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### *Исследования Международного Права*
### *International Law Studies*

# INFORMATION SECURITY CONCEPT MAJOR
# ASPECTS AND SPECIFICS

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***Abstract:*** *This article examines the issues of defining the concept of information security, which are developing under the influence of various external and internal factors of the development of modern information and communication technologies. The purpose of this article is to define the main aspects of the concept of "information security" on the basis of its formation and modern signs of its development, as well as to identify the main components of the problem of ensuring information security. Based on the definition of the main aspects of ensuring information security at the national and international levels, and taking into account the modern development of information infrastructure and ICT, a modern definition of the concept of information security is proposed.*

***Keywords:*** *international law, international information law, information security, security of information infrastructure, sustainable development, global Internet, ICT, information security.*

The modern development of the concept of information security is linked to the global information revolution, in the process of which the number of modern information and communication technologies (ICT) and the scale of dissemination of these technologies are constantly and dynamically growing. At the same time, it is very likely that the successful results of the global information revolution will be used for destructive purposes, for example, for the purpose of interference by one State in the internal affairs of another or for other purposes contrary to generally recognized principles of international law. That is, the issues of ensuring the information security of the state are the subject not only of cooperation between states, but also of rivalry in political, economic and other spheres. The formation of a completely new area of international counteraction to them, which concerns not only the interests of national security, but, also the global system of international security, determines the increasing role and importance of the problem of ensuring the information security. Various aspects of information security are the subject of

theoretical and practical research, as well as the legislative process at the national and international levels. Therefore, one of the priorities for ensuring democratic transformations and protecting the rights and interests of man and society is to solve the problems of ensuring the information security of the state.

Let us note that the development of an international legal framework to regulate the international exchange of information is progressing with great difficulty and slowly. The main reason for this is the contradictions in the definition of concepts used in international agreements in the field of information exchange. Many problems arise in the process of adopting basic international legal norms and principles in the field of international information exchange[1].

One of the negative factors affecting the state of information security is the increase by a number of countries of the ability to influence the information infrastructure for political and economic purposes. The state of information security today is characterized by a constant increase in complexity, increasing scale and increasing coordination of computer attacks on critical information infrastructure objects [2]. Information security today is a complex multi-level system concept, the development of which is influenced by various external and internal circumstances.

The Okinawa Charter for the Global Information Society of July 22, 2000, determined that "ICT is one of the most important factors influencing the formation of the 21st century society"[3]. "Informatization is not just a local sphere of public life, in essence it covers all areas of social life, and its consequences deeply affect the life of an individual, society, and state, and this influence is becoming increasingly significant"[4]. Informatization is defined as "a new stage in the development of productive forces, in which the exchange of

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[1] Nugmanov N.A. International Law Regulation of Cooperation in the Sphere of International Information Exchange // Bulletin of the Volga Region Institute of Administration. Science journal №2 (47), 2015. Saratov. – P.41

[2] Information security in modern conditions // https://bosfera.ru/content/informacionnaya-bezorasnost-v-sovremennyh-usloviyah. – 2021.

[3] Okinawan Charter of the Global Information Society // Development of the information society. Volume 2. Concepts and programs: Collection of documents and materials / Edited by N.V. Borisov, Yu.E. Khokhlov. – St. Petersburg: Publishing House of St. Petersburg University, 2002. – P. 63.

[4] Dobrenkov V.I. Problems of building a strategic community based on the provisions of the Okinawan Charter // Global informatization and security of Russia: Materials of the round table "Global informatization and socio-humanitarian problems of man, culture, society (Moscow State University, October 2000) / Edited by prof. V.I. Dobrenkov. – M.: Publishing House of Moscow University, 2001. – P. 23.

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information, its prompt processing and effective application are the determining conditions for the comprehensive development of society"[5].

A feature of modern information technologies is the possibility of their use by participants, regardless of the level of technical literacy and preparedness of the subjects. The most "friendly" interfaces, comfortable programming languages, accessibility of programs and computer equipment give rise to active activity of a wide range of people in the information sphere. While information technologies become more complex and improved, active users of technologies catastrophically lose both knowledge and leverage over the technogenic environment. A society of users emerges, receiving benefits from the technologies used[6].

It is obvious that when disclosing the concept of "information security" it is necessary to take into account the characteristics of the concepts "information" and "security". It should be noted that in the concept of "information security" the word "information", in addition to the concept of "information", includes the information sphere in which security is ensured. In addition, information security, as noted earlier, includes such qualities as information content and means of various information processing.

When defining the concept "information", it should be noted that this is a complex, systemic and voluminous phenomenon, which acts as a basis in many scientific fields, and is the subject of scientific discussions in a variety of directions.

The term "information" itself comes from the Latin word "informatio", which means message, explanation, presentation. In dictionary, the word "information" is understood as information about the world around us and the processes occurring in it or messages informing about the state of affairs, about the state of something[7]. Let us note that in terms of its importance for the development of society, information is equated to the most important resources along with raw materials and energy[8].

One of the first attempts at research on defining the concept of information includes the works of R. Fisher in 1921 (probabilistic concept) and

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[5] Belov V.G. The paradigm of information society and the formation of information law // Law and informatization of society: Collection of scientific tr. / Ed. Bachilo I.L. – M.: INION RAS, 2002. – P.36.
[6] Elin V.M. Comparative analysis of the legal provision of information security in Russia and abroad: Monograph / Ed. Baranova A.P. – Moscow, 2021. - P.5.
[7] Ozhegov SI. Dictionary of the Russian language / Edited by N.Y. Shvedova. - 22nd ed. - Moscow: Russian language, 1990. - P.253.
[8] Bashly P.N. Information security and information protection. – M.: RIOR, 2013. - P. 7.

R. Hartley in 1928 (logarithmic measure of the amount of information), which anticipated the emergence of the classical statistical theory of communication by N. Wiener - K .Shannon 1948 (amount of information as a measure of uncertainty reduction)[9].

Until the mid-20th century, "information" (from the Latin Informatio - familiarization, explanation, presentation, concept) meant information, transmission of messages. Depending on the scientific aspects of the study of information, many of its definitions have arisen: information is defined as "a measure of eliminating the uncertainty of knowledge from the recipient of a message about the state of an object" (V.N. Andreev), as a reflected originality (A.D. Ursul), as "random and the remembered choice of one option from several possible and equal ones" (G. Kastler), as the objective content of the connection between interacting material objects (A.I. Mikhailov and others)[10].

Such definitions of information as "communication, during which uncertainty is eliminated" (K. Shannon)[11], "general methodology of science" (L. Brillouin)[12], "designation of the content of a message, a signal received from an external world in the process of adapting to it" (N. Wiener)[13], "the vagueness of existing definitions of information is due to the ideological saturation of the issue, different ideological assessments of information problems by states" (E. Ploman) [14].

Talimonchik V.P. identified three approaches to defining information: 1) as a reduction of uncertainty - an approach that takes into account the characteristics of the perceiving subject; 2) the second approach does not take into account the properties of the perceiving subject, but focuses on the data as such. Within this approach, information is defined as data or as a qualitative definition of the Universe; 3) within the third approach, information is defined

[9] See: Fisher, Sir Ronald. Statistical Methods for Research Workers, Oliver & Boyd, Ltd, London, 1925; Hartley R.V.L. "Transmission of Information", Bell System Tech. Y., 7. 1928; The theory of information and its application / edited by A.A.Harkevich. M., 1949; Shannon K. Works on the theory of information and cybernetics. M., 1963; Wiener N. Cybernetics. M., 1958.
[10] Baeva L.V. The concept of information in modern science // Problems of the formation of information society. – Astrakhan, 2018. - **P.**5-19.
11 Shannon K. Works on information theory and cybernetics. M., 1963. - P. 243.
12 Brillouin L. Scientific uncertainty and information. M., 1966. - P.15.
13 Viner N. Cybernetics and society. M., 1968. - P.31.
[14] Ploman E.W. Satellite Broadcasting, National Sovereignty and the Free Flow of Information // National Sovereignty and International Communication. - Norwood, 1997. - P.162-164.

as the process of obtaining data, their perception and understanding - from data to knowledge, and then to understanding[15].

With the advent of cybernetics, special attention began to be paid to such a concept as information. On the part of the founder of cybernetics, N. Wiener, it was determined that information is not energy or matter, but a designation of content received from the outside world in the process of adaptation to it[16]. This definition establishes that information is intangible, and that information is a certain content that it receives when interacting with the outside world.

The definition of "information" is the transmission of news, messages about events, as well as scientific and technical information, records, various types of printed information, etc. and distinguishes the concept of "information" as a means, process and "information" as the final result[17], includes such signs that information is information about something and the process of transmitting this information.

The UNESCO Recommendation on the Promotion and Use of Multilingualism and Universal Access to Cyberspace contains the following definition: "Information in the public domain is information available to the public, the use of which does not violate either legal rights or obligations of confidentiality. Thus, this definition covers, on the one hand, all works or objects of related rights that anyone can use without obtaining permission, for example when protection is not granted under national or international law or when protection expires. On the other hand, it covers public domain data and official information produced and voluntarily provided by governments and international organizations"[18].

In international information law, information is defined as the main object regarding which or in connection with which social relations arise that are subject to regulation by law.

In accordance with the Law of the Republic of Uzbekistan "On principles and guarantees of freedom of information" dated December 12, 2002,

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[15] Talimonchik V.P. International legal regulation of relations in the field of information. – St. Petersburg, 2018. - P.55.
16 Wiener N. "Cybernetics and society" M., 1968. - P.31.
[17] Ermishina E.V. International information exchange: legal aspects. - M,: Mezhduiar. relations, 1988. - P.13.
[18] Recommendations for the development and promotion of Government information in the public domain / prepared by Paul F. Ulrich. – Paris: UNESCO, 2004. – VIII, 39 p.– P. 13.

information is information about persons, objects, facts, events, phenomena and processes, regardless of the sources and form of their presentation[19].

Definitions of the concept "information" are many and varied, but nevertheless, these concepts are characterized by certain basic features. Determining such basic characteristics serves to resolve problems in the field of information security at the national and international level.

The first general characteristic feature of the concept "information" is that information represents certain information, as well as data about various processes and phenomena that occur in society and nature.

Secondly, information is the process of transmitting specific information or facts to any subject, and is a necessary structural element in the system of interactions in society. Let us note that if correct interaction is not observed, a violation of the security of the individual, society and state occurs.

The third feature is the psychological aspect of information, namely the perception of certain phenomena by the human consciousness.

The fourth important feature of information is the intangible nature of information. In this connection, complexity arises in the legal regulation of social relations related to information. It was rightly noted that information is not a material, but a materialized object[20].

This means that information as a product of human consciousness is immaterial, and can only exist within a material carrier. Therefore, it is necessary to distinguish between relations regarding information, information carrier and information available on a material medium.

Based on the definition of the main features of the concept of "information," we believe that information is an intangible object, perceived by human consciousness, representing information about phenomena occurring in society and nature, and the process of transmitting specific information or facts to any subject.

In accordance with one of the most common definitions, "security" is a state of protection of the vital interests of an individual, society, state from internal and external threats, or the ability of an object, phenomenon or process

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[19] The Law of the Republic of Uzbekistan "On principles and guarantees of freedom of information" of December 12, 2002 // https://lex.uz/docs/52709
[20] Nesterov A.B. "Some considerations about the "Doctrine of Information security of the Russian Federation" // Scientific and technical information Ser, 1 Organization and methodology of information work. No. 4, 2000. - P. 3.

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to survive destructive influences[21]. Today, in connection with dynamic changes in both the political, social and economic spheres of human life, associated with the revolutionary breakthrough in the development of ICT and also the transition to a new post-industrial stage of human development, there is a need to revise and supplement the concept of "security". Such important modern aspects arise as the indivisibility of international security and the non-destructive use of ICT.

Based on the modern global strategy for sustainable development, the concept of security should include both the state of protection of vital interests and a set of measures to ensure the global sustainable development of humanity. Revealing such a property of security as security, it should be noted that security has a tendency to quantitative changes, i.e. In addition to the aspect of the state of security, there is also the aspect of the degree of security of the object.

Note that security is expressed in a certain state of an object in which it is not in danger, its independence, reliability, integrity are preserved, and there is protection from dangers or existing threats [22]. In this case, the security of an object implies the state of solving the problems facing it, and protecting itself or restoring its functionality in the event of unforeseen circumstances or threats.

Security is a unifying component in each of the global issues we face in the world today, and for that reason a central theme in International Relations. It is also a contested concept that has occupied minds for thousands of years. The central debate is whether security should be about protecting the state or the individual – or both. Extending that, another question emerges as to who, or what, should provide security[23].

In the context of international relations, security refers to the protection of a state's territorial integrity, political independence, and economic well-being from external threats. This can include military threats, political and economic coercion, and non-traditional security challenges such as terrorism, cyber-attacks, and transnational crime. Security in international relations is a central concern for states, as threats to a state's security can have significant impacts on its stability and ability to govern[24].

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[21] Security // Civil Protection: Encyclopedia in 4 volumes. **-** T.I AI. **-** M.: FSBI VNII GOChS (FC), 2018. – P. 11.

[22] Grunin O.A., Grunin S.O. Economic security of the organization. – St. Petersburg: Peter, 2015. – **P**. 38.

[23] Jester Natalie. Foundations of International Relations. London: 2022. Bloomsbury. https://www.e-ir.info/2022/04/12/international-security/

24 International Security: Definition, Approaches and Types. January 24, 2023 in Diplomacy School, International Security Studies. https://diplomacynetwork.com/international-security-definition-approaches-and-types/

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The issue of security is a fundamental aspect in the maintenance of international relations, and such relations cannot be upheld without concrete laws and credible policies underlying the international scene. It is really essential and appropriate in setting strong international security on the international level. With all these in place, ensuring this international security has been a difficult task by actors on the international scene due to the multifacet of the various legal regimes with the diversified policy set up making the objective of international security a laughable phenomenon[25].

We agree that security is a form of protection against danger, damage, loss and crime, rendering one to be at peace all the time. Security is a basic want. International security on the other hand refers to the measures that are under taken by international bodies or organizations like United Nation to enhance and ensure safety of people[26].

The modern understanding of security is proposed in the UN Development Program, where the main emphasis is on the security of the individual. On the basis of this, security is understood not only as the security of the state, but also as the security of society, as security achieved as a result of social development. We believe that human security can only be ensured on the basis of ensuring the security of all citizens, i.e. the security of each individual person should be the basis of state and international security.

We agree with the opinion that security is a condition or state of affairs in which an entity can protect and effectively defend its values from external threats and risks. The latter can be military or non-military in nature, stem from different sources and are often difficult to predict[27].

Based on formal logic, the content of the concept of security includes such features as the state of security and a set of measures to ensure sustainable development. The scope of the concept of "security" contains such features as specific measures aimed at achieving and maintaining a state of security, including ensuring sustainable development. Based on the above, security is a

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[25] Komarnytskyi V., Arifkhodzhaieva T.,  Oderii O., Kovalenko V. International Security: Current Situation and Ways of Improvement Legal Regulation // Jurnal Cita Hukum, December 2021 9(3):539-550. DOI:10.15408/jch.v9i3.22653

[26] Ivy Panda. International Security, Its Components and Importance. 2019, August 20. https://ivypanda.com/essays/international-security-essay/

[27] Hoffman F. Hybrid war and its challenges / F.Hoffman // Peace and war. All against all: the newest history of the concept of the Anglo–Saxons' fighting**.** – M.: Kn. Mir, 2015. - **P. 182-190.**

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state of protection of the vital interests of man, society and the state, including a set of measures to ensure the global sustainable development of humanity.

The concept of "information security" includes in its content all the characteristics that are included in the generic concept of "state security" and thereby includes all the signs of "state security", and is additionally characterized by various aspects associated with the concept of "information". The concept of "information security" has characteristics associated with the concept of "information" and with the information sphere, which is a set of interstate relations regarding information, its content and technical means of transmission, dissemination and protection of information.

In the modern world, dynamic transformations are taking place in the field of ensuring international information security. Various issues of ensuring state and international information security are an urgent subject of theoretical and practical research. The concept of "information security" is found in many modern concepts in the field of security, and is also the subject of the international rule-making process.

Let us note that solving problems in the field of information security is one of the important components of the dynamic development of statehood, democracy, and guarantees for the protection of the interests of society and the individual. Undoubtedly, the sphere of informatization is not only an object of international cooperation, but also, due to the aggravation of political and economic confrontation between states, it is an object of rivalry.

In order to eliminate numerous international legal conflicts caused by the cross-border nature of cybercrimes, it is necessary to develop a universal international agreement in the fight against cybercrimes, containing provisions regarding the relationship and priority between international and national principles and norms, especially regarding liability for cybercrimes[28].

Cyberspace has gained a great importance for human interactions as well as for a higher level – international relations. More importantly, the cyber domain is multi-faceted – the flow of information and actions runs between these two quite separate (in comparison with other domains) levels. It may become necessary to regulate cyberspace as outer space, sea and airspace to establish common "rules of game" and to avoid arbitrary and potentially harmful actions of states. Bilateral agreements between nations, sometimes called as

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[28] Nugmanov N.A. International legal regulation of the fight against cybercrime // Deutsche Internationale Zeitschrift Für Zeitgenössische Wissenschaft № 65, 2023. – P. 14. https://doi.org/10.5281/zenodo.8414814

"cyberpacts", have become a widespread practice of strategic defense and cooperation[29].

Note that Cyber security plays a crucial role in international relations and it will remain a significant element in government policy. As many companies and organisations take their business online to boost the economy, their network is at risk to cyber criminals looking to infiltrate the system for their own benefit. Cyber attacks are more advanced threatening individuals, businesses and governments. Due to the vast impact cybercrime has across all networks and systems, naturally, world leaders are obliged to combat this issue[30].

In 2001, the report of the UN Secretary General identified the main threats in the international information space, namely: the development and use of means of unauthorized interference in the information environment of another state; unlawful use of other people's information resources and causing damage to them; targeted information impact on the population of a foreign state; attempts to dominate the information space; promotion of terrorism; conducting information wars[31].

We agree with the opinion that the most important role in ensuring the information security of the state is undoubtedly played by its security, created by the state through a number of measures and designed to counter real and potential threats to national security emanating both from outside and arising within the country[32].

Today, the problem of information security has moved from the field of technological categories to the field of social development management. E.Yu. Mitrokhina believes that "a deep and comprehensive analysis of information impact, information security in modern conditions is becoming the most important need of society, which needs to create mechanisms for control over a number of factors: the creation of information weapons and the conduct of information wars; expansion of information flows, which carry the possibility of increasing the scale of negative impact on social systems at various levels; the

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[29] Stadnik I. What Is an International Cybersecurity Regime and How We Can Achieve It? // Masaryk University Journal of Law and Technology, 2017. P.130. DOI: 10.5817/MUJLT2017-1-7.

[30] How Important is Cyber Security in International Relations? // Institute of Data. March 17, 2022. https://www.institutedata.com/blog/how-important-is-cyber-security-in-international-relations/

[31] UN official website // http://www.un.org/ru/documents/ods.asp?m=A/56/164/Add.I

[32] Penkov I.A. Information security of the Russian Federation (political analysis) // Information security of the Russian Federation. Analytical Bulletin. – M., 2005. – № 14 (366), Special Issue. – P. 6.

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emergence of a real opportunity and methods of manipulative influence on mass and individual consciousness"[33].

The emergence of such a concept as information security is inextricably linked with the global information revolution, during which not only the number of modern ICTs increases in the shortest possible time, but also the scale of dissemination of these technologies at the global level increases[34].

The concept of "information security" has acquired relevance and practical significance since the period when the rapid development of information and communication technologies began, which many called the information revolution. From that moment on, it became obvious that without the widespread use of information technologies, it is impossible to ensure economic growth and development, as well as the rapid and high-quality performance by the state of its functions. As noted in the UNESCO Report "Information and communication technologies in the concept of development: UNESCO perspectives", information and communication technologies have the opportunity to dramatically transform, give a new look to the ways that people use to organize their lives, interact with each other, and participate in various spheres of public life. These technologies form the basis for a radical change from industrial/post-industrial definitions of development to a new paradigm based on the model of information societies[35].

When defining information security, it is very important to understand that it is a social and not a purely technical phenomenon. In this regard, the views of a number of scientists on information security as a set of primarily technical measures aimed at protecting information, including so-called firewalls, access control systems, anti-virus programs and other software and hardware tools and methods should be recognized as not entirely correct[36].

Let us note that information security includes not only the use of various methods and means to protect access to information and confidentiality, but as mentioned above, includes organizational, legal and other various measures to ensure sustainable and stable development of society and the state.

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[33] Mitrokhina E.Yu. Information security as a sociological problem // Information collection "Security". – M.: National and International Security Foundation, 1997. – No. 7-9. – P.30.
[34] Nugmanov N.A. International Legal Regulation of Information Security within the UN // International Affairs: Politics, Economics, Law. Vol. 9-10, 2023. – P. 161.
[35] Kolobov O.A., Yasenev V.N. Information security and anti-terrorist activities of the modern state: problems of legal regulation and options for their solution. — N.Novgorod: Fin. fac-t UNN, 2001. – P. 374.
[36] Kolobov O.A., Yasenev V.N. Information security and anti-terrorist activities of the modern state: problems of legal regulation and options for their solution. — N.Novgorod: Fin. fac-t UNN, 2001. – P.5.

As a result of progress in the field of information technology, the so-called information space of the international community has emerged. Many researchers call it cyberspace or the information environment, defining it as a sphere that is significantly different from the traditional spheres - land, subsoil, sea, air, outer space - into which humanity is already expanding[37].

We agree with the opinion that an important part of international relations is relations regarding information, as a result of which the global information space takes shape. Therefore, in order to ensure the human right to information, it is necessary to consider the phenomenon of information space in international law[38]. Since it is obvious that information security is directly related to the information space, because Activities related to information security are mainly carried out in this space.

In accordance with the Report of the UN Secretary-General, the information space is understood as the sphere of activity associated with the creation, transformation and use of information, including individual and public consciousness, information and telecommunication infrastructure and proprietary information[39].

In national legislation, in accordance with the Law of the Republic of Uzbekistan "On the principles and guarantees of freedom of information" dated December 12, 2002, the information sphere is the sphere of activity of subjects related to the creation, processing and consumption of information[40].

Currently, cyberspace or information space is very often identified with the Internet, however, although the Internet is the most important component of the information space, it is not limited to it and is a multidimensional non-physical global association of a special kind[41].

The information space contains two aspects: information and information infrastructure. "Information security" is a complex multi-level concept, and therefore contains various approaches to formulating this concept.

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[37] Lopatin V.N. "Information security of Russia: Human. Society. State. St. Petersburg: University Foundation, 2019. – **P**.79.

[38] Saveliev D.A. Human rights in the field of information: Abstract. diss. juridical sciences. – St. Petersburg, 2020. - P. 13.

[39] UN official website // http://www.un.org/ru/documents/ods.asp?m=A/RES/55/140

[40] The Law of the Republic of Uzbekistan "On principles and guarantees of freedom of information" of December 12, 2002 // https://lex.uz/docs/52709

[41] Slawomir Redo "Crime as the Growing international security threat: The United Nations and Effective Countermeasures Against Transnational Economic and Computer Crime." H UNAFEI Annual Report for 1998 and Resource Material Series No 55. Fuchu Tokyo Japan, March 2000. –p.120.

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According to T.A. Meshkova, information security is defined as "a state of society in which reliable and comprehensive protection of the individual, society and state in the information space is ensured from the impact of a special type of threats on them, appearing in the form of organized or spontaneously occurring information and communication flows"[42].

We agree that the possibility of practical application of information technologies in a ready-made form without understanding the essence of the processes gives rise, among other things, to a conflict in determining the status of participants and the possibilities of establishing the order of IT processes in society[43].

Information security is understood as the state of protection of the individual, society, and the state from information that is harmful or illegal, from information that has a negative impact on human consciousness, impeding the sustainable development of the individual, society and the state. Information security is also a state of security of information infrastructure, including computers and information and telecommunications infrastructure, and the information contained in them, ensuring sustainable development[44].

According to A.A. Streltsov, information security is dualistically the result of activities to ensure it and the state of security of an individual, society and the state in the information sphere. Hence the need arises for activities to counter threats to the security of humans, society and the state in the information sphere, carried out using the forces and means allocated for this[45].

Lopatin V.N. defines information security as the state of protecting the country's national interests (vital interests of the individual, society and state on a balanced basis) in the information sphere from internal and external threats[46][.

It should be noted that, according to Robert I.V., an important aspect of comprehensive information security is the information security of the individual, which is relevant both during spontaneous information interaction on the Internet and during a long-term presence in the professional virtual world.

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[42] Meshkova T.A. Security in the context of global informatization: new challenges and new opportunities: Abstract. diss. ... candidate of Political Sciences. Sciences. – M.: Lomonosov Moscow State University, 2003. – P.4-5.
[43] Zharova A.K. Law and information conflicts in the information and telecommunications sphere. – M.: Janus K. 2018. – P. 56.
[44] Zakupen T.V. The concept and essence of information security, and its place in the system of ensuring national security of the Russian Federation // Information Resources of Russia. No. 4. 2019. - P.34.
45 Streltsov A.A. Organizational and legal support of information security. - M., 2021. - P. 15.
[46] Lopatin V.N. "Information security of Russia: Human. Society. State. St. Petersburg: University Foundation, 2019. – **P**.77.

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Roberta I.V. believes that information security includes such areas as: protection from external aggressive information; protection from unethical data that offends moral values and feelings; protection from low-quality pedagogical products implemented on the basis of communication and information technologies that do not meet pedagogical and ergonomic requirements; protection against borrowing of the results of intellectual property presented in electronic form; protection of mental and physical health from possible negative impacts caused by the use of communication and information technologies[47].

In the well-known US doctrine "Information Operations", information security reflects only one quality of information security, namely the second, related to information processing tools. According to this definition, information security is the protection and defense of information and information systems against unauthorized access to or modification of information being stored, processed or transmitted, as well as against the interruption of system functionality for authorized users. Information security includes the measures necessary to detect, document and respond to these threats[48].

We agree with the opinion that information security is the security of information and its supporting infrastructure from accidental or intentional impacts of a natural or artificial nature that can cause damage to owners or users of information[49].

The concept of "information security" is also defined in a broad and narrow sense: information security in a broad sense is the state of security of information resources, information channels and open access to any source of information for every citizen, public organization, and individual state as a whole. Information security in the narrow sense is a component of military security related to the protection of information resources, channels, databases and knowledge, means of their processing and storage, used purely for military purposes, protecting the vital interests of citizens, society and the state[50].

Cyber security is a broad concept used to refer to activities being taken to curb cybercrime and this is not necessarily limited to only laws, regulations

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[47] Robert I.V. Personal Information Security // Proceedings of the International Symposium "Realiability and Quality". 2018. V.1.P. 68-71.
[48] Joint Doctrine for Information operations. Join Pub 3-13.9 October 1998. - P.7.
[49] Bashly P.N. Information security and information protection. – M.: RIOR, 2013. - P. 7.
[50] Vezirov B.H., Stepanov V.E., Krasnov N. I., Barmin L.V., Lisov O.M. Informational confrontation is a new global danger for humanity. // Issues of information protection No. 4, 1999. - **P. 8.**

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and/or policies. It means that the development in safer technologies such as the development of cryptography165 is all part of cybersecurity[51].

Interstate relations in the field of information security are undoubtedly subject to the norms and principles of international law governing various issues of ensuring the information security of the state. In accordance with the resolution of the UN General Assembly adopted at the 55th session on July 10, 2000, international information security is defined as "the state of international relations that excludes a violation of global stability and the creation of a threat to the security of states and the world community in the information space"[52].

We agree that In today's ever-spreading application of information communications technologies, to spread personal information about individual and organization, there is need to put up measures that will ensure that persons who deal with these information put open in the digital space do so bearing in mind the safety of those to whom such information relates: this is the primary concept of data protection. Having one's data in the wrong hands could lead to fraud, identity theft, to mention but a few. Accordingly, the concept of data protection seeks to ensure the integrity, confidentiality and overall security of such personal data that is stored in form of digital data in electronic storage facility or in a computer system[53].

The report of the UN Secretary-General states that information security is the state of protection of the basic interests of the individual, society and state in the information space, including information and telecommunications infrastructure and information itself in relation to its properties such as integrity, objectivity, accessibility and confidentiality[54].

Cyber security is important in a nation because it encompasses everything that pertains to protecting sensitive data, personally identifiable information, protected health information, personal information, intellectual property, data, and governmental and industry information systems from theft and image attempted by criminals and adversaries[55].

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[51] Cryptography is the study and practice of securing information and communications to circumvent unauthorized access and safeguard the integrity of information // Lawyard Journal, 2020. - P.25.

[52] Doc. UN General Assembly A/55/40, July 10, 2000; A/55/140/ Add.1, October 3, 2000; And/55/140/ Corr.1, October 3, 2000 // Information challenges of national and international security / Under the general editorship of A.V. Fedorov, V.N. Tsygichko. – M.: PIR-Center, 2001. – P. 315.

[53] Oloni, V. A Long Walk To Freedom: Nigeria's Data Protection Journey // Lawyard Journal, 2020. Vol. 2. - P.25.

[54] UN official website // http://www.un.org/ru/documents/ods.asp?m=A/RES/55/140

[55] Tunggal, A.T. Why is Cybersecurity Important? - 2020. // http://www.guard.com/blog/cybersecurity-important

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It should be noted that the Law of the Republic of Uzbekistan "On principles and guarantees of freedom of information" dated December 12, 2002 states that information security is the state of protecting the interests of the individual, society and the state in the information sphere [56]. In turn, in the Law of the Republic of Uzbekistan "On Cybersecurity" dated April 15, 2022, the concept of cybersecurity is defined as the state of protecting the interests of the individual, society and state from external and internal threats in cyberspace[57]. This law also defines that the object of cybersecurity is a complex of information systems used in activities to ensure cyber protection of information and cybersecurity of national information systems and resources, including critical information infrastructure facilities;

Let us note that cybersecurity has become the central point of confrontation between domestic and international interests and serves to a greater extent for a long-term assessment of the activities of government authorities. Military power in the information sphere is linked to the economic and social potential of ICT. At the same time, the use of military technologies to ensure national security is becoming important for modern life[58].

We agree that Cyber security seeks to promote and ensure the overall security of digital information and information systems with a view to securing the information society. Thus, the concept is broadly concerned with social, legal, regulatory and technological measures that will ensure the integrity, confidentiality, availability and the overall security of digital information and information systems in order to achieve a high degree of trust and security necessary for the development of a sustainable information cyber space[59].

We can conclude that the concept of "ensuring information security" includes such main components as: security of the information space, which is necessary for the use of information for peaceful purposes; security of information infrastructure, necessary to ensure that information does not have a negative impact on the system being used; ensuring such information properties as availability, integrity and confidentiality.

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[56] The Law of the Republic of Uzbekistan "On principles and guarantees of freedom of information" of December 12, 2002 // https://lex.uz/docs/52709
[57] The Law of the Republic of Uzbekistan "About cybersecurity" of April 15, 2022. // https://lex.uz/ru/docs/5960609
[58] Tikk-Ringas, Eneken, ed. Evolution of the Cyber Domain: The Implications for National and Global Security. London: Routledge, 2015. – P.35.
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Based on the above definition of the main components of information security, we believe that information security is the state of protecting the vital interests of a person, society and the nation from various types of information that impede sustainable development, as well as the security of information infrastructure, including ICT and the information it contains.

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