

UDC 340+35.078.3

DOI <https://doi.org/10.24144/2788-6018.2025.02.2>

## GENERAL THEORETICAL BASIS OF RESEARCHING THE CONCEPT OF «INFORMATION SECURITY»

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**Honcharov M.V., Honcharov A.V. General theoretical foundations of the study of the concept of «information security».**

The article considers general theoretical approaches to understanding the concept of «information security». The study of the holistic concept of «information security» requires the use of a comprehensive approach to understanding the meaning of «information and security». It should be noted that the term «information» is not used as a system-forming component, but is used to define the qualitative characteristics of the basic element, that is, the category of «security», which reveals the industry direction and content of measures, and creates a corresponding field of regulatory and legal regulation.

The legal analysis of the regulatory framework in the field of information security showed that the term «information» has received a unified application in many areas of public life. Its value is also evidenced by its widespread use in all branches of jurisprudence, since according to the scope of the concept embedded in it, it acquires the properties of influencing specific legal relations, giving them a preventive and preventive content.

The primary sources of the formation of the legal phenomenon of «information security» are investigated. This approach is taken in order to show the special importance of this sphere for all stages of social development through source and historical and legal analysis of monuments from philosophy, history, jurisprudence and other documents.

It is substantiated that the problems of information security protection were not considered separately from the main spheres of public life, but were comprehensively accompanied by both customs at the early stages of understanding statehood and written rules that were imposed as a duty for members of civil society.

A study of the theoretical, scientific and regulatory framework of the field of information security protection showed that there is a significant gap between these components, which negatively affects the general state of functioning of the information component in the general mechanism of national security. In this regard, it became necessary to conduct a deep analysis of the source base, to develop scientific and practical approaches to understanding both the concept of «information security» itself and other, derived concepts (for example, threats to information security, sources of threats to information security, etc.).

**Key words:** information security of Ukraine, ensuring information security, national security, system, state information policy.

**Гончаров М.В., Гончаров А.В. Загальнотеоретичні основи дослідження поняття «інформаційна безпека».**

У статті розглянуто загальнотеоретичні підходи до розуміння поняття «інформаційна безпека». Дослідження цілісного поняття «інформаційна безпека» вимагає застосування комплексного підходу до розуміння значення «інформація і безпека». При цьому необхідно зауважити, що термін «інформація» застосовується не як системоутворююча складова, а вживається для означення якісної характеристики базового елемента, тобто категорії «безпека», що розкриває галузеве

спрямування і змістовне наповнення заходів, та створює відповідне поле нормативно-правового регулювання.

Здійснений юридичний аналіз нормативної бази у галузі інформаційної безпеки показав, що термін «інформація» отримав уніфіковане застосування в багатьох сферах суспільного життя. Також його цінність засвідчується широким використанням в усіх галузях юриспруденції, оскільки згідно з обсягом закладеного у ньому поняття набуває властивостей впливати на конкретні правовідносини, надаючи їм упереджувально-профілактичного змісту.

Досліджено першоджерела становлення юридичного явища «інформаційна безпека». Такий підхід зроблено з метою показати особливе значення цієї сфери для всіх етапів суспільного розвитку шляхом джерельного та історико-правового аналізу пам'яток з філософії, історії, юриспруденції та інших документів.

Обґрунтовано, що проблеми захисту інформаційної безпеки, розглядалися не відірвано від основних сфер суспільного життя, а комплексно супроводжувались як звичаями на ранніх стадіях розуміння державності, так і писаними правилами, що покладалися як обов'язок для членів громадянського суспільства.

Дослідження теоретико-наукової і нормативної бази галузі захисту інформаційної сфери показало, що між цими складовими мається суттєвий розрив, який негативно впливає на загальний стан функціонування інформаційної складової у загальному механізмі національної безпеки. У зв'язку з цим виникла необхідність здійснити глибокий аналіз джерельної бази, опрацювати наукові і практичні підходи до розуміння як самого поняття «інформаційна безпека», так і інших, похідних понять (наприклад, загрози інформаційній безпеці, джерела загроз інформаційній безпеці тощо).

**Ключові слова:** інформаційна безпека України, забезпечення інформаційної безпеки, національна безпека, система, державна інформаційна політика.

**Problem statement.** The study of the holistic concept of «information security» requires the use of a comprehensive approach to understanding the meaning (semasiology) of each term that forms it («information and security»). It should be noted that the term «information» is not used as a system-forming component, but is used to define the qualitative characteristics of the basic element, that is, the category «security», which reveals the industry direction and content of measures, and creates a corresponding field of regulatory and legal regulation.

**The state of development of the problem.** The state of development of this problem. Many scientists and researchers have paid attention to the study of this issue: Bilenchuk P.D., Bilko S.S., Hnatiuk S.L., Hryhorchuk M.V., Dzyoban O.P., Dovgan O.D., Zolotar O.O., Kosilova O.I., Kudin S.V., Lipkan V.A., Loginov O.V., Novitska N.B., Tkachuk T.Yu., Tikhomyrov O.O., Frantsuz A.Y., Tsymbalyuk V.S., Shevchenko A.Ye., Yarema O.G. and others.

**The purpose** of the study is to develop scientific and practical approaches to understanding the concept of «information security».

**Presentation of the main material.** To understand the objective content of the holistic concept of «information security», we will use the capabilities of individual methodological tools (mainly analysis, synthesis, etc.), which will contribute to the study of deep dialectical relationships between certain categories that form it.

The term «information» (Latin informatio) is information about some events, someone's activities, etc. [1].

The modern explanatory dictionary of the Ukrainian language provides a somewhat broader interpretation of this term, namely: information is information about the surrounding world, processes that occur in it, about events, situations... [2].

The current legislation, in particular the Law of Ukraine «On Information», provides an official interpretation of this term: «information - any information and/or data that can be stored on material media or displayed in electronic form» [3].

According to the Law of Ukraine "On Access to Public Information" [4], the concept of "information" is endowed with somewhat broader features and, taking into account the circle of users, it is defined through the prism of publicity, that is, it is presented as information formed by representatives of government bodies and local self-government bodies in the performance of their official duties, recorded in any material form.

The legal analysis of the regulatory framework in the field of information security has shown that the term «information» has received a unified application in many areas of public life. Its value is also evidenced by its widespread use in all branches of jurisprudence, since according to the scope of the concept embedded in it, it acquires the properties of influencing specific legal relations, giving them a preventive and preventive content.

The term «security» is a state when nothing threatens someone or something [5].

A detailed study of the semantic meaning of this term in other sources (dictionaries) has shown that it has received a similar interpretation. This means that in terms of content and etymology it does not cause scientific disagreement and is perceived equally in all areas of application.

The legislation of Ukraine provides an official interpretation of the state of protection of man and nature in the environment. For a legal professional analysis of the legitimate understanding of the essence of this element («safety») in the structure of factors that define the broadest concept of the absence of danger, we refer to the provisions of the Constitution of Ukraine [6], where Article 3 recognizes the highest social value as a person, his integrity and safety, life, health, honor and dignity.

Article 17 of the Fundamental Law considers the provision of information security in the context of the priority tasks of the state as a component of the system for protecting state sovereignty and national security.

The Constitution of Ukraine assigns a special role to the institution of the President, who, in accordance with the duties assigned to him, ensures national security and state independence (Article 106), which includes measures to establish a sufficient level of information security. The provisions of the Law of Ukraine «On National Security of Ukraine» [7] introduce the concepts of military, public and state security, which forms the integral concept of «national security» and is considered as a generalizing category in the system of implementing measures to protect state sovereignty, integrity and indivisibility of the territory, established constitutional guarantees of the democratic vector of development of society, as well as the creation of effective mechanisms for neutralizing sources of threats to Ukrainian statehood.

The Law of Ukraine «On the Fundamentals of National Security of Ukraine» presents the main component of state sovereignty in a broad combination with all spheres of life of society, which demonstrates the ability to reveal all aspects of the content of measures taken to maintain constitutional law and order, taking into account external factors (interstate communication).

In the understanding of the provisions of the commented Law, «national security is the security... and ensuring freedom of speech and information security, cybersecurity and cyber defense... in the event of negative trends towards the creation of potential or real threats to national interests [8].

A selective analysis of the current legislation and published scientific work showed that the term «security», like «information», has an interdisciplinary application, since the task of all spheres of law enforcement and law enforcement activity is to create conditions that are devoid of and do not allow the occurrence of any negative or threatening consequences from both the natural environment and human activities. We believe that it is from such positions that it is necessary to evaluate the scientific support of the processes of development, improvement, updating and adaptation to European standards of the legislation of Ukraine, including those regulatory legal acts that deal with information security.

In order to ensure a comprehensive approach to the implementation of the tasks of our scientific research, we turn to the source scientific and practical base in the field of information security of Ukraine. This means that the empirical basis for such analysis will be the sources we have processed without gradation by industry affiliation.

O.D. Dovgan, T.Yu. Tkachuk, studying the historical aspects and sources of the publication of the first mentions of information security, note: «The issue of information security and its provision in various aspects was covered in the scientific works of Plutarch, Seneca, Plato, Machiavelli, Grotius, as well as other domestic and foreign researchers» [9, p. 80].

As can be seen from the above quote, the logical conclusion is that the field of information security acquired a dualistic character in early times. The reason for this, in our opinion, is that the mentioned scientists had significant achievements not only in jurisprudence, but also in philosophy. Therefore, the generalizations they derived combine a legal and philosophical component.

O.O. Zolotar, studying the primary sources of information security, notes that «scientists associate the beginning of the history of information protection with the emergence of the possibility of recording information messages on solid media, that is, with the invention of writing, and the first type of information subject to protection is considered a state secret» [10, p. 140].

According to the scientist, almost simultaneously with the invention of writing, methods and means of protecting information were discovered, namely encryption and concealment. As an example, O.O. Zolotar cites a historical fact that demonstrates a way to protect information from third-party access and distribution. Such a case is known as the first encrypted text hidden under a glaze recipe when applying it to pottery (Mesopotamia, 2000 BC).

Known scientific views on understanding and forming the paradigm of information security are based on a wide range of philosophical knowledge that goes back to ancient times. Philosophers of the past have always investigated the causes and sources of threats, tried to achieve stable peace and

prosperity. Under such conditions, approaches to understanding information were transformed. The issues of security of the individual, society, state and obtaining reliable information interested thinkers of the Ancient World. However, this problem was considered mainly in the context of war and peace.

A team of scientists, including A.B. Totsky, O.I. Tymoshenko, A.M. Guz, believe that the history of information protection and security in the territory of modern Ukraine also dates back to pre-state times. The first type of information that needed to be protected was military information. Initially, the protection of such information was provided by the prince, then by a person whom he personally appointed. War was at that time the main and generally recognized method of conducting foreign policy of any state, therefore the protection of military information was the main one in the policy of princes Oleg, Igor, Svyatoslav, Yaroslav and Princess Olga. The princes, going on a campaign, tried to hide information about the number of troops and the direction of the main attack. The enemy could not adequately react to the danger, and rumors, exaggerations and false information spread in advance led to even more panic [11, p. 11].

In the context of the above, it is appropriate to cite the announced result of scientific intelligence of the team consisting of V.M. Petryk, A.M. Kuzmenko, V.V. Ostroukhov, who found one of the primary documentary evidence of the use of information to deceive enemies in conducting military operations. Scientists note that one of the first historical examples of large-scale use of disinformation for military purposes dates back to the 13th century. This example is associated with the Mongol invasion of Hungary in 1241. The Mongols defeated the army of the Hungarians and their allies on the Shayo River and at the same time found a royal seal among the trophies. Khan Baty ordered to prepare an order in Hungarian on behalf of King Béla to cease resistance, sealing it with the captured royal seal. This document was sent to various parts of the not yet conquered country, which contributed to misleading the Hungarian army.

Separately, it is necessary to distinguish the achievements in this area of law of foreign scholars, whom we will selectively quote.

Thus, Robert Owen believed that "only the liberation of peoples from the yoke of private ownership and their unification into one union will put an end to violence and make it possible to ensure security [12, p. 375]. According to the famous philosopher and economist, a true state of security as universal harmony is possible only under the condition of organized education of the population using information tools of an educational nature.

Yu.M. Kanygin and V.I. Kusherets believe that «society begins to comprehend the political, economic, social, military, psychological and other consequences of global informatization with great delay» [13, p. 35].

It is believed that the US government agencies were among the first to realize the problems of computer information security and take a confident step towards their solution in the late 1960s, when computers cost a lot of money, and the Internet was emerging from a small number of exclusively military and scientific information networks [14, p. 17].

Ukrainian history has also preserved evidence of the use of information both to inform the enemy of false information and to organize counteraction to internal threats to prevent the leakage of secret information.

Thus, in the materials of the previously mentioned work of the author's team with the participation of A.B. Totsky, O.I. Tymoshenko, A.M. Guz, we find information that in the Zaporizhian Sich and the state of Bohdan Khmelnytskyi, peculiar forms of protection of military-political information were developed. Khmelnytskyi widely used disinformation. In the memoirs of Polish officials and soldiers, one often finds lines like «he thinks one thing, writes about another», «his intentions cannot be understood in any way». Khmelnytsky noted in October 1648: «And the military business is this: when the thought is to go to war, no one should know about that thought and the enemy should beware» [11, p. 14].

**Conclusions.** As can be seen from the above, information does not exist in isolation from the human environment and has a specific purpose with which it influences society. In our opinion, the fundamental principles of the emergence in the embryonic state of concepts that are today defined as information security are customary law, the elements of which in the processes of civilization development have become universally binding for their participants on the basis of the introduction of regulatory and legal regulation of this sphere.

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