HOW INTERNATIONAL ICT COOPERATION CAN CONTRIBUTE TO UN SDGS

The Sustainable Development Goals (SDGs), adopted by the UN in 2015, set the agenda for cooperation between states, corporations, international organizations, and civil society. The SDGs are designed to realize peace and prosperity in the world now and in the future, and stipulate that for this, sufficient progress must be made in 17 areas, each of which is focused on achieving a range of real and measurable indicators. Almost simultaneously with the adoption of the SDGs, the World Economic Forum recognized that humanity has entered the era of the fourth industrial revolution, or the revolution of cyber-physical systems, based primarily on digital technologies.

Widespread introduction of digital technologies raises completely new questions in the development of society and the economy, such as the problems of trustworthiness, ethics in applications of artificial intelligence (AI), economic, political, and social human rights. In response to new challenges, new models of socio-economic development, such as smart energy, sharing economics, fintech, telemedicine, e-government, and others, arise and grow in the competitive environment.

In this context, cooperation to implement the SDGs seems to be a more complex task than simply following the approaches that worked for the Millennium Development Goals 2000-2015. The growing importance of digital technologies in developed societies, combined with the new development models in digitizing global economy mean that models of international cooperation must be amended and re-designed "on the fly" to match the transformation taking place in industrialized countries. Ignoring this process leads to the repetition of outdated development models, which, in the end, can undermine and negate efforts to implement the SDGs. At the same time, the SDGs remain a unique unifying view of global development and the universality of the SDGs allows us to look for new opportunities for collaboration between previously unconnected actors in ICT and development sectors.

The existing consensus on the need to implement the SDGs needs to promote new models of international cooperation, overcoming the conservatism of existing bilateral and multilateral models. The digital agenda is already present today in the programs of activities of most international organizations and bodies of bilateral cooperation driven by the SDG agenda. In this context, Russia's models of digital cooperation also seek to take account of the systemic and transformative long-term implications of the Fourth Industrial Revolution in terms of competitiveness and sustainability within the 2030 agenda.

Issues at the intersection of the SDGs and the digital cooperation agenda are a complex mosaic that can be considered from different angles, and, in one way or another, can relate to a very wide range of problems and issues. To prioritize and organize the view of ICT cooperation through the lens of the SDG it is useful to look at some of the sectors that are of priority importance for the implementation of the SDGs, giving preference to those issues that may also be of practical importance for international cooperation in the field of ICT.

The following ICT applications can be of relevance to sustainable development:

- agriculture;

- industry;

- financial sector;

- health care;

- environmental protection and smart cities;

- employment and social development issues;

- public administration.

Sectoral issues of digital cooperation towards the SDGs do receive their reflection in the work of a number of international organizations. Some of their activities can be mapped to the sectoral impact of ICT under the broad subject areas indicated above. The following significant developments in the international organizations can be mentioned.

United Nations (UN), in June 2020, published the Roadmap for Digital Cooperation. UN issued a call to accelerate global digital cooperation to realize its potential for the SDG 2030 agenda. A number of general principles are also put forward for the implementation of this task.

In particular, inclusive digital governance should ensure that the voices of developing countries are heard on issues such as tax policy, free and fair trade, cybercrime and cybersecurity, disinformation, and the spread of hatred and violence. The issue of the need to prevent fragmentation of the digital landscape is also raised. The international community should also agree on common environmental guidelines for digital transformation consistent with the SDGs.

World Summit on the Information Society (WSIS). At the moment WSIS, hosted by the International Telecommunication Union (ITU) under the auspices of the UN, is the most authoritative forum for international cooperation in the field of ICT. The forum is attended by ITU, UNESCO, UNCTAD, the United Nations Development Programme, FAO, WHO, the International Postal Union, the United Nations Environment Programme, the International Trade Centre, the International Labour Organization, and the World Maritime Organization. As a result of the WSIS consultations, a matrix of compliance with the SDGs and areas of international cooperation in the field of information technology was published.

International Telecommunication Union (ITU). The International Telecommunication Union has traditionally been the leader of the digital agenda in the UN system. In 2019, ITU published a report on basic approaches to investing in digital technologies in the context of the SDGs. Two parts of this document present an initial version of the framework that can assist governments, donors, technology solution providers and others in defining an approach to investing, developing, or implementing ICTs in line with the SDGs.

Internet Governance Forum (IGF). At the IGF meeting in Berlin in 2019 the issue of "Achieving the SDGs in the Digital Age" was considered for the first time. It was noted that the UN Agenda 2030 is already one of the main consensus documents of the 193 UN member states. It is recognized that the digital age offers global and extremely powerful tools to facilitate progress in achieving all 17 SDGs.

United Nations Industrial Development Organization (UNIDO). UNIDO bases its approach to the implementation of the SDGs on the principles of inclusive and sustainable industrial development. Sustained improvement of productivity, incomes and the standard of living is considered as effective contribution to the achievement of the SDGs. Particular emphasis is placed on the development and technological equipment of small and medium-sized enterprises (SMEs).

Food and Agriculture Organization (FAO). The issue of ICT as a positive factor of sustainable development may be ambiguous in the context of agriculture. On the one hand, the benefits of digital technologies in agriculture seem obvious, both in terms of productivity and in terms of efficient use of resources. On the other hand, the negative aspects of ICT, including energy consumption and the widespread use of fossil resources, are an important limiting factor in the use of ICTs in sustainable agricultural development. The current emphasis of FAO is on access to ICTs for smallholder farmers in rural areas.

United Nations Specialized Agency for Education, Science and Culture (UNESCO). UNESCO focuses on the implementation of SDG 4 "Inclusive and equitable quality education". In 2015, the "Qingdao Declaration" was published containing the basic principles for the implementation of the 2030 agenda in the field of education. In particular, one of these principles indicates the need for international cooperation, which is supposed to be implemented in three areas:

- Establishment of an international fund to assist developing countries in the use of ICTs to achieve national education goals;

- a global network of experts and knowledge exchange in the field of ICT in education;

- a focal point of best practices and experience gained through the use of technological innovations in the field of education.

United Nations Conference on Trade and Development (UNCTAD). UNCTAD, as one of the leading UN platforms on trade and development, draws attention to the fact that the rapid growth of technologies within the framework of the 4th Industrial Revolution significantly increases concerns about unequal access to digital goods and services both between and within countries, urban and rural populations, low- and high-skilled workers, large and

small firms, public and private schools, and other categories. It is proposed that in order to achieve the SDG targets on universal access to ICTs, efforts should be intensified to bridge existing and emerging new digital divides in order to enable more countries and all segments of the population to benefit from digital technologies.

UNCTAD emphasizes the role of ICT in achieving the SDGs from an e-commerce perspective. To this end, UNCTAD recommends the implementation of policies to support the creation and retention of added value in the digital economy of developing countries, including with regard to entrepreneurship, data processing, e-commerce, taxation, intellectual property rights and digital employment.

Common Fund on Commodities (CFC). Since 2018, CFC has published a number of concepts related to the use of ICTs in commodity value chains and their impact on sustainable development. It is noted that with all the positive potential, the technologies of the 4th industrial revolution can lead to increased global inequality due to the existing differences in the level of readiness for digitalization, including access to high-speed Internet, lack of funding, and lack of competence to implement new solutions. The spread of digital technologies and the monopoly of intellectual property rights can also lead to the fact that the benefits of the introduction of new technologies will be available only to an absolute minority.

The World Bank. The World Bank is implementing a digital development strategy in conjunction with governments, helping to create the foundation "for the digital economy to thrive." The strategy's tools aim to remove supply and demand constraints at the country level on digital transformation related to key components, including comprehensive access to a fast, reliable, secure, and accessible Internet. The strategy also aims to stimulate demand for digital applications, digital skills. and digital platforms to support governments, businesses, and individuals to participate more actively in the digital economy.

United Nations Capital Development Fund (UNCDF). UNCDF has launched a digital ICT strategy to achieve the SDGs in 2019. The Digital Economy Strategy focuses on digital inclusion as a means of providing access to financial services and innovative financing models for marginalized populations in developing countries. The UNCDF strategy of "Leaving no one behind in the digital age" is based on four pillars:

- providing enhanced opportunities for customers;

- inclusiveness of innovations;

- enabling policies and regulation;

- an open ecosystem for digital payments.

Success in each of these four service lines must create an environment in which digital services can empower and enable the most marginalized and vulnerable groups of people to realize the potential of ICTs for productive and healthy lives, especially for youth, women, migrants, refugees, and micro, small and medium-sized enterprises (MSMEs).

European Union (EU). Measures for digital international cooperation at EU level focus on the interaction of member states. In 2014, the European Commission took a number of steps to accelerate the development of a flexible "data economy" for the development of ICT. This included measures for the free circulation of non-personal data, the Cybersecurity Act, the Open Data Directive, and the well-known "General Data Protection Regulations"(GDPR). While the EU attaches great importance to sustainable development, information on systematic efforts to link the work on the SDGs with ICT development at the level of the European Commission has not been published.

Instruments of Russia's cooperation in ICT under the SDG Agenda

Considering Russia's instruments of cooperation through the prism of the SDGs, Russian Federation can most effectively participate in the implementation of the SDGs and the implementation of the national approach to the implementation of sustainable development goals, by focusing on:

(1) a comfortable living environment, including housing, affordable infrastructure, environmental well-being;

(2) work, steadily growing income, a decent standard of living, an effective mechanism for lifelong learning, allowing a person to develop and build a career, a decent pension and a social package;

(3) high-quality, effective medical care, access to the modern level of medical services;

(4) the opportunity to get a decent education and realize their potential.

The following areas of ICT cooperation could be relevant within the framework of the SDGs:

- access to technologies and resources;

- education;

- infrastructure and digital inequality;

- information and digital security;

- human rights;

- issues of cross-border regulation of the activities of global corporations;

- digital sovereignty.

One example is distance education systems created by Russian enterprises as a practical solution to the challenges related to the implementation of SDG 4 "Quality Education". Another example is the implementation of the e-government program of Russia, as a positive experience in the use of digital technologies to achieve the SDG indicators in the field of ensuring human rights and equality in the digital era.

Practical steps to achieve the SDGs should be implemented at the intersection of practical constraints and priorities, which include:

- specific sectors using digital technologies,

- specific competencies of actors of international development,

- technological capabilities and competencies of Russian ICT businesses,

- funding opportunities and availability of resources,

- national priorities of Russia and other countries pursuing the SDGs.

These factors add up to a complex mosaic with many intersections of development tasks, technological capabilities, competencies, financial and competitive interests. Prioritizing international cooperation activities at the intersection of the SDGs and ICT in such conditions seems to be a challenging task, which can be resolved in practice by systematic application of available cooperation tools.

Such a systematic approach may include the following analytical areas:

- mapping of the SDGs and national development priorities in the digital era;

- comparison of technological capabilities and prioritized SDGs, in the context of the availability of resources and funding for their implementation;

- prioritization of interaction with international actors and involvement of national enterprises to implement technological opportunities.

As can be seen in the diversity of activities and priorities of the international community on the topics of the SDGs and digital technologies, at present, similar goal-setting tasks are being solved at the level of the international community. The architecture and priorities for implementation of the SDGs using digital technologies is being formed. As a result, a certain "political space" for the use of digital technologies for the implementation of the SDGs will emerge, including a joint understanding of the priority tasks to which digital technologies can be directed, indicators and metrics for achieving the relevant goals, and an agreed toolkit for international cooperation in digital technologies.

Due to Russia's unique natural, geographical, and technological resources, it can also deliver a significant contribution implementing the SDGs on a global scale. Formation of a shared political space for the implementation of the SDGs requires practical steps based on a strategic understanding of the SDG issues, both from the point of view of the countries' effective participation in the 2030 agenda, and from the point of view of implementing national sustainable development strategies.

By correlating the priority tools for cooperation in the field of digital technologies with the matrix of digital competencies of international organizations on SDG issues, it seems also possible and practical to reflect digital technological capabilities of countries as a contribution to international cooperation in the implementation of the SDGs.

Taking into account also the possible areas of cooperation in the implementation of the SDGs in various sectors of the economy, it seems possible to identify industry leaders of digital transformation in the Russian Federation and other countries and take steps to present their solutions and competencies at the international level as an active participation in the implementation of the SDGs.

About the Center for Global IT Cooperation