p. ISBN 978-3-031-27311-7. <https://doi.org/10.1007/978-3-031-27312-4>.

10 VARDANYAN, Lusine; KOCHARYAN, Hovsep; HAMULÁK, Ondrej; KERIKMÄE, Tanel. Digital sovereignty in the EU: Searching for legal mechanisms for marking the borders. In: *Digital development of the European Union: An interdisciplinary perspective*. Cham: Springer International Publishing, 2023, pp. 219–234. https://doi.org/10.1007/978-3-031-27312-4_14. See also GÁBRIS, Tomáš; HAMULÁK, Ondrej. Pandemics in Cyberspace – Empire in Search of a Sovereign?. *Baltic Journal of Law and Politics*, 2021, vol. 14, no. 1, pp. 103–123. ISSN 2029-0454. <https://doi.org/10.2478/bjlp-2021-0005>.

11 METAKIDES, George. A Crucial Decade for European Digital Sovereignty. In: Werthner, H., Prem, E., Lee, E.A., Ghezzi, C. (eds.) *Perspectives on Digital Humanism*. Cham: Springer, 2022. https://doi.org/10.1007/978-3-030-86144-5_29

EU's digital sovereignty for the outside world (for example, through the same right to be forgotten),¹² but it must also ensure real democratic principles within its own system in order to overcome its democratic deficit in the digital world, as some researchers write.¹³ The political and legal dialogue between citizens and EU institutions is no less important, and therefore in this study we will try to get answers to the following questions:

1. How can Internet access ensure such a dialogue between citizens and the government, as well as strengthen the EU's democratic principles in the digital world?
2. Which European states' legal experience can become a guideline for building an effective mechanism for EU citizens' participation in political life through Internet technologies?

2 The concept of “electronic democracy”: the benefits of Internet access in strengthening the democratic principles of the EU

Recently, the legal scholars have been actively discussing the issue related to the concept of „electronic democracy“, which has a rational explanation.¹⁴ The reason is that direct access of citizens to democratic instruments plays a fundamental role in ensuring the principles of democracy, and at all levels: from local governments to the national and international levels. The development of Internet technologies allows to think about the introduction of such a model (mechanism) of participation in the political life for EU citizens, which will be able to effectively ensure the principles of democracy and the closest relationship between citizens and national governments, on the one hand, and citizens and EU institutions, on the other hand. In other words, the Internet is able to provide EU citizens with a real opportunity to become the real source of power that is provided for in the constitutions of various European states, and what constitutional lawyers are so diligently talking about.¹⁵

Nowadays, it is not uncommon to find experts criticising existing democratic regimes and pointing out the gap between the interests of governments and citizens, where the people (citizens) do not have real levers of influence on democratic (governmental) institutions. Under these conditions, democracy

12 See HAMULÁK, Ondrej, VARDANYAN, Lusine, KOCHARYAN, Hovsep. The Global Reach of the Right to be Forgotten through the Lenses of the Court of Justice of the European Union. *Czech Yearbook of Public and Private International Law*, 2021, vol. 12, pp. 196–211.

13 CROMBEZ, Christophe. The Democratic Deficit in the European Union: Much Ado about Nothing? *European Union Politics*, 2003, vol. 4, no. 1, pp. 101–120.

14 LINDNER, Ralf and AICHHOLZER, Georg. E-Democracy: Conceptual Foundations and Recent Trends, pp. 11–45. In: Hennen, L., van Keulen, I., Korthagen, I., Aichholzer, G., Lindner, R., Nielsen, R. (eds). *European E-Democracy in Practice. Studies in Digital Politics and Governance*. Cham: Springer, 2020. Available at: https://link.springer.com/chapter/10.1007/978-3-030-27184-8_2

15 See: DUKE, George. Can the people exercise constituent power? *International Journal of Constitutional Law*, 2023, vol. 21, issue 3, pp. 798–825.

begins to be seen as a kind of “myth”,¹⁶ where the expression “all state authority emanates from the people”¹⁷ becomes only a legal formality, far from reality. At the same time, we believe that it is impossible not to agree with the sceptical views of such experts, which are not without reason. Recognition of the people (citizens) as a “source of power” should presuppose not only the purely participation of citizens in direct elections and/or referendums, but also provide citizens with a real right to control the actions of governmental institutions to a certain extent both in the EU Member States and in the EU itself. Of course, it is important to avoid granting very broad powers to both citizens and governmental institutions: a fair and effective balance is needed, but in any case, both sides should participate in building such a balance. In other words, we believe that governmental institutions should not act “alone”: citizens should have the “last word”, which actually follows from the nature of constitutional law. In this context, if earlier, before the development of the digital world, the crises of constitutionalism, as a rule, were solved by uprisings and revolutions on the part of the people,¹⁸ then, with the advent of Internet technologies, people (citizens) can acquire legal leverage through online voting, without having to resort to radical methods to protect their rights and legitimate interests. In this regard, the concept of e-democracy is becoming a kind of lifeline that can make European constitutional law more practical.

Moreover, Internet technologies can cover various constitutional procedures, starting with the online voting of candidates or the demand for the resignation of a deputy from the parliament and ending with participation in online referendums, the adoption of laws and the proposal of legislative initiatives that can be combined into the concept of electronic democracy. At the same time, different researchers include various procedures and/or categories under the concept of e-democracy.¹⁹ To summarize, e-democracy can be defined as a new form of democracy, which is carried out through the use of digital (Internet) technologies to ensure electronic voting or controlling the execution of decisions of state and municipal authorities. That is why in the modern world, the development of the Internet provides a unique opportunity to expand the access of citizens, in particular, through electronic voting. Indeed, the concept of e-democracy brings to life new ways

16 PONDÉ, Luiz Felipe. The Myth of Democracy at Stake: The Process of Deconsolidating Democracy in Three Moments. *Estoril*, 2018. Available at: <https://iep.lisboa.ucp.pt/asset/3646/file>

17 For example, the Article 2(1) of the Constitution of the Czech Republic specifies that: “All state authority emanates from the people; they exercise it through legislative, executive, and judicial bodies”.

18 For example, the right to rebellion was specified in the 1793 preface to the French Constitution (1793) during the French Revolution: „When the government violates the rights of the people, insurrection is for the people, and for every portion thereof, the most sacred of rights and the most indispensable of duties.”

19 See: PÄIVÄRINTA, Tero and SÆBØ, Øystein. Models of E-Democracy. *Communications of the Association for Information Systems*, 2006, vol. 17, pp. 818–840; See also: COLEMAN, Stephen, and NORRIS, Donald E. A new agenda for e-democracy. *Oxford Internet Institute, Forum Discussion Paper No. 4*, 2005. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1325255

for citizens to participate in the political life of their state: the people (citizens) receive an opportunity to express their political will through the Internet. The idea of e-democracy is aimed at wider and more active participation of citizens in the functioning of state institutions of modern representative democracy using the Internet, and also promotes direct participation of citizens in solving problems facing society. Nevertheless, it is important to understand in which specific constitutional procedures the online participation of citizens will be appropriate and effective, and in which not, but this is a separate topic for research.

It should be noted that the main advantage of electronic voting is the fact that in practice they allow a citizen to cast his/her vote remotely, that is, using Internet access, regardless of whether the citizen is located on the territory of his state or abroad. Moreover, e-democracy makes it possible to establish direct and feedback links between the government and the people (citizens), which makes it possible to conduct a continuous dialogue for a minimum possible period of time. The Internet represents a significant advantage over other traditional channels of political and/or legal information (newspapers, TV, etc.). As noted by Thierry Vedel, the Internet allows to make information available in almost unlimited quantities and at lower cost.²⁰ Proponents of e-democracy believe that increasing transparency and providing more substantial and more accessible information can help shape citizens' opinions and thus stimulate their participation in political life.

3 The elements of e-democracy in selected European countries – searching for the best experience

In many European states, for example, in Estonia, Switzerland, France, Iceland and Norway, elections to public authorities and local governments have been experimentally conducted using electronic voting technologies. It should be noted that the models of electronic voting in particular countries are implemented differently, and for a common understanding it is necessary to analyse in more detail the mechanisms of electronic voting in these European states, which will reveal both the advantages and disadvantages of the systems for further development of the electronic voting system at the EU level.

3.1 Estonia's legal experience as a benchmark for the development of e-democracy both at the EU level and at the level of other EU Member States

Estonia is the first country to successfully implement pilot projects on the use of electronic voting in elections and consolidate them at the national level. Electronic voting has been conducted in Estonia since 2005.²¹ It should be noted that during

20 VEDEL, Thierry. L'idée de démocratie électronique: origines, visions, questions, in Pascal PERRINEAU, *Le désenchantement démocratique*, La Tour d'Aigues, L'Aube, 2003, p. 250.

21 MEAGHER, Sutton. When Personal Computers are Transformed into Ballot Boxes: How Internet Elections in Estonia Comply with the United Nations International Covenant on Civil and Political Rights. *American University International Law Review*, 2009, vol. 23, no.2, pp. 349–386.

the period from 2005 to 2019, eleven elections took place, including four national and three European Parliament elections, as well as four nation-wide local elections.²² Already in 2015, electronic voting in Estonia began to be conducted on a permanent basis, as an alternative to traditional elections, throughout the state, and in the parliamentary elections of 2023, for the first time, more than half of the total number of votes were cast via the Internet.²³

The model of electronic voting in Estonia is built as follows. First of all, every citizen, using the Internet, installs application on his/her personal computer or mobile device, through which the citizen gets the opportunity to vote online. Then the citizen goes through the identity authentication procedure, which is performed using a special individual “ID card” available to every citizen of Estonia. The “ID card” is inserted by the citizen into the computer device, after which he/she enters his/her individual PIN code and his/her identity is considered established. Further, after authentication is completed either using an “ID card” or a “Mobiil-ID”, the citizen can vote.²⁴ At the same time, voting is conducted on the principle of “one person – one vote”.²⁵ Moreover, in order to ensure that the citizen really expresses his/her will, during the electronic voting period, the Estonian law allows the citizens to change their votes. In other words, during electronic voting, the citizen can always vote again and change his/her vote an unlimited number of times. Only the last vote will be counted, while all earlier versions will be cancelled.

It should be noted that according to article 60 of the Estonian Constitution, elections are general, uniform and direct, and voting is secret.²⁶ This means that all voting methods must comply with these principles. In the case of electronic voting, it is also required to ensure the above principles, therefore, in electronic voting, personal data (digital signature) of citizens are separated from their electronic votes, and the votes themselves are counted anonymously. Moreover, the secrecy of the electronic voting is ensured by encryption: the vote is encrypted using two cryptographic keys.

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- 22 EHIN, Piret, SOLVAK, Mihkel, WILLEMSON, Jan and VINKEL, Priit. Internet voting in Estonia 2005–2019: Evidence from eleven elections. *Government Information Quarterly*, 2022, vol. 39, no. 4. Available at: <https://www.sciencedirect.com/science/article/pii/S0740624X2200051X>
- 23 See: HERRON, Erik S. *Estonia's e-governance revolution is hailed as a voting success – so why are some US states pulling in the opposite direction?* Published: March 17, 2023 12.29pm GMT. Available at: <https://theconversation.com/estonias-e-governance-revolution-is-hailed-as-a-voting-success-so-why-are-some-us-states-pulling-in-the-opposite-direction-201751>; See also: *Estonia sets new e-voting record at Riigikogu 2023 elections*. ERR News 04.03.2023 23:24, Updated: 06.03.2023 21:01. Available at: <https://news.err.ee/1608904730/estonia-sets-new-e-voting-record-at-riigikogu-2023-elections>
- 24 More information is available at: <https://www.valimised.ee/en/internet-voting/more-about-i-voting/introduction-i-voting>
- 25 See: Constitutional Judgement No. 3-4-1-13-05., date of decision: 1 September 2005. Available at: <https://web.archive.org/web/20110720125506/http://www.nc.ee/?id=381>
- 26 The Article 60 of the Constitution of Estonia specifies that: “*The Riigikogu shall be comprised of one hundred and one members. Members of the Riigikogu shall be elected in free elections on the principle of proportionality. Elections shall be general, uniform and direct. Voting shall be secret.*”

We consider this approach to be very welcome, since the political opinion of citizens according to the GDPR falls under the category of special data (“sensitive data”), which, while such data requires more enhanced protection, that encryption technologies (i.e., blockchain or similar technologies) are able to solve.²⁷ Moreover, since the Estonian Constitution enshrines the principle of secret voting, blockchain technologies are able to ensure such secrecy.

Despite the positive steps, some IT security experts, who got acquainted with the system, criticized it, warning that any electronic voting system can be dangerous. The team of experts has published the results of their research, stating that it is possible to hack the electronic voting system, change votes and voting results, as well as erase all evidence of their actions if there are not sufficient and appropriate levels of protection against such hacker attacks on Estonian e-voting servers. Based on these results, the team advised the Estonian government to stop all online voting procedures due to the potential risks and threats it poses to their government.²⁸ Nevertheless, such criticism was unfounded: the system withstood real tests and was recognized as successful. Thus, Estonia is one of the leading countries in the world that has introduced its electronic voting system in republican elections, and it is popular precisely because of its efficiency and convenience.

3.2 *The Swiss model of electronic voting: advantages and disadvantages*

In Switzerland, the official testing of the electronic voting system has been carried out since 2004 using Internet technologies („E-Voting”).²⁹ These tests are conducted at all three levels of voting: municipal, cantonal and confederate (i.e. at the level of the whole of Switzerland). Even if the Swiss “E-Voting” electronic voting system is also similar to the Estonian model of electronic voting, that is, it is carried out using special “ID cards”, nevertheless, the mechanism of implementation of this system is quite different from the Estonian experience, which will be indicated in more details below.

Firstly, one of the main differences is the voluntary nature of participation in the electronic voting system. In particular, if the electronic voting system is introduced throughout the state in Estonia, then in Switzerland the cantons are given the right to accept or not to accept the electronic voting system, and if they agree to accept this system, they receive a special permit (license) from the Swiss federal executive authority. In accordance with this condition, it follows that if the canton adopts the “E-Voting” system and receives special permission (license)

27 See: Article 9(1) of the GDPR

28 See: SPRINGALL, Drew, FINKENAUER, et. al. Security Analysis of the Estonian Internet Voting System. *University of Michigan*. Available at: <https://jhalderm.com/pub/papers/ivoting-ccs14.pdf>; See also: SIMONS, Barbara (2011). *Verified Voting Blog: Report on the Estonian Internet Voting System*. Available at: <https://web.archive.org/web/20161008211328/https://www.verifiedvoting.org/report-on-the-estonian-internet-voting-system-2/>

29 More information is available at: <https://www.bk.admin.ch/bk/en/home/politische-rechte/e-voting.html>.

from the Swiss federal executive authority for the implementation of this system, electronic voting can be conducted both at the cantonal and municipal levels, but only within the specified canton. We believe that in this context, the Swiss e-voting policy is more practical than the Estonian one. A citizen should have the right to voluntarily register in the electronic voting system, which follows from his/her right to election (vote), while the right to election (vote) gives a citizen the right to decide for himself/herself whether or not to participate in the political life of the state. Moreover, if the system is made mandatory, the citizen will register his/her system to avoid negative legal consequences, but will not use the system, which will create senseless bureaucratic difficulties. Based on this, we consider the Swiss approach of voluntary electronic voting to be more pragmatic.

Secondly, while in Estonia all citizens can participate in electronic voting at all levels using the Internet, in Switzerland the right to determine who can vote via the Internet is left to the cantons themselves. For example, all residents of the canton of Zug have the right to vote using the new “E-Voting” system.³⁰ However, this does not work everywhere, since in some other cantons of Switzerland, either residents of the canton who are formally assigned to it, but actually live permanently outside Switzerland, or voters with disabilities have the right to participate in electronic voting. We argue that in this context, Estonia’s approach is more appropriate, and all citizens should be able to register in the electronic voting system, which, in turn, will help to avoid inequality and discrimination in the process of citizens exercising their voting rights and their participation in political life.

As one can see, the models of electronic voting in European countries not only differ in their technical characteristics, but also depend on the state structure of a particular state. The examples of Estonia and Switzerland underline the need to create mechanisms at the EU level that will ensure citizens’ active participation in decision-making and make them a real “source of power”. Ultimately, bridging the gap between the interests of the government and the people (citizens) through the active participation of citizens in the political process contributes to the creation of a more just and stable society in which the interests of all citizens are taken into account. Thus, the EU will be able to further strengthen its democratic values and real connection with its citizens, which, in turn, will help to overcome the EU’s democratic deficit to a certain extent, as various researchers write.

3.3 The French experience in conducting parliamentary elections using Internet technologies

In France, electronic voting was used in the elections to the national parliament. In particular, in 2003, with the help of Internet technologies, electronic elections

30 Switzerland’s first municipal blockchain vote hailed a success. Available at: https://www.swissinfo.ch/eng/business/crypto-valley-_-switzerland-s-first-municipal-blockchain-vote-hailed-a-success/44230928

were held to the upper house of parliament, and in 2012 to the lower house of Parliament.³¹ In order to vote remotely in these elections, French citizens had to install special Java Virtual Machine (JVM) software on their personal computer and register on the website to confirm their intention to vote via the Internet. After that, each citizen received a personal individual code by his/her e-mail, which he/she had to enter in the above-mentioned software in order to complete the identity authentication procedure. After passing the authentication procedure, the citizen could vote for one of the candidates for senators or members of parliament, indicated on the website by simply clicking on his/her computer screen. The limitation of this method of electronic voting was its accessibility only to those French citizens who lived abroad at the time of the elections, since at the same time all other citizens were required to vote traditionally.

We believe that the French system also has its positive and negative sides. The positive side of the system is that the identity authentication procedure is used when logging in, which ensures that another citizen will not be able to log in on behalf of another person. On the other hand, the disadvantage is that it provides the opportunity to vote only to French citizens who live abroad: we adhere to the approach that all citizens should have this opportunity in accordance with the principle of non-discrimination.

3.4 Iceland's experience: adopting the Constitution online?

In Iceland, the Internet technologies are also used for a broad discussion of socially important issues. According to the latest data, nearly 100 percent of the residents of the state in question use the Internet.³² One of the most striking examples from the experience of this state is the collective discussion of the draft of the Constitution of Iceland on social networks, where the Constitutional Council received more than 323 official proposals and 3,600 comments from citizens.³³

The establishment of direct contacts between the project developers and the public (citizens) through the official website and social media was recognized as one of the most significant aspects of the process of drafting the Icelandic Constitution.³⁴ It should be noted that such methods were optimally suited for a country with a compact (376 thousand inhabitants) homogeneous population,³⁵

31 PINAULT, Tiphaine and COURTADE, Pascal. E-voting at Expatriates' MPs Elections in France. *Electronic Voting*, 2012, pp. 189–195. Available at: <https://cs.emis.de/LNI/Proceedings/Proceedings205/189.pdf>

32 Internet penetration rate in Iceland from 2020 to 2024. Available at: <https://www.statista.com/statistics/1393647/iceland-internet-penetration-rate/>

33 HUDSON, Alexander. When Does Public Participation Make a Difference? Evidence From Iceland's Crowdsourced Constitution. *Policy & Internet*, 2018, vol. 10, no. 2: pp.185–217. Available at: <https://www.oidp.net/docs/repo/doc409.pdf>

34 SUTEU, Silvia. Constitutional Conventions in the Digital Era: Lessons from Iceland and Ireland. *Boston College International and Comparative Law Review*, 2015, vol. 38, no. 2. Available at: <https://core.ac.uk/download/pdf/71459535.pdf>

35 SIGURDARDÓTTIR, Johanna. An Overview of Iceland's Demographics – Iceland Population. 2022. Available at: <https://www.campervaniceland.com/blog/travel-info/iceland-population>

and Internet access (near 100 %).³⁶ Every proposal made by citizens was processed: all proposals were discussed, and the Constitutional Council had to give an answer. In particular, the following points were recorded:

- a) the constitutional issue to which the specific proposal relates;
- b) the name of the author;
- c) the date of application;
- d) the number of words;
- e) the number of comments about this proposal;
- f) the number of responses to this proposal;
- g) the total number of proposals submitted by the author;
- h) the connection of the author of the proposal with any public associations.

It is very significant that not only citizens, but also foreigners could participate in the discussion of the draft Constitution, thereby expanding the potential audience of participants in the discussion. Such a methodology, on the one hand, provided legitimacy to the process of drafting the Constitution and, on the other hand, gave citizens an opportunity to speak out. Even if this is an interesting experience of foreigners participating in the drafting of the Constitution of Iceland, nevertheless, we believe that only citizens should participate in such matters – this is an issue related to the connection between a citizen and the state.

As one can see, many ordinary citizens, far from lawmaking, were active in discussing the draft of the Constitution. The practice shows that truly positive results can be expected only when the authorities listen to the opinion of society. Practice shows that truly positive results can be expected only when the authorities listen to the opinion of society. Iceland's experience also shows how real contact between government and society can enhance the legitimacy of laws passed (in the case of Iceland, the draft Constitution). We believe that in order to ensure direct contact between citizens and the state, it is necessary to introduce a single special system (platform) with an appropriate level of protection, rather than discussing bills on various social networks, as in the case of Iceland.

36 KEMP, Simon. Digital 2023: Iceland. 2023. Available at: <https://datareportal.com/reports/digital-2023-iceland>

3.5 *The Norwegian experience: a system based on the effectiveness of the Estonian e-democracy system?*

In Norway, pilot projects of electronic elections conducted in 2011 and 2013 have been successfully tested.³⁷ During the specified period of time, electronic voting was used in Norway both in municipal elections and in elections to public authorities, for example, in elections of deputies to the Parliament of Norway.

The mechanism of electronic voting was borrowed from the legal experience of the Republic of Estonia. In order to vote in the elections to the national parliament remotely, namely via the Internet, all Norwegian citizens were issued cards that are analogous to Estonian “ID cards”, with which citizens could go through the authentication procedure on their personal computer and cast their vote for a particular deputy.

As one can see, Norway is building its system taking into account the legal experience of Estonia as one of the leading European states that have implemented an effective electronic voting system, which in turn increases the confidence of the specified Estonian e-democracy system.

4 **The right to Internet access as the basis of e-democracy?**

It should be noted that the potential of the Internet is not limited to providing electronic voting. This opens up new horizons for citizen participation in decision-making processes. It is important to understand that the Internet can become not only a tool for expressing citizens' opinions, but also a means for passing new laws. For example, the mechanism of direct electronic voting will be able to allow the people (citizens) to participate directly in the legislative process, as, for example, the experience of Iceland shows when adopting the Constitution.

It should be noted that most parliaments adopt laws on the basis of legislative readings and after the second or third reading, the bill is either adopted or rejected. We believe that through the use of Internet technologies, citizens can also directly participate in the adoption of laws. For example, after passing the bill through two or three consecutive legislative readings in the parliament (depending on each individual state), the bill can be submitted to the people (citizens) for approval, where every citizen who wants to familiarise himself/herself with the text of the bill can vote either for or against, or abstain from voting. Moreover, such a vote of the people will be considered decisive: if the majority of the citizens vote “Yes” for the adoption of the law, then the law is adopted, and if “No”, then the law is rejected. Thus, citizens can become the third (final) legislative reading of the parliament by their online voting. Thus, all laws adopted in this way will be subject to full and true legitimacy, because European constitutional law is based precisely on the principles of democracy, and the people here are directly involved in the

37 ØYVANN, Stig. *Vote early, vote often: Inside Norway's pioneering open source e-voting trials*. ZDNET, Sept. 13, 2013 at 1:05 a.m. PT. Available at: <https://www.zdnet.com/article/vote-early-vote-often-inside-norways-pioneering-open-source-e-voting-trials/>

adoption of laws. Moreover, it provides an additional level of public control over the activities of the parliament, making the people (citizens) the real source of legislative power. The examples of Estonia and Switzerland show that direct access of citizens to democratic processes via the Internet can lead to significant positive results and increase confidence in governmental institutions.

As one can see, the Internet is gradually being considered as the main platform for the development of electronic voting, as well as other mechanisms of electronic democracy. Indeed, nowadays the Internet provides access to a wide range of information, which is a key element for the functioning of the democratic society, while restricting access to the Internet can undermine the free exchange of opinions, ideas and information, and thereby undermine the foundations of democracy. The appeal of the Internet lies in the fact that it promotes transparency of governmental actions and citizen participation in decision-making procedures. It allows a wide range of people (citizens) to monitor the activities of the government, express their opinions and influence political processes. Therefore, due to the dynamic development of the digital space, the EU needs to adopt the positive experience of those European states where the pilot projects of electronic elections have been successfully tested.

It should be emphasized that many aspects of public life, including political activity, are increasingly dependent on the Internet access, therefore, in the era of the digital world, the Internet is becoming a fundamental tool that requires even more attention from the EU legislators. In addition, restricting access to the Internet will lead to the exclusion of citizens from participating in public life and making important decisions. In other words, restricting such access can lead to massive violations of fundamental rights, such as freedom of speech and information, electoral rights, citizens' right to participate in political life and other rights, not to mention the principles of democracy, especially at a time when modern life is practically impossible without the digital world. The EU, as a guarantor of fundamental rights, must understand that the scientific and technological process inevitably affects human rights: technologies are developing so rapidly that the law does not have time to regulate new public relations, much like in the case of international law of armed conflicts, where new types of weapons appear more and more, and the new conventions and declarations adopted immediately become irrelevant.³⁸

In this regard, the Internet requires a new approach from the EU legislators, where the approach should be based on the principle of non-discrimination. It turns out that those who have the Internet access have more privileges than those citizens who are deprived of the Internet. This can even lead to a stratification of society, where citizens with access to new technologies can exploit citizens who do not have such access, which can be conditionally called digital power. These

38 STEWARD, Darren, M. New Technology and the Law of Armed Conflict. *International Law Studies*, 2011, vol. 87, pp. 272 – 298. Available at: <https://digital-commons.usnwc.edu/cgi/viewcontent.cgi?article=1082&context=ils>.

arguments demonstrate that access to the Internet is not only the foundation of e-democracy, but is also a key element in ensuring fundamental rights and freedoms of EU citizens, where the principle of non-discrimination should play a fundamental role.

5 Conclusion

Taking into account the above analysis, the authors of this research conclude that proper enforcement of the right to Internet access will be able to ensure a real dialogue between citizens and the government, as well as strengthen democratic principles in the EU in the digital world. In such circumstances, EU citizens can become the real bearers of state power, and all laws adopted with their participation will receive the maximum degree of legitimacy. In such circumstances, it would be unthinkable to talk about the EU's democratic deficit. In this regard, the Internet requires proper attention from EU legislators: it is not only the foundation of e-democracy, but also a key element in ensuring fundamental rights and freedoms of citizens, where the principle of non-discrimination should play a fundamental role.

The practical experience of European states shows how electronic voting can increase the trust of citizens in the government. These positive experiences should be used not only at the level of individual EU Member States, but also to think about creating such mechanisms at the EU level. For example, the advantage of the Estonian electronic voting system is the encryption of votes, which helps to ensure the anonymity of voting and the security of the system, while the principle of voluntary participation of citizens in such voting can be borrowed from the Swiss system, and the creation of a separate voting platform from the French system, etc. In this framework, as one of the options, we see the adoption of a new EU Regulation on the legal regulation of e-democracy procedures, which will establish unified standards for citizens' participation in voting or referendums using the Internet technologies, which will be based on the positive achievements of European states in this area of law. Such a system at the EU level will not only ensure human rights in the digital world, but also strengthen citizens' trust in the EU and its democratic principles.

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