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Conceptual problems of understanding scientific and technical information in the framework of civil legislation

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Abstract. The significance of the research is established by the distinct legal structure encompassing scientific and technical information as a matter of civil rights. This framework is crucial for the progress of science and technology, not only within particular domains, but also on a national scale. The publication seeks to offer a thorough comprehension of the notion of scientific and technical information as a separate topic within the realm of civil rights and to highlight the distinctive attributes of this category and pinpoint any deficiencies in the current legal structure. Furthermore, the publication seeks to present remedies to rectify any discrepancies in legislation. The research was conducted using various primary methodologies, such as analysis, synthesis, formal-logical reasoning, and system-structural analysis. The publication comprehensively analyses the general normative understanding of "information" contained in the Civil Code of Ukraine and Law of Ukraine "On Information" and the consistency of this concept with the term "scientific and technical information" established by Law of Ukraine "On Scientific and Technical information". The scientific novelty is characterized by the proposal to distinguish a system of general and special features of scientific and technical information. It is suggested that the form of existence and the method of recording this type of information be attributed to the general characteristics, and the content of information and/or data and the method of obtaining it to the special ones. Turning to Law of Ukraine "On Scientific and Scientific and Technical Activity" it is worth noting that the inconsistency of the provisions of this normative legal act with such a special feature of scientific and technical information as the method of obtaining it. The publication explores the correlation between the terms "information" and "data". The research validates the theory that scientific and technical information can be subject to intellectual property rights, such as copyright and industrial property rights. The author's work proposes a legal framework to define scientific and technical information at the legislative level. This is achieved through the use of the legal term "obtained in the course of scientific work"

Keywords: Civil Code of Ukraine; Law of Ukraine; scientific work; information; data; rules of legislative technique

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Introduction

The need for a clear understanding of the legal nature of scientific and technical information is due to its importance and significance in the context of scientific and technical research. The issue of the topic of the publication is related not only to the scientific debate about how to understand information in civil law (through the category of information and data, or to be limited exclusively to the category of information), but also to the interrelationship of the normative definition of scientific and technical information with Law of Ukraine No. 3322-XII "On Scientific and Technical Information" (1993), as well as with Law of Ukraine No. 848-VIII "On Scientific and Scientific and Technical Activity" (2015). Obviously, the adoption of Law of Ukraine No. 3322-XII (1993) caused the need for its scientific understanding and doctrinal consideration, however, the entry into force of Law of Ukraine No. 848-VIII (2015) formed a serious problem of violations of the rules of legislative technique, which, in turn, caused legislative inconsistency. Currently, this issue is not raised in modern developments.

The dissertation research conducted by R.V. Nekoliak (2018), which focuses on the organisational and legal aspects of state regulation of scientific and technical activities, deserves recognition in the Ukrainian legal doctrine. K.R. Park (2022) considered science, technology and innovation as a complex phenomenon that needs to be regulated by South Korean public policy instruments. Concerning the evaluation of normative legal acts that pertain to the regulation of essential civil rights, it is noteworthy to mention the research conducted by A.M. Kelly and C.N. Marsack-Topolewski (2021). R. Ducato (2020) focused on safeguarding personal data, scientific inquiry, and the significance of information. This study assesses the General Data Protection Regulation (2016) and its implementation at the national level. It explores the details of how personal information is processed for scientific research purposes.

Serbian researcher J. Vučković (2021) devoted an article to the issue of the legislative consolidation of information in the media space, in particular on the Internet, as an object of legal regulation. Publication of B.J. Evans (2019) deals with the normative and legal regulation of genetic information. Y. Mo *et al.* (2020) use the term "information science" in a publication dealing with the role and importance of higher education curricula. However, this research is not legal, but bibliographic in nature. Therefore, it can be asserted that most contemporary publications pertain to broad topics within the realm of information law, such as the legal framework surrounding specific types of information (such as personal data, internet-based information, and genetic information) or the field of information science (Sopilko & Rapatska, 2023). The distinct characteristics of scientific and technical information as a unique subject of civil rights have not received adequate attention in scholarly advancements. The research focuses on the legal relationships that arise from the normative regulation of scientific and technical information through civil law.

N. Bashuryn (2021) highlights the intricate character of legal regulation concerning information relationships, specifically emphasizing the utilization of civil law instruments. The argument posits that scientific and technical information (STI) can be eligible for intellectual property rights if it demonstrates characteristics such as creativity, originality, novelty, and an objective form of expression. The text also explores the legal protection of STI through copyright law and legislation related to the safeguarding of industrial property rights. This text examines the concept of understanding the rights associated with intellectual property objects, including the theory of exclusive rights to these objects.

The aim of the study is to provide a comprehensive understanding of the concept of scientific and technical information as a unique subject of civil rights. It seeks to emphasise its distinct characteristics and identify any gaps in the current legal framework governing this area of civil law. Additionally, the publication aims to propose solutions to address any legislative inconsistencies that may exist. To achieve this goal, the following tasks need to be completed:

- to form a system of signs of scientific and technical information as an object of civil rights;
- to identify legislative inconsistencies in the normative regulation of scientific and technical information and offer the author's vision of their solution;
- to consider scientific and technical information as an object of intellectual property rights (in particular, an object of copyright and industrial property rights).

Materials and methods

When conducting research, the authors were guided by a system of special scientific methods of legal knowledge, among which it is worth highlighting the method of analysis, the method of synthesis, formal-logical and systemic-structural methods. The analysis method revealed legislative inaccuracies in the regulatory framework of the concept of scientific and technical information, which are related to the provisions of Law of Ukraine No. 3322-XII (1993) and Law of Ukraine No. 848-VIII (2015). Also, the method of analysis made it possible to reflect the consistent approach of the legislator to the legal construction of the information contained in Civil Code of Ukraine (2003) and Law of Ukraine No. 2657-XII "On Information" (1992). The synthesis method was useful for forming a complex system of general and special features of scientific and technical information. This method made it possible to single out such characteristics of the studied object of civil rights as the form of existence, the method of fixation, the content of information and/or data and the method of obtaining them. The synthesis method was used when considering the concepts "scientific activity", "scientific and technical activity", "scientific (scientific and technical) work". The formal-logical method was indispensable when distinguishing the legally prescribed types of scientific work, namely, scientific research, research and design, design and construction, research and technology, technological, search and design and search works. Such a method proved to be useful when considering the scientific debate regarding the understanding of information through the prism of the concepts of "knowledge" and "data". The utilisation of the system-structural approach facilitated the formulation of suggestions for rectifying breaches of legislative technique in the regulatory framework governing scientific and technical information. Furthermore, it enabled a comprehensive examination of the distinctive characteristics of scientific and technical information within the realm of intellectual property law.

The study was conducted according to the classic scheme of legal research, which has three stages: preparatory, main and final. At the preparatory stage, familiarization with both theoretical and normative material, which was planned to be used in the work, took place, the goal and task of the research, its object, and research methods were chosen that would help to reveal the issues of the topic of publication at a high scientific level. The main stage is characterized, first of all, by the complex application of selected special scientific methods of legal knowledge to normative legal acts and theoretical sources for the systematic presentation of problems of the legal nature of scientific and technical information as a specific object of civil legal relations. This approach makes it possible to present the author's vision with elements of scientific novelty on such issues as, for example, compliance with the rules of legislative technique when forming the definition of the concept of "scientific and technical information". At the main stage of the research, the publications and works of other researchers are also considered, the results obtained are compared with those already known. At the final stage, it was summarized the presented material on the debatable issues of the subject of the publication, reflected their own recommendations for the elimination of legislative inconsistencies and formed the basis for further doctrinal studies of the peculiarities of the legal nature of scientific and technical information as an object of civil rights.

In general, formed at the beginning of the work, the hypotheses "scientific and technical information has a special legal meaning that requires a balanced legislative approach to its regulation", scientific and technical information is a complex legal concept that is regulated not only by Law of Ukraine No. 3322-XII (1993), as well as a number of other legal acts (in particular, Civil Code of Ukraine (2003), Law of Ukraine No. 2657-XII (1992), Law of Ukraine No. 848-VIII (2015)) were confirmed by relevant arguments.

Results

It is necessary to start this research from the constitutional and legal basis of information regulation. Article 34 of the Constitution of Ukraine (1996) guarantees the right of every person to freely collect, store, use and disseminate information in an oral, written or other way – at his own choice. Article 177 Civil Code of Ukraine (2003) includes information in the list of civil rights objects. Article 200, contained in Chapter 15 of Civil Code of Ukraine (2003) "Intangible goods" includes a definition of the term "information", which is obviously general in relation to scientific and technical information as a special type of it. Article 1 of Law of Ukraine No. 2657-XII (1992) interprets the concept of "information" similarly to Article 200 of the Civil Code of Ukraine (2003). Article 10 of this Law refers to scientific and technical information as one of the possible types of information in general. Part 1 of Article 15 Law of Ukraine No. 2657-XII (1992) duplicates the provisions of Article 1 of the Law of Ukraine No. 3322-XII (1993) in terms of understanding the concept of "scientific and technical information".

The main legal act in the field of regulation of scientific and technical information is Law of Ukraine No. 3322-XII (1993). Article 1 provides a normative definition of the term "scientific and technical information" in this source of law. Comparing the definitions of the concept of "information" as established in the Civil Code of Ukraine (2003) and the concept of "scientific and technical information" outlined in Law of Ukraine No. 3322-XII (1993), it is evident that the approach taken by the legislator is endorsed. This approach demonstrates the coherence of normative regulation concerning these concepts. The Law elaborates on the norm found in the Civil Code of Ukraine (2003) while maintaining a consistent legal framework for comprehending the concept of "information". These observations provide a basis for a fundamental conclusion – scientific and technical information, as an object of civil rights, possesses at least two sets of characteristics: general attributes (shared with any information within the realm of civil and legal relations) and specific attributes (which distinguish scientific and technical information from other forms of this concept). The next step is dwelling on this issue in a little more detail.

Two distinct characteristics can be identified when considering scientific and technical information as a subject of civil rights within the framework of normative regulation. The initial indication is the manifestation of existence (in the form of any information and/or data). The second feature is the method of fixation (possibility of saving on physical media or display in electronic form). It should be emphasized that, according to the legislator's approach, such signs are inherent in principle to any information as a legal phenomenon. System of special signs of scientific and technical information, according to the definition of this concept in Law of Ukraine No. 2657-XII (1992) and Law of Ukraine No. 3322-XII (1993), is somewhat more complicated. These features encompass the content of scientific and technical information, which should accurately represent advancements in science, technology, and production. The method of obtaining this information involves scientific research, development, design, technology, production, and public activities. Scientific and technical information can be distinguished from a regulatory perspective based on its collection of general and specific characteristics.

Nevertheless, there are some issues of the coherence of the legislation, in particular regarding such a sign of scientific and technical information as a method of obtaining it. In this regard, the Law of Ukraine No. 848-VIII (2015) was analysed. It would be logical to assume that this normative legal act should be a guide from the point of view of legislative interpretation, which should be understood under each method of obtaining scientific and technical information. However, Article 1 of this Law only includes definitions for terms such as scientific activity, scientific and organisational activity, scientific and pedagogical activity, scientific and technical activity, and the primary activity of scientific institutions. Activities such as scientific-organizational, scientific-pedagogical, and basic activities of scientific institutions are clearly not related to the understanding of the concepts that make up the methods of acquiring scientific and technical information. Nevertheless, the issue of how legislation addresses the substance of scientific and scientific-technical activities becomes pivotal within the framework of this study.

It is important to note that scientific and technical activity is understood in the Law through the prism of the concept of scientific activity, so it is required to dwell on the content of the latter concept. Characteristic features of scientific activity in the normative aspect are: intellectual and creative character; the goal is to acquire new knowledge and find ways to apply it; types – scientific research of fundamental and applied content. The specific features of scientific and technical activity, which allow it to be distinguished as a separate type of scientific activity, are the specification of the goal (the orientation of this activity specifically to the acquisition and use of new knowledge designed to solve technological, engineering, economic, social and humanitarian problems) and the detailing of types (implemented in applied scientific research and scientific and technical (experimental) developments). Despite the absence of a corresponding provision in the Law, it is commonly believed that scientific and technical activities possess an intellectual and creative nature, akin to scientific endeavours.

In the context of understanding the legislative coordination of methods of obtaining scientific and technical information, it is necessary to mention such a concept, which is operated by Law of Ukraine No. 848-VIII (2015) as a scientific (scientific and technical) work. In the Law, the definition of this concept is given through the prism of the terms research and development of a scientific and scientific-technical (experimental) nature, respectively. The purpose of such research and development is interesting: obtaining a result of scientific, scientific and technical (applied) content. However, it would like to pay special attention to the types of work under consideration, because they resonate with the methods of obtaining scientific and technical information already provided for by Law of Ukraine No. 3322-XII (1993). So, according to types, scientific (scientific and technical) work is divided into groups of scientific research, research and development, design and construction, research and technology, technological, search and design and search works, etc. Thus, in the context of the ratio of concepts used by Law of Ukraine No. 3322-XII (1993) and Law of Ukraine No. 848-VIII (2015), a serious question arises from the point of view of legislative technique: is the list of types of activities, as a result of which scientific and technical information can be obtained, justified and relevant? It is worth noting that this list needs to be finalised and that it will be necessary to amend the legislation governing scientific and technical information in the future.

The presence of non-coincidences regarding the methods of obtaining scientific and technical information can be explained at different times by the adoption of relevant normative legal acts: Law of Ukraine No. 3322-XII (1993), and Law of Ukraine No. 848-VIII (2015). It was drawing attention to the fact that recent changes in Law of Ukraine No. 3322-XII (1993) had been introduced by the Verkhovna Rada of Ukraine in 2014 – a year earlier than the new normative regulation of scientific and scientific and technical activities was introduced. It can be assumed that the legislator simply "forgot" about updating the Law of Ukraine No. 3322-XII (1993) as such a regulatory act related to Law of Ukraine No. 848-VIII (2015). However, the legislative understanding as a result of which scientific and technical information can be obtained requires extremely balanced and well-founded doctrinal developments, which are currently lacking in legal science, because this problem has not been considered in publications. And the first question that arises before researchers of law (in particular, civil law): which type of activity is better to choose – scientific activity as a general concept, scientific and technical activity as a special concept or scientific (scientific and technical) work as a special concept? Arguments both "for" and "against" can be for each of the options.

The proposal to substitute the terminological construction in the legislative comprehension of scientific and technical information "obtained in the course of scientific research, research and design, project-technological, production and public activities" with "obtained in the course of scientific work" appears persuasive. Arguments in favour of this approach cannot be only the form and purpose of such work, but also normatively defined types of scientific work, which in their content not only, in fact, include current methods of obtaining scientific and technical information, but also expand them to a certain measure. In general, the outlined problems may well serve as the subject of doctrinal studies and the basis for further scientific discussions.

In addition, it is necessary to characterise the ambiguous aspects of the form of existence of scientific and technical information, defined in Civil Code of Ukraine (2003) and Law of Ukraine No. 2657-XII (1992) and Law of Ukraine No. 3322-XII (1993) as "any information and data". This approach is not currently accepted by all researchers of legal science. V. Belevceva (2015) suggests understanding information at the level of civil legislation as documented or publicly announced information about events and phenomena that were or are present in society or the state. In order to form a holistic view of the understanding of information in Ukrainian law, it is necessary to refer to some other legal acts, namely – Law of Ukraine No. 2210-III "On the Protection of Economic Competition" (2001) and Law of Ukraine No. 1089-IX "On Electronic Communications" (2020). The first of the considered Laws also defines information, but exclusively through the prism of the concept of information. In the case of the second law, we found a statutory definition of the concept of "data", which the legislator interprets through the category of "information". Such current legislative definitions once again prompt serious reflection.

Firstly, will it be correct to limit the understanding of information in civil legislation exclusively to the concept of information? Secondly, what to do with the fact that a number of the above-mentioned legal acts (Civil Code of Ukraine (2003), Law of Ukraine No. 2657-XII (1992), Law of Ukraine No. 3322-XII (1993)) understand information as data including, and only Law of Ukraine No. 1089-IX (2020) defines the concept of "data" using the term "information". It is obvious that one of the approaches is wrong, but the elimination of such inconsistencies requires thorough research, starting from the semantic understanding of the categories under consideration and up to the legal rules of the legislative technique. Perhaps the understanding of "personal data" can serve as a guide of Law of Ukraine No. 2297-VI "On the Protection of Personal Data" (2010). This legal regulation proposes to consider personal data as information or a set of information. The academic explanatory dictionary of the Ukrainian language defines the concept of information as information or message (Bilodid, 1970). The way out of the situation is as follows: define the legal concept of "information" exclusively through the prism of information or a collection of information. At the same time, data is a special type of information, i.e., it also constitutes information or a set of information, but of a specific content, such as about a natural person, which helpi to identify it.

And finally, it necessary to reflect the understanding of scientific and technical information as an object of intellectual property law. In this aspect, it is important to note that Article 177 of Civil Code of Ukraine (2003) refers separately to the objects of civil rights – the results of intellectual and creative activity, and separately – information. Likewise in Chapter 15 Civil Code of Ukraine (2003) Article 199 is devoted to the legal regulation of the results of intellectual and creative activity, and Article 200 is devoted to information. Article 420 of the same Civil Code of Ukraine (2003) provides a list of intellectual property objects. Article 457 of Civil Code of Ukraine (2003) is of particular importance in the context of this study, it defines the concept of a scientific discovery. It is also required to mention Article 8 of the Law of Ukraine No. 3792-XII "On Copyright and Related Rights" (1993), which, among the objects of copyright, primarily defines works in the field of science. However, Article 1 of this Law does not contain a general definition of the term "work", fixing only such terms as audio-visual work, derivative work, work of architecture, work of fine art, work of applied art. Note that in the textbook on Ukrainian civil law, two signs of copyright objects are distinguished: the presence of a creative nature and an objective form of expression (Zaika, 2005).

Therefore, an important question arises – whether scientific and technical information will always be the object of copyright, because there are no problems with the second sign. As stated above, the method of recording scientific and technical information (on physical media or in electronic form) is the condition that satisfies the requirement for an objective form of expression of the object of copyright. And if we define scientific and technical information as that obtained as a result of scientific activity, the fundamental features of which are intellectual and creative, it turns out that scientific and technical information, depending on the form of its embodiment, may well be the object of copyright. However, we should not forget about such a sub-institute of intellectual property law as industrial property law. The object of industrial property law in the textbook on Ukrainian civil law is primarily scientific discoveries (Zaika, 2005). The primary legislation governing this area of legal regulation is Law of Ukraine No. 3687-XII "On Protection of Rights to Inventions and Utility Models" (1993), which defines an invention (or utility model) as the outcome of intellectual and creative human endeavour in any technological domain. Article 7 of this Law outlines the criteria for determining whether an invention or utility model is eligible for patent protection, based on its content. Both objects of industrial property law, namely novelty and industrial suitability, share common features. However, the requirement of the inventive step is exclusively applicable to inventions. Considering the aforementioned, one can contend that scientific and technical information is comprehensively safeguarded by the legal provisions of industrial property rights.

Discussion

Considering that this publication focuses on the relationship between scientific and technical information and civil rights, it is essential to commence this section of the study by examining theoretical perspectives on comprehending the object and subject of legal regulation. G.P. Fletcher (2019) asserts that the issue of the correlation between the notions of "object of legal regulation" and "subject of legal regulation" has not been thoroughly examined, prompting him to dedicate his publication to this subject matter. This paper offers a critical analysis of the conventional method of comprehending the organisation of legal systems as a collection of social connections governed by legal regulations. G.P. Fletcher (2019) argues that this approach to understanding the legal order has a limitation in that it restricts the ability to identify the structure of the legal state and the subject of legal regulation. This highlights the significance of the methodological importance of the categories "object of legal regulation" and "subject matter of legal regulation" and proposes differentiating between three relatively autonomous aspects of the unified concept of "legal order": as a norm, process, and outcome of legal existence.

K.R. Park (2022) emphasised that science, technology, and innovation are crucial not only for socio-economic progress but also for the sustainable development of society and the state. To formulate suggestions for an efficient state policy regarding science, technology, and innovation, the South Korean researcher critically examined the existing state policy in this domain and its global framework. This analysis enabled K.R. Park (2022) to not only pinpoint deficiencies in the legislative regulation of science, technology, and innovation but also propose his strategies to address these shortcomings. There are also studies related to information security in the legal doctrine. E.K. Szczepaniuk *et al.* (2020), characterized and evaluated information security management in public administration bodies, and also developed recommendations for improving the level of information security. The researchers noted the need for a systematic approach to ensure information security in public administration. E.K. Szczepaniuk *et al.* (2020) write that it is not to be forgotten that this approach needs constant improvement.

X. Ma (2022) considered ways to motivate information security professionals to protect information security from potential risks. The Chinese scientist substantiates the importance of this research with the constant development of integration technologies that use connection and data exchange with other devices and systems on the Internet, which increases the risks of non-compliance with information security. X. Ma (2022) believes rightly that, in the case of proper protection of information security as the main information and intelligence asset, the relevant organizations will receive a significant advantage. However, it should be noted that the publication prepared by X. Ma (2022), is more technical than legal in nature. S. Li and H. Yu (2020) examined China's financial information platform and observed the pressing necessity for lawful utilisation of personal data by financial consumers. The issue outlined by the scientists assumes particular significance considering the substantial harm that the incorrect utilisation of personal financial data can inflict upon both society at large and individual citizens. As preventive measures regarding the above violations S. Li and H. Yu (2020) consider it necessary to ascertain the extent of personal information held by financial consumers, define the responsibilities of financial institutions in disclosing such information, establish comprehensive state authorities to enforce regulatory policies, oversee and monitor compliance, and devise effective accountability mechanisms in this domain.

In general, the issue of information security is of essential importance for any type of information, including scientific and technical information, because according to its purpose, information security is designed to ensure the integrity and protection against unauthorized access to information resources of any nature (Jatkiewicz, 2013). A significant layer of doctrinal developments concerns issues of personal data and their protection. C.J. Hoofnagle *et al.* (2019) devoted their work to the assessment of the General Data Protection Regulation (2016) of the European Union (EU).

R. Ducato (2020) also analysed this legal act, but in the aspect of legal obligations regarding information provided by the General Data Protection Regulation (2016). C.J. Hoofnagle *et al.* (2019), analysing the provisions of the General Data Protection Regulation (2016), state that this source of law is the most significant regulatory development of the last decade. The researchers note the detailed regulatory regime of personal data protection in the Regulation and predict a significant impact of this regulatory act on the use of personal data around the world.

C.A. Kelly (2022) reviewed the regulatory regulation of personal data protection in the United States of America, China, and the EU from a comparative legal perspective. The scientist stated that currently there is no federal law of the relevant nature in the United States of America, instead, the General Data Protection Regulation (2016) is in force in the EU, and the Personal Data Protection Law was recently adopted in China. It is worth noting that it is possible to have a Law regulating relevant issues in the United States of America, at the level of a separate state. C.A. Kelly (2022) emphasizes that this study becomes especially relevant in the context of the operation of such large companies as Facebook and Google with the personal data of their own users. F. Tassinari (2021) examines the protection of personal data in Morocco in a comparative legal context to the legislation of the EU. Such research was conducted in the aspect of international migration legislation and made it possible to state that legal guarantees of personal data protection in Morocco are weaker than in the EU. As this paper has raised the issue of the relationship between information and data, in particular, in the context of Law of Ukraine No. 2297-VI (2010), the aforementioned studies acquire a special meaning. These publications allow us to consider the legal regulation of personal data not only in Ukraine, but also in the countries of the EU, the United States of America, China, and Morocco.

The following developments of researchers in the field of law are devoted to various types of information as an object of legal regulation. Scientific research of E. Vučković (2021) raises interesting issues of regulatory regulation of information on the Internet. The researcher rightly notes that non-recognition of information on the Internet as an object of legal regulation, lack of legal instruments capable of controlling the dissemination of information in this media space, can cause significant damage to public interests. Justifying his own position, E. Vučković writes that, thanks to the rapid development of technological developments, there has been a need to rethink human communication, which, recently, is increasingly taking place with the help of online services and various media platforms. It is the information policy of the state designed to cope with new challenges in the field of media legislation (Antipova, 2023).

R.T. Budiyanti *et al.* (2022) published an article on the peculiarities of regulatory regulation of health information (medical information), problems of implementing the right to such information in Indonesia. Indonesian academics have described a number of measures that can be implemented by the government to ensure that the right to access to health information is properly implemented. I. Sugiarti (2020) investigated medical secrecy in terms of the content of the medical record. The researcher states that cases of improper filling of the medical card by medical workers are currently common. Such a problem becomes especially important if the patient believes that his rights have been violated and goes to court. In such situations, the incompleteness of the medical document significantly complicates the legal process. I. Sugiarti emphasizes that the patient has rights not only to the confidentiality of medical information, but also to the proper content and completeness of filling out the medical record. It was convinced that the current regulations need to be revised regarding the form of protection of patient's rights and the legal regulation of medical confidentiality.

The work of B.J. Evans (2019) is devoted to the peculiarities of genetic information as an object of legislative regulation. B.J. Evans writes that the industry of testing genetics is a complex system of sharing genetic information, often without the consent of the bearer of such information, to stimulate scientific discovery, help treat other patients, and so on. It should be note that the Law on non-discrimination of genetic information has a number of significant shortcomings, does not fulfil the tasks assigned to it and even harms the citizens whose rights it is meant to protect. In connection with the above, B.J. Evans offers his own solution to the situation. It was convinced that the relationship between scientific and technical information and other types of it, such as information on the Internet, medical information, and genetic information, has an important theoretical significance in legal doctrine. At the same time, it is important to note that Article 10 Law of Ukraine No. 2657-XII (1992) provides for the division of information into types by content, among which there is also scientific and technical information. Article 21 of this Law refers to information about medical care as information with limited access, and information about genetically modified organisms is such information as information about the state of the environment (ecological information) according to Article 13 of the Law (Berezanska *et al.*, 2023). Regarding information on the Internet, an approach that understands this type of information according to such a criterion as the place of distribution seems convincing. The scientists did not ignore the issues of commercial secrecy as a normative category.

I.H. Alid and L. Ekaningsih (2020) published a work on the problems of the normative regulation of commercial secrets as an object of legal protection. Researchers draw attention to the fact that not all corporate information has elements of a trade secret in its content, and believe that information can be considered a trade secret under the conditions that it is unknown to a wide circle of the public, has economic value, and in the case of its theft and leakage can cause significant damage. I.H. Alid and L. Ekaningsih single out two features of the normative regulation of trade secrets: the preventive nature (the presence of rules and regulations that ensure the observance of trade secrets, as well as written agreements between the parties on this matter) and the possibility of applying repressive measures (occurs in case of violation of legislative norms and agreements on the preservation commercial secret). F. Susanti (2019) reviewed the regulations governing trade secrets and their use, focusing on licensing agreements and license conditions. The researcher believes that consideration of trade secrets in the context of intellectual property law has a special economic significance in business activities, the social utility of which is difficult to overestimate. F. Susanti notes that both judicial and non-judicial proceedings may be used for disputes arising from the use of trade secrets, according to the needs of the parties to such a dispute.

Civil Code of Ukraine (2003) enshrines commercial secrets as one of the objects of intellectual property in Article 420. Scientific and technical information as an object of intellectual property rights was considered in this publication. In general, the understanding of commercial secrecy and the legal basis of its regulation are important for the theoretical understanding of scientific and technical information as a category that is influenced by the instruments of civil law, because it is quite possible that the latter may be the content of the concept of "commercial secrecy" (Magauiya *et al.*, 2023).

D.J. Solove (2022) devoted a publication to individual rights to privacy. The American researcher is convinced that the importance of a person's right to privacy is manifested, first of all, in the fact that they are the basis of laws on information privacy and data protection. D.J. Solove (2022) differentiated the different components of a system of pertinent civil rights, such as the right to access, the right to limit, the right to object, and others, from the General Data Protection Regulation (2016). It also observed that privacy laws at the international level encompass many of these rights in different variations. D.J. Solove believes that in order to establish an efficient system for governing and legislating the protection of an individual's privacy and confidential information, it is crucial to consider the interconnected nature of personal data. Consequently, any limitations on civil rights regarding personal data may have an impact on the interests of other individuals (Getman & Karasiuk, 2014). Upon examining D.J. Solove's publication, it was underscored that the researcher gave significant attention to the individual's entitlement to privacy in connection with the notion of "confidential information". Undoubtedly, scientific and technical information may possess confidentiality in its substance, however, this matter necessitates additional investigation.

Without detracting from the scientific achievements made prior to this publication, it would be important to emphasise that the problems of scientific and technical information as an object of civil rights have hardly been considered. In this publication, an analysis of the normative definition of "scientific and technical information" was carried out, a system of its features was identified, legislative inconsistencies regarding the legal regulation of this category and the meaning of this concept in the context of intellectual property law were considered. The vast majority of research was carried out in the so-called field of information law, devoted to issues of information security, legislative regulation of personal data and methods of their protection, various types of information as an object of legal influence (information on the Internet, health information, medical secrecy, genetic information, commercial secret), the rights of a person to confidentiality and understanding of confidential information. Of course, some of the described concepts resonate with scientific and technical information, because the situation is not excluded when information on the Internet or genetic information will be scientific and technical in its content, but doctrinal developments were not carried out in this aspect.

Conclusions

The work comprehensively reflects the problems of understanding the peculiarities of scientific and technical information as an object of civil rights. This article positively assesses the position of the legislator, who is guided by unified legal constructions regarding the understanding of information as a special category of civil law not only in the Civil Code of Ukraine and Law of Ukraine No. 2657-XII, but also in Law of Ukraine No. 3322-XII. Scientific novelty is characterized by the author's approach, reflected in the publication, regarding the normative understanding of scientific and technical information as a category that has general and special characteristics. The content of each of the proposed features is revealed in the work. When researching such a special feature of scientific and technical information as a way of obtaining it, the inconsistency of the Law of Ukraine No. 848-VIII was established. Having systematically reviewed such categories as scientific, scientific and technical activity, and scientific work, it was proposed to limit the legislative definition of scientific and technical information to the way it is obtained as "obtained in the course of scientific activity". Arguments in favour of such an approach can be not only normative features of scientific work, but also its types provided by Law of Ukraine No. 848-VIII.

The publication raises the issue of a scientific discussion about what exactly should be understood by information – only information, or information and data. In this regard, certain provisions of such laws of Ukraine as Law of Ukraine No. 2210-III, Law of Ukraine No. 1089-IX and Law of Ukraine No. 2297-VI were considered. Currently, when comparing the definitions of the concepts "information", "data", "personal data" provided by these Laws, inconsistencies and violations of the rules of legislative technique can also be traced. On the other hand, the results of the article are favourable to the understanding of information as data or a set of data, suggesting that data should be considered as a special type of information. This study also investigates the matter of scientific and technical information as a distinct subject of intellectual property law, encompassing copyright and industrial property rights. The foundation for future scientific research on the subject of publication can be the challenges in enhancing the legally prescribed approach to acquiring scientific and technical information, while considering the normative definitions outlined in Law of Ukraine No. 848-VIII, as well as a doctrinal comprehension of information (either solely as information, or both as information and data, or the formulation of an original, author-specific term to interpret this concept).

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Conflict of interest

None.

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Концептуальні проблеми розуміння науково-технічної інформації в рамках цивільного законодавства

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Анотація. Актуальність дослідження зумовлена чіткою правовою структурою, що охоплює науково-технічну інформацію як об'єкт цивільних прав. Ця структура має вирішальне значення для науково-технічного прогресу не лише в окремих галузях, а й у національному масштабі. Ця публікація має на меті запропонувати ґрунтовне розуміння поняття науково-технічної інформації як окремої теми у сфері цивільних прав та висвітлити характерні ознаки цієї категорії та виявити будь-які недоліки в чинній правовій структурі. Крім того, публікація має на меті представити засоби правового захисту для усунення будь-яких розбіжностей у законодавстві. Дослідження проводилося з використанням різних основних методик, таких як аналіз, синтез, формально-логічні міркування та системно-структурний аналіз. У роботі комплексно проаналізовано загальне нормативне розуміння поняття «інформація», що міститься в Цивільному кодексі України та Законі України «Про інформацію», а також узгодженість цього поняття з терміном «науково-технічна інформація», встановленим Законом України «Про наукову і науково-технічну інформацію». Наукова новизна характеризується пропозицією виокремити систему загальних та спеціальних ознак науково-технічної інформації. До загальних ознак пропонується віднести форму існування та спосіб фіксації цього виду інформації, а до спеціальних - зміст відомостей та/або даних і спосіб їх отримання. Звертаючись до Закону України «Про наукову і науково-технічну діяльність», варто відзначити неузгодженість положень цього нормативно-правового акту з такою спеціальною ознакою науково-технічної інформації, як спосіб її отримання. У публікації досліджується співвідношення термінів «інформація» та «дані». Дослідження підтверджує теорію про те, що науково-технічна інформація може бути об'єктом права інтелектуальної власності, зокрема авторського права та права промислової власності. У роботі запропоновано правову базу для визначення науково-технічної інформації на законодавчому рівні. Це досягається шляхом використання юридичного терміну «отримана в процесі наукової діяльності»

Ключові слова: Цивільний кодекс України; Закон України; наукова робота; відомості; дані; правила законодавчої техніки