

The Internet environment in Bulgaria as a basis of digital transformation and smart governance

Anelia Dimova

Information Society Policy Expert, Sofia, Bulgaria, miscellanea@abv.bg

Bissera Zankova

Media Expert, "Media 21" Foundation, Sofia, Bulgaria, bzankova@gmail.com

Abstract

Smart cities' goals highlight the need for better interconnectedness, transparent and efficient governance and more effective public services. European cities have been leading the way on smart city development for over a decade. These cities are pioneers in testing and implementing innovative, sustainable and integrated solutions to become greener, more efficient, and better places for life. The Internet is the basis of all these novel developments and the quality of the net environment is crucial for the accomplishment of the digital transformation goals.

The project "Conducting a national assessment of Internet development in Bulgaria through the framework of "UNESCO Internet Universality indicators" is closely related to the principles of the global initiative "Partnership for Open Government": transparency, civic participation, accountability and technological innovation. UNESCO's Internet Universality Framework is a multi-stakeholder research tool designed to produce substantive and far-reaching findings that will be of real value to policymakers, regulators and other stakeholders to improve the quality of digital policy development and implementation.

The assessment through the "UNESCO Internet Universality indicators" is a unique instrument for the evaluation of the national Internet environment and its use. So far, several countries from all continents have undertaken this challenging exercise. After Germany, Bulgaria is the second European country that have produced such comprehensive report following a detailed procedure.

Through transparency, awareness and effective multistakeholder collaboration (governments, civil society, private sector, academia, the technical community, the journalistic community, etc.), we have gathered, consolidated and up-dated information about the network and the quality of services in Bulgaria, which is essential for an open, globally connected, secure and reliable Internet and sustainable digital transformation.

The main method used is the desktop and comparative research but for some areas an analysis of extracts from interviews have been included.

As a result of our experience gained during the implementation of the project, we made two types of proposals – international and national. The first group of proposals addressed UNESCO with the aim of refining the process of formulating new indicators and improving old ones based on the accumulated national practice. The second group of proposals comprised recommendations to statistical institutions, policy makers and legislators.

The report produced is a valuable asset for both theoreticians and practitioners. It allows them to see all problems concerning the Internet in a systematic manner. Statistics analyzed show that Bulgaria lost 10 positions in a year in the global digital quality of life index, the country's e-government is above the world average but the country ranks 36th in terms of Internet accessibility.

Being a good start for the elaboration of appropriate digital policy and legislation and for the enrichment of national statistics the report served also as a test of the effective implementation of the multistakeholders' approach in Bulgaria.

Keywords: Bulgaria, UNESCO, UNESCO ROAMX indicators, digital transformation, sustainability, national digital policy, legislation and statistics

1. Introduction

We witness a digital transformation happening in all areas of our lives and it requires seeking new, better ways of doing things to the benefit of people. The emergence of smart cities' ecosystem is a vivid example of the power of the digital transformation and its impact on human progress and prosperity. The intensive use of technology can make these cities "more attractive, more sustainable and a unique place for innovation and entrepreneurship"ⁱ.

European cities have been striving to boost smart cities' proliferation for over a decade. These cities are increasingly combining the power of data technology and the power of people, creating numerous opportunities through the use of the fifth generation of telecommunications system (5G), people-centred Artificial Intelligence (AI) and business to government (B2G) data sharing. However, new challenges also emerge since citizens and public authorities are frequently confronted by privacy, security and accountability issues.

Could these ambitious pursuits be accomplished without a solid foundation – a strong, resilient and human-oriented Internet? And how can societies be sure about the potential of their Internet environment? Smart cities come to life as a result of technological advancement and social efforts and their backbone is the Internet. Therefore, the capabilities of networks and their characteristics are crucial for the successful accomplishment of the digital revolution including the smart cities' priorities.

The implementation of UNESCO's Internet Universality Framework as a multi-stakeholder research tool designed to produce substantive and far-reaching findings about the quality of the Internet environment can be helpful in this respect. At the same time, the project "Conducting a national assessment of Internet development in Bulgaria through the framework of "UNESCO Internet Universality indicators" is closely related to the principles of the global initiative "Partnership for Open Government" relying on transparency, civic participation, accountability and technological innovation. These principles lay the ground of a government encouraging fast digital changes and through them - workable smart cities' solutions.

The Civil Society "Law, Internet, Media, Communications and Culture" consortium carried out UNESCO ROAMX research exploring a set of 109 main indicators and 21 contextual indicators which formed the scientific basis of the report we are going to comment on. The latter represents a comprehensive source of information on the dynamics of the Internet environment in Bulgaria, with the purpose to help institutions and all interested parties understand the current state of the art of this environment, assess its compliance with the principles of human rights, accessibility for all and multi-stakeholder participation, and formulate recommendations to fill in the gaps and correct the shortcomings. (Report BG)

The Smart Cities International Conference, Bucharest, 8-9 December 2022 was the forum where experts from the Ministry of e-Governance presented the start of the project. Before the beginning of the Smart Cities Conference, Bucharest, 4-6 December 2024 the project is close to completion and features interesting conclusions about the conditions, trends and statistics of the Internet development in the country. The tendencies and aspects analyzed design a vast picture of the information society in Bulgaria that will be taken into account for the effective application of strategies and action plans for deep digital transformation.

Here we will discuss only part of the proposals as well as their possible incorporation in adequate policies and legislation supporting the "Digital transformation of Bulgaria for the period 2024-2030" (Digital transformation), the "Concept for the development of artificial intelligence in Bulgaria until 2030. Artificial intelligence for smart growth and a prosperous democratic society" (the Concept for AI) and other national strategic documents.

2. Methodology

The final report of UNESCO ROAMX exercise is an outcome of a complex procedure carried out in two stages with the participation of various interested parties.

It is necessary to emphasize that the interdisciplinary approach is central to the study since interdisciplinarity allowed authors to examine the indicators in their interconnectedness and experts from different fields, including law, political science and sociology to be integrated.

The assessment report was prepared by using three main types of information sources: institutional evidence sources, qualitative evidence sources and quantitative evidence sources. The data collected and subsequent analysis and evaluation are based on available public sources and not on insider information or informal knowledge. For the sake of consistency, the understanding of all concepts, definitions and categories were unified within the research team.

In the process of information gathering online sources were also included after a strict examination for timeliness and legitimacy and passing a test of reasonable assurance of reliability and quality of information provided.

Within this research framework, due to limited time and financial resources, no new primary research was undertaken.

International instruments (quantitative and qualitative indices) established in various treaties or other legally binding instruments concluded by governments were taken into account and applied as criteria for a wider analysis of some of the indicators.

The report structured by the consortium was upgraded and finalized by a team of experts at the Ministry of e-Governance who followed the steps of:

- assessment at each investigated level - indicator, question, topic, category;
 - collection and analysis of additional data from authoritative and reliable sources;
 - identification of specific trends within certain topics and social relations;
 - preparation of a SWOT analysis for each topic contained in the individual categories of indicators.
- (Report SWOTBG)

Theoretically, SWOT is a situational analysis scheme used to map out the most definitive internal and external factors currently affecting an organization, individual or project. Concretely, it considers four types of factors: strengths, weaknesses, opportunities and threats. The core of the SWOT analysis, however, is to identify and juxtapose risks and opportunities in particular events and processes. In our case the application of the SWOT analysis in a policy context leads to better comprehension of the different phases of the Internet development and governance with their pros and cons and facilitates the formulation of workable solutions for the future.

The purpose here is to present the outcomes of the UNESCO ROAMX assessment report about Bulgaria in three key-areas - contextual indicators, human rights and Internet access and multistakeholders' involvement - and to share our critical thoughts about its achievements and shortcomings with a view of turning this document into a viable practice. Such practices combining grass-root and top-down approaches can promote a more inclusive implementation of all national strategies and concepts underpinning digital transformation at all levels.

3. Contextual indicators

In addition to the five ROAMX categories: RIGHTS ONLINE (Policy, legal and regulatory framework, Freedom of expression, Right of access to information, Freedom of association and right to participate in public activities, Right to privacy, Social, economic and cultural rights); OPEN INTERNET(Policy, Legal and Regulatory Framework, Open Standards, Open Markets, Open content, Open data and open governance); ACCESSIBILITY (Policy, legal and regulatory framework, Connectivity and usage, Affordability; Equal access, Local content and language, Capacity/capabilities); MULTISTAKEHOLDER

(Policy, legal and regulatory framework, National Internet Governance, International and Regional Internet Governance); CROSS-CUTTING (Gender, Children, Sustainable development, Trust and security, Legal and Ethical Aspects of the Internet), the indicators' framework also includes contextual indicators (Economic, Demographic, Development, Equality, Governance, ICT development), the indicators' framework also includes contextual indicators which provide background information with the purpose of delineating the setting within which the indicators from the other categories can be applied and findings interpreted. Contextual indicators are derived from data sets or indices compiled by international and national organizations. They shed light on the economic condition of Bulgaria, its gross national income and growth rate.

Demographic indicators help understand how the population is developing, its age structure, linguistic diversity and education. Development indicators refer to data regarding the level of adult literacy and the level of human development. Equality indicators provide clues whether a country has an equality problem, which can affect the way other indicators are analyzed. Governance indicators guide us to better grasp the rule of law and good governance issues in the country.

The ICT development indicators are centred on the global tendencies and how the situation in Bulgaria regarding ICT is positioned in it. The mobile connectivity, network readiness and e-commerce indices serve to provide additional background knowledge needed to place and contextualize the results of the other indicators' categories and to understand their systematic unity.

According to the World Bank (WB) dataset Bulgaria's GNI per capita at 2017 prices reaches its highest value of 26,029 USD/capita in 2022. During the period 2012 – 2022, the relative share of services in GDP varies between 57.2% and 62.3%. At the end of the period, the relative share of services in GDP was 59.6% and was higher than the share in 2012 by 2.4 percentage points, which means that the structural changes in the country's economy during the analyzed period are relatively small.

During the period 2002 - 2022, the population of Bulgaria has decreased from 7,845,841 people to 6,447,710 people or by 17.82%. The reasons for this negative trend are the economic emigration and the negative natural increase. During the period 2001 - 2022, the ratio between the group of children (0-14 years) and the population at working age (15 - 64) is relatively unchanged. In 2001 this ratio is 21.98%, and in 2022 it amounts to 22.72%¹², which means that the country's population is ageing. The ratio between the elderly (65 years +) in the country and those of working age (15-64) is also striking. In 2001 this ratio is 24.85%, and in 2022 – 37.70%. The latter means a significant increase in the share of elderly people compared to that of the working-age population.

The linguistic diversity in Bulgaria can be determined on the basis of the ethnic groups that live in the country. In accordance with the last census of the population of Bulgaria as of 7 September 2021, the Bulgarian ethnic community amounts to 5,118,494 people, or 84.6%. Compared to the previous census of population since 2011, the relative share of the Bulgarian ethnic community has decreased by 0.2 percentage points. The next largest ethnic community, the Turkish community, represented by 508,378 people or 8.4% of the country's population and the Roma 266,720 people or 4.4% of the country's population also show decrease by 0.4 percentage and 0.5 percentage points respectively. The official language in the country is Bulgarian language (art.3 of the Constitution) but “citizens whose mother tongue is not Bulgarian shall have the right to study and use their own language alongside the compulsory study of the Bulgarian language” (art.36 para 2 of the Constitution).

On the basis of data found, it can be calculated that in 2022 the urban population decreased compared to 2001 by 13.27%. Regardless of its relative share to the total, the country's population grew by 4.26 percentage points and reached 73.62%.

For the period 2015 - 2021, Bulgaria has lowered its ranking according to the Index of human development by nine places and is in the 68th position out of 191 countries. It should be noted that the highest HDI value was reported in 2019, then in 2020 and 2021 a slight decrease in the value can be identified.

The general literacy of the Bulgarian population of Bulgaria aged 15 + for 2001, 2011 and 2021 is high and has insignificantly changed for 20 years but in a positive upward direction.

The gender inequality index ranges between 0 and 1. When index values tend to 0 gender inequality is small, and when tends to 1 large. During the period 2016 - 2021, the inequality between the sexes in Bulgaria is small.

With regard to the indicators “Governance” and “Rule of law” they both are of complex nature. The six indicators which determine the indicator “Governance” are based on “Voice and accountability” (VaA, including the opportunity for electing a government and freedom of speech), “Political stability, no violence”(PSaV); “Government effectiveness”; “Regulatory quality”; “Rule of law”; “Control of corruption”. (Kaufmann, et al, 2010)

Separately the rule of law index lays on nine factors, such as: Constraint on Government Powers; Absence of Corruption; Open Government); Fundamental Rights; Order and Security; Regulatory Enforcement; Civil Justice; Criminal Justice; Informal Justice. (World Justice Project 2016)

Under the first index the situation is slightly worsening for the period 2015 – 2021 according to the World Bank tables. For instance, VaA from 62.19 in 2000 to 56.52 in 2021 percent range and PSaV from 61.90 to 58.96 percent range for the same period). Though the rule of law index demonstrates relative stability for 2015 - score 45 and for 2023 – 59) other sources quote alarming tendencies. Recently the political environment in Bulgaria is rather unstable. Thus, the Freedom Houseⁱⁱ Report for 2024 determines Democracy Score for BG for 2023 4.54 out of 7 and states that “In Bulgaria, national governance remains democratic, but in 2023 national politics faced persistent polarization and confrontational discourse between institutions, even if major parties made efforts to put differences aside for the sake of stable governance and resolving last year’s crisis”.(Freedom House Bulgaria 2024) While elections are generally free, vote-buying allegations persist during municipal and parliamentary elections and frequent changes of electoral legislation, alongside the mutual accusations of major parties, pose a risk of undermining trust in the voting process. Freedom House also emphasizes that “civic protests occasionally help usher in reform, but human rights activism comes under persistent attacks from some political forces. The media environment has seen various forms of pressure, from non-transparent allocation of public funding to SLAPP cases. Local self-governance is chronically underfunded, with “local officials claiming for years that fiscal decentralization would help deal with increasingly common environmental disasters”. Efforts at reforming the justice system were expected to produce positive results but in practice the constitutional changes in 2023 led to “mixed results”, while “a long-discussed reduction in the chief prosecutor's overarching authority remains elusive “without meaningful prospects.

The fight against corruption is still a party slogan only and “reform and implementation fall victim to frequently changing governments”. The last problem is without an effective solution for many years and cast a shadow on the rule of law situation in Bulgaria. On the other hand, the Transparency International Report for 2023 for BG includes the country in the group of those “silencing criticism and weakening checks and balances”. (TI) A positive move according to the report is the adoption of the long-awaited whistleblower law transposing the Directive (EU) 2019/1937 of the European Parliament and of the Council of 23 October 2019 on the protection of persons who report breaches of Union law. However, the proper implementation of the law raises concerns, some of them summarized in the Position of Transparency

International Bulgaria (TI) on the gaps and inconsistencies in the secondary legislation regulating whistleblower protectionⁱⁱⁱ.

The Doing Business Index is calculated for 190 countries by the World Bank based on 10 factors: starting a business; dealing with construction permits; getting electricity; registering property; getting credit; protecting minority investors; paying taxes; trading across borders; enforcing contracts; resolving insolvency. The values of the index for doing business in Bulgaria during the period 2015 - 2020 show that the highest value of the index was reached in 2016, 38 place after which the index values decrease annually and in 2020 Bulgaria occupies 61st place (Doing business).

To a great extent the declining conditions for doing business in the country are corroborated by the 28th edition of the Heritage Foundation for 2022 which ranks the scores of 177 countries by the degree of economic freedom they have achieved. The scale of the index is from 0 (lowest degree of freedom) to 100 points. (highest freedom) and Bulgaria occupies the 29th position in the world ranking after Barbados and before Mauritius. In the European region, which includes 45 countries, the country is in the 20th place.

When analyzing these datasets, it is evident that Bulgaria's progress in economic freedom over the years has been slow. Though, classified as "rather free" than "moderately free", Bulgaria experiences difficulties in broadening the opportunities for free business activities. Traditionally the weakest category for Bulgaria is the rule of law principle. The Heritage Foundation Report states that although "the right to property is protected by legislation, inconsistent case law and prosecutorial interference weaken its enforcement". The judiciary remains among the least trusted institutions, and perceptions of corruption (particularly in relation to public procurement and the use of European funds) as well as undue political and business interference are widespread. Regulations remain unpredictable, especially regarding starting a business. Labor costs are relatively low by European standards, but labor productivity is lagging and the workforce is shrinking. (Slavova 2022)

Bulgaria's stable score in the category of open markets is directly linked to the country's membership in the EU and the Union's general foreign trade policy. By and large, foreign and domestic investors are equally treated under the law but foreign investors' complaints of undue pressure and corruption are not unusual. Under the indicator "size of the government" Bulgaria scores well in the indicators measuring the tax burden and fiscal stability due to the "the high result is the flat tax and relatively low debt in the country".(Slavova 2022)

In the UNESCO Assessment Report the index of penetration of digital technologies in the economy and society (Digital Economy and Society Index (DESI)) (European commission 2022) is used since through it, the progress in achieving the goals set in the "Digital Decade" political program of the EU member states is measured. The goals are distributed in four areas: skills; secure and resilient digital infrastructures; digital enterprise transformation; digitization of public services. It is clear that at the beginning of the period 2017-2022 the level of penetration of digital technologies in the economy and society of Bulgaria was at its lowest level, while at the end of the period the value of the index reached its maximum. Having said that, it should be noted that in 2021 and 2022 Bulgaria is on penultimate place in terms of DESI values in the EU and is significantly lagging behind other EU member states. For instance - DESI 2021 BG 36.8 - EU 50.7 and DESI 2022 BG 37.7 - EU 52.3.

Therefore, we only partially share the moderately optimistic conclusions in the report since for the time being there is no firm ground for fast and unconditional reforms. Bulgaria has made significant progress in its economic development during the period 2012-2023, especially in the context of the growing GNI per capita and the stable share of services in GDP. However, from an economic perspective, the country faces serious issues related to business freedom, demographic trends and the need for deeper structural changes

that should also cope with political instability, entrench the rule of law principle, fight effectively corruption and stave off the oligarchic tendencies. The accomplishment of these goals requires courage and unconditional and persistent regulatory efforts.

4. Human rights and Internet access

4.1 Human rights and legal framework

Human rights' protection is fundamental for both off- and on-line human activities. In this respect one should recall that "the Internet and other ICT services have high public service value in that they serve to promote the exercise and enjoyment of human rights and fundamental freedoms for all who use them, and that their protection should be a priority with regard to the governance of the Internet." This recital from the Council of Europe Recommendation CM/Rec (2007)16 of the Committee of Ministers to member states on measures to promote the public service value of the Internet has become even more relevant today having in mind the radical transformations in all social areas due to rapid digitization.

From a general perspective it can be stated that in Bulgaria a well-developed legal framework for the protection of fundamental human rights and freedoms is in force. Bulgaria is a party of key international agreements and being an EU member, she respects the *aquis communautaire* and participates in the development of the Union. More precisely, Bulgaria is a party to the International Covenant on Civil and Political Rights, the European Convention for the Protection of Human Rights and Fundamental Freedoms, and the Charter of Fundamental Rights of the European Union. According to art.5 para 4 of the Constitution "international treaties which have been ratified in accordance with the constitutional procedure, promulgated and having come into force with respect to the Republic of Bulgaria, shall be part of the legislation of the State. They shall have primacy over any conflicting provision of the domestic legislation". The fact that the Constitution of the Republic of Bulgaria enshrines fundamental rights and freedom and the supremacy of the international legal order comprises a solid guarantee for their consistent implementation. However, this is not always the case. Violations of these rights whenever identified are rather a result from bad application than of existing regulatory framework which embodies fundamental norms and principles. Other reasons can be gaps or lack of systematization among certain regulatory tools within the legislative framework.

The institution of the ombudsman being "a public defender who promotes and protects human rights and fundamental freedoms" is also regulated by the Constitution (art.91a) and under art.2 of the Ombudsman Act.

In Bulgaria a National Human Rights Coordination Mechanism (NHRC) is in operation and it provides inter-institutional dialogue and coordination on human rights issues.^{iv} In 2024 this mechanism replaced a previous one the results of which were doubtful.

Under para 2 "the mechanism contributes to the harmonization of the legislation, policies and practices in the field of human rights of the Republic of Bulgaria with the legislation, policies and practices of the European Union, the United Nations, the Council of Europe, the Organization for Security and Cooperation in Europe and others intergovernmental organizations in which the Republic of Bulgaria is a member or participates". By virtue of art. 4 para 1 Council to the National Human Rights Coordination Mechanism is established as a permanent advisory body to the Council of Ministers. The Council is also mandated to work with civil society organizations. The activities of the new mechanism should be more transparent and its concrete achievements are still to be seen. (Coordination mechanism)

With respect to the accelerated digitization a significant legal body for e-Government has been adopted, including the e-Government Act, the e-Identification Act and other related laws. Strategic documents, such

as the "Digital Decade" program of the European Commission, the updated strategic document "Digital Transformation of Bulgaria 2024-2030" and the "Updated Strategy for the Development of e-Government in the Republic of Bulgaria 2019-2025", support the digitization of public services.

The legal instruments for the protection of social relationships against fraud and abuse - the Electronic Communications Act and the Cybersecurity Act provide mechanisms for blocking access to certain services and filtering malicious Internet traffic, which can be activated by the competent authorities (Commission for the Regulation of Communication, the Main Directorate "Fighting Organized Crime" GDBOP, also known as DG "Fighting Organized Crime", a specialized police operational-investigative service of the Ministry of Internal Affairs for countering and neutralizing criminal activity of local and transnational criminal structures and the State Agency "National Security" (DANS). The Counter-Terrorism Act contains provisions for blocking websites that incite to terrorism or disseminate knowledge how to organize terrorist acts, with the relevant judicial procedures for appeal. The blocking and filtering provisions provide also for publicity and transparency and the orders are published on the websites of the Ministry of the Interior and DANS.

Therefore, in the fast-changing digital world the regulatory framework of Bulgaria from a normative perspective sufficiently ensures the protection of fundamental rights and freedoms at the moment. Though no special law on the Internet and activities on the net is in force what is relevant off line is relevant online and general laws protect human personality, their rights and work in the new environment. The framework in force implementing and transposing EU tools is to a great extent preparing the basis for the full transition to the requirements of the digital society. Having said that, it is worth referring to the novel documents that pave the way to digital transformation in any field and area.

The National Development Programme "Bulgaria 2030" was adopted by Protocol No. 67.25 of the Council of Ministers of 02.12.2020. Its three pillars consist of accelerated economic development, demographic growth and reduction of inequalities. The programme emphasizes that "after the country's accession to the European Union (EU), Bulgarian products become increasingly competitive and permanently increase their presence in global and intra-EU trade". On the other hand, in the years following the economic crisis, the speed of economic convergence has decreased significantly. The main objective of the national policy until 2030 is "to accelerate economic convergence within the EU, through targeted and focused government support for increasing specialization in products and industries characterized by higher technological and research intensity, which will allow for better and more prestigious positions in global value chains". The timely technological transformation of the economy and increased resource efficiency can put national economy on "a higher growth trajectory, bringing the living standards of the Bulgarian citizen closer to the average European level". Digital competences are essential in this respect. (Bulgaria 2030)

In addition, sectoral strategies with a digital focus have also been laid out.

The "Employment Strategy of the Republic of Bulgaria 2021-2030" outlines long-term actions (until 2030) to meet the country's commitments in the field of employment, arising from the need to implement the Action Plan of the European Pillar of Social Rights, to direct the efforts of all stakeholders in the labor market towards reducing the unemployment rate, increasing the economic activity of the population and increasing the labor potential of the workforce in the country. The actions and tasks are planned in view of the processes of globalization and population aging. One of the key-efforts relates to "increasing the level of general digital skills of the population through the adoption of unified training programs and unified tools for assessing digital skills and competences by levels and areas of digital competence, and in particular for basic and intermediate levels in accordance with the European Digital Competence Framework DigComp2.1". This will ensure the implementation of a unified approach by all training institutions when

conducting training and assessing digital skills and competences, transparency, comparability and recognition of the acquired digital skills and competences. Vulnerable groups and the elderly will be provided with access to a more accessible type of training. The training will improve the access of these groups to public services provided exclusively electronically, promote a longer active life for the elderly, as well as full participation in public life. (Employment Bulgaria)

According to the “National Health Strategy 2030” “e-Health is an integral part of the implementation of e-government policies, digital transformation of public institutions, improving the quality of administrative services, transitioning to rational electronic processes of functioning and management in the public sectors and providing electronic access to information held by public institutions”. The development of e-health is part of the policy for the development of e-government in the Republic of Bulgaria. (Health Bulgaria)^v

Like other strategic documents strategies in the sector of education put emphasis on the development of digital competencies and the enhancement of digital learning environment. The National Development Plan “Bulgaria 2030” envisages the digitization of cultural content which will facilitate access to it and thus the exercise of the right to use national and universal human cultural values. “The acceleration of the process of digitization of cultural values through adequate financial, technical and human resources is particularly underlined”. The introduction of uniform standards for digitization and creation of registers in accordance with national priorities for the preservation and expansion of access to cultural heritage and electronic services is another practical step to broadening access to cultural treasures. The development and introduction of uniform software for digitization of movable cultural heritage and training of specialists will ensure effective use of resources for the development of cultural and creative industries and will strengthen the fight against crimes against cultural objects, including their illegal trafficking.

These are all important accents in the national sectoral strategies for the implementation of which UNESCO Assessment Report can be of considerable value.

4.2 Freedom of expression and freedom of access to information

Freedom of expression is not only a right but a principle and value in democratic society. Nowadays digital technologies foster this freedom for better communication and wider expression of opinions and ideas. Digital technologies have expanded individuals’ and groups’ ability to receive and impart information and they have increased the range and diversity of information individuals can access. (Council of Europe Recommendation CM/Rec(2022)13 of the Committee of Ministers to member States on the impacts of digital technologies on freedom of expression)

The exploration of the state of freedom of expression through the assessment of the UNESCO Internet Universality Indicators is a section of key-importance in the report. Freedom of expression is regulated as a fundamental right in Art. 39 of the Constitution, and is accordingly enshrined in a number of international treaties and other instruments to which the Republic of Bulgaria is a party and which are applied as part of the domestic law of the country on the basis of Art. 5, para. 4 of the Constitution. The restrictions regulated in the Basic Law pertain to the violation of the rights and good name of another person, the incitement of a forcible change of the constitutionally established order, the perpetration of a crime, or the incitement of enmity or violence against anyone (Art. 39, para. 2 of the Constitution). These strictly formulated restrictions follow the principles of the European Convention on Human Rights and Fundamental Freedoms and the caselaw of the European Court of Human Rights. Art. 40 of the Constitution prohibits censorship of the media, except in the event of an injunction on or a confiscation of printed matter or another information medium has been issued under the prerequisites of violation of personal rights of other or public order.

A related right to freedom of expression is the right to seek, receive and impart information (art.41 of the Constitution), and this right “shall not be exercised to the detriment of the rights and reputation of others, or to the detriment of national security, public order, public health and morality. Everyone shall be entitled to obtain information from state bodies and agencies on any matter of legitimate interest to them which is not a state or official secret and does not affect the rights of others.” Additional guarantees for the free expression of opinion, freedom of journalists and free creation and dissemination of cultural works can be found in the Radio and Television Act, the Film Industry Act and the Personal Data Protection Act harmonized with GDPR. The Electronic Communications Act states that the promotion of freedom of expression and freedom of information, cultural and linguistic diversity and media pluralism are set as the main objectives of the Act (art. 4, para. 2, item 3).^vFreedom of expression is pivotal for the implementation of the Electoral Code - in view of the guarantees for fair conduct of election campaigns. Since 2000 the Access to Public Information Act has been in force.

Despite to regulation media are also subjected to self-regulation, enshrined in the Radio and Television Act. The law lists in a non-exhaustive manner several codes of conduct and standards that are still applicable today. One of the leading documents among them is the Code of Ethics of the Bulgarian Media (2004), developed by the National Council for Journalistic Ethics Foundation, which has been adopted as a common standard for audiovisual, print and online media that have signed it. The provisions regarding freedom of expression and access to and dissemination of information are applicable on a general basis to persons engaged in the creation of journalistic and other online or media content.

The main Union act governing intermediary liability is Regulation (EU) 2022/2065 of the European Parliament and of the Council (Digital Services Act), which considers “simple transmission”, “caching” and “hosting” services to be intermediary services (Article 3, point “g”). As a general rule, intermediary service providers are exempt from liability for content created and distributed by third parties in connection with the services they provide (Art. 4-6) and no general obligation to monitor or actively search for evidence of illegal activity in the information they transmit or store (Article 8) is established. However, intermediary service providers must cooperate with the competent authorities in the event that they are served with an order to take action against illegal content (Article 9) or an order to provide information (Article 10). This regulation is directly applicable to social relationships in Bulgaria but no one has examined the related acts so far and whether they need amendments as well as the necessity to adopt new legislative instruments.

The Electronic Communications Act is the basic law which regulates electronic communications networks, with the main objectives being to improve the connectivity and accessibility of networks and to promote a competitive and fast-growing digital environment. The competent authority in the field, the Communications Regulatory Commission (CRC) may request specific blocking of access to specific numbers or services of undertakings providing public electronic communications networks and/or services, in case they pose a risk or are related to fraud or abuse. Next, under the Cybersecurity Act, undertakings providing public electronic communications networks and/or services are obliged to filter or terminate malicious internet traffic when it is the source of a cyberattack and they are notified of this by the General Directorate for Combating Organized Crime (GDBOP) at the Ministry of Interior or by the State Agency for National Security (DANS).^{vii} Within this context the global database of Access Now (an international non-governmental organization which defends and extends the digital rights of people and communities at risk) does not contain information on internet shutdowns in the Republic of Bulgaria for the period 2018-2022.

No information about restrictions of access to content, withdrawal of domain names or other types of state interference in access to content online has been reported about Bulgaria. Lawful restrictions are permissible under the Consumer Protection Act, and the Consumer Protection Commission may request the

removal of content, restriction of access to it or deletion of the domain name in the event of an established violation of consumer rights. However, though all standards are in force and no bad practices have been registered, media freedom in Bulgaria has been systematically criticized in the annual reports of the European Commission on the rule of law, Freedom House or Reporters without Borders (RwB). Under the RwB ranking Bulgaria occupies 59th position in 2024 and “press freedom is fragile and unstable in one of the poorest and most corrupt countries in the European Union. The few independent media in Bulgaria are under pressure.”

Persisting negative trends include particularly defamation suits and the so-called SLAPP suits against journalists, online harassment (in the context of coverage of Russia's war against Ukraine and vaccination against COVID-19), threats to their physical integrity and attempts to interfere politically in the media. The analysis of recent case law makes one conclude that such cases are being brought not only against journalists and media outlets, but also against companies that finance media outlets or have media assets, as well as against activists from non-governmental organizations, even magistrates. Critical online news media and investigative journalists usually fall victims of SLAPPs and external pressure by corporations and businesspersons. Fact-checkers continue to face online threats: in 2023, journalists with the Factcheck.bg platform were subjected to online harassment on social media by members and supporters of the pro-Russian political party Vazrazhdane (Odessa Journal 2023). In order to ensure greater transparency about such cases and to inform regularly the public, the Supreme Court of Cassation maintains a dedicated web page with an electronic register of cases against journalists and media.^{viii} In August 2023, a Penal Code reform was enacted that reduced the fines for defamation, however, media freedom groups called for stronger legislative measures to combat SLAPPs. The work on bringing Bulgarian legislation into line with the European legislation regarding these suits that threaten journalists or activists began in August 2024 with the preparation of amendments to the Civil Procedural Code (CCP).

The problems of media regulation in Bulgaria are chronic. The UNESCO Internet Universality Assessment Report also proves that. Disproportions in the regulation of public media (PSM) which are meticulously regulated vis-a-vis commercial media regulation are vivid. Serious doubts about the independence of the audiovisual media regulator Council for Electronic Media undermine its authority and public prestige, moreover when mandates of its members have expired but these members stay on the body until the election of the new ones which in practice extends the legally fixed terms of office. The procedure and requirements for electing Directors General of the PSM do not guarantee independence from government or other political influence. The current Director General of BNT, Emil Koshlukov, for example, is still in office for an unspecified period of time after the CEM failed to elect a new Director General in 2022. The situation continues to provoke critical reactions against the BNT management and the CEM. The amendments to the Radio and Television Act prepared in 2022 which aimed at the improving of the funding mechanism and strengthening of the independence of PSM had come to a halt. Political control over the leading digital news media is difficult to prove but it exists. The trend of positive coverage of politicians by leading local and national news sites that are associated with the politicians in question or their families, continues.

Ownership concentration and cross-ownership remain a problem in Bulgaria. The Media Pluralism Monitor report of three consecutive years - 2021, 22 and 23 states that “news media concentration scores very high risk (96%) with no improvements”. There are still no specific thresholds of media cross-ownership based on objective criteria in order to prevent a high degree of horizontal or cross-media concentration of ownership in the news media sector. Monitoring media pluralism, 2021: 13).

Transparency of media ownership is relatively well legally assured. Media service providers are obliged to declare ownership details under the Compulsory Deposit of Printed and Other Works Act, the Radio and Television Act and the Measures Against Money Laundering Act, including their ultimate owner, as well as

the funding received, its amount and grounds, including details of the entity that provided the funding. Special registries operate but they need reforms to become reliable and easy to use. Information is not accurate and full in the specialized registries - at the audiovisual media regulator CEM and at the Ministry of Culture (MC). For the time being, the most helpful registry is the Commercial Register and Register of Non-Profit Legal Entities. A reform assuring good harmonization between the three and allowing easy cross-referencing is a long-cherished goal. Information on media ownership is also not regularly updated, data on circulation of print media is obscure and transparency of ownership of online media remains problematic.

4.3 Internet access

Access to Internet is not declared a human right in Bulgaria but it is an important right in itself as well as facilitator for the exercise of other rights in the digital society especially freedom of expression, access to information and the right to education.^{ix}

As of 2020, an Updated National Plan for Next Generation Broadband Infrastructure is in force in Bulgaria. The plan is a logical continuation of the National Plan for Next Generation Broadband Infrastructure and the Roadmap for its implementation, adopted by Decision No. 435 of the Council of Ministers of 26 June 2014, and its updating and introduction in accordance with the requirements of the European Commission (EC) and new strategic and regulatory documents, including the Strategy for a European Gigabit Society, the EU Strategic Objectives for a Gigabit Internet Society by 2025, the European Electronic Communications Code and the 5G Action Plan. The plan envisages that by 2030 Bulgaria will be provided with symmetrical gigabit access networks throughout the country. A sustainable optical network, combined with a universally accessible mobile network, will allow every citizen, every business and every public institution to use the opportunities for digitalization on equal terms throughout the country. In addition, according to the National Development Program BULGARIA 2030, in section 8.1 Digital Networks, the construction of very high-capacity networks is envisaged with a view to the subsequent offering of various digital services with added value. The measures are planned to ensure ubiquitous digital connectivity in the country, including in remote regions, with a particular emphasis on high-speed mobile Internet. In addition, Section 8.3 Digital Inclusion provides for special measures, through which territorial discrepancies in the Internet access should be overcome and the even development of all regions in the country achieved.

According to the National Statistical Institute (NSI) data about persons that have never used Internet for 2018 – 2023 the high values in the North Western region and in the North of Bulgaria as a whole continue to be a problem. The lowest values are in the South Western region but the capital Sofia with all its modern infrastructure is situated there. By and large these values have decreased as far as the country is concerned but they stay comparatively high with respect to the average in the EU.

Bulgaria ranks last in the European Union in Internet consumption for 2022 and second to last in terms of the presence of at least basic digital skills among the population (31.2% compared to the EU average of 53.9% for 2021). These are rather worrying figures.

Regarding the access of households to the Internet data is provided both in general terms and in relation to statistical regions, by place of residence, by type of household, for example, with and without children. The results show that in the past year 2023, the percentage ratio, in general for the country, is 88.5%, while in 2019, the same was 75.1%. In other words, over the past five years, household access to the Internet has increased by 13.4%. The data also show that in households without children, the percentage share is 87.1%, while in households with children, the same is 97.7%, or 10.6% more in the latter.(Infostat)

Males 80.5% using the Internet comprise 80.5%, while females are 79.2% for the last year. Therefore, with respect to gender one can observe uniform distribution of digital skills and Internet usage. Metadata, considering the education factor, show that for individuals with primary and lower education, the share of regular Internet users is equal to 57.7%, for those with secondary education –80.2%, while for those with higher education it reaches 95.6%. The age statistics show that young people 16-24 years old use Internet almost 100 % - 93.6%, while for the highest age group, from 65 to 74 years old, the share drops to 44.6%. Apparently special measures should be adopted in order for to help smooth inclusion of the elderly in the digital world. (Infostat)

Although the statement that Internet access in cities is higher than in villages is valid for all the countries studied, the difference for the Republic of Bulgaria is more than 10.0% (14.8% for 2023) for almost all the years studied (the only exception being 2022). Targeted government efforts to assure equal Internet access for all households since these measures will also address various other demographic problem are absolutely needed. The NSI study on the so-called "Internet of Things" presents a comparison for the years 2020 and 2022. In 2022, 34.5% of individuals use "smart" devices and systems connected to the Internet for personal purposes, the most active being individuals with higher education (57.1%), as well as people aged 25 to 44 – 47.6%. Men use such devices and systems more than women - 35.8 and 33.2% respectively. The most frequently used "smart" device is the smart TV, which 30.1% of individuals use in their daily lives. These figures are generally low and not satisfactory.

In 2014 - 2021, a large-scale study was conducted under the project "New Approaches for Generating Data on Hard-to-Reach Population Groups at Risk of Violation of Their Rights", with the National Statistical Institute (NSI) as beneficiary and the European Union Agency for Fundamental Rights (FRA) as partner, which ended with the adoption of the report "Key Indicators for Social Inclusion and Fundamental Rights in Bulgaria", consisting of four thematic sub-reports. (Iceland, Liechtenstein, Norway grants) This study also addresses the issues of access to and use of the Internet by various vulnerable social groups. The thematic report on the problems and integration of elderly noted that the financial obstacles to acquiring a computer were slightly higher for young people (10% for the 16-29 age group) than for older people (around 8% for the 30- and 65-year-old age groups). (Elderly people 2014 - 2021)

The report dedicated to the problems of children highlights that most households with children aged 5 to 14 have some form of Internet access ("85.8% have a mobile connection, 71.6% have a fixed connection"). 235 However, the problem of families who cannot afford to provide Internet access remains unsolved (7.3% indicate this in terms of mobile connection and 11.3% - for fixed connection), which places the children in these families in a more vulnerable position, especially with regard to their educational activities. The authors of the report draw attention to the risks of educational and social exclusion of children due to the impediments to the online learning and developing digital skills, basic social contacts through communication with other children through the participation in online games or social networks. (Children 2014 – 2021)

In relation to people with disabilities, the study came to the conclusion that inclusive digital policies can have a positive impact on the access of people with disabilities to the labor market, respectively, to ensure their independence. At the same time, it is precisely this vulnerable group experiences financial barriers to access Internet, telephone connection and television. Recommendations have been made, accordingly, for measures to reduce poverty and build digital skills among people with disabilities.(People with disabilities 2014 - 2021)

The fourth and final thematic report examines the situation of Roma in the country. Only 27.8% of Roma children aged 6 to 18 have a computer device in the household they live in, compared to 90.7% of children

of the same age - ethnic Bulgarians and 80.9% - ethnic Turks. Accordingly, the lack of access to the Internet and a suitable device for its use has led to significant obstacles in the communication with other children and of the process of distance learning during the 2020 study year, when it was introduced in order to limit the spread of COVID-19. Moreover, the study proves that the non-use of computer devices significantly increases the risk of dropping out of the educational process and subsequently from the labor market. Thus, having computer skills and using computer, 33.9% of Roma are not working or studying, compared to 8.5% of ethnic Bulgarians; while with the lack of the relevant skills and use of ICT, 63.7% of Roma are not working or studying, compared to 45.5% of ethnic Bulgarians. (Roma 2014 – 2021)

The reports are based on data consistent with the data collected by the NSI and provide a sound basis for reforms and new legislation which should aim to stop the digital divide and digital exclusion.

5. Participation of interested parties (multistakeholderism)

The concept of the multistakeholder approach has evolved through time into a powerful force, influencing decisions about the Internet's use, operation, and policies. This approach matches the openness and transparency of the Internet and allows for the flexibility to accommodate an array of distinct views and positions about the development of the net. There is no one cast in stone multistakeholders' mechanism and specific multistakeholders' models may vary. The functional perception of the multistakeholders' participation can extend "from purely consultative multistakeholder engagement through to the full and empowered engagement of all (or multiple) stakeholders in a decisional process". (Buckridge 2024)

Nowadays in parallel to the principle obviously productive role in Internet governance an on-going debate about its practical application and possible changes is expanding. Current tensions stem from the ongoing efforts of the United Nations' Secretary-General to further develop "digital cooperation" or "digital governance" institutions at the global level and introduce "a more multilateral, government-driven approach".^x

Whatever models and perspectives come to the fore Bulgaria has no practical experience in this process. The UNESCO Universality Indicators Report had come to the conclusion that "there is no clearly formulated and adopted national legal framework to regulate overall Internet policy, which may lead to a lack of coordination and consistency in the application of the regulatory tools".

A common legal framework operates in the country, which should ensure the inclusion of interested groups in the development of normative and strategic acts. Pursuant to Art. 26 of the Law on Normative Acts, public consultations with citizens and legal entities should be held in the process of normative acts drafting. Before submitting the act of adoption according to the established procedure, the draft normative act is published on the website of the drafting institution, and in the case of an executive body, this is done on the public consultation portal Strategy.bg (Art. 26, para. 3). The approach is similar with regard to strategic documents (Art. 105, para. 1 of the Code of Administrative Procedure). By virtue of Art. 76, item 11 of the Organizational Regulations of the Council of Ministers and its Administration, the Strategic Planning Directorate in the Council of Ministers maintains the Strategic Documents section of the Public Consultations Portal and publishes draft strategic acts under the same conditions as draft normative and general administrative acts (Art. 85, para. 1 of the Regulations). However, there is no officially established procedure for active cooperation between the government and stakeholders in the development of the national Internet policies. No national Internet Governance Forum (IGF) has been structured in Bulgaria which results in decreased opportunities for an in-depth dialogue between various stakeholders' groups on Internet governance issues. Bulgaria participates in international Internet fora, in the activities of SEEDIG and EURODIG but these are all ad-hoc efforts and systematic information is not available. Such situation

makes it difficult to assess the level of inclusion and representativeness of the different domestic stakeholders' groups.

These conclusions are not encouraging since they are based on examples of the insufficient involvement of multiple stakeholders in the decision-making processes and of the limited participation of non-governmental organizations in governance at a national level. From an international perspective the lack of data on the active presence of non-governmental stakeholders, as well as statistics on their actual contribution, disaggregated by gender and stakeholder groups, indicates a weak engagement of civil society in these matters as a whole. Under these circumstances it is not surprising that national initiatives for promotion and participation are inadequate which in turn effectuates limited access to international fora for stakeholders from Bulgaria.

6. Discussion and conclusions

The UNESCO ROAMX Report about Bulgaria summarizes important information about the quality and efficiency of the Internet environment in the country. This environment should be human centred and enabling fast technical and democratic development. It impacts the quality of life in society. In many countries, digital quality of life has merged with the broader concept of the overall quality of life. No wonder since so many daily activities, including work, education and leisure, are taking place online.

The quality of the Internet in Bulgaria is 16% lower than the world average. Bulgaria occupies 40th place globally and 29th place in Europe under the DQL index and has dropped down by 10 points compared to 2023. We have to think seriously about the issue and compare it with the contextual ROAMX indicators. (DQL ranking)

The contextual indicators' analysis shows that the economic development is relatively slow without radical reforms or any reforms what so ever. The entrenchment of the rule of law principle poses problems. Business freedom is not well guaranteed and is limited. There are also negative factors that impact the process of digitization stemming from decreasing and ageing population. The discrepancies in Internet access between country regions and big cities still exist. The ICT penetration in Bulgaria is significantly lagging behind other EU member states. Some of the main challenges for successful digital transformation are related to the Internet coverage in rural areas, network security and the penetration of fixed broadband. The high level of digital advancement in large cities contrasts sharply with the low level in rural areas and smaller settlements. The pace of digital transformation of businesses outside the ICT sector remains low. Bulgaria ranks last in Europe when it comes to integrating basic technologies such as CRM, ERP, cloud computing or even the use of computers and the Internet in daily operations by SMEs. More advanced digital technologies such as Artificial Intelligence (AI), Internet of Things, big data are even less widespread and are considered the prerogative of large companies, a fact which is also a barrier to more solid results in smart cities establishment and proliferation, we see elements only of such cities in the capital and other big Bulgarian cities.

The Digital Transformation Strategy of Bulgaria for the period 2024 – 2030 emphasizes that “the ultimate success of an effective digital transformation depends on both the understanding of digital development by citizens, businesses and administrations and the skills of the workforce. Digital confidence is becoming a core competency as more and more jobs require more digital and data skills. This applies not only to workplace skills but also to society as a whole”. The strategy also underlines that most of STEM professionals prefer to stay in big cities or find work abroad. At the regional level, there is a serious difference between cities and villages in at least basic digital skills. Internet users in villages are less interested in obtaining information about new technologies and trends and are not well motivated to acquire IT skills and find a job. The lack of digital competences and the lack of basic digital skills hinders wider

digital perceptions and digital culture and exacerbates the digital divide. In the public sector, there is also a need for additional training of civil servants, including in basic data skills. At regional level, there is even more pressure. “Due to insufficient financial resources (or lack of a dedicated budget), Bulgarian municipalities experience an acute shortage of qualified personnel to operate IT resources or provide IT services. Municipalities often outsource IT tasks to external companies, which leads to low sustainability and heterogeneous quality levels”. The business sector is characterized by “limited incentives and/or opportunities to hire ICT specialists or to provide capacity-building and upskilling programs for its staff”.

To address these challenges, measures have been taken to implement strategic planning and digital skills development activities above all. Targeted education and training programmes have been launched, but results are moderate. There are a number of initiatives focused on education and training programmes that address young people, women and teachers, mostly supported by active private organizations, NGOs and the government. Vulnerable groups (e.g. ethnic minorities, people with disabilities, migrants) remain to a relatively large extent excluded from participation in the digital activities due to complex factors. Although some separate policies dedicated to them are discussed, practical efforts should be stepped up in order to accomplish better integration and equal Internet opportunities for these groups.

On the other hand, strategies demonstrate intentions only. In order to turn them into effective practice it is crucial to revise the legislation in force and to adapt it to the digital requirements. In parallel to this, special laws that are pivotal for the digital transformation of society have to be adopted. As a whole the legal system has to be consistently upgraded. Reforms should be carried out in the media sector and impulses come predominantly from the EU with the adoption of the Digital Services and Digital Markets Acts and the European Media Freedom Act. Domestic pieces of legislation have to be amended or replaced by new ones that protect better freedom of speech and independence of the media in the novel environment. In addition to this, the exercise of the freedom of association and participation in public affairs should be facilitated through the adoption of legal norms that create better conditions for citizens to participate in state governance in a transparent manner. With respect to AI development “the new legal framework is expected to remain proportionate and not lead to overregulation. To this end, new rules will be introduced mainly for high-risk systems using AI, such as biometric and facial recognition solutions, technologies for self-driving cars, recruitment platforms (which, depending on the data used in their training may lead to discrimination on the basis of gender, ethnicity or other principle), etc.” (Concept for AI)

The weakest nod in the digital transformation chain in Bulgaria, however, is the application of the multistakeholder principle (more precisely its non-application). In the digital age multistakeholderism underpins smart governance. “The multistakeholder approach is vital to keeping the internet free, secure, efficient, equitable, and respectful of human rights, especially in the face of rapid technological advancements” is the opinion of the European Commission voiced in connection with the launch of a recent targeted consultation on its stance on Internet governance in preparation for the critical milestones foreseen in 2025 (WSIS+20) and in response to the request from the Council to develop “an EU strategy on the multistakeholder governance of the Internet”. (EU Survey)

Wider reliance on public consultations – raising awareness and active involvement of citizens and NGOs in public consultations - can lead to better formulation of policies and laws related to Internet governance and beyond. This approach will revitalize the whole policy-and legislation making. Creating opportunities to increase public engagement on the role of AI in social life and effective public dialogue for instance, are key factors in “building trust and formulating sustainable policies”. Public dialogue in particular must create a unique "trust ecosystem" by ensuring compliance with EU rules, including those for the protection of fundamental human rights and consumer rights, especially in relation to high-risk AI systems”. (Concept for AI)

The intensification of the dialogue among stakeholders will also prepare the ground for efficient and long-term collaboration in smart cities (we expect smart cities to expand in Bulgaria and the few activities that exist now to develop into true innovative systems) instead of taking ad-hoc decisions. Conceptualizing, designing, implementing, validating, and evaluating solutions to urban challenges with all relevant stakeholders are perceived as the optimal mechanism in these perspectives.

The UNESCO Internet Universality Assessment Report is a comprehensive document, first of that type in Bulgaria. We would like to have a document that more frequently looks behind the figures and together with the technical analysis takes a strong stand for democracy in the country. The Report should stay a living instrument which nourishes the preparation and the implementation of all strategies and laws related to the digitization of Bulgarian society through regular update and inclusion of additional data on human rights and rule of law. The contribution of the UNESCO Internet Universality Assessment Report is that it reflects holistically the complex picture of Internet evolution in Bulgaria with all its ups and downs and proves that the path to digital transformation is long and thorny.

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ⁱ ITU is even more concrete in this and points to the smart sustainable city being “an innovative city that uses information and communication technologies (ICTs) and other means to improve quality of life, efficiency of urban operations and services, and competitiveness, while ensuring that it meets the needs of present and future generations with respect to economic, social and environmental aspects.” (Patela & Doshi 2019)

ⁱⁱ Freedom House is founded on the core conviction that freedom flourishes in democratic nations where governments are accountable to their people.

ⁱⁱⁱ TI Bulgaria reiterates that full transposition of Directive (EU) 2019/1937, and the establishment of a stable legal framework that could be implemented by all stakeholders can only be ensured if all gaps, inconsistencies, and legal issues with the secondary legislation are resolved in a timely and transparent manner. These are again rule of law issues. (CPI 2023)

^{iv} The mechanism is created under Decree No. 59 of March 21, 2024 with the aim “to ensure effective interaction between state authorities and other public institutions for the improvement of the situation, protection and promotion of human rights in the Republic of Bulgaria” (art.2 para 1).

^v The related “National Strategy for Child and Adolescent Health and Pediatric Care 2030” mentions that investment “in the people working in the system, in modern technologies for diagnostics and treatment, and in a welcoming and safe environment” is an important priority.

^{vi} The right to free expression of opinion in specific circumstances is proclaimed in the Child Protection Act which provides for the right of children to freely express their opinion in accordance with the international treaties to which the Republic of Bulgaria is a party and in the Social Services Act which provides for the right of persons using social services to freely express their opinions regarding the manner and effectiveness of the provision of services, as well as to make recommendations for improving their quality.

^{vii} In connection with the detailed definition of obligations for entities to ensure cybersecurity, a Regulation on the minimum requirements for network and information security was adopted by the Council of Ministers No. 186 of 19.07.2019, which also contains the rules for filtering traffic.

^{viii} Order No. 777/18.10.2022 of the Chairman of the Supreme Court of Cassation on creating an Electronic Register of Proceedings Conducted against Journalists and Media and publishing of up-to-date lists of cases conducted against journalists and media.

^{ix} In 2016 the UN declared the Internet access to be a human right. Specifically, an addition was made to Article 19 of the Universal Declaration of Human Rights (UDHR) related to the right to freedom of opinion and expression. Section 32 adds “The promotion, protection and enjoyment of human rights on the Internet” and another 15 recommendations that cover the rights of those who work in and rely on Internet access. It also applies to groups like women, girls, and others heavily impacted by the digital divide.

^x Sorina Teleanu's book “Unpacking Global Digital Compact Actors, Issues, and Processes”, 2024, presents a comprehensive analysis of the Global Digital Compact (GDC) adopted on 22 September 2024 during the Summit of the Future, held at the United Nations in New York. The EU has worked closely with all UN members to achieve an ambitious Global Digital Compact outlining principles, objectives, and actions to support an open, free and secure digital future for all that upholds human rights, overcomes digital divides and reaffirms the multi-stakeholder governance of the Internet.
