# PROBLEMS OF AN INFORMATION SOCIETY'S SUSTAINABLE DEVELOPMENT IN THE CONTEXT OF GLOBALIZATION

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The formation of an information and communication society, which is based on communication as the main aspect of sustainable development of the information society, is gaining great importance. It has been shown that the key economic, political and cultural activities are based on the Internet and the «knowledgeable» economy. Due to the fact that the sustainable development of the information society has been poorly reflected in the Ukrainian philosophical literature and wrongly considered in the context of the economy of modern Ukrainian society, rather than in the context of the information society, the author takes a novel approach to studying the sustainable development of the information society. The results of the study include the formulation of the concept, categories and ways of optimization of the sustainable development of the information society in the age of globalization.
**Key words:** *information society, sustainable development, problems of sustainable development, information and communication society, globalization, uneven development, cybercrime.*

## Problem formulation.

The article covers the scientific foundations of sustainable development of the information civilization being the main trend in the development of the modern world. Methodology is a system of informationalism that helps to analyze the problems of the information society and the Internet economy as well as to solve the complex problems of the sustainable development of the information society to increase the competitiveness of the country on the international scene.

**The purpose of the research.**

The article aims at identifying the problems of the sustainable development of an information society, which greatly reduce the country's competitiveness on the international scene because they do not meet the requirements of the Internet age.

**Results.**

The urgency of the study of overcoming the problems of an information society sustainable development represents a model for the society's development, which includes information structures regarding the "world-society-human", behaviors regarding "action-behavior-thinking" by the individual and the state pertaining to the society development at its highest informational stage. The information society and its education, information, science and technologies are becoming critical factors and sources that create unsurpassed matrix values in the Internet world and determine the style and manner of an individual's socio-cultural existence. In the context of globalization, educational, information and technological resources are characterized by an extremely uneven distribution throughout the world (UNESCO, 1999), the education system in most countries is technologically backward and organizationally bureaucratized, and virtual reality acts as an agent of an individual's socialization [1, p. 208–217]. Recently, telecommunication systems have been upgraded, but there is still a significant gap between countries and regions in terms of both infrastructure quality and intensity in communication. The creation of an

information society is one of the central areas of human development. In its center is a person with all the diversity of interests that helps the individual to effectively address individual and social problems. The development of information and communication technologies (ICT) ensures the involvement of the individual in the socio-cultural context of this society. It is also of paramount importance for conducting socio-economic reforms in Ukraine. For the reforms successful realization the development and implementation of a national program of activities that leads to the achievement of internationally agreed upon Millennium Development Goals, related to the civilization's sustainable development is necessary. A general concept of the Action Plan to help countries overcome the digital divide, promote the national security of the state as developed in the Millennium Declaration, the Monterey Consensus, the Johannesburg Declaration and Plan of Implementation, by promoting the use of ICT-based products, networks, services and applications [2, p. 528].

In 2000, the governments of many countries seriously perceived the threat, which was called the term «cybercrime», because continuous wave of viruses travel the Internet, crackers broke through firewalls (security elements), credit card numbers were stolen, political activists capture websites, military computer files were sent around the world, and confidential software was extracted even from the Microsoft's internal network. Despite billions of dollars spent on e-security, it became apparent that the network was safe insofar as it guarantees the security of its weakest link. Experts in this field pointed out: if they break the network at any point, then it's easy to move along its loop holes. Hacking and cracking which are spreading in the global network in the context of globalization have shown the futileness of traditional forms of police protection, which are rooted in state power within its national borders. The sovereignty of the state has always started with the control of information, and this control is slowly, but confidently undermined in the formation of an information society [3, p. 13–24]. Due to the global nature of the Internet, major governments have faced the need to work together, creating a new, global space for governments' actions. A meeting of the Group of Eight (G8) in Paris in June 2000 produced guidelines for actions, as the Council of Europe expressed its concern and Governments adopted a convention on cybercrime prepared by European security agencies, in which recommendations regarding global software companies were established in an attempt to control Internet communication. However, as practice shows, the provisions of these policy actions have been constantly updated over the next few years. The new Internet architecture and these new rules became the basic control tool, enabling traditional forms of government power to regulate and politically control the Internet's information space.

The processes of contradictory social changes in the information age revolve around the struggle for transforming our existence through the construction of interactive networks as forms of organization and mobilization. The Internet ensures that every individual, as well as social movements, are involved in the creation of a new society, called information, which produces new geoproducts for mass consumption [4, p. 487–492]. In connection with these processes, the Internet is transformed, which from a tool of business organization and communication environment, becomes a leverage for social transformation. The Internet provides a horizontal, uncontrollable, relatively cheap communication channel, both one-to-one and one-to-many.

There is no doubt that the information society raises a number of problems that often lead to deepening crisis, which are frequently cultivated online and over the Internet in the age of the Internet. With the development of the Internet and society, the dimension of our lives is deeply changing. Authorities are initially implemented when creating and disseminating cultural codes and information content. The control of communication networks becomes an instrument by which interests and values are transformed into the guiding norms of human behavior. This movement continues to develop controversies, as in previous historical contexts. However, the Internet is neither an instrument of freedom nor a weapon of unilateral domination, and an example of this is Singapore. Under the leadership of a strong and qualified government, Singapore has fully taken advantage of technological modernization as a development tool. At the same time, this country is widely regarded as

one of the most refined authoritarian systems in history. In an effort to direct this movement, the Singapore government tried to spread the use of the Internet among its citizens, holding political control over its use through the censorship of providers and Internet services. However, even in Singapore, civil society was able to use the Internet to expand its space of freedom, to stand up for human rights protection and to express political views in political debates. This suggests that the Internet offers tremendous potential for expressing civil rights and representing human values, but it cannot substitute for social changes or political reforms. In a globalized reality the technologies of freedom were opposed to technologies of control in the context of the information society's educational culture formation [6, p. 225–232].

In our opinion, it is necessary to specify the factors constraining the development of the information society in Ukraine, which reflects the various stages of these countries development that have reached different levels due to technological progress and other changes that transform the modern society in the context of society's informatization [7, p. 222–226]:

1) a lower development of the information and communication structure than in other highly developed Western and Eastern countries;
2) a lower standard of living for most of the population, limiting payment demand and access to global communications networks;
3) poor preparedness of the population to live in an information society, lack of motivation for using modern ICT due to their lack of knowledge about their possibilities, traditional passivity and inertia in using information;
4) lack of a doctrine for the development of the information society transformation into a global information society, which does not solve the economic and organizational problems of «electronic development», designed for a long-term perspective;
5) lack of an investment policy to finance promising programs and projects which are implementing the strategy of the information society's development in Ukraine;
6) imperfection and incompleteness of the legislative and normative base for stimulating the informatization processes for the development of the economy based on information and knowledge;
7) lack of program connecting ICT with educational process at all education levels as well as underdevelopment of modern electronic forms of doing business.

On the other hand, *Ukraine has always had a number of well-known advantages that could offset significant problems and ensure the movement towards a global information society:*

1) high scientific, educational and cultural potential, as well as a distinctive national culture;
2) fundamental theoretical developments of the world level in the field of computer science;
3) a strategy of prioritized informatization aimed at improving the national information infrastructure oriented towards ensuring competitiveness and accelerating economic development;
4) formation and development of the domestic market of information and communication technologies, products and services;
5) analysis and evaluation of the progress achieved in the digital divide decreasing, and setting specific indicators that can be used for action and assess progress towards the achievement of the overall goals of the information society;
6) continued development of companies and firms that carry out professional activities in the ICT markets and serve segments of this market in order to solve new problems of the information society at the national, regional and international levels;
7) accumulation of some experience in developing various business models of the goods and services production using modern ICT and serving as certain targets for the growth regarding the level of connection and access to the use of ICT within the framework of the Action Plan implementation;
8) creation of a certain basis for legislative and normative provision of ICT development in order to build up the potential of knowledge and ICT and put it on the service of development both at

individual and society levels, as enshrined in the Millennium Declaration on Sustainable Development;
9) computerization of certain sectors of the economy, in particular banking and public administration, which plays a leading role in the development and implementation of prospective and sustainable national electronic strategies, including the private sector and civil society;
10) providing connection to ICT for villages, universities and colleges, research centers, public libraries, cultural centers, museums, post offices, archives, health centers, primary and secondary schools, to do this create the technical conditions that would facilitate the use of the Internet for the Millennium Development Goals;
11) the use of ICT in real business, politics and governance, health care and culture, science and education, whose leading role is the creation of an information society and the implementation of ICT-related development initiatives, contributing to the growth of human (intellectual) capital;
12) Ukraine's involvement in global information processes that contribute to the formation of a global information society in the context of globalization and education's informatization [8, p. 192–200].

In conditions of the global development, everyone should have access to information and ICT tools to address a wide range of problems requiring full participation and interaction between the state, business circles and civil society at the international, regional, national and local levels. The potential accumulated in our country – knowledgeable, scientific, technical and educational – must be used to develop an information society aimed at forming a «knowledgeable» creative economy and the creative individual development. The benefits of ICT are fully realized when ensuring the safety and security of appropriate technologies, fighting against cyber-attacks and cybercrime, and therefore the work carried out by international organizations to respond promptly to cases of an information security breach, the exchange of information and technical means of combating violations in the information space is essential. Therefore, we consider it expedient to analyze the relevant and potential threats to information security, as well as to combat these threats, namely, the expansion of international cooperation in the field of security information and communication networks and systems [9, p. 46–50].

In order to maximize the benefits of ongoing initiatives, **the sustainability principle** should be included, which will contribute to the successful resolution of the above problems. The private sector should participate in specific information society development projects at the local, regional and national levels. Ukraine should promote a partnership between the public and private sectors for solving the information society's problems to ensure its national security and fight against cybercrime. By 2030, the relevant financial institutions and international organizations should *develop their own strategies for the ICT use for sustainable development, including sustainable production and consumption patterns, which should be an effective instrument for promoting the goals set forth by the United Nations in the Millennium Declaration. For this purpose, a series of measures should be developed*:
1) creation of business incubator schemes;
2) provision of venture capital at the national and international levels;
3) introduction of state investment funds, including microfinance for small, medium and micro enterprises;
4) realization of the investment attraction strategy;
5) conducting events in support of software export (trade consulting);
6) creating support networks for research and development works and software parks [10, p. 266–278].

Infrastructure is the basis for achieving the goals of reaching all the inhabitants of the planet with digital technologies, that is, providing universal, sustainable, universal and affordable access to ICT for all, taking into account relevant decisions already applied in developing countries or countries with economies in transition, to facilitate proper connectivity and access to remote and marginalized areas at the national and regional levels. Public administrations authorities should, within the framework of the national information policy, develop within their national electronic strategies the

appropriate policies and strategies for ensuring universal access, and identify the means for their implementation, based on benchmarks, and develop indicators for access to ICT. In order to develop the stability (sustainability) of the information society, it is necessary to develop and strengthen the infrastructure of national, regional and international broadband networks, including satellite and other systems, to facilitate the provision of bandwidth that addresses the needs of countries and their citizens, and creates conditions for providing new services based on ICT. The development of a global information society requires:

1) to expand access to orbital resources, to ensure global harmonization of frequency use and global standardization system;
2) to promote global high-speed satellite services for insufficiently served areas, particularly in remote and sparsely populated areas;
3) to encourage the development of other systems capable of providing high-quality connectivity and the development of information management [11, p. 208–217].

## Conclusions.

There is a powerful preventive tool that could enhance security throughout the system. If the whole network will be able to protect itself at the level of its individual components, the invasion of the network becomes much more complicated. This is one of the attempts by the states to maintain a certain level of control over information flows. Ukraine stands for the preservation of the diversity of the information society, further development of scientific research and training of skilled ICT specialists; wider use of the intellectual potential of Ukraine in the global division of labor through participation in international projects; solution at the national, regional and global levels of issues of protection of intellectual property. There is no doubt that cooperation with international organizations and investors in the field of ICT development is needed in the following priority areas:

1) development of the sphere of socially significant information services, especially telemedicine and distance education;
2) the creation of an ICT system that is designed to ensure equal rights and opportunities for the population in remote, sparsely populated areas;
3) use of high-speed communication channels for national scientific and educational networks;
4) widespread access for the population to global information resources. All of the above measures contribute to the formation of the concept of sustainable development of the information society and the development of its ideology.

## References

1. Vlasenko F.P. Virtual reality as a space of socialization of the individual / F. P. Vlasenko // Humanitarian Bulletin of Zaporizhzhya State Engineering Academy: [GS Sciences etc.]. – Zaporozhye: publishing ZDIA, 2014. – Issue 56. – P. 208–217.
2. Vlasiuk A. S. National security: the evolution of the problem of internal policy / A.S.Vlasiuk. – K.: NISD. – 2016. – 528 p.
3. Voronkova V. G., Sosnin A.V. Formation of information society in Ukraine: challenge or need time? / Humanitarian Bulletin of Zaporizhzhya State Engineering Academy: scientific papers. – Zaporizhzhya: ZDIA, 2015. – Issue 60. – P. 13–24.
4. Voronkova V. G, Nikitenko V.O. Modern geoculture as a sociocultural phenomenon of cultural globalization / Gilea: scientific Bulletin: [GS Sciences etc.]. – K., 2013. – 72. – P. 487–492.
5. Voronkova V.G. Philosophy the development of modern society: theoretical and methodological context. Monograph / V. G. Voronkova. – Zaporizhzhya : RVV ZDIA, 2012. – 262 p.
6. Kyvliuk O. P. Education culture of an information society in the context of the reality of globalization / Humanitarian Bulletin of Zaporizhzhya State Engineering Academy : [GS Sciences etc.] – Zaporizhzhya : RVV ZDIA, 2016. – Issue 67. – P. 225–232.
7. Kyvliuk O. P. Modelling of information processes in the context of the information society / O. P. Kyvliuk / Gilea: scientific Bulletin: [GS Sciences etc.]. – K., 2014. – Issue 80. – P. 222–226.

8. Kyvliuk O. P. Globalization and informatization of education in the subject field of the philosophy of education / Humanities Bulletin of Zaporizhzhya State Engineering Academy: [GS Sciences etc.]. – Zaporizhzhya : RVV ZDIA, 2014. – Issue 57. – P. 192–200.
9. Kyrychenko M. O. Informatization as a factor of optimizing the ideology of the information society and ensuring its sustainable development / M. O. Kyrychenko // Scientific Journal «ScienceRise : Pedagogical Education». – Issue 1 (9). – 2017. – P. 46–50.
10. Maksimeniuk M. Yu., Nikitenko V. O. Informational and communicative society as a kind of complex social systems and interaction / Humanitarian Bulletin of Zaporizhzhya State Engineering Academy: [GS Sciences etc.] – Zaporizhzhya: ZDIA, 2016. – Issue 66. – P. 266–278.
11. Melnyk V. V. Formation of the concept of information management: essence, objectives, main directions of development / Humanitarian Bulletin of Zaporizhzhya State Engineering Academy: [GS Sciences etc.] – Zaporizhzhya: ZDIA, 2014. – Issue 56. – P. 208–217.