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Information support of scientific research: Legal aspect

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The article deals with the concept of “information” and its interpretation by both scholars and the Law of Ukraine “On Information”. The main directions of the state information policy are indicated. The main types of information are outlined. The author emphasizes the need to expand the direction of ensuring the development of information activities, without limiting this direction to the technical component of scientific activity. The importance of information support in conducting scientific research is indicated. The importance of information for the life of mankind is emphasized. It is indicated that scientific and technical information covers the results obtained in the process of scientific and research, research and development, design and technological, production and public activities, recorded in a form that ensures their reproduction, use and dissemination. It is stressed the need to expand the direction of information development, not limiting this area only by technical component of scientific activity and ignoring the humanitarian direction, because the information

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concerning scientific activity in general, including in the humanities, in the sphere of social sciences and in other scientific spheres is left out of consideration. It is noted that the main base of the scientific and technical information is formed with information resources, which are a systematic collection of scientific and technical literature and documents (books, brochures, periodicals, patent and design documentation, industrial catalogues, deposited manuscripts, scientific and research reports) fixed on papers or other storages. The main types of information activities and areas of information are given. The importance of information support in conducting scientific research is indicated and the search for the necessary information is of great significance for the effective conduct of scientific research, as the researcher spends about 50% of his time on the process of finding information. The importance of the information for humanity is highlighted

Keywords: information, information support, science, scientific research

Introduction

The term “information” comes from the Latin word “informatio”, which means information, explanation, presentation. Despite the widespread use of this term, the concept of information is one of the most controversial in science.

Information influence on the state, society, and citizens is now more effective than political, economic, and even military influence. Information is becoming a real, almost physically tangible force [1].

Information support plays one of the most important roles in the process of scientific research and is the starting point from which scientific research begins. The process of scientific research begins with the collection and analysis of available information in a particular field of science, followed by research, modernization or improvement of certain areas of science and technology. It is thanks to the information support that researchers are able to study the issues they plan to investigate.

Among the Ukrainian and foreign scholars whose works have studied the concept of information and its importance in the information support of scientific activity, it is worth mentioning the following: S.F. Anisimov [2], L.M. Becker, V.M. Bryzhko, N. Wiener [3], V.M. Glushkov, V.A. Kopylov, V. Rovensky & A. Uyemov [4], D.V. Smernytsky [5], K. Von Weizsäcker.

The purpose of the article is a study of the legal nature of the concept of information and its importance in the information support of scientific and scientific and technical activities.

Results and Discussion

The Law of Ukraine “On Information” (the “Law”) defines “information” as any information and/or data that can be stored on material carriers or displayed electronically.

One of the first definitions of the concept of “information” belongs to N. Wiener: “Information is the designation of the content

received from the outside world in the process of our adaptation of our senses to it. The process of obtaining and using information is the process of our adaptation to the contingencies of the external environment and our life activity in this environment" [3].

V. Rovensky, A. Uyemov, & E. Uyemova [4] define information as "a message about events occurring both in the environment external to the system and in the system itself". S.F. Anisimov [2] believes that "information is any message or transfer of information about something that was not known in advance".

Academician V.M. Glushkov noted: "Information in its broadest sense is a measure of the heterogeneity of the distribution of matter and energy in space and time, a measure of the changes that accompany all processes in the world... Information is carried not only by the pages of books filled with letters or human speech, but also by sunlight, the folds of a mountain range, the sound of a waterfall, the rustle of leaves, etc." [6].

Thus, information is data about phenomena, the universe, etc. At the same time, data becomes information only if the subject can perceive this data.

According to Art. 2 of the Law of Ukraine "On Information" [7], the basic principles of information relations are:

- guarantee of the right to information;
- openness, accessibility of information, freedom of information exchange;
- reliability and completeness of information;
- freedom of expression and beliefs;
- legality of obtaining, using, disseminating, storing, and protecting information;
- protection of a person from interference in his or her personal and family life.

According to Article 3 of the Law, the main directions of the state information policy are:

- ensuring access to information for everyone;
- ensuring equal opportunities for the creation, collection, receipt, storage, use, dissemination, protection, and defence of information;
- creating conditions for the formation of an information society in Ukraine;
- ensuring openness and transparency of the activities of public authorities;
- creation of information systems and information networks, development of e-government;
- constant updating, enrichment, and storage of national information resources;
- ensuring information security of Ukraine;
- promoting international cooperation in the information sphere and Ukraine's entry into the global information space.

The types of information by content are established in Article 10 of this Law [7], namely:

- information about an individual;
- information of a reference and encyclopaedic nature;
- information on the state of the environment (environmental information);
- information about the product (work, service);
- scientific and technical information;
- tax information;
- legal information;
- statistical information;
- sociological information;
- other types of information.

Article 15 of the Law provides the definition and legal regime of scientific and technical information [8]:

- scientific and technical information – any information and/or data on domestic

and foreign achievements of science, technology and production obtained in the course of research, development, design, production, and public activities that can be stored on material carriers or displayed electronically;

- the legal regime of scientific and technical information is determined by the Law of Ukraine “On Scientific and Technical Information”, other laws and international treaties of Ukraine, ratified by the Verkhovna Rada of Ukraine;

- scientific and technical information is open to the public, unless otherwise provided by the laws of Ukraine.

It is impossible to disagree with the statement of D.V. Smernytskyi [5] that the Law, establishing norms for ensuring the development of information activities in Ukraine, does not fully cover scientific activities, limiting it to the technical direction and ignoring the humanitarian direction, and therefore requires some revision, in particular in terms of replacing the concept of “scientific and technical information” with the concept of “scientific and scientific and technical information” in accordance with the Law of Ukraine “On Scientific and Scientific and Technical Activities” [9], because information on scientific activities in general, in.

The Law of Ukraine “On Scientific and Technical Information” [8] defines the basis of state policy in the field of scientific and technical information, the procedure for its formation and implementation in the interests of scientific, technical, economic and social progress of the country. The purpose of the Law is to create a legal framework in Ukraine for obtaining and using scientific and technical information.

The law regulates the legal and economic relations of citizens, legal entities, and the state arising from the creation, receipt, use and dissemination of scientific and technical information, and defines the legal forms of international cooperation in this area.

Scientific and technical information covers the results obtained in the process of research, development, design, production and public activities, recorded in a form that ensures their reproduction, use and dissemination.

There are five main stages in the process of preparing and conducting any research:

- the stage of accumulation of scientific information: bibliographic search of scientific information, study of documents, main sources of the topic, compilation of a literature review, selection of research aspects;

- formulation of the topic, purpose and objectives of the study, definition of the problem, justification of the object and subject, goal, main tasks, hypothesis of the study;

- theoretical research – substantiation of directions, selection of general methodology, methods, development of the concept, parameters, formulation of research conclusions;

- conducting an experiment – developing a program, methodology, obtaining and analysing data, formulating conclusions and research results;

- formalization of scientific research results, conclusions, recommendations, clarification of scientific novelty and practical significance [10].

The main base of scientific and technical information is formed by information resources – a systematized collection of scientific and technical literature and documentation (books, brochures, periodicals,

patent and design documentation, industrial catalogues, deposited manuscripts, research reports) recorded on paper and other media. The main types of information activities are obtaining, using, disseminating and storing information. The main areas of information include: political, economic, scientific and technical, social, environmental, spiritual and international. The importance of familiarizing oneself with the sources of information necessary for a researcher as quickly and completely as possible is due to its aging as a result of the emergence of new materials or a decrease in the need for it. According to scientific sources, the rate of information obsolescence is more than 10% per day for newspapers, 10% per month for journals, and more than 10% per year for books and monographs. Finding the right information is of great importance for the effective conduct of scientific research, since a researcher spends about 50% of his or her time searching for information. Therefore, one of the urgent tasks facing modern information systems is to obtain, summarize, disseminate and familiarize consumers with it as quickly as possible [11].

Information support is a means of communication between scientists on issues related to their professional activities.

Creating the preconditions for enriching scientists with new knowledge,

performing R&D and managing priority areas of scientific and technological development requires appropriate information support for scientific activity, i.e. dissemination of scientific achievements and ideas for their further use. Successful scientific work requires timely receipt of information to carry out research at a high scientific level and its transfer for the implementation of the results obtained in the global scientific and communication circulation and practical application. That is, the effectiveness of scientific research largely depends on the effectiveness of their information support, on how fully and timely the information needs of scientists are met [12].

Conclusions

Summarizing the above, it should be noted that, depending on the development of society, information has specific forms of manifestation and has a different impact on the processes of socio-economic development of both a single country and the entire global economy. Information is an important scientific, economic, political and social resource of mankind, and its level of development and accessibility increases the level and quality of any field of activity. Information support plays one of the most important roles in the process of any scientific research.

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Інформаційне забезпечення наукових досліджень: правовий аспект

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Анотація

У статті розглянуто поняття «інформація» та її інтерпретація як з боку науковців, так і з боку Закону України «Про інформацію». Зазначено про основні напрями державної інформаційної політики. Окреслено основні види інформації. Наголошено про необхідність розширення напряму забезпечення розвитку інформаційної діяльності, не обмежуючи даний напрямок лише технічною складовою наукової діяльності. Вказано про важливість інформаційного забезпечення в проведенні наукових досліджень. Зазначено про важливість інформації для життєдіяльності людства

Ключові слова: інформація, інформаційне забезпечення, наука, наукові дослідження