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METHODOLOGICAL ASPECTS OF RESEARCH IN INFORMATION SECURITY

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Honcharov M.V., Honcharov A.V. Methodological aspects of research in information security.

The article discusses the research methodology of the basics of information security. A special place is given to the selection of methodological research tools. This selection was made on the basis of the exclusive importance of the field of information provision in interaction with other directions of state building and national security. At the same time, we note that the raised issue has an interdisciplinary nature due to its inherent legal and structural nature: legal, economic (technological), and moral and psychological components. Under such conditions, the philosophical-dialectical method is extremely important in view of its epistemological nature, which will contribute to the derivation of the author's conclusions and judgments, which will be characterized by consistency and continuity.

The conducted analysis made it possible to reveal that the current summary in terms of understanding the role and significance of the methodological component for the results of our research is the following: from the point of view of the methodology of legal science, the paradigm of information security has a complex structure, which is formed by the elements: law enforcement methodology, the legislation of Ukraine, the systematics of legal norms, explanations of the legal norm, the procedure for implementing the provisions of the law, the legal policy of the state in the field of information security, media culture and media ethics in the application of legislation that regulates the issue of complete access of citizens to sources of information, tactical and strategic directions of activities of entities ensuring security in the use of information, the effectiveness of the application of legislation, law-enforcement examination of departmental regulations regulating relations in the field of information security.

Attention is drawn to the fact that any of the listed structural elements of a complete complex of information security can serve as the object of a separate scientific study.

The above studies revealed that the selected methodological tools for solving the task of our scientific intelligence will contribute to the professional research of the in-depth component processes of the implementation of measures in the areas of protection of the information space of Ukraine. The application of methodological techniques will allow us to more fully and comprehensively reveal the role of the information security institute in the development of our ideas about the system of measures to ensure the information hygiene of the Ukrainian media, public-legal and private-legal intellectual space, to identify new aspects in its structure and elemental composition.

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

Гончаров М.В., Гончаров А.В. Методологічні аспекти досліджень у галузі інформаційної безпеки.

У статті розглянуто методологія дослідження основ інформаційної безпеки. Особливе місце відведено підбору методологічного інструментарію дослідження. Такий підбір здійснено на основі ексклюзивного значення сфери інформаційного забезпечення у взаємодії з іншими напрямками державного будівництва і національної безпеки. При цьому відзначаємо, що піднята проблематика має міждисциплінарний характер через закладену у ній правову і структурну природу: правова, економічна (технологічна) і морально-психологічна складові. За таких умов надзвичайного важливого значення надається філософсько-діалектичному методу з огляду на його гносеологічну природу, що сприятиме виведенню авторських висновків і суджень, які відзначатимуться послідовністю та поступальністю.

Проведений аналіз дозволив виявити, що поточним підсумком в частині розуміння ролі і значення методологічної складової для результатів нашого дослідження є наступне: з позиції методології юридичної науки парадигма інформаційної безпеки має складну структуру, яку утворюють елементи: методологія правозастосування, Законодавство України, систематика норм права, пояснення правової норми, порядок реалізації положень закону, правова політика держави у сфері безпеки інформації, медіакультура і медіаетика при застосуванні законодавства, яке врегульовує питання повноти доступу громадян до джерел інформації, тактико-стратегічні напрями діяльності суб'єктів забезпечення безпеки при користуванні інформацією, ефективність застосування законодавства, правозастосовна експертиза відомчих нормативно-правових актів, що врегульовують відносини у сфері інформаційної безпеки.

Акцентовано увагу що, будь який з перелічених структурних елементів цілісного комплексу інформаційної безпеки може слугувати об'єктом окремого наукового дослідження.

На наведених дослідженнях з'ясовано, що обрані методологічні інструменти для вирішення завдання нашої наукової розвідки сприятимуть фаховому дослідженню глибинних складових процесів здійснення заходів на напрямках захисту інформаційного простору України. Застосування методологічних прийомів дозволить більш повно і всебічно розкрити роль інституту інформаційної безпеки у розвитку наших уявлень про систему заходів із забезпечення інформаційної гігієни українського медіа, публічно-правового і приватно-правового інтелектуального простору, означити нові аспекти в його структурі та елементному складі.

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

Formulation of the problem. The current state of social relations, primarily between the citizen and the state, is being formed in the conditions of the rapid development of digital technologies, when almost all spheres of life are transferred to the electronic format of communication. Without most digitized services, it is almost impossible to imagine situations that require a quick and accurate solution. At these levels, the task of proper protection of the information sphere becomes especially urgent, since the mechanisms of remote access to databases, primarily personal and financial, are under permanent threat of being hacked, and such illegal actions can cause significant material losses and moral damage.

The study of the theoretical-scientific and regulatory framework of the field of protection of the information sphere 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 carry out an in-depth 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.).

The state of problem solving. The state of development of this problem. Many scientists and researchers paid attention to the study of this issue: Bilenchuk P.D., Bilko S.S., Hnatyuk S.L., Hryhorchuk M.V., Dzoban O.P., Dovgan O.D., Zolotar O.O., Kosilova O.I., Kudin S.V., Lipkan V.A., Loginov O.V., Novytska N.B., Tkachuk T.Yu., Tikhomirov O.O., Frantzuz A.Y., Tsymbalyuk V.S., Shevchenko A.E., Yarema O.G. and others.

The purpose of the study is to consider the basics of information security with the help of methodological tools.

Presenting main material. To solve the task of our scientific investigation, we have chosen a number of methodological tools, with which we will try to subject to additional study certain aspects of

the significance of the legal phenomenon «information security» in a dialectical connection with other components of the state-building process.

A special place is given to the selection of methodological research tools. This selection was made on the basis of the exclusive importance of the field of information provision in interaction with other directions of state building and national security. At the same time, we note that the raised issue has an interdisciplinary nature due to its inherent legal and structural nature: legal, economic (technological), and moral and psychological components. Under such conditions, the philosophical-dialectical method is extremely important in view of its epistemological nature, which will contribute to the derivation of the author's conclusions and judgments, which will be characterized by consistency and continuity.

The application of general scientific methods of research will ensure the implementation of tasks related to the most complete and comprehensible generalization of scientific work and the regulatory framework in the field of information security, the derivation of new permanent connections between individual elements of the integral concept of «information security», as well as proposals for increasing the effectiveness of preventive measures to protect the information environment of Ukraine.

According to the Universal Dictionary-Encyclopedia, research work is a systematic and purposeful study of objects, which uses the means and methods of science and which ends with the formation of knowledge about the object being studied [1].

Evaluating the scientific significance of methodology, there is no doubt that in order to solve specifically selected problems of new scientific knowledge, it is necessary to apply the entire toolkit of modern formal logic comprehensively, but the dominant role belongs to the methodology of science, since it is based not only on logic and epistemology, but also on all philosophy.

Solving the task of this scientific research, we realize that the conclusions drawn will not be devoid of discussion and will cause a certain level of critical comments. Along with this, we will not distance ourselves from the publicized logical-legal approach in the field of action perception and hypothetical results of the application of individual research methods to the derivation of the author's generalizations from the raised issues.

When choosing a set of appropriate methods and ways of obtaining, verifying, summarizing and presenting scientific knowledge, we assume that this approach will ensure full coverage of the scientific component in the general context of the current regulatory and legal provision of information security of Ukraine. We also take into account the fact that methodology as a science is extremely flexible and thanks to the development of representatives of various branches of law, it is constantly updated and improved. And this despite the fact that the main logical-semantic content of methodological tools remains constant, does not change in its inner essence, serving as a basis for the formation of new views and the disclosure or additional explanation of objectively existing legal phenomena in view of the subject-branch direction of the research.

Therefore, during the research of regulatory and legal provision of information security, it is not advisable to use the widest toolkit of modern scientific methodology, and not to be satisfied only with actual legal methods. According to T. S. Perun, «the complex application of methods makes it possible to investigate problems in the unity of their social content and legal form, to carry out a systematic analysis of the specified works [2].

According to the scientist, for the most complete result to achieve the research goals, it is necessary to comprehensively apply dialectical, comparative, structural-functional, historical and other methodological tools, which will contribute to a comprehensive study of the regulatory and legal provision of information security, as well as make it possible to use the research qualities of logical, historical and sociological and comparative legal methods of scientific research.

The theoretical-methodological basis of modern knowledge about information security is characterized by a dialectical combination of separate elements with the mutual influence of objective factors that acquire determinant features for certain levels of implementation of measures to maintain a sufficient level of national security. At this stage, we are talking about the need to use the dialectical method of scientific research as a universal tool due to its ability to have an all-encompassing influence on all events and phenomena, which provides the possibility of knowing individual processes in their totality, permanent or temporary relationship and development. Thanks to the epistemological nature of this method, there is a gradual, progressive movement from ignorance to knowledge.

L. Bulavin points out that the dialectical method gives the researcher the opportunity to study all the phenomena of the surrounding world in «their interconnection and interaction, in their development

and evolution through the transition of quantity into quality, caused by the struggle of internal opposites embedded in these phenomena» [3, p. 4]. The cited judgment of the scientist, although not related to the study of problems of a legal nature, fully reflects the essence and research possibilities of this method of scientific research.

M.V. Kostytskyi, researching the philosophical and methodological problems of law, emphasizes the significant research potential of dialectics and its categories. According to the scientist, the categories of dialectics are universal logical forms of thinking, which reflect the general properties, relations and connections that exist in objective reality. Without concepts and categories, knowledge of reality would be impossible [4, p. 13]

M.S. Kelman, defining approaches to methodology, points out that in this connection questions arise, on the one hand, about the use of general knowledge about security in the study of social problems, the study of which in logical and epistemological aspects can lead to obtaining new, as well as to the deepening of previously acquired knowledge, and on the other hand – in the development and adoption of management decisions on security issues [5, p. 42-43].

We support the opinion expressed by the scientist, since the use of universal methodological tools (dialectical, logical, informational, systemic, structural-functional and other methods) when forming the categorical and conceptual apparatus of a specific field of law expands the boundaries and depth of scientific research.

The main source of truth and consistency in the presentation of the author's conclusions is the systematic approach, which, according to I.I. Onyshchuk, ensures «the unity of methodological integration and differentiation with the dominance of the tendency to unify, assemble the methodological complex [6].

Summing up the opinions expressed by the scientist, it is necessary to note the commitment to the unifying application of scientific methods with an explanation of the functions of a single methodological tool. So, for example, I.I. Onyshchuk believes that the worldview function plays a primary role in the systemic approach, as it is the basis for the formation of a person's worldview, the ability to discover is interpreted as the main function of the heuristic method, the ability to reveal their inner essence is the main feature for explaining processes and phenomena and structure within the application of the explanatory method, the possibility of formulating the expected variants of the development of the situation is considered basic for the prognostic method.

Investigating the methodological support of the science of «information law», I.P. Aristova focuses on «the importance of the interaction of all branches of legal science, as this allows researching the subject of one of the branches of legal science (for example, the science of «Information law») [7, p. 13]. At the same time, the scientist notes the dominant role of the scientist, who, when conducting research in the field of information law, does not have the right to limit himself exclusively to the study of legal mechanisms or other issues using only special methods. The scientist is obliged to take into account those inseparable connections between the science of «information law» and legal science as a whole, which act as an objective basis for explaining all legal events and phenomena.

In order to continue the course on observing the logical sequence when verifying the author's conclusions regarding the subject of scientific research, we put our work in the direction of the general line of science, that is, we analyze the influence of general scientific and special scientific research methods.

The general scientific methods (empirical and theoretical) used by us will reflect the main tasks of the research, as they summarize the results of the published scientific work from the standpoint of the systematic application of principles and techniques that reflect the end-to-end connection between all legal phenomena united by the category «jurisprudence». Such an approach will substantiate references to scientific achievements in various fields of science, since methodological tools assigned to this category are characterized by abstractness, lack of clear branch demarcation and regulation.

The next stage in the fulfillment of the tasks of our research will be the application of special scientific methods (comparative legal, state legal modeling, interpretation of legal norms, formal legal, special legal, etc.).

We will use the comparative legal (comparative, comparative) method within our research to determine the content and essence of the structural elements of the concept of «information security», to distinguish their characteristics, to analyze the current legal norms that regulate this sphere of legal relations, as well as to identify specifics and individual aspects their interaction with the aim of further development of possible areas of improvement of the legislation of Ukraine and its scope of application.

H. Yurkevich, evaluating the importance of comparison in the study of legal phenomena, believes that «in the general sense, the comparative legal method is a method of studying the legal systems of different states by comparing legal norms, institutions, principles, etc. of the same name and the practice of their application» [8, p. 157].

According to V.M. Shapoval, the comparative legal method also acts as a method of empirical research, that is, at the level of techno-legal research, when technical-constructive and other technical-legal features of similarity (unity) and differences in the content and form of those are revealed or other legal institutions of different legal systems... [9, p. 53]. In the context of our research, such capabilities of the specified method can be reasonably extrapolated to the field of information security, that is, to study the general patterns of development of a specific legal phenomenon in terms of assessing the effectiveness of current legislation in the specified field, as well as its updating and improvement.

Thanks to the possibilities of the state-legal modeling method, we will create an imaginary model of the information security protection system, taking into account the legal regulation of other related areas, first of all, the place of this component in the general context of the implementation of measures to ensure national security.

To determine the place and role of the integral legal phenomenon «information security» in the system of domestic state construction, let's turn to the possibilities of the formal-legal method of scientific research. Such an approach will contribute to the study of the interrelationships between the internal content of legal norms in the field of protection of the information space of the state and their external reflection in normative legal acts, which establish the order and limits of the application of tools of preventive and current (permanent) activity of equalized bodies.

The essence of the special-legal method of scientific knowledge consists in describing the phenomena of state-legal activity using legal terminology, highlighting the reality of social subjects from the point of view of legal models of behavior, from the standpoint of legal or illegal, mandatory or possible

Thanks to the application of this method, we will have the opportunity to investigate inconsistencies in the approaches to understanding the internal content of the mechanisms involved in the field of information security protection, as well as to determine the reasons that contribute to the imbalance in the scientific understanding of this legal phenomenon.

Within the scope of our research work, the question will arise regarding the study of the peculiarities of the semantic-lexical content of the involved categorical-conceptual apparatus, which will be possible only if appropriate methodological tools are used, which is the hermeneutic method. Using the possibilities of this research tool will contribute to the development of historical and legal aspects of the formation of the foundations of understanding the socio-economic grounds for the introduction of information field protection tools from the standpoint of the genesis of this legal structure. Such an approach will ensure the possibility of establishing dialectical connections between the primary manifestations of the perceived need for professional information protection and the current state of regulatory and legal regulation of information security.

Conclusions. The logical and legal analysis of the place and role of information security in the system of the integral legal phenomenon «national security» leads us to the level of theoretical and legal generalization, where it is about the combination of internal mechanisms of its functioning. Under such conditions, we will apply a synergistic approach, which involves the study of the processes of self-organization and the formation of new ordered elements and systems of different legal nature, aimed at ensuring the constitutional legal order in the state.

It is important to transfer to the fact that we have collected methodological tools for the advancement of our scientific intelligence to facilitate the investigation of deep warehouse processes of industrial approaches directly to the protection of the information space. edges. The use of methodological techniques will allow us to more fully and comprehensively reveal the role of the Institute of Information Security in the development of our findings about the system of approaches to the information security of the Ukrainian media, legal and private legal intellectual space, meaning new aspects in its structure and elemental warehouse.

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