AICESIS
International Association of Economic and Social Councils and Similar Institutions

Общественная палата Российской Федерации
CIVIC CHAMBER OF THE RUSSIAN FEDERATION

LIVING IN THE ONLINE AGE: LOOMING CHALLENGES AND URGE FOR SOLUTIONS

Final Report on the Presidency of the Civic Chamber of the Russian Federation in the International Association of Economic and Social Councils and Similar Institutions in 2021–2023

UDC [32/33+008]:004

Living in the Online Age: Looming Challenges and Urge for Solutions. —
Moscow: Civic Chamber of the Russian Federation, 2023.
ISBN 978-5-6050798-1-1

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Moscow, 2023

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The Civic Chamber of the Russian Federation expresses its special gratitude to the Economic and Social Councils of the member-states of the International Association of Economic and Social Councils and Similar Institutions for supporting the topic of the Russian presidency "Living in The Online Age: Looming Challenges and Urge for Solutions," and in particular acknowledges the participants of the discussions and roundtables who contributed to the preparation of this Report:

Amin Mounir Alaoui, Member, Economic, Social and Environmental Council of the Kingdom of Morocco, Chairman of the Permanent Commission on Knowledge and the Information Society;

Dimitros Bimbas, Scientific Advisor, Economic and Social Council of Greece;

Albin Feliho, Member, Economic and Social Council of the Republic of Benin;

Micheline Gbeha, Advisor, Economic and Social Council of the Republic of Benin;

Tabé Gbian, President, Economic and Social Council of the Republic of Benin;

Raul Henriquez, Director and Secretary General, Social and Economic Council of Curaçao;

Ariel Isaac, Representative, Economic and Social Council of Buenos Aires, Argentina;

Hanifa Mezui, AICESIS Permanent Representative to the UN ECOSOC;

Luis Sauto, Director of Research and Studies, Economic and Social Council of Spain;

Miloushka Sboui-Racami, Senior Advisor, Social and Economic Council of Curaçao;

Mohammed Shakib Skander, Member, National Economic, Social and Environmental Council of the Republic of Algeria;

Ben Shenglin, Member, Economic and Social Council of the People's Republic of China;

Andrijana Vukovic, Advisor, International Cooperation Department of the Serbian Employers Association;

Apostolos Xyrafis, AICESIS Secretary General, Secretary General of the Economic and Social Council of Greece;

Zhang Yunyun, Member, Economic and Social Council of the People's Republic of China.

The International Association of Economic and Social Councils and Similar Institutions (AICESIS) is a unique structure established in 1999.
The official website of the Association is **www.aicesis.org**.

AICESIS brings together more than 70 national civil society institutions and their regional organizations. The members of the Association are tripartite economic and social councils (comprising trade unions, business organizations, the nonprofit sector and in some cases the state), civic chambers/councils and similar institutions with a national competence based on a constitution, law or other form of official confirmation of their functions of representing and defending national economic and social interests.

The main statutory goals of AICESIS are to promote the experience exchange among its members and to develop dialog based on the values of peace and security, human rights and democracy in the capacity of a network organization, as well as to assist in the creation of economic and social councils and similar institutions around the world and in the birth of a democratic civil society guided by a spirit of mutual respect, based on the ideas of peace, in line with the principles of the United Nations and the Universal Declaration of Human Rights, the fundamental rights at work adopted by all members of the International Labor Organization.

The Civic Chamber of the Russian Federation joined the Association in 2006.
In 2013–2015, the Civic Chamber of the Russian Federation presided the Association.

In October 2021, the Civic Chamber of the Russian Federation was elected again to preside the Association in 2021–2023, and President of the Civic Chamber of the Russian Federation, Lidia Mikheeva, became President of AICESIS.

Contents

Digital agenda priorities during the Presidency of the Civic Chamber of the Russian Federation in AICESIS: New opportunities and challenges of digital transformation of the state and society

In early 2021, when nominating the Civic Chamber of the Russian Federation for the position of the President of the International Association of Economic and Social Councils and Similar Institutions, we proposed the topic "Living in the Online Age: Looming Challenges and Urge for Solutions." Since then we have been convinced yet again that the issues on the Association's agenda are relevant.

The world of digitals has changed not only the way of living of the entire society and each individual during the recent years, but also the habitual working formats of interaction, has accelerated the pace of our being and transferred a significant part of life to 'online'. This applies both to heads of state or transnational corporations, and cultural figures, educators, scientists, ordinary citizens. The unprecedented digital boom, multiplied by the COVID-19 pandemic, and the all-time high growth in the use of big data and the development of information and communication technologies (ICTs), has posed a number of new challenges, in particular for civil society institutions. How are new formats of work and communication to be built? How are human rights to be protected in the digital space? How are new technologies to be combined with ethical norms and rules?

Within this paradigm, the Civic Chamber of the Russian Federation, as the presiding council of AICESIS, has set a goal in its two-year work program to intensify the exchange of experience and legislative practices in order to develop common approaches in various areas of the digital environment.

We saw the following aspects as particularly significant and requiring coordination among the issues on the chairmanship agenda: digital inequality, the protection of human rights online and, in particular, of those who are under legal age, higher digital literacy of various population groups, and ethical problems arising when introducing and employing modern technologies.

In essence, we suggested an expert discussion on global issues of digital transformation of socially significant processes in the modern world. At the same time, since the Civic Chamber of the Russian Federation always puts the interests of the individual and society in focus, we were primarily interested in the ethical aspects of the use of digital technologies, the balance between the interests of large companies and states, on the one hand, and the

The modern development of ICTs is a prerequisite for scientific and technological progress, an indispensable condition for the transition of the global world to a new level. Along with that, it is necessary to remember the importance of protecting human rights in online, which, along with the protection of other natural rights of the individual, should become one of the key tasks of civil society institutions around the world

interests of the individual, on the other. Undoubtedly, nowadays the development of ICTs is a prerequisite for scientific and technological progress, an indispensable condition for the technological revolution and transition of the global world to a new level. Along with that, it is necessary to remember the importance of protecting human rights in the online environment, which, along with the protection of other natural rights of the individual, should become one of the key tasks of civil society institutions around the world.

Today, the Internet has become one of the pillars of globalization, making the world more democratic, giving people equal opportunities for learning and self-development. However, it has also made them more vulnerable, opening up additional opportunities for malicious users. Cybercrime, leaks of personal data, privacy compromise in the online space have become a new norm of life for the ordinary person. A new category of 'digital threats' has emerged. In short, new challenges have emerged, and AICESIS has become the platform for finding solutions.

The past two years have seen a series of online and offline events, that we organized and dedicated to the key priorities on the digital agenda. Despite the limitations due to the consequences of the global COVID-19 pandemic and general geopolitical turbulence, we have managed to ensure a productive exchange of views across a wide range of sectors. The events under the umbrella of the Civic Chamber of the Russian Federation gathered leading national and international experts, representatives of government and public institutions of the AICESIS member countries, civic activists and business representatives, opinion leaders of the modern digital sphere. This allowed us to summarize a number of existing global practices in the digital environment, present the Russian IT sector best practices, comparing our developments with similar achievements of foreign colleagues, share our experience and develop a number of joint solutions in the socio-humanitarian aspects of the global digital agenda.

I trust this work will be continued within the next 2023–2025 chairmanship in AICESIS. We are ready to further implement joint initiatives in this area both at the level of AICESIS and at the UN.

Lidia Mikheeva,
President of the Civic Chamber of the Russian Federation, President of the International Association of Economic and Social Councils and Similar Institutions

The State and Society in the Digital Environment

The 21st century characterized by the development of the Internet and the widespread introduction of related digital technologies has given an additional impetus to globalization in all spheres of life in modern society. Today, trade, education, social communications, and mass media are developing primarily in the Internet, this being an inevitable trend in the development of mankind. The advantages of the Internet related to a broader access to knowledge, easier communications, provision of services, and doing business cannot be underestimated. The potential of the World Wide Web to build bridges between different countries and cultures, to unite people around the world for the cause of peace, to achieve common goals for the benefit of all mankind is enormous. In addition, according to UN experts, it is advanced ICTs that can play a key role in the coming years in achieving the Sustainable Development Goals (SDGs).[1]

Along with that, the world is not fully aware yet of all, in particular negative, consequences of technological progress and the introduction of new digital technologies into everyday life. Not all segments of society have been able to adapt with equal effect and success to such high-tech changes. The digital transition has had its impact on the well-being of social groups in different countries in a broad variety of ways, resulting in the so-called 'digital divide'. While the Internet has become a single information space for billions of people, it also poses a variety of threats. The proliferation of different digital platforms that require personal data increases the risks of information leakage and privacy compromise in the online space.

In 2022, the number of Web users already exceeded 5 billion, meaning that more than 63% of the world's population have access to the World Wide Web. However, according to the latest data of the International Telecommunication Union (ITU), about 2.7 billion people (one third of the world's population) currently do not have access to the Internet. This refers primarily to the countries of the Global South, i.e., Africa, South America and Asia.

In today's world, the digital divide has become one of the most important factors of economic separation of the population

In today's world, the digital divide has become one of the most important factors of economic separation of the population. At the end of the past century, the UN introduced a new – information – dimension of poverty which determines the possibility of access for large groups of population to the information highway. By the end of the next decade, economic growth, higher productivity and human capacity building are expected to be largely determined by the level of integration into the digital economy. Unless action is taken, the yawning digital divide between regions, both nationally and internationally, will widen, worsening the inequality and disparities in access to services, facilities and other benefits created as part of the digital transition. The degree of digitalization can also have a significant impact on a country's level of achievement of the SDGs.

[1] Digital technologies for achieving the UN SDGs. International Telecommunication Union. URL: https://www.itu.int/en/mediacentre/backgrounders/Pages/icts-to-achieve-the-united-nations-sustainable-development-goals.aspx

1.1

Digital Transition Issues at the Global Level

The global challenges of technological innovation development make digital technologies not only an essential element of the national and global infrastructure, but also one of the main factors reflecting the real role of states on the world stage. Digitalization which was rapidly gaining momentum and accelerating due to the global COVID-19 pandemic, inevitably forms new challenges and opens new windows of opportunity to the state, society, business and each individual citizen. The Internet has become an integral part of society and one of the key factors of sustainable development and global partnership for its benefit.

Social media, e-commerce platforms, search engines, cloud storage, email services, and various online multimedia services now play a crucial role in the lives of users, businesses and governments, and in the global economic and social patterns. Digital transformation has become one of the main priorities of modern economy, public governance and social processes. It includes not only the introduction of new technologies and technological solutions into the daily life of companies and government agencies, but also the transition to new practices and opportunities for governance, assignment of responsibility and powers, and interaction with external counterparties.

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Digital transformation has become one of the main priorities of modern economy, public governance and social processes. Its main goals include optimization and acceleration of various public processes, increasing the level of openness and accessibility of public services to all categories of citizens

goals of the digitalization process. Increase of digitalization in the state contributes to a higher quality of public governance, both in general and at the level of individual powers in implementing public functions. Nevertheless, there are challenges in the implementation of digital technologies that are still relevant. This applies both to the legal regulation of this process and the digital transformation of the legal sphere itself. Law in the new reality is regarded not only as the main regulator of digitalization of state and public life, but also as an object of modernization and transformation to adapt to the new realities.

Today, legal regulation of data circulation is on the agenda of countries with absolutely different legal cultures and traditions. The growing penetration of digital technologies in all spheres of human and public life inevitably increases the volume of information flow. Internet of Things devices, mobile devices, social media, 'smart homes' and other technologies generate a huge amount of data, which entails accelerated development of the data market.

By 2025, the amount of data produced globally is projected to grow by 530% from 2018 to reach 175 billion terabytes. The growth rate of the global big data market is estimated at 19.7% annually for 2019–2025. In other words, humanity today has only 5% of the knowledge that will be created and become available to us in 40 years. By 2030, the global economy will attract 13 trillion US dollar just due to the development of artificial intelligence, the use of which will provide 14% of global GDP growth (15.7 trillion US dollar).[2]

Such a full-scale 'going digital' also gives rise to a number of difficult ethical problems and contradictions, inevitably clashing with the habitual and conventional human socio-cultural ties. The digital environment influences human behavioral patterns and affects the structure of human society without any significant counteraction. The need to develop ethical standards and norms of behavior on the Web is also determined by the complexity of comprehensive legislative regulation of this sphere, accompanied by elements of social responsibility and self-regulation of the state, society and business. It is also essential and urgent to develop unified approaches to personal data protection on a global scale in order to balance the rights and responsibilities of all parties in the digital environment.

As it was mentioned above, the development and transformation of digital technologies, their penetration into people's lives has a significant impact on a number of processes in the socio-economic sphere. The development of digital economy has become one of the key priorities worldwide. Education, healthcare, and law are not merely affected by digitalization, but, in fact, have acquired a new digital dimension. Thus, social and political relations have largely fallen in focus of the digital discourse both in the national and global space.

Approaches to Digital Transformation in Russia, China, European Union and West Africa

The modern world is dominated by three main approaches: the first focuses on human rights, the second ensures the interests of the state, national security and economic independence as the priority, and the third keeps the interests of business as its cornerstone.

The difference in approaches is due to the established legal traditions and functions of the state in a particular country, which forms different vectors of development of the legal framework, but a number of leading world economies make the main emphasis in their national strategy in the field of data on creating conditions for their most effective use and free exchange, and removal of existing barriers.

Thus, a balance between an open data market, protection of the rights of entities, and ensuring the sovereignty and security of the state is the most important aspect of new information technologies and building a system of data use. Each jurisdiction strives to find its own best model of such a balance.

[2] 2019 AI Predictions: Six AI priorities you can't afford to ignore. PwC, 2019. URL: https://www.pwc.com/us/en/services/consulting/library/artificial-intelligence-predictions-2019.html

Russia

Russia ranks first in Europe by the number of Internet users and sixth in the world by the availability of home and mobile Internet, according to the data announced by the Chairman of the Government of the Russian Federation Mikhail Mishustin in February 2023.

Russia, like most foreign countries, pays special attention to assessing the digital transformation of social services. The high level of social significance, multidimensional and complex nature of interaction associated with the use of big data which characterize the digital tools employed to ensure interaction between citizens and the state, explain the great importance that our country attaches to the legal and regulatory framework in this sphere. Executive Order No. 474 of the President of the Russian Federation "On the National Development Goals of the Russian Federation through 2030" of July 21, 2020, defines digital transformation of the economy and social sphere as one of the strategic vectors of the country's development.

In early 2021, the Russian Government issued a decree approving the Concept of Digital Transformation of the Social Sphere through 2025,[3] which envisages the development of a single digital platform in Russia that will embrace all social support measures. It will help citizens to receive pensions and other allowances without submitting applications and support documents. Gradually, all processes of awarding and provision of social support measures will be transferred to this platform. The concept will form the basis for the creation of a 'social treasury' system which will make it possible to provide social benefits as quickly as possible in a convenient and targeted way. The implementation of the plans approved by the Government will allow for making social services available to 95% of Russian citizens without leaving their home by 2030.

> Today Russia is one of the leaders in the digitalization of public governance and social sphere and is in the top 10 countries with the highest level of information technology used in the public sector, according to the World Bank rating

Today Russia is one of the leaders in the digitalization of public governance and social sphere. Examples of this work are known to everyone: *Gosuslugi* [Unified Internet Portal of State and Municipal Services (Functions)], a federal state information system that provides citizens, entrepreneurs and legal entities with access to information about national and municipal institutions and the electronic services they provide, has been successfully functioning since 2009. A network of multifunctional centers for the provision of government services has been launched throughout the country.

According to the Government of the Russian Federation, over 100 million Russian citizens have personal profiles on the *Gosuslugi* Portal (over 40% growth over the last three years), and the number of confirmed accounts has increased almost 1.5 times over

[3] Concept of Digital and Functional Transformation of the Social Sphere of the Ministry of Labor and Social Protection of the Russian Federation for the period of until 2025. URL: http://www.consultant.ru/document/cons_doc_LAW_378135/bf5bc7598623abc799f31056759bc94f880c0649

the last five years.[4] The number of users who turn to the *Gosuslugi* Portal daily has almost quadrupled to 9.5 million people.[5] The number of types of e-services that can be obtained fully online through the portal is 480, and the total number of services provided to users in 2022 exceeded 200 million, according to the Ministry of Digital Development, Communications and Mass Media of the Russian Federation.[6] The most popular services in 2022 included the award social payments, allowances and benefits (27 million applications), appointments to doctors (20 million applications), and enrollment in educational institutions (4 million applications).[7] The introduction of digital copies of various documents – from digital employment records to electronic driver's license – is another important outcome of work in this area.

Russia's efforts to develop digital technologies in the public sector have also been recognized by international experts. For example, the Russian Federation is among the top ten countries with the highest level of information technology used in the public sector, according to the World Bank rating.[8]

However, one of the goals of the Concept approved by the Government is not just the further implementation of digital technology in the social sphere, but a transition to application-free social assistance, which will lead to an increase in the number of citizens who will benefit from social services. The digital transformation of the social sphere should change the form in which public institutions interact with Russian citizens, eliminate many barriers, and increase convenience for citizens in order to help minimize the errors of government services.

At the same time, we should not forget about the growing risks of information security when creating such a system, associated with the storage of many terabytes of citizens' data. Also, many social institutions do not catch up with adapt to the ongoing changes as a result of the high rate of digital development, which may lead to social crisis.

An equally important aspect of digital transition for Russia is the issue of ensuring uninterrupted access to the Internet and digital services, which is critical for the functioning of both business processes and public governance. Against the backdrop of global digital transformation, digital sovereignty is becoming one of the key components of nations' security and economic stability. In this regard, the security of the common digital space becomes an urgent task for all states.

Russia is an example of successful creation of national digital services and platforms. At present, the country has formed its own powerful 'digital pool' – an established ecosystem of companies that earn their main profit from software products, digital content, e-commerce, advertising and Internet marketing, infrastructure and communications.

Russia's digital economy is characterized by strong players of its own in virtually all segments. In particular, Russia has its

[4] Mikhail Mishustin participated in an international digital forum "Digital Almaty 2023." Russian Government, February 3, 2023. URL: http://government.ru/news/47680

[5] Key indicators of the national goal "Digital Transformation" in 2022 have been exceeded. Russian Government, January 19, 2023. URL: http://government.ru/news/47578

[6] Digital transformation in Russia: Results of 2022 and plans for 2023. Garant.ru, January 30, 2023. URL: https://www.garant.ru/article/1605871

[7] Ibid.

[8] GovTech Maturity Index (GTMI). World Bank. URL: https://www.worldbank.org/en/data/interactive/2022/10/21/govtech-maturity-index-gtmi-data-dashboard

> Russia has formed its own powerful 'digital pool' – an established ecosystem of companies that earn their main profit from software products, digital content, e-commerce, advertising and Internet marketing, infrastructure and communications

own marketplaces, social platforms and communication services, online movie theaters and streaming music services, FinTech players, developers of mobile solutions, and cloud solutions, to name but a few.

The situation on the market of classic social media platforms is quite illustrative: while Facebook[9] managed to displace local projects of a similar nature in the European Union (EU), thus becoming a practically alternative-free social media there, the main audience of Russian users in Russia sticks to the domestic platforms *Odnoklassniki* [Classmates] and VK.

According to a study by the National Research University Higher School of Economics, Russia's digital technology market has not only survived, but also grown despite the unprecedented sanctions pressure and unfavorable macroeconomic changes. This is largely due to the digitalization strategy that many companies have continued to follow, and a number of market players have even accelerated this process against the background of replacing foreign IT products and vendors that left the market.

In particular, instead of acquiring foreign software, IT budgets began to be allocated to the purchase of domestic software and import substitution projects, along with the simultaneous increase in the development commissioned software and support of previously deployed foreign IT systems.[10]

The practice of 2022 showed that the niches previously taken by foreign services are almost instantly being filled by Russian ones, in particular, this is well illustrated by the increase in both the audience in general, and the daily hits of VK and the amount of content posted on this social networking platform, largely due to the overflow of 'business' audience from Facebook. In the summer of 2022, 43% of Russian companies were in the process of replacing foreign IT solutions, according to Naumen.[11]

The National Payment Card System (NPCS) is another compelling example as it has ensured the operability of all bank cards issued in the Russian Federation, even in the offline mode.

The analysis of crisis situations in the economy shows that the 'digital pool' is hardly exposed to crisis phenomena and, as a rule, continues to demonstrate growth.

[9] Hereinafter "Facebook," a social network and a product of Meta Platforms Inc. (an organization officially declared extremist and prohibited in the Russian Federation), is recognized extremist and prohibited by the decision of the Tverskoy District Court of Moscow of March 21, 2022, court case No. 02-2473/2022

[10] Digital Certainty. How Russian business is reorganizing IT strategies in the new environment. Kommersant, June 15, 2023. URL: https://www.kommersant.ru/doc/6041194

[11] 43% of Russian companies are in the process of replacing foreign IT solutions – Naumen study. CNews, October 13, 2022. URL: https://www.cnews.ru/news/line/2022-10-13_43_rossijskih_kompanij_nahodyatsya

ICT Industry Development Trend in Russia, 2022
Source: Institute for Statistical Studies and Economics of Knowledge (ISSEK) of the National Research University Higher School of Economics

Goods, works, services sold (billion Russian ruble)		Increment by 2021	
ICTs, total	5,417.9	↗ 421.8	↗ 8.4%
IT Industry	2,166.2	↗ 390.4	↗ 22.0%
Other IT Services	308.8	↗ 31.7	↗ 11.4%
Telecommunications	2,107.3	↗ 86.0	↗ 4.3%
ICT Production	799.0	↘ –59.2	↘ –6.9%
Wholesale of ICT products	36.6	↘ –27.1	↘ –42.5%

Average number of employees (thousands persons)		Increment by 2021	
ICTs, total	1,332.4	↗ 53.9	↗ 4.2%
IT Industry	781.0	↗ 81.2	↗ 11.6%
Telecommunications	339.2	↘ –20.0	↘ –5.6%
ICT Production	164.0	↘ –4.8	↘ –2.8%
Wholesale of ICT products	48.2	↘ –2.5	↘ –4.9%

Investments in fixed capital (billion Russian ruble)		Increment by 2021	
ICTs, total	910.1	↗ 89.1	↗ 10.9%
IT Industry	249.4	↗ 90.9	↗ 57.4%
Other IT Services	63.1	↗ 23.4	↗ 58.9%
Telecommunications	532.3	↘ –33.1	↘ –5.9%
ICT Production	57.6	↗ 3.2	↗ 5.9%
Wholesale of ICT products	7.7	↗ 4.7	↗ 156.7%

For 2022 as a whole, the ICT sector managed to overcome the negative trends observed early that year and retained its role as a driver of economic growth; the ICT sector organizations invested 910.1 billion Russian ruble in fixed capital, which is 10.9% more than in 2021. The volume of products sold in 2022 amounted to 5.4 trillion Russian ruble in the ICT sector. Annual growth amounted to 421.8 billion Russian ruble, or 8.4%, which is slightly less than the economy as a whole (8.8%), but during the period of economic constraints in Q2–Q4 2022, the ICT sector dynamics exceeded the value for Russia by many-fold (+6.5 vs. +1.2%).

Public and private support measures have not been the least to maintain technological stability. The government has been implementing active incentives to support the IT industry during recent years: tax maneuvering, targeted support packages, preferential lending programs, and grant support. It is especially important that the planned measures and new ideas are developed in close cooperation with businesses. In 2022, the state started to engage in a more active support than before to fill the Russian 'digital pool' with domestic solutions. Companies have been offered preferential lending programs for projects related to the implementation of Russian IT solutions.[12] In turn, software developers are provided with grants to accelerate the launch of new products on the market.[13] In the Russian Federation, special measures were introduced to support the IT industry by providing a number of benefits in lending, exemption from profit tax (in particular, for software developers), as well as easing tax, currency and other controls.

Human resources are one of the components of technological breakthrough. As early as the late 2010s, the Russian Federation launched an extensive program to fill the market with IT professionals, for the market demonstrated growth and the demand in new personnel. A clear example is the state-run program to create 'digital chairs' at more than a hundred higher education institutions in Russia, aimed precisely at training IT professionals. Against the backdrop of 2022, IT employees received additional government guarantees, including preferential mortgage lending, and deferment from military service, for those of conscription age. According to the Russian Association of Electronic Communications (RAEC) study conducted in the summer of 2022, the number of IT professionals who consider the measures taken useful for themselves increased from 17.5 to 24%.[14]

China

The digitalization practices of the People's Republic of China undoubtedly trigger interest. Nowadays, China is among the leaders of ICTs introduced in the key areas of government and public life. In 2022, President of the People's Republic of China Xi Jinping declared the social sphere, big data and security priority areas for digitalization in the next five years. In particular, there are plans to launch a 'single card', expanding the possibilities offered by the digital social security card currently in use, which is necessary for employment and social insurance. It is assumed that the 'single card' will provide integration with government services, and it will be used to purchase

[12] Preferential lending for projects to develop and implement Russian IT solutions. Ministry of Digital Development, Communications and Mass Media of the Russian Federation, June 28, 2023. URL: https://digital.gov.ru/ru/activity/directions/942/

[13] Government support for the IT industry helps to develop and implement new domestic software. Ministry of Digital Development, Communications and Mass Media of the Russian Federation, September 21, 2022. URL: https://digital.gov.ru/ru/events/41998

[14] IT specialists' Sentiments in Russia. RAEC, 2022. URL: https://raec.ru/activity/analytics/13257/

China is among the leaders of ICTs introduced in the key areas of government and public life

medicines, medical services and a number of other services. The services operation will be ensured by blockchain technology. It is also planned to create a unified portal of government services.

On April 4, 2023, the State Council of the People's Republic of China declared the development of the digital economy a top priority. The Chinese authorities intend to actively support the deployment of telecommunications and IT infrastructures and promote further transformation of enterprises. In particular, it is about accelerating the large-scale commercial application of 5G mobile telecommunications. According to the State Internet Information Office of the People's Republic of China, the number of 5G base stations in the country had reached 2.31 million by the end of 2022. China is ready to connect more than 500 million households to the gigabit optical network. The country has already created a special group which tasks include research in the field of 6G.[15]

The national program "Creating a Social Credit System" is distinct development track launched back in 2014. It envisages development of a social rating, which is being tested now in large agglomerations of China. The essence of the initiative is that each citizen receives a starting number of points, which changes depending on the citizen's behavior in the following areas of activity throughout his or her life:

1. Relationship with the state. Timely transfer of taxes and payment of bills, repayment of loans, occurrence or absence of offenses, etc. are among the criteria;

2. Behavior in society. It is about compliance with traffic rules, fertility norms (number of children in a family), professional integrity, etc.;

3. Life in the digital space. The person's behavior in virtual space is the marker; it includes the culture of communication with other users, reliability and quality of information posted by the person, as well as the analysis of consumer requests when using digital platforms and online shopping.

According to the latest legislative innovations adopted in 2021, every China citizen has a starting rating of 1,000 points. If the rating is above 1,050 points, the citizen acquires the AAA index, if the rating drops to 900 points, the individual already belongs to the B category. A rating below 849 points (category C) means that the citizen can be dismissed from state or municipal bodies. A rating below 599 points places the citizen in the lowest category D. Among other things, people with such a rating cannot apply for a wide range of jobs, get loans, buy tickets for some types of transportation, and enjoy many public goods and benefits.

A high rating, on the contrary, provides an opportunity to use the whole range of state and public services in a priority

[15] China's Digital Economy. TAdviser, June 20, 2023. URL: https://www.tadviser.ru/index.php/Статья:Цифровая_экономика_Китая

manner: such a person can enjoy a simplified procedure of drawing documents for trips abroad, a lower rate on a loan or mortgage, tangible advantages in employment or early promotion, it becomes possible to get a discount on housing and utilities payment and other services.

For example, a citizen can 'earn' additional points for volunteering or donating blood. The total rating depends not only on the person's financial reliability or professional activity, but also on numerous lifestyle factors, as well as society's opinion of the person.

In late 2022, China's State Council announced its intention to introduce a National Integrated Government Affairs Big Data System, an analog of Russia's *Gosuslugi* Portal.

Work to deploy the system has already begun. It is known that the initial catalog includes information about more than 3 million public data libraries and more than 20 million information records, in particular data on China's population, legal entities, natural resources and national economy. In the future, the database will be constantly replenished and expanded: There are plans to include information on electronic licenses, medicine and health care, financial organizations, credit services, etc. The main part of the work within this project is to be completed by 2025.[16]

European Union

The EU demonstrates another approach, adhering to the position of high risks of introducing social rating. Thus, the protection of personal data is institutionalized in the EU within the framework of the General Data Protection Regulation,[17] and in April 2021, the European Commission proposed to prohibit the introduction of artificial intelligence technologies,[18] which are used for "mass surveillance applied in a generalized form to all natural persons without any distinction." Surveillance techniques such as "monitoring and tracking of individuals in a digital or physical environment, as well as automatic aggregation and analysis of personal data from various sources" became illegal.

It is noteworthy that the 'high risk' category includes, among others, artificial intelligence technologies in robotic surgery, software for hiring employees, documents examination and evidence verification (in legal proceedings), as well as for assessing citizens' credit rating – the primary element of the entire social rating system. Moreover, the comment to the European Commission document explains that the very essence of social rating and the use of artificial intelligence in "applications that manipulate a person's behavior to circumvent their will" is unacceptable. Businesses that ignore the new rules may incur fine up to 20 million euro or 4% of their annual turnover.

In December 2022, the Presidents of the European Commission, the European Parliament and the European Council signed the European Declaration on Digital Rights and Principles.[19] It was proposed by the Commission in January 2022 and

[16] China outlines plan for National Integrated Government Affairs Big Data System. The Register, 31 October, 2022. URL: https://www.theregister.com/2022/10/31/china_government_big_data_system/

[17] General Data Protection Regulation. URL: https://gdpr.eu

[18] A European approach to artificial intelligence. European Commission. URL: https://digital-strategy.ec.europa.eu/en/policies/european-approach-artificial-intelligence

[19] Declaration on European Digital Rights and Principles. European Commission. URL: https://digital-strategy.ec.europa.eu/en/library/declaration-european-digital-rights-and-principles

The main objective of the European Declaration on Digital Rights and Principles is a secure, safe, and sustainable digital transformation with the protection of human rights at the center

aims to support the objectives of the 2030 Digital Compass.[20]

The main objective of the declaration is a secure, safe, and sustainable digital transformation with the protection of human rights at the center. The European Declaration on Digital Rights and Principles establishes mechanisms to protect European values by:

- Putting people at the center of the digital transformation;
- Supporting solidarity and inclusion through connectivity, digital education, learning and skills, fair and just working conditions and access to digital public services online;
- Restating the importance of freedom of choice and a fair digital environment;
- Fostering participation in digital public space;
- Enhancing safety, security and empowerment in the digital environment, in particular for children and young;
- Promoting sustainability.

West Africa

The digital transformation of social and economic relations in the Republic of Benin is being implemented within the program of action for the development of digital technologies and digital infrastructure in the West African region, primarily high-speed Internet with coverage throughout the country. It is noteworthy that the Internet penetration rate in Benin hit the threshold of 55% in 2021,[21] and amounted to 69% coverage

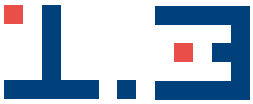
Benin has a new Data Storage and Processing Center, a system for issuing e-visas and online passports for citizens of the Republic, and a government services portal which provides about 700 different types of public services to citizens

[20] 2030 Digital Compass: The European way for The Digital Decade. European Commission. URL: https://eufordigital.eu/wp-content/uploads/2021/03/2030-Digital-Compass-the-European-way-for-the-Digital-Decade.pdf

[21] Democratic and Public Institutions in the New Information and Socio-Cultural Reality. Panel Discussion at the Final "Community" Forum in Moscow, November 2–3, 2022. The Civic Chamber of the Russian Federation, November 2, 2022. URL: https://www.youtube.com/watch?v=53hcHIAaMms

throughout the country by the end of 2022,[22] from 25% in 2016. In addition, the achievements of this West African country are not limited to infrastructure solutions alone. Benin has a new Data Storage and Processing Center, a system for issuing e-visas and online passports for citizens of the Republic, and a government services portal (about 700 different types of public sector services are available to citizens). A Code of Ethics for behavior in the digital space is being drafted, the Digital Code of the Republic of Benin is in force, as well as the law on personal data protection.

All of this suggests that states on different continents pursue common approaches to digital transformation of public institutions, the development of digital infrastructure, and the legal regulation of this sphere.



International Cooperation. Perspectives on a Global Digital Compact

Creating the necessary conditions for digital transformation is one of the key tasks for achieving the SDGs by 2030. Currently, there is a demand for the development and implementation of practical initiatives that have a unifying international effect and contribute to the development of balanced rules of the game in the digital area. The report "Our Common Agenda," presented by UN Secretary General António Guterres in September 2021 on the eve of the 76th session of the UN General Assembly,[23] was a striking example of such an initiative. He called on governments, the private sector and civil society to lean on the Roadmap for Digital Cooperation and work together on the multilateral Digital Agenda track to agree on a Global Digital Compact. The Compact itself is intended to outline shared principles for an open, free and secure digital future for all.

The Global Digital Compact, according to the UN Secretary General, should cover the following issues:

- Ensuring Internet access for the entire global population, including schools, to bridge the digital divide;
- Avoiding Internet fragmentation;
- Providing people with options as to how their data be used;
- Application of human rights in the Internet environment;
- Promoting a trustworthy Internet by introducing accountability criteria for discrimination and misleading content;
- Promoting artificial intelligence regulation to ensure that it is consistent with shared global values;
- The digital space should be perceived as our digital commons, a global public good.

[22] Connectivité au Bénin : Un taux de pénétration de 69% d'internet à fin 2022. L'économiste du Bénin, 29 décembre 2022. URL: https://leconomistebenin.com/connectivite-au-benin-un-taux-de-penetration-de-69-dinternet-a-fin-2022/

[23] Our Common Agenda – Report of the Secretary General. United Nations, New York , 2021. URL: https://www.un.org/ru/content/common-agenda-report

It is equally important that the document establishes uniform rules and criteria of responsibility for all entities of the Global Digital Compact, first of all, for global digital platforms and transnational corporations that own them.

The relevance of such initiatives as the Global Digital Compact is confirmed by practical examples. Significant strengthening of the position of digital platforms in the world has led to the transformation of their owners into global transnational monopolies with the size of capitalization comparable to the GDP of developed countries.

This increased influence of digital corporations inevitably creates a need for determining mutually acceptable rules of the game for the companies' interaction with states and users; and a global trend to tighten control over their activities is noticeable. Such measures are aimed at combating their monopolistic position in national markets, countering nontransparent and biased moderation of information content, and protecting users' personal data.

The Global Digital Compact is expected to be agreed upon at the Summit of the Future in September 2024 within the framework of the technology track, with the participation of all stakeholders: governments, the UN, private sector, including technology companies, civil society, academia and individuals, including youth. The relevance of such a unifying digital agenda under current geopolitical conditions is beyond doubt, so the task of the state, industry business, and representatives of the nonprofit sector is to take an active part in drafting the document and contribute to the realization of the UN Secretary General's initiative.

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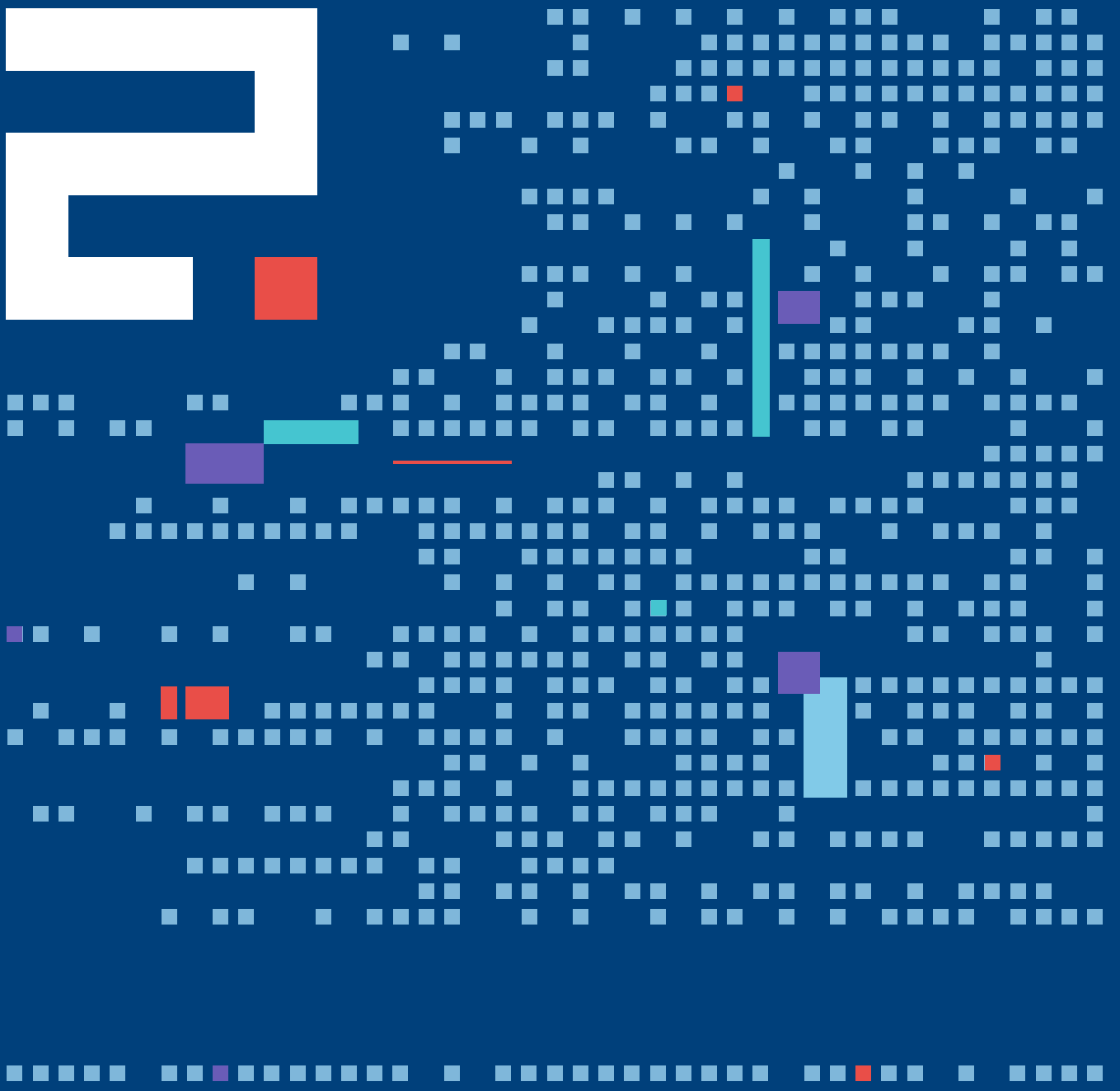

Contribution of the Russian Presidency of AICESIS to Establishing International Digital Cooperation

Global digital transformation is one of the main topics of the 21st century, directly connected with the development of humanity and all forms of life.

However, the heterogeneous nature of digital transformation, as well as a multifaceted and contradictory nature of its side effects, draw increasing attention of the expert, analytical and academic community, decision-makers, business, civil society and other stakeholders.

The list of main concerns includes, among other things, the concentration of a huge amount of users' personal data in the hands of IT monopolies and non-transparent mechanisms of using these data, actively developing cybercrime that jeopardizes basic human rights, and the spread of destructive and extremist content in social media and on the Internet, which significantly reduce the positive effects of globalization.

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Embarking upon its Presidency of AICESIS, the Civic Chamber of the Russian Federation outlined the following tracks of the Association's work for 2021–2023:

1. Digital divide as a factor impeding society development;
2. Protection of citizens' rights against IT giants;
3. Digitalization and pandemic as triggers of radical transformation of labor management relations;
4. Digital technologies in education;
5. Ethical problems of digital technology application: social and economic consequences;
6. Cybercrime and extremism on the Internet: Public counteraction strategy development;
7. Democratic and public institutions and their place in the new information and social and cultural context.

During its term, the Civic Chamber of the Russian Federation initiated a number of events, including round tables, workshops, seminars and conferences in face-to-face, online and hybrid formats, on seven major topics of the global digital agenda. The events were attended by leading Russian and foreign experts and specialists representing both national economic and social councils directly affiliated with the Association, in particular from

Russia, Algeria, Greece, Curaçao, Serbia, and specialized government and business organizations.

When discussing digital inequality as a factor impeding the development of society, the participants faced the task of assessing opportunities that modern digital technologies offer to humanity, as well as measures that need to be taken to eliminate the digital divide in access to technology and digital literacy.

Much attention was paid to the problems of digital inequality in the political and legal spheres and measures to overcome it (including advent of practices of government offered e-services, issues of 'digital democracy'); improving digital competencies of young professionals; widening digital divide and strategies to overcome it; opportunities of digitalization for small business development; impact of the COVID-19 pandemic on business and public services going online; the role of civil society organizations in reducing the digital divide; social and economic consequences of digital technologies; public opposition to cybercrime and extremism on the Internet; democratic and public institutions in the new information and social and cultural context.

The expert discussions made it possible to identify key trends, present national practices and develop areas for joint activities in the near future. Civil society institutions, with their growing weight in the decision-making process on key issues of socially important policy, undoubtedly play a special role in bridging the digital divide, directing the attention of society and the state to the most pressing problems in this area.

The conclusions, which were summarized based on the results of the events during the presidency term of the Civic Chamber of the Russian Federation in 2021–2023,

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were structured according to the work tracks stated in the AICESIS presidency agenda.

As the work done by the members of the Association during Russia's Presidency of AICESIS has shown, the response to the identified challenges largely depends on countries' ability to overcome differences and develop a unified approach to solving common problems, as well as to handle both unintended negative side effects of the development of information and communication technologies and malicious actions in this area.

In this context, the special role of civil society and its institutions is, among other things, to draw attention of society and the State to the most pressing problems and to find solutions to these problems.

2.1

Digital Divide as a Factor Impeding Society Development

The digital economy is often too narrowly characterized as a set of online platforms and services, however, broadly speaking, nearly all modern economic activity is in a way related to the use of modern technologies. The size of the digital economy currently ranges from 4.5 to 15.5% of global GDP, depending on the definition. Experts estimate that, approximately 70% of the total value added will be generated in the next decade by businesses that are part of the digital economy and its platforms.

The data economy, a narrower branch of the digital economy, is gradually becoming a new engine of global growth in the post-coronavirus world, which is especially important for the world economy at this stage due to the global economic recession gaining momentum. The data economy, which technological infrastructure is considered the main foundation of the Fourth Industrial Revolution, is sourced by cross-border data flows, i.e., arrays of fragmented unstructured information about users' actions and activities online, collected and processed by IT companies for further monetization.

Another important issue is how and with what by-ends companies involved in the data economy collect, process, use and store the personal information of Internet users, digital services and platforms.

Nevertheless, even with the emerging economic and technological disparities, the free flow of data also contributes to the development of developing economies. However, despite the fact that everyone benefits from the development of the data economy, there is a rapidly growing number of national regulations in this area that are increasingly being referred to as state protectionist barriers.

Even with the emerging economic and technological disparities, the free flow of data also contributes to the development of developing economies

Most representatives of the expert community agree in their opinion that digital protectionism actually slows down the global spread and adoption of ICTs and seriously limits the associated positive social and economic effects of this process.

The formation of uniform global regulations in the area of data movement and localization, based on the consensus of all stakeholders on pressing issues of security and protection of personal data, could seriously reduce regulatory burden on the industry, maximize benefits and slacken sometimes excessive regulatory barriers.

The Civic Chamber of the Russian Federation contributed to the development of common approaches to the regulation of this sphere, in particular, by holding a special expert session "Finding balance between national digital regulation and cross-border data flows: Prospects and limitations for a free data economy in a post-coronavirus world" at the UNCTAD eCommerce Week 2022

in April 2022. The discussion focused on the issue of individual interests, natural rights and human freedoms in cross-border data transfer.

When discussing the social dimension of digitalization and cross-border data flows, the participants agreed that the protection of human rights in the digital space, along with other natural rights of the individual, should become one of the key tasks of civil society institutions around the world.

Another challenge in bridging the digital divide is associated with the protection of intellectual rights, as their effective enforcement has a positive impact both on the proliferation of technology and on international trade, as well as on attracting investment. In particular, intellectual property law is directly linked to the development of the following sectors:

- Trademarks;
- Validity and scope of patents;
- Intellectual property international dispute resolution;
- Spread of new technologies worldwide;
- Commercialization and of intellectual property protection.

Attainment of public trust by protecting personal data of digital infrastructure users, and the accompanying free flow of information and data across borders, balanced by effective protection of personal information should become one of the key challenges in this area.

Rapidly evolving Web3 technologies are becoming a positive phenomenon in overcoming the digital divide. Web3 technologies, including artificial intelligence and blockchain, have great potential to address the digital divide. They can facilitate stepping into a new trade, simplify international bank transfers, give people control over their data, and even allow them to earn money from their online activity. However, all of this is only possible when governments, businesses and nonprofit organizations work together to ensure access for everyone and take advantage of these new opportunities.

When talking about the digital divide, the industry aspect must be reflected on.

Digitalization is active in industry, natively embedded in the IT industry, but digital penetration is not that aggressive in the nonprofit sector, where nonprofits face limited resources and a lack of understanding of the importance of digital transformation. There is a real digital divide emerging between nonprofits and other sectors. However, as part of SDG 17 (Partnership for Sustainable Development), IT companies can play an important role in reducing these disparities and helping nonprofits make a successful digital transformation.

First, IT companies have extensive expertise in developing and implementing digital technologies. They are familiar with the latest trends and best practices in software development. This experience can be used to create custom-tailored solutions for nonprofits and help them implement

Web3 technologies, including artificial intelligence and blockchain, have great potential to address the digital divide

digital transformation. IT companies can create effective websites and portals, management systems, fundraising apps, and other tools to help nonprofits raise funds, manage projects, and increase transparency.

Second, IT companies can provide digital consulting and training to nonprofit organizations. Often, nonprofits do not have the resources or skills to develop and implement digital solutions. IT companies can provide training seminars and workshops to improve the digital literacy of nonprofit staff. They can also provide consulting services to help third sector workers articulate their needs, develop a digital transformation strategy, and solve technical problems.

Third, IT companies can help nonprofits improve access to technology by providing discounts on their products and services and facilitating partnership agreements. In addition, IT companies can help nonprofits obtain grants and funding to acquire the necessary technology.

Finally, IT companies can get involved in helping the nonprofit sector with digital marketing and promotion. They can help with setting up and optimizing advertising campaigns, creating content for social media, and improving visibility online. This will help representatives of nonprofit organizations attract new supporters, volunteers and sponsors, which will enhance their financial sustainability and social impact.

Mitigating the digital divide between the nonprofit sector and other industries is an important challenge for nonprofit sector sustainability. IT companies can aggregate their experience, expertise and resources to help nonprofits make a successful digital transformation. This will help the latter become more effective in their work, increase their visibility and expand their impact on society.

Mitigating the digital divide between NGOs and other industries is an important challenge for nonprofit sector sustainability

dialog between different stakeholders is also crucial. It should lead to a roadmap for the development and coordination of the digital economy with procedures for sharing technologies and practices to regulate and incentivize the digital industry.

A broad discussion of the issue will open new opportunities to a holistic understanding of the impacts of the Internet and digital infrastructure on various aspects of life, and help coordinate the benefits of the digital economy.

2.2.

Protection of Citizens' Rights against IT Giants

Significant strengthening of the position of digital platforms in the world has led to the transformation of their owners into global transnational monopolies with the size of capitalization comparable to the GDP of developed countries, whereas the increase in the number of different digital platforms requiring personal data increases the risks

of information leakage due to malicious actions or human factor and manipulation of personal data.

When governments interact with digital platforms, we observe a number of problematic aspects: imperfect taxation systems, unfair competition from global IT platforms, insufficient effectiveness in countering illegal content, and the difficulty for the state to monitor the interaction of digital platforms with consumers (citizens), to name but a few.

In this situation, the issue of privacy, confidentiality of private life in the online era, as well as the need to improve digital literacy of Internet users becomes acute.

The harmonization of tax and antitrust legislation to ensure fair competition in the international digital market is pressing. Dilution of the taxable base and withdrawal of profits from taxation is one of the problematic practices associated with transnational corporations, including global digital platforms, due to which countries lose 100–250 billion US dollar annually. Companies use various schemes and transactions to reduce taxable profits or avoid taxation in the countries where these profits were earned. Such practices undermine the fundamental principles of free trade, equal and fair competition, and create advantages for transnational corporations over companies operating at the national level. Developing countries incur the greatest damage from such practices of transnational corporations.

Moreover, the spread of this trend in taxation contributes to a stronger 'tax competition' between countries, when certain countries attract large companies to their jurisdiction by creating special conditions for them, from lowering tax rates to offering tax incentives. 'Tax competition' results in significantly reduced amounts of total taxes collected.

Today, the level of tax rates for foreign IT companies in the world's leading jurisdictions varies significantly. India offered a 6% tax rate on income earned by foreign companies in digital trade since 2016, whereas France introduced a 3% tax since 2019 on the local revenue of digital companies with at least 750 million euro profit and digital sales of 25 million euro in France.[24] Many other countries have followed this path: the UK, Turkey, Singapore, Spain, Canada, Japan, Czech Republic, Latvia, Norway, Slovenia, Austria. The UK introduced a 2% tax on the sale of digital services in 2020; in Turkey, the tax on digital services is levied at a rate of 7.5% of gross revenue from services provided in the country from 2020.[25] Germany does not have a digital tax. The Republic of Korea uses a 10% VAT levy, while the US has had a 10% tax on digital profits earned outside the country since 2018. A similar

[24] France introduces new tax for tech giants. Vedomosti, March 6, 2019. URL: https://www.vedomosti.ru/politics/news/2019/03/06/795809-frantsiya

[25] Taxes on digital services in Turkey. vc.ru, December 22, 2022. URL: https://vc.ru/u/1269206-relocationtr/568464-nalogi-na-cifrovye-uslugi-v-turcii

consumption tax rate levied on overseas digital service providers exists in Japan; in China, the tax on the online store turnover has been 11.9% since 2016.

Work on reforming the rules of international taxation of global digital platforms has intensified lately. The main work is being done within the framework of the Organization for Economic Cooperation and Development (OECD) and the G20. To address the 'tax competition' problem, the OECD has developed the Action Plan to Combat Base Erosion and Profit Shifting (BEPS), which includes measures implemented by more than 130 countries (representing 90% of global GDP), aimed at improving international tax policy and tax administration in 15 areas, including the use of offshore mechanisms.

At the 2021 G20 summit in Rome, leaders of the member-states supported the OECD initiative to introduce a minimum global tax for multinational corporations at the level of 15%.[26] Moreover, the amount of taxes will now depend more on the countries where companies operate and earn profits, rather than on where they are registered. The introduction of the minimum tax will bring more than 150–190 billion US dollar of additional revenues to the budgets of countries where large corporations operate, according to various estimates.[27]

Politically motivated activities of a number of digital platforms is a separate aspect; this may include locking out of users, removing of unwanted content, and artificial lowering of search rankings. Often such actions are carried out against legal norms, with the use of non-transparent tools invented by Internet monopolists themselves in the interests of certain political groups or states. Monopolization of the global information space provides ample opportunities for spreading disinformation and manipulating public opinion. One should not forget about a poor protection of personal data accumulated by social networking media on a huge scale.

The so-called 'landing' or localization of digital platforms is one of the tools for controlling own digital space. This principle means that large IT companies should be legalized in the national legal field, which also envisages localization of data centers in some cases. Countries are increasingly advocating for international platforms to open their local representative offices for regulators to engage in a dialog within the national legal framework. Such legislative provisions are already in place in Austria, France, Germany, Italy, Turkey, and Germany.

There are two approaches to implementing this requirement:

- Open the company's corporate presence or representative office;
- Interact with local companies through representatives with agency powers.

Monopolization of the global information space provides ample opportunities for spreading disinformation and manipulating public opinion

[26] G20 leaders approve reform of global tax system during Rome Summit. Finmarket, November 1, 2021. URL: http://www.finmarket.ru/database/news/5580214?fbclid=IwAR1Ykw_-M_Pfkh2d7dqaPGiu2e8Vc_tFCP1VQieRLnjiMBlV5qorvCBU0cE

[27] Ibid.

At the same time, owners of digital platforms often challenge the need to open representative offices, as it is in their interests to generate profits without additional legal obligations associated with registration as a tax agent. By registering in a third country, companies can circumvent many requirements and restrictions by using intermediary services of local partners without the need to legally register representative offices or branches.

It is also important to note that legal challenges related to content filtering are considered by national governments not only from the point of preventing prohibited or undesirable information, but also from the point of ensuring freedom of speech: Operators should not abuse the system of internal corporate moderation. The principle of proportionality which means differentiation of requirements to providers depending on their type of activity and, mainly, on the coverage of the user audience, is a common approach to setting requirements for Internet service providers in all countries.

More stringent legal regulation in terms of legal possibilities to restrict content posted on digital services or platforms is a common trend in countries with various political, cultural and legal traditions. In some cases, trends are set by supranational structures e.g., the EU with subsequent adaptation and development of basic provisions in national legislation.

The issue of creating equal competitive conditions for domestic and foreign IT companies is relevant for Russia as well. Owners of Internet platforms with a daily audience of more than 500 thousand users from Russia are obliged to register legal entities or open local offices in the country from January 1, 2022, according to the law on 'landing' IT giants.[28] In case of non-compliance with the legal requirements, companies may be banned from advertising distribution, collection and cross-border transfer of users. They are also threatened with traffic slowdown, locking out or exclusion of the resource from the search engine.

It is obvious that opening of offices by global corporations helps to streamline taxation and simplifies interaction with state authorities. The presence of a company representative in the country allows for direct dialog and prompt response to various situations. There are also advantages for users: prompt technical support, resolution of emergency situations in accordance with national legislation, and the right to defend their interests in court.

It seems that the governments of the world's major powers begin to realize that the rapid development of digital technologies challenges them with the ability to control the Internet environment and, ultimately, to ensure the security of the country's critical infrastructure.

[28] Federal Law No. 236-FZ "On the Activities of Foreign Persons in the Information and Telecommunication Network "Internet" on the Territory of the Russian Federation" of July 1, 2021. URL: https://base.garant.ru/401414628/

Digitalization and Pandemic as Triggers of Radical Transformation of Labor Management Relations

Labor relations are experiencing a new round of development all over the world in the 21st century. Human capital has become one of the most important resources for economic and social progress. Without developing skills and competencies of the population, there are no prospects for economic growth, since the economy of the future, based today on advanced digital technologies, requires more and more knowledge and skills from workers. These trends became even more obvious during the COVID-19 pandemic due to a forced shift to remote (online) work and further increase in the dependence of businesses on ICTs.

Along with that, changes in the structure of demand, the content of occupations, and employers' requirements, that happen in the modern labor market, stipulate the need for workers to be adaptive and ready for lifelong acquisition of new professional knowledge.

Increased tension in the labor market, associated with the spread of COVID-19 and the accompanying negative financial and economic consequences, has revealed an additional need on the part of other categories of citizens in vocational training and additional professional education in order to maintain their level, as well as to acquire additional skills and competencies for employment at a new job.

During Russia's AICESIS presidency, extensive experience in labor relations transformation and support of employed and job-seeking citizens was analyzed. This experience can be used with adaptation to other countries and continents and will be described in more detail below.

Russia prioritizes government programs to promote employment of certain categories of citizens by acquiring or developing existing knowledge, competencies and skills that ensure competitiveness and professional mobility in the labor market. Thus, the Federal Project "Employment Promotion" under the national Demography project is successfully operating in Russia, which provided for vocational training and additional vocational education for more than 200 thousand citizens from certain categories in 2021.

During the COVID-19 pandemic, there was an increase in dismissing employees of organizations due to the liquidation of enterprises or reduction in the number of employees, which resulted in a higher unemployment rate. In this connection, since 2021, Russia has organized measures within the federal project "Promotion of employment" under the national Demography project for vocational training and additional vocational education for certain categories of citizens: people seeking job and applying to employment service bodies, including the unemployed, persons aged 50+, persons of pre-retirement age, women on maternity leave and women with preschool children who are not in a labor relationship and who have applied to an employment service body and are seeking to resume their labor activity. Over a short period, the Russian Federation has managed to create, in fact, a national resource, i.e., access to professional skills for various categories of citizens, including the socially vulnerable.

Decent work for youth and their place in a solidarity-based labor economy

is another important track. The Russian National Concept for the development of programs to integrate youth into the labor market is based on a comprehensive legal approach to youth issues, which combines enabling economic policies and targeted measures to generate labor demand and supply, including the level and quality of employment. The Russian Government has approved a long-term program until 2030 to promote youth employment with the aim of creating conditions for young people to realize their professional, labor and entrepreneurial potential. The program envisages a number of measures, including subsidies to employers for the employment of young people who often have difficulty finding work, for instance, people with disabilities, as well as an improved procedure for the formation and distribution of target figures for admission to vocational schools and universities to converge them with the needs of the labor market. In addition, the program includes assistance in the relocation of young people to regions that experience deficit in the labor market, the organization of practical training of students with individual entrepreneurs, and the launch of the Land of Masters project which will provide an opportunity for personal support for young people in entrepreneurship. It is planned that direct support under the program will be annually extended to 200 thousand people, and as a result of these measures the unemployment rate among young people will decrease; the share of employed graduates should reach 85% by 2024 and 92% by 2030.

Today the Russian Federation pays special attention to studying current trends in the demand and supply of skills, as well as priority areas of human resources development against the backdrop of digital transformation of the labor market. The recent years have shown the trends of the changing demand for skills and trades during digitalization of the economy, skills and trades for the future, as well as strategic challenges of the period of digital transformation of the world of work facing the Russian Federation; priority areas of human resources development that meet these challenges have been identified.

According to the indicators of the "Personnel for the Digital Economy" federal project under the "Digital Economy of the Russian Federation" national project, at least 40% of Russian citizens will have a high level of digital literacy and competencies in the digital economy by 2024.[29] According to the data provided in the federal project passport, the share of the Russian population with digital literacy amounted to 27% in 2019, whereas the target for 2021 was set at 32% of the country's population. Moreover, the proximity to the target number of specialists, who intensively use ICTs, employed in the economy is one of the three main indicators that determine the level of digital maturity, in accordance with the presidential Decree "On the National Development Goals of the Russian Federation until 2030."[30] Digital literacy level measuring is one of the main tasks in analyzing the level of development of the digital economy. Number of similar methodologies have been developed in order to assess the level of digital literacy of Russian citizens; these methods take into account international approaches to the definition of digital literacy. They include the "Digital Literacy of Russian Citizens Index" study by the Regional Public Organization "Center for Internet Technologies" (ROCIT),[31] the methodology of the National Agency for Financial Research (NAFI),[32] the DIGLIT digital literacy measurement tool developed by the Laboratory of Measurement of New Constructs and Test Design of the National Research University Higher School of Economics.[33]

The ROCIT Digital Literacy Index research project was carried out in 2015–2018. The main objective of the Index was to measure and compare the level of digital literacy development in Russia's federal districts.

The study defined digital literacy as a set of knowledge, skills and abilities that are necessary for life in the modern world, for safe and effective use of digital technologies and Internet resources. The Digital Literacy Index is a comprehensive indicator and includes three sub-indices:

- Digital consumption: Application of digital competencies within certain life situations, which leads to the use (consumption) of various digital resources (including the use of digital devices, consumption of social media, digital public services, online news, etc.).

- Digital competencies: The user's ability to confidently, effectively and safely select and apply ICTs in different spheres of life, based on continuous acquisition of knowledge and skills (including competencies in search for information on the Internet, financial transactions, online consumption of goods and services, critical perception of information, content production, etc.).

- Digital safety: A combination of tools, precautions and habits that users need to guarantee their safety in the digital world (including the ability to protect personal data, attitude towards pirated content and software, level of culture of interaction in the online environment, availability of skills to combat threats, etc.).

[29] Passport of the "Personnel for the Digital Economy" federal project. URL: https://digital.gov.ru/uploaded/files/pasport-federalnogo-proekta-kadryi-dlya-tsifrovoj-ekonomiki.pdf

[30] Decree of the President of the Russian Federation No. 474 "On national development goals of the Russian Federation until 2030" of July 21, 2020. URL: http://www.kremlin.ru/acts/bank/45726

[31] Digital Literacy Index. All-Russian research. ROCIT, 2015. URL: https://wciom.ru/fileadmin/file/reports_conferences/2015/2015-12-21-rocit.pdf

[32] Forced digitalization: A study of digital literacy of Russians in 2021. NAFI, May 18, 2021. URL: https://nafi.ru/analytics/vynuzhdennaya-tsifrovizatsiya-issledovanie-tsifrovoy-gramotnosti-rossiyan-v-2021-godu/

[33] Measuring digital literacy. DIGLIT tool. National Research University Higher School of Economics. URL: https://ioe.hse.ru/monitoring/diglit/

The Digital Literacy Index includes three sub-indices: Digital consumption, digital competencies, digital safety

In 2019, the Digital Dictation project[34] was launched by RAEC to replace the Digital Literacy of Russian Citizens Index. It combines a measuring function with an educational one, while additionally assessing the level of digital literacy with the help of tests for users, which help to assess the level of digital literacy for specific situations and phenomena. The dictation is based on questionnaires designed for different age groups: for children (14–17 years old) and for adults (18+). The questions are divided into three semantic blocks which generally coincide with the sub-indices of the Digital Literacy Index. The first block is on the basics of computer literacy, namely, various devices and knowledge of basic software, the second block is on work with the Internet, social media and online applications, the third block is on cybersecurity, including personal data protection.

Nearly 1 million (919,317) people took part in the Digital Dictation in 2021. The average digital literacy level of participants amounted to 6.90 points out of 10 possible in 2021, which is 0.35 points lower than that of the 2020 participants (7.25 points). The overall drop in digital literacy

Dynamics of the Digital Dictation participants' results, 2019–2021.
Source: RAEC[35]

Participants:

2019		39,398 persons
2020	↗	330,148 persons
2021	↗	919,317 persons

Average level of digital literacy:

2019		7.15 points
2020	↗	7.25 points
2021	↘	6.90 points

is accompanied by better knowledge on the topic of digital consumption (7.37 points, 0.51 points more compared to 2020), as well as a lower digital competence (6.45 points in 2021, 0.96 points less compared to 2020) and knowledge of digital security basics (6.87 points in 2021, 0.60 points less compared to 2020). The overall drop in the indicator can be attributed to the participation of people

[34] Key results of the All-Russian educational campaign to determine the level of digital literacy Digital Dictation 2019. RAEC, 2019. URL: https://raec.ru/upload/files/190611-digital-diktant.pdf

[35] Nearly one million people took part in the Digital Dictation 2021. RAEC, May 18, 2021. URL: https://raec.ru/live/branch/12450

looking for a way to improve their digital literacy, i.e., those who took part in the measurement because of its educational component.

The highest level of digital literacy was demonstrated by children aged 7–13 with the average score of 7.40 points in this age group. The 25–34 age group showed a similar result (7.30 points). The lowest results in digital literacy in 2021 were shown by 14–17 year olds (6.43 points) and 18–24 year olds (6.72 points): a possible downside of the status of 'digital natives' and a possible consequence of increased expectations of parents in terms of relevant knowledge for children to be provided by school, while before the widespread of digital competence training programs at schools, it was parents who were the main source of digital security knowledge for children.

The 60+ group demonstrates the most stable growth in the level of digital literacy over three years (growth from 6.25 points in 2019 to 6.91 points in 2021), which is associated with a significant number of programs and courses to improve digital competencies and digital literacy aimed specifically at this audience.

The NAFI approach understands digital literacy as a basic set of knowledge, skills and attitudes that allow a person to effectively solve tasks in the digital environment. The level of digital literacy is assessed through a representative all-Russian survey. The key components of digital literacy are as follows:

- Information literacy (skills in searching for information on the Internet, competence in working with various types of data and assessing the reliability of online messages);
- Communicative literacy (skills in using various types of online services and electronic devices, observing the norms of online communication);

The highest level of digital literacy was demonstrated by children aged 7–13. The 60+ group demonstrates the most stable growth in the level of digital literacy

- Digital content generation (competencies in creating and editing digital content, online copyright skills);
- Digital security (competencies in assessing the risks of social engineering and online fraud when working in the digital space, knowledge of measures to ensure personal data security, as well as understanding the negative impact that digital devices have on the environment, physical and mental health);
- Problem-solving skills in the digital environment (skills in using mobile applications and computer programs to perform everyday tasks, continuous expansion of knowledge in the field of digital technologies, ability to solve hardware and software problems).

The Digital Literacy Index is calculated as an average of all key components. In 2021, it amounted to 64 points on a scale from 0 to 100, according to the findings of the study, which roughly corresponds to the indicators obtained during the RAEC Digital Dictation. The share of people with an initial level of digital literacy has decreased (from 7 to 4%) and the share of Russian citizens with a basic level of digital literacy has increased (from 66 to 70%) since the

2020 survey. At the same time, the share of Russian citizens with an advanced level of digital competence did not change and amounted to 27%, which is 5 p.p. lower than the figure set out in the passport of the federal project for 2021.

The "Personnel for the Digital Economy" federal project provides for the development and implementation of a system of independent assessment of digital economy competencies in 2024, which, among other things, is planned to be used in supplementary vocational education curriculum. For this purpose, the University of the National Technological Initiative 2035 launched a service for self-diagnosis and independent assessment of digital literacy competencies of citizens,[36] which has been publicly available on the Digital Economy Preparedness platform since 2022.[37] Digital competencies are assessed in such areas as information and data management, digital communications, data security and protection, digital content creation, and digital problem solving. Additional tools have been developed to assess competencies in the areas of self-development in a context of uncertainty, creative and critical thinking.[38]

In digital security, educational activity continues through the efforts of both specialized digital actors (Center for Safe Internet, Smart Internet Foundation, Foundation for Internet Development) and digital businesses (Kaspersky Lab, MTS, etc.). The educational projects of the National Internet Domain Coordination Center should be specifically mentioned. On September 1, 2021, an Alliance for the Protection of Children in the Digital Environment was established. It is an association of leading players in the digital pool aimed at ensuring children's digital security. In particular, the Alliance structures and improves the availability of information and education solutions of the digital pool entities, and takes coordinated measures to identify and stop the circulation of illegal content on its platforms.[39]

The Russian Federation attaches great importance to the involvement of young people in the digital environment and education in digital technologies. Every year, target figures for applicants to digital technologies education are on the rise, and the target figures for universities to enroll state-funded students in IT areas have been doubled. Thus, in the 2023–2024 academic year, the number of state-funded places

[36] Independent assessment of digital economy competencies. "Personnel for the Digital Economy" Competence Center. URL: https://digitalskills.center/nok

[37] The Ready for Digital project was launched in 2021. The resource was developed with the support of the Ministry of Digitization of Russia, Autonomous Nonprofit Organization Digital Economy, University 20.35 and National Projects of Russia. It is an aggregator of services for testing the level of digital literacy, training in safe and effective work with digital technologies. Visitors to the website can assess their level of digital literacy, learn about the possibilities of the online environment and form the necessary IT skills.

[38] Digital skills self-diagnostic services. Digital economy preparedness service. URL: https://готовцифре.рф/test#!/tab/326927195-6

[39] Alliance for the Protection of Children in the Digital Environment. URL: https://internetforkids.ru

in higher education institutions for enlarged groups of specialties and areas of training that prepare personnel for the digital economy will exceed 160 thousands, according to the Ministry of Science and Higher Education of the Russian Federation.

In addition to that, the “Digital Chairs” project was launched in 2022 as part of the “Development of HR Potential of the IT Industry” federal project of the “Digital Economy of the Russian Federation” national program, which allows students who study in other – non-IT – fields to obtain additional qualifications in the field of information technologies during their university studies. Digital Chairs were formed in 115 Russian universities under the Ministry of Education and Science’s Priority 2030 Program, and started their work since September 2022. It is expected that by 2024 the number of students enrolled in training at such chairs will have reached almost 400 thousand.

The above activities and their results presented by Russia invariably generated interest among representatives of the AICESIS member-states.

In the 2023–2024 academic year, the number of state-funded places in higher education institutions for enlarged groups of specialties and areas of training personnel for the digital economy will exceed 160 thousands. By 2024 the number of students enrolled at Digital chairs will have reached almost 400 thousand

2.4

Digital Technologies in Education

Digital channels for education are actively entering daily life worldwide. There was a particular surge in their use in 2020–2021, during self-isolation and lockdown periods caused by the COVID-19 pandemic, when face-to-face education was problematic for health and epidemiological reasons.

The digital sector in education is available in both public and commercial forms. Moreover, online education has become an everyday reality at all levels: from preschool and school to university and postgraduate levels.

Despite positive aspects of children’s online education, when talking about the KidTech segment, it is critical to assess the social impact, as the negative effects can outbalance the benefits. Education gives a clear positive effect, and early development even more so. On the other hand, children are spending more time with gadgets, which many parents view negatively or even forbid.

Online educational platforms are particularly popular among users, as they provide access to knowledge in IT professions and allow for training within a relatively short period of time. Online educational platforms increase the accessibility of education and help to overcome ‘staff shortage’ in the IT industry. This is supported, in particular, by the employment statistics for graduates of online courses. Thus, according to Yandex Praktikum, in Russia, 78% of the service’s graduates among those who planned to change their profession found

a new job in 2021.[40] 67% of those graduates of the Netology online platform who wanted to change their job and started looking for it, found jobs.[41] Noteworthy, the majority of graduates (82%) found a job in the specialty they studied at the course. Among Skillbox graduates, 84% of those who studied and graduated between February 1, 2020 and October 31, 2021, found a job in the specialty they studied on the platform.[42] In total, between January 2019 and January 2022, one in three Skillbox students was successfully employed.[43] A study conducted by the EdTech cluster of the RAEC showed that users receive over 170 job offers on average per month from employing companies.

In 2021, it took graduates of online education platforms no more than two-three months on average to find a job, while in the spring of 2022, the job search period increased to four-six months due to overcrowding of the labor market with specialists in a number of IT fields.[44] According to one of the biggest online recruitment platform HeadHunter data, Q1 2022 showed a 25% drop in the number of job opportunities in IT, while the number of posted CVs and applications, on the contrary, increased by 15%.[45]

The online education market works under a positive effect of measures that support the IT industry, in particular, tax benefits for the provision of educational services via online platforms.

Ethical Problems of Digital Technology Application: Social and Economic Consequences

The key principle of development and implementation of new technologies is their use for the benefit of humanity, aimed at harmonious and safe development of society within the established system of ethical coordinates and standards. Along with that, it is extremely important to find the right balance between the development of the cutting-edge technologies and the protection of universal human values, the introduction of strict legislative regulation, 'soft law' rules and self-regulatory tools. It is necessary not to curb technical progress, effectively and safely utilize the enormous resources of new technologies without making them, however, an alternative to humanity. Obviously, there is an urgent need to draw ethical recommendations for both developers and users, to develop a set of moral criteria that determine the ethicality of decisions and the ethical use of artificial intelligence (AI) technologies. It is not about interference in digital

[40] Yandex Practicum Graduates Employment Survey. Institute of Education of the National Research University Higher School of Economics, 2022. URL: https://practicum.yandex.ru/jobreport

[41] National Research University Higher School of Economics finds out if graduates of online courses are achieving their career goals. RB, August 3, 2022. URL: https://rb.ru/partners/niu-vshe-research/

[42] What result users get from learning on the Skillbox platform. Skillbox. URL: https://events.skillbox.ru/research

[43] RAEC's EdTech cluster conducted a study of employment of digital platform graduates. Russian Association of Electronic Communications, April 11, 2022. URL: https://raec.ru/live/branch/13044/

[44] 'Junes' are not needed: why it has become more difficult for IT graduates to find a job. Forbes Russia, August 8, 2022. URL: https://www.forbes.ru/svoi-biznes/473717-dzuny-ne-nuzny-pocemu-vypusknikam-it-kursov-stalo-sloznee-najti-rabotu

[45] The number of IT vacancies in Russia has dropped, while the number of CV has increased. CNews, April 4, 2022. URL: https://www.cnews.ru/news/top/2022-04-04_v_rossii_rezko_upalo_chislo

progress, but about the state-of-the-art achievements that should be development in the interests of all citizens of the country, excluding possible risks and undesirable consequences for society or individuals.

The use of AI systems into everyday life is associated with many ethical problems, primarily related to responsibility for possible errors of AI in medicine, justice, and unmanned vehicles. There are a number of high-profile cases when Google’s software turned out to be intolerant of African-Americans, and Amazon used a recruitment system whose algorithms ‘went against’ gender equality and, as a result, discriminated against women in employment. A Microsoft bot created to analyze the speech of young people in Twitter in less than a day began to use swear words and racist statements, thus reacting to messages with non-politically correct content.

Digital technologies are forcing even such a conservative institution as the Church to transform. For example, the Vatican has developed a code of ethics for artificial intelligence, which was supported by representatives of IT corporations such as IBM and Microsoft. The Roman Catholic Church and the technology giants agreed that human beings and their ideas about the good and the evil should be at the center of future virtual worlds. This is not the first case of ‘cooperation’ of seemingly opposed worlds. Pope Francis has previously called for the use of technology in missionary work, calling the Internet “God’s gift.”

We cannot fail to mention the phenomenon of “digital art.” Back in 2018, a painting titled “Portrait of Edmond Belamy,” authored by a neural network, was sold at Christie’s auction in New York for almost 0.5 million US dollar. An engineer from Google – Russian citizen Alexander Mordvintsev – launched a platform for a creative collaboration of humans with a 22-layer convolutional neural network, becoming the founder of the “inceptionism” movement which, by the way, has already begun to be compared to the paintings of Van Gogh. Back in 2016, a novel written by AI successfully passed the first round of a prestigious literary contest in Japan, and in 2018, Yandex specialists developed a neural network that became the author of a story based on the works by Nikolai Gogol.

Nevertheless, a successful development of new technologies, ensuring technological sovereignty in this sphere is impossible without defining clear ethical guidelines and policies for their functioning.

An important task in this area is to form a methodologically competent and consolidated interdisciplinary approach to the ethical regulation of artificial intelligence systems and to offer it to the world community.

The development of an ethical platform, which sets the protection of human interests as the key priority for the development of AI technologies, will be of great importance not only within countries, but also within the framework of

international cooperation, aimed at finding a mutually acceptable formula for the global regulation of artificial intelligence.

The UN, the Council of Europe, ITU, OECD, the World Trade Organization (WTO) and the World Intellectual Property Organization (WIPO) are increasingly including the issues of regulating the use of AI technologies in their agendas. The issues of ethical regulation of new technologies have been most thoroughly studied in recent years at the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Council of Europe. A group of international experts from UNESCO has drafted a universal recommendation on the AI ethics which contains a number of general principles for the development, implementation and use of artificial intelligence, including strict compliance with international human rights standards, improvement of the quality of life, reservation of the ability to disable artificial intelligence technologies to the human, accountability of these technologies' activities, including the decision-making process. The advisability of developing a convention on artificial intelligence and human rights – the first legally binding international document in this area – is being discussed on the Council of Europe platform. In fact, we see attempts of the international community to draw closer the positions its actors and prepare the ground for a future statutory regulation of artificial intelligence technologies, laying the foundations for a new international architecture of digital cooperation.

> The development of an ethical platform, which sets the protection of human interests as the key priority for the development of AI technologies, will be of great importance not only within countries, but also within the framework of international cooperation

The USA allocate substantial resources for the development of the industry, with ethical guidelines on artificial intelligence already drafted for the military and public governance. European countries and governing bodies of the EU pay considerable attention to the protection of human rights and democratic values. In addition, the EU legislative framework in this area is by far the most systemic and extensive in its scope, including the European Strategy for Artificial Intelligence and its Implementation Plan, the Guidelines for Ethical Artificial Intelligence, the Assessment List for Trustworthy Artificial Intelligence (ALTAI), the Commission's White Paper on Artificial Intelligence and the Report on the Impact of Artificial Intelligence, the Internet of Things and Robotics on human society. The Regulation on a European Approach to Artificial Intelligence, presented in April 2021, is the world's first set of rules for a comprehensive regulation of artificial intelligence.

China has been able to consolidate and motivate the major players to develop the technology without creating major conflicts and turmoil within the country. In 2021, guidelines for the ethical management of artificial intelligence were published, with an emphasis on protecting the rights of users. According to the document, humans should have full control over decision-making, whereas artificial intelligence systems themselves should promote human well-being, honesty, fairness, privacy, security and ethical literacy.

Russia has paid much attention to the regulation of this sphere lately. The topic was reflected in the National Strategy for the Development of Artificial Intelligence, the federal project on artificial intelligence under the "Digital Economy" national program and a number of other conceptual documents. It is also worth noting that, in 2020, Russia established the National Committee on Ethics of Artificial Intelligence under the Commission of the Russian Federation for UNESCO. The issues of legal liability and safe use of artificial intelligence, data management problems, procedures for testing and implementation of artificial intelligence systems, protection of intellectual property and a number of other issues are being addressed within the framework of national projects.

In 2021, Russia introduced the National Code of Ethics in Artificial Intelligence,[46] a set of recommendations developed by the Analytical Center under the Government of the Russian Federation, the Ministry of Economic Development of the Russian Federation and the AI Alliance Russia, joined by many leading Russian technology development companies. The drafted document is of a recommendatory nature, and its provisions are applied by various persons involved in the life cycle of artificial intelligence systems.

The Alliance for Artificial Intelligence has brought together various players in the Russian AI market, including Yandex, VK, Sber, MTS, Gazprom Neft, and the Russian Direct Investment Fund. A year after the Code was adopted, many companies have joined it, including leading universities offering training programs in artificial intelligence (Moscow Institute of Physics and Technology, University of Information Technologies, Mechanics and Optics, Institute for System Programming of the Russian Academy of Sciences, Bauman Moscow State Technical University, etc.), national and regional authorities (Ministry of Digital Development and Communications of Kuzbass, Nizhny Novgorod City Administration), representatives of the scientific community, companies developing intellectual solutions, major users and industry associations. Currently the Code has more than 170 signatories.[47]

The National Code specifies and outlines the principles contained in the above documents, including the need to conduct scientific research aimed at predicting the development of AI technologies and at predicting the social and ethical aspects of their use for making managerial decisions, as well as the priority of human welfare, prohibition of harm initiated by artificial

Currently the National Code of Ethics in Artificial Intelligence has more than 170 signatories. The main objectives of the Code are to ensure trust of users, society and the state in artificial intelligence technologies and results of their application, as well as development and use of these technologies in the interests of human beings and society

[46] AI Ethics Code. AI Alliance Russia. URL: https://a-ai.ru/ethics/index.html

[47] Signatories to the AI Ethics Code. AI Alliance Russia. URL: https://ethics.a-ai.ru/assets/ethics_files/2023/09/08/Signatories_RUS.pdf

intelligence and robotics systems, principle of submission to human control, designed compliance with law, avoidance of covert manipulation of human behavior, and designed safety. The main objectives of the Code are to ensure trust of users, society and the state in artificial intelligence technologies and results of their application, as well as development and use of these technologies in the interests of human beings and society.

The Code prescribes that the AI market participants (actors) should be guided in their behavior by the general principles of human-centered and humanistic approach (human being as the highest value); risk-oriented approach (the level of attention to ethical issues in the field of artificial intelligence is determined by the level of risk posed by specific technologies and AI systems); precautionary principle (market participants should take measures to limit or prevent possible harm from their activities); and responsible attitude towards the impact of AI products on society and people.

The list of mechanisms for implementing the provisions of the Code includes the use of AI ethics commissioners (or the formation of collegiate industry bodies, such as an ethics board), as well as the creation of a set of best practices for addressing emerging ethical issues when operating AI systems. In 2022, in accordance with the Code, the Commission on AI Ethics[48] was established to coordinate the interaction of organizations that have joined the Code, including the development of a methodology for assessing risks and humanitarian impact of artificial intelligence systems, the collection of best practices for addressing ethical issues in the use of artificial intelligence, and the development of criteria by which the Commission is to assess the compliance of signatories to the Code provisions. The Code provisions are to be revised with the account the development of artificial intelligence technologies, as well as the evolution of public perception of the ethics applied to the use of artificial intelligence technologies.

Corporations are also developing their own codes of ethics. For example, in March 2021, Sber's Board approved the principles of AI ethics.[49] They include: controllability and manageability of systems (Secure AI); transparency and predictability of operation (Explainable AI); stability and reliability of systems (Reliable AI); responsible use (Responsible AI); unbiased artificial intelligence (Fair AI). All employees of the company should be guided by these principles. To monitor compliance with the ethical principles, Sber created a special working group, which has become the first special body in Russia to address controversial ethical issues in the field of artificial intelligence.

The next step should envisage the dissemination of the formulated ethical principles in the industry community and their practical application by developers and users of artificial intelligence systems.

Certain issues related to the digital circulation of personal data, especially biometric data, are among socio-economic consequences associated with the application of some digital technologies. The particular danger of uncontrolled circulation of biometric personal data is related to the non-compensable harm caused by their compromise. As a result, the public obviously has serious concerns about submitting their biometric personal data, which consequently affects the filling of relevant data bases and the use of relevant services.

[48] Russia has established a Commission on AI Ethics. AI Alliance Russia, May 30, 2022. URL: https://a-ai.ru/ai-ethics-commission

[49] Sber's ethical principles of artificial intelligence. Sber Bank. URL: https://www.sberbank.com/sustainability/principles-of-artificial-intelligence-ethics

Most ethical risks in general arise from the use of the results of analyzing people's data. The main ethical dilemma here is the choice between respecting the rights of the citizen and creating new opportunities.

With big data, technology giants are able to build correlations that humans themselves cannot yet comprehend and thus influence people's behavior. The commercial interest of corporations is enormous, and in order to increase profits, corporations violate the rights of citizens when processing their data.

States also own big array of data and may collect even more in the future, as the potential of using quality data to move towards data-driven public governance is clear. In doing so, transparent work with data and openness can have a significant impact on people's living standards.

However, there is mistrust on the part of society towards new technologies, caused, among other things, by blurred ethical norms of their application and low level of digital literacy.

The following mechanisms for overcoming barriers in terms of working with data are possible:

- Comprehensive, balanced reform of legislation and development of global partnerships that will ensure consistent legal regimes;

- Higher digital literacy of civil servants, employees of commercial organizations and society as a whole through mastering the principles of digital hygiene, understanding the basics of the digital economy and introducing data ethics;

- Organization of information platforms or analogues for the exchange of relevant data and best practices by all participants of information markets.

In terms of data handling, the rapidly developing Web3 concept based on blockchain technology deserves special attention. In Web3, data becomes an object of ownership and transparent management by users themselves. According to various estimates, the number of users of blockchain-based products will reach 1 billion people by 2031. This is a significant segment of the global audience that can bring serious changes in public demands on the work of commercial corporations and government agencies.

When talking about the ethical aspects of digitalization, we cannot ignore such a concept as the Internet of Things (IoT). Based on common standards and communication protocols, the IoT allows to identify and unite real and virtual objects into a single information space, connect various technical devices and/or industrial facilities with built-in sensors and software for data collection and exchange, interaction with each other or with the external environment, remote monitoring and control. Everything can be connected to the Internet: people, smartphones, portable devices, household appliances, homes, businesses, vehicles, bus stops, industrial equipment, medical equipment, energy objects (power converters, generators, light bulbs, etc.), utility metering devices, garbage cans, weather stations, video cameras on roads, and list can be continued.

The following ethical complexities may arise based on the above aspects. The user often cannot refuse to use devices, resulting in hybrid social systems. Serious

The number of users of blockchain-based products will reach 1 billion people by 2031

problems of identity and boundaries of living and natural objects and devices arise due to the ease of transition from one category to another. Devices and other objects acquire possibility to participate in any person's life, and this can happen spontaneously. Hybrid socio-technological units with unpredictable behavior are formed. Further development of the IoT is likely to lead to new forms of behavior. It well may be that users will not be fully aware of the environment they are in.

Virtual and augmented reality technologies actively integrated into everyday life may soon replace public life. The number of linkups and the amount of data being transmitted will increase incrementally and may be used maliciously. Devices will become less and less tangible due to their dimensions, which will allow, among other things, to avoid quality control and inspections.

Further development of the IoT is likely to lead to new forms of behavior. It well may be that users will not be fully aware of the environment they are in

In addition to careful legislative regulation, where the focus should be on the capabilities and implications of complex hybrid systems rather than on technical implementation issues, governments are also responsible for regulating the 'behavior' of a huge number of intangible objects – sensors and devices that create data, as well as information flows on the network they exchange, since the information transmitted is of a huge value.

Russia has already traveled a long way from the development of strategic approaches to the regulation of artificial intelligence to more applied, sectoral research. Therefore, the next step is in the development of industry-specific norms of ethical regulation, taking into account the peculiarities of a particular market segment. It is important not to leave outside the creation of favorable legal framework for the export of domestic solutions and products abroad, creating conditions for the development of research cooperation both at home and abroad.

Today, the entire world faces a global challenge: To overcome differences and agree on common ethical rules for the development and application of artificial intelligence

Today, the entire world faces a global challenge: to overcome differences and agree on common ethical rules for the development and application of artificial intelligence, thus ensuring the growth of human welfare, better quality of life for people, effective economic development of states and sustainable world order.

2.6

Cybercrime and Extremism on the Internet: Public Counteraction Strategy Development

Cybercrime is one of the negative consequences of the digitalization of the economy. Criminals are dynamically adapting to modern conditions and are increasingly using ICTs for their own purposes. According to the report presented by UN Secretary General António Gutteres the damage caused by cybercrime amounted to 1.5 trillion US dollar in 2018, by the end of 2022 it was estimated at 8 trillion US dollar per year. According to expert estimates, cybercrime damage will reach 10.5 trillion US dollar in 2025.[50]

This unprecedentedly fast-growing problem must be effectively addressed as soon as possible.

Today, the global community is facing a true 'cyberpandemic' that is experienced not only in the form of attacks on the privacy of ordinary citizens, but also in the form of 'attacks' on health care facilities, financial and educational bodies, and international organizations. ICTs have become one of the key tools for interfering in the internal affairs of sovereign states, and political motives have complemented the economic motives of cybercrime.

The focus of attention of cybercriminals in the Russian Federation is essentially on all infrastructure sectors: from financial organizations and government agencies to the media and transportation companies. Risks for citizens have also increased. Bank of Russia numbers show that in 2022 the volume of transactions conducted without customer's consent increased by 4.29% compared to 2021, theft from individuals amounted to 13.3 trillion Russian ruble as a result of 872 thousand transactions.[51]

Large-scale data leaks represent another threatening trend. For companies whose customer data was compromised, such incidents entailed serious reputational risks. For citizens whose data was compromised, such leaks meant a direct risk of financial loss, since knowledge of personal data is exactly what is used in social engineering attacks. According to Sberbank of Russia, personal data of 65 million Russians were stolen as a result of cyberattacks, and at least 13 million bank cards were compromised during the first six months of 2022.[52] The damage

The damage caused by cybercrime amounted to 1.5 trillion US dollar in 2018, by the end of 2022 it was estimated at 8 trillion US dollar per year. According to expert estimates, cybercrime damage will reach 10.5 trillion US dollar in 2025

[50] Internet brings loss. Vedomosti, March 14, 2023.
URL: https://www.vedomosti.ru/importsubstitution/new_technologies/articles/2023/03/14/966290-internet-neset-poteri

[51] Central Bank of the Russian Federation. 2022 Annual Report.
URL: https://www.cbr.ru/Collection/Collection/File/43872/ar_2022.pdf

[52] Sberbank says data of 65 million Russians leaked since Feb. 24. Forbes Russia, June 16, 2022.
URL: https://www.forbes.ru/tekhnologii/468879-sberbank-zaavil-ob-utecke-dannyh-65-mln-rossian-s-24-fevrala

from the reissue of cards, according to the management of the financial institution, totaled at least 4.5 billion Russian ruble.

The spread of extremist and terrorist ideology on the Web is yet another dangerous consequence of globalization and digitalization of the world. Extremist and terrorist crimes are becoming more and more widespread, which is why the fight against them has been singled out as a separate track in the work of specialized national and inter-governmental institutions. The problem has also been recognized at the level of international organizations such as the UN and the Organization for Security and Co-operation in Europe (OSCE).[53]

Countering the spread of extremism on the Internet requires not only the efforts of IT companies responsible for certain platforms, but also an international consensus on which groups and ideologies pose a threat to humanity.

Extremist and terrorist crimes are becoming more and more widespread, which is why the fight against them has been singled out as a separate track in the work of specialized national and inter-governmental institutions

AICESIS under Russia's presidency undertook efforts to develop a public strategy to counter cybercrime, international extremism, dissemination of illegal content, and challenges related to threats to the psychological health and safety of underage Internet users.

[53] United Nations Office on Drugs and Crime. Use of the Internet for terrorist purposes. United Nations, New York, 2012. URL: https://www.unodc.org/documents/frontpage/Use_of_Internet_for_Terrorist_Purposes.pdf
Organization for Security and Co-operation in Europe. Ministerial Council. Decision No. 7/06 "Countering the use of the Internet for terrorist purposes." Brussels, 2006.
URL: https://www.osce.org/files/f/documents/d/3/23078.pdf

2.7

Democratic and Public Institutions and Their Place in the New Information, Social and Cultural Context

One of the tracks of the Civic Chamber's work as President of AICESIS was associated with the task to intensify the exchange of expertise and legislative practices, in particular in the field of democratic and public institutions functioning in the new social and cultural context and digital environment. The analytical work of experts has resulted in the following conclusions.

Today we observe transition to a model of partnership between the state and society in solving the most pressing social problems, and see active engagement of civil society bodies by the state in the development and harmonization of government decisions.

The development of digital technologies and the Internet has not only significantly expanded access to information, but has also increased the involvement of the general public in all social and political processes. Political campaigning is also intensely shifting to the online format. Traditional democratic institutions can no longer fully meet the requirements of the day and timely respond to the challenges and demands of the population. There is a long-standing crisis of conventional forms of democracy, which is aggravated against the background of higher mobility of the population, blurring of cultural, ethnic, class and caste distinctions, and migration of people to large cities. Trust and interest in traditional political institutions and elections is declining, especially among young people.

Civil society should respond to new challenges associated with the introduction of various forms of digital expression of will, monitor the projects in progress and participate in the development of new solutions in order to protect the rights of citizens and the basics of democracy. Society at large has formed and is exercising the demand for maximum objectivity, fairness and transparency of voting procedures at all types and stages of the electoral process, maximum inclusivity of electoral procedures, including the use of digital services and e-voting technology.

The effects of new technologies initiate the network-based logic of changes in society, radically changing not only the possibilities of communication, but also the very structure of social relations, which becomes more flexible, decentralized, and continuously changing. A vivid example of such large-scale changes is seen in the active development of online communities in the world. Recent experience shows that social groups not bound into rigid hierarchical structures, social networks, united, among other things, within the challenges of the 'new ethics', are increasingly active in the struggle with traditional institutions of society and states for a dominant role in determining the agenda, values and meanings.

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The inclusion of representatives of online communities in the mechanisms of decision-making, harmonization and implementation at the highest level will not only make it possible to reflect the views of the broadest strata of society on various issues, but will also give greater openness and transparency to actions meant to address such global problems as poverty, education, hunger, health care, etc. In addition, this will make it possible to more effectively receive, process and respond to information about problems at the micro level.

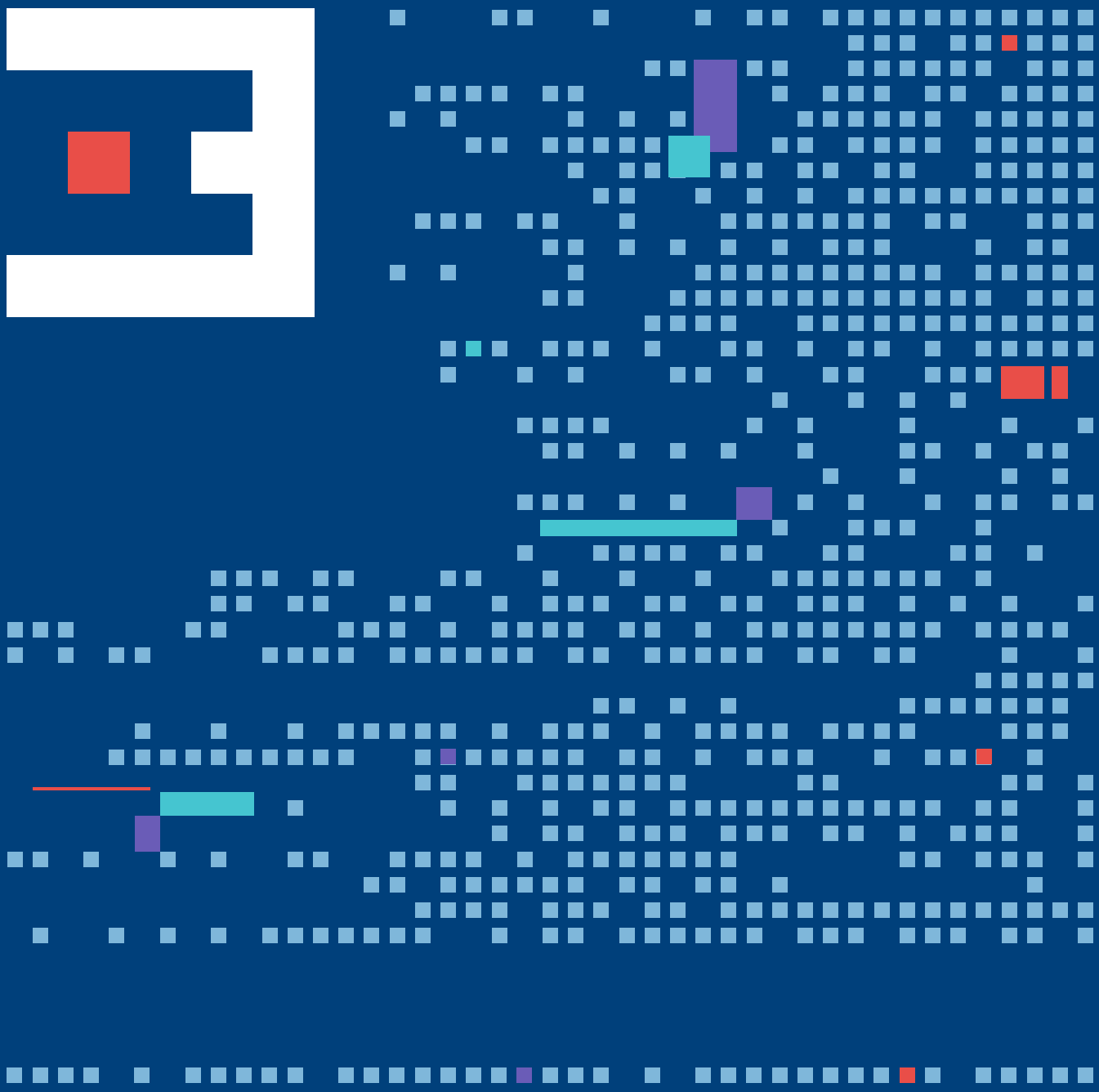
The National Economic and Social Councils and the Civic Chamber of the Russian Federation, in particular, are aware of the potential and growing influence that network-based structures have on society today, and interact as widely as possible with the plethora of communities of citizens on the Internet, helping to implement various public initiatives. Interaction is actively forged with associations of volunteers, eco-activists and other groups working in the field of socially significant issues.

E-government as a set of Internet technologies providing information interaction between government bodies, on the one hand, and the population and civil society institutions, on the other, is an effective feedback platform and a valid tool for interaction between citizens and the government, as it dramatically increases the efficiency and convenience of access to public services from any place and at any time.

Within the framework of Russia's presidency in AICESIS, the initiative to assess the preparedness of public institutions for digital transformation has found support. Thus, the methodology and calculation of the index has been developed. The index includes two main components:

1. Objective level of development of digital technologies (availability of governmental services via the Internet, presence of the public authorities on the Internet, availability of a platform for citizens' appeals to the authorities);

2. Subjective assessments of citizens (perception of the current level of digitalization development, assessment of personal data security when using digital services, trust in digital technologies).



Conclusions and Proposals: Human Rights as a Basis for the Digital Transformation of the State and Society

The digital world has already affected every human being, changed our way of life and work. We cannot imagine a day without gadgets, social networking; the whole world has changed the gear to a new speed of communication. We have become accustomed to services that we receive quickly and remotely.

However, globally, the digital transformation and adaptation to the innovations it brings has been uneven, often creating new and reproducing old divides between countries.

On the one hand, the digital world has opened up new opportunities, but on the other, it has created large-scale risks that need to be addressed and further managed at the legislative level in cooperation with the international actors concerned.

The results of the two-year presidency of the Civic Chamber of the Russian Federation in AICESIS may become an important component of civil society's vision of global digital interaction.

Currently, when the state interacts with digital platforms, we observe a number of problematic aspects, including imperfect taxation systems for market players, unfair competition of global IT platforms, the lack of a unified procedure for defending the country's national sovereignty, insufficient effectiveness in countering illegal content, and the complexity of government monitoring of the interaction between digital platforms and citizens.

It is hardly possible to build a system of state-society-user relations without taking into account the opinion of public institutions, and the experience in addressing these issues at the national level in the countries that are members of the Association is prerequisite of the entire system of digital cooperation.

Civil Society's Response to Digital Transformation

The protection of human rights in the digital environment and the aggregation of civil society views on the social aspects of the digital transition have become an important area of activity both at the national level and within the framework of the Civic Chamber's presidency of AICESIS.

This topic is on the agenda of many international platforms, both global and regional. Discussions are held in various UN formats, most notably at the Human Rights Council, the Council of Europe, and the OSCE Office for Democratic Institutions and Human Rights (ODIHR).

AICESIS can also become a significant platform for dialog on major human rights issues in the online context. This may involve the exchange of best national regulatory practices, the development of a common conceptual framework and terminology, the creation of effective monitoring mechanisms of respect for human rights in the online environment, and the creation of conditions for the development of a safe digital space.

No less urgent are the issues of improvement of national legislation on various types of digital monitoring, biometrics, digital profile of citizens, and social ratings. Thus, the Association puts the problem of finding a balance between the state's obligation to protect citizens' private life and obtaining the necessary information for making managerial decisions, on the agenda.

Obviously, the pandemic of a new coronavirus infection highlighted the problem of using digital control methods, in the Russian Federation as well. In particular, this refers to the 'Social Monitoring' Russian mobile app, which used geolocation data to track the location of COVID-19 patients required to stay in self-isolation. Registration of the location outside the address for self-isolation gave ground to imposing an administrative penalty. At the same time, technical errors in the application led to the need to appeal in court against wrongful decisions based on the application.

The expansion of digitalization and the increase in negative consequences of potential threats as a result of hacker attacks make information security issues more and more relevant.

At present, there is a clear demand for political systems and democratic institutions to accept the new informational and sociocultural reality, both in Russia and in AICESIS at large. In particular, reforms and projects aimed at increasing direct participation and opportunities for the expression of will of every citizen through the use of digital technologies are already being implemented.

Today, the process of global digitalization has covered almost all human activities in the economic, political and social spheres. Digital technologies ensure information exchange of the authorities with the population and civil society institutions and contribute to a higher speed and convenience of access to government services from anywhere any time. This is also facilitated by the creation of online services and platforms for society and the assessment of the authorities' performance, feedback and building a dialog with civil society.

The study of the Russian approaches to digitalization of socially important spheres of life and communication between citizens and public authorities, as well as the practices of the AICESIS member-states, will contribute to a deeper analysis of the processes in progress, to the development of ways to tackle the existing problems, and to defining a common track for the development of civil society.

3.2.

Recommendations Based on the Results of the Presidency of the Civic Chamber of the Russian Federation in AICESIS

The final part of the Report contains recommendations prepared by the participants of the events, covering seven activity tracks of the 2021–2023 AICESIS Presidency defined by the Civic Chamber of the Russian Federation.

Track No. 1. Digital Divide as a Factor Impeding Society Development

- Build a resilient infrastructure, promote an inclusive and sustainable industrialization and innovation to ensure equitable Internet access in all countries and settlements of the world, and provide those in need with the means to access and receive services via the Internet;
- Coordinate efforts of all AICESIS member-states and the entire international community, consolidate national resources, competencies and investments to address the global digital divide;
- Contribute to the achievement of universal broadband access to the Web for all;
- Participate in the development of a framework for the state policy on the Internet and the digital economy;
- Promote trust and security in the use of networking platforms and other digital communication methods;
- Promote a more inclusive Internet and digital economy;
- Promote e-commerce and digital trade cooperation.

Track No. 2. Protection of Citizens' Rights against IT Giants

- Promote a systemic and consistent development of national digital space and technologies produced in different countries, work against monopolization of digital technologies;
- Implement the G20 and OECD recommendations to introduce a minimum global tax for transnational corporations and 'land' digital platforms in national jurisdictions;
- Coordinate efforts aimed at improving digital literacy and develop international standards for regulating social media.

Track No. 3. Digitalization and Pandemic as Triggers of Radical Transformation of Labor Management Relations

- Consolidate efforts of the state, employers and trade unions, and public organizations to develop necessary legal norms and mechanisms protecting workers' rights in the context of digital transformation;
- Encourage the development of digital platforms specialized in personnel development (training and retraining) and formation of new competencies that meet the requirements of the digital agenda;
- Facilitate the development of a necessary infrastructure that will allow the broadest possible range of professionals to switch to the remote work mode without compromising the quality of their labor activity and their comfort.

Track No. 4. Digital Technologies in Education

- Facilitate the expansion of online education;
- Identify problem areas in the educational system in the context of more intensive online learning, and elaborate a common vision of balanced development of the educational process in the AICESIS member-states;
- Facilitate the formation of new requirements to competencies and skills to be acquired to fit in the digital world.

Track No. 5. Ethical Problems of Digital Technology Application: Social and Economic Consequences

- Contribute to ensuring privacy and security of personal data subjects;
- Analyze and prevent ethical conflicts arising from the application of artificial intelligence;
- Contribute to minimizing the risks of negative consequences of due to the use of AI technologies;
- Improve the legal framework and develop common standards for the application of digital technologies.

Track No. 6. Cybercrime and Extremism on the Internet: Public Counteraction Strategy Development

- Coordinate efforts within the framework of AICESIS to develop a public strategy countering international extremism, dissemination of illegal content, and challenges presenting threats to the psychological health and safety of underage Internet users;
- Improve legal regulation of social relations in the digital environment;
- Develop technical means and tools to effectively prevent crimes in cyberspace.

Track No. 7. Democratic and Public Institutions and Their Place in the New Information, Social and Cultural Context

- Promote an inclusive approach to solving global problems of humanity, increase the role of civil society in controlling the implementation of measures aimed at tackling global problems;
- Promote the use of new digital communications with citizens, develop digital competencies of representatives of public authorities and public institutions, digital services of public authorities as an effective mechanism of communication between society and the state and measurement of citizens' sentiments.

ACRONYMS AND ABBREVIATIONS

AI – artificial intelligence

AICESIS – International Association of Economic and Social Councils and Similar Institutions

ALTAI – Assessment List for Trustworthy Artificial Intelligence

BEPS – Base Erosion and Profit Shifting

ECOSOC – Economic and Social Council of the United Nations

EU – European Union

GTMI – GovTech Maturity Index

ICT – information and communication technology

IoT – Internet of Things

ISSEK – Institute for Statistical Studies and Economics of Knowledge of the National Research University Higher School of Economics

IT – Information technology

ITU – International Telecommunication Union

NAFI – National Agency for Financial Research

NPCS – National Payment Card System

ODIHR – Office for Democratic Institutions and Human Rights

OECD – Organization for Economic Cooperation and Development

OSCE – Organization for Security and Co-operation in Europe

RAEC – Russian Association of Electronic Communications

ROCIT – Regional Public Organization “Center for Internet Technologies”

SDG – Sustainable Development Goal

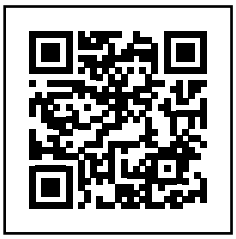
UN – United Nations

UNCTAD – United Nations Conference on Trade and Development

UNESCO – United Nations Educational, Scientific and Cultural Organization

WIPO – World Intellectual Property Organization

WTO – World Trade Organization



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