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МІНІСТЕРСТВО ВНУТРІШНІХ СПРАВ УКРАЇНИ
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Instrumentalism of Law-making in the context of the functioning of the modern state

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■ **Abstract.** The effective functioning of any modern state and its ability to fulfil its assigned tasks are contingent upon the implementation of appropriate organisational and legal mechanisms for its activities. In the 21st century, the tasks of the state, the directions of its influence on societal relations, and its primary and ancillary functions are undergoing transformation, necessitating urgent theoretical comprehension of the inherent functions of the state. The purpose of the study is to analyse the instrumental characteristics of the legislative process as a crucial aspect of state activity. To examine the instrumental characteristics of law-making in the aspect of functionalism of the modern state, separate methods of scientific search were used, namely: dialectical, functional analysis, comparison, historical and legal, formal-logical, formal-legal, and system-structural. The obtained results emphasise that the transformation of the state's tasks and its impact on society are consequences of its role as a social phenomenon, primarily responsible for ensuring the integrity and stable development of society. It is established that the effectiveness of any state depends on a complex set of factors, with a correct determination of tasks, methods, and means being paramount for achieving the objectives faced at specific stages of its development. Consequently, state functions are an immanent dynamic characteristic closely linked with the activities of state authorities, especially legislative bodies. The creation of legal norms, compared to other forms of state activity, always aims to regulate specific areas of societal relations, which in turn constitute the essence of the state's political, economic, informational, and other functions. It is pertinent to understand legislation law-making as a legal form of ensuring the realisation of state functions. Such a conceptual approach enables authorised subjects of state power to identify, legitimise, and influence the directions through which the state intervenes in specific spheres of societal relations, adjusting their essence and content

■ **Keywords**: state functions; forms of state function realisation; goals and tasks of the state; legislation law-making as an instrument; legal regulation; value of law

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■ Introduction

Given the exceptional circumstances (martial law) and the intensification of integration processes in Europe against the backdrop of the war in Ukraine, the problem of transforming the content of individual state tasks related to legal influence, legal regulation, legislation law-making, and the effectiveness of such activities has become particularly relevant. Globalisation and integration processes that have taken place in the world since the mid-20th century, particularly the formation of various intergovernmental associations and transnational corporations, have altered traditional perceptions of the state and its purpose in society. This includes its fundamental properties and characteristics, necessitating the modernisation of the corresponding doctrine.

According to G. Hrystova (2018), the sphere of legal regulation involves the authority of state power bodies to substantiate the use of all available means and take appropriate measures sufficient to ensure, implement, and protect rights; under any conditions, it aims to transform the values of law into regulations, thus preserving the inherent value of the law. The value of law, as a product of legislation law-making, originates from the state's values, while its emergence, as stated by V. Topchiy *et al.* (2022), results from the will of the state and the functioning of state power directed toward ensuring legal order in society. N. Chirakitnimit *et al.* (2022) affirm that state power is a significant factor in solving problems related to changes or reforms.

Given the constant geopolitical transformations in the modern world, the significance of the results of legislative activities of international law entities and the value potential of international regulation for the global community and individual states cannot be overlooked. Recently, the legal values of the European community have gained particular importance for the essence and content of legislative activities in Ukraine. These values are transmitted into national legislation and serve as influential tools in the struggle for freedom, democracy, human and national dignity, and the defence of Ukraine's respect as a sovereign and independent state. N. Kaminska (2022) argues that, thus, as a result of law-making and corresponding legal realisation, Ukrainian legal values are acculturated within the framework of Ukraine's European integration.

The issues related to state functions, their essence, content, classification, forms of realisation, and the differentiation of the concept of state functions from the functions of state bodies are still the subject of discussion. However, there are not many comprehensive theoretical monographs on this issue. In particular, these are just a few papers worth paying attention to over the past two decades.

The purpose of the study by V.P. Plavych (2017) is a theoretical-methodological and philosophical-legal analysis of legislation law-making. Among the fundamental works in the field of law formation and legislative activities, T.O. Didych's (2017) study focuses on the theoretical-legal and practical foundations of law formation in Ukraine, emphasising the analytical development and theoretical justification of a communicative-institutional approach to its understanding. Despite these studies, there are not enough papers in the scientific discourse devoted to a thorough analysis of the phenomenon of legislative activities as one of the functional characteristics of a democratic modern state. The complexity and controversial nature of this issue require clarification of the instrumental properties of legislative activities as one of the areas of state activity, which is directly the purpose of the study.

Given that the methodology of science is primarily understood as the doctrine of scientific methods of cognition or a system of scientific principles underlying the research and justifying the choice of means, techniques, and methods of cognition (Kolodiy & Kolodiy, 2021), the methodological principles of investigating ontological characteristics of legislative activities in the context of functionalism of the modern state became a complex of principles, general scientific, and special methods of cognition. These methods include comprehensive study, dialectical, hermeneutic, formal-logical, comparative, structural-functional, and classification methods, etc.

The analysis of the functions of the state and legislation law-making, as one of its forms of activity, was conducted through philosophical categories such as essence, content, form, structure, and others. The application of the dialectical method allowed defining the basic properties of the state's functions and legislation as phenomena of social reality and legal categories that develop, interrelate, and interact. The use of the structural-functional method investigated the content of legislation law-making and the functions of the state, their conditioning, and purpose. The comparative method enabled the comparison of concepts such as "goal", "task", "role", "purpose" and "function" of the state. The method of classification allowed the systematic categorisation of criteria for dividing state functions, revealing their features.

■ Functions of the State: Essence, Content, and Forms of Implementation

In modern science, the concept of "function" is used in various meanings, such as "task", "role", "purpose", "meaning", "goal" and others. This diversity requires clarification. Therefore, a thorough analysis of the functions of the state phenomenon, their content, classification, forms of implementation, and differentiation from the functions of state bodies is necessary. It is crucial to note that the conceptual

framework of the theory of functions, in general, and the theory of state functions in domestic legal science, was formed in the mid-60s of the 20th century. According to this concept, the state arises from the struggle between antagonistic classes and thus has a class nature. Consequently, its essence, tasks, and purpose in society were defined through the areas of state activity. Nevertheless, the general social dimension of the state was not considered. Such an approach in the prism of modern political and legal reality requires development.

Modern researchers, in particular I.I. Tkachenko (2020), define the functions of the state through the concept of activity, enriching it with various characteristic features. They emphasise the continuity of state activity in specific spheres, which is objectively determined by societal development and the activity that serves as a means to accomplish the state's tasks and the regularities of its organisation, reflecting its essence and possibilities on the international stage. Therefore, the functions of the modern state are understood as institutionalised and normatively formalised areas of state activity in key areas of societal life (economic, social, legal, foreign policy, cultural, ecological, etc.). These are fundamental spheres of social relations, which, due to their objective needs, are mediated by specific functions, determining societal functions that are socially significant and defining. The state, as a complex organised social system with internal and external dimensions, accomplishes its tasks by engaging in activities in these dimensions.

The functions of the state are predominantly analysed within a praxeological approach by emphasising the activity aspect of its essential manifestation (Loshchikhin, 2016). Activity is a form of communicative interaction that serves as a tool for organising state power. The transformation of state-citizen relations lies in improving communication through normative and institutional principles, promoting stable interaction to solve common tasks. Contemporary legislation law-making represents a communicative and institutional model of interaction emerging from this process (Dzyavelyuk, 2016; Bobrovnik *et al.,* 2019).

When defining the functions of the state, the state's objective as a societal institution holds paramount importance because the functions of the state serve as its means and capabilities to achieve this objective. Similar to the objective of any societal phenomenon, the objective of the state contains, in its ideal form, the result that can be achieved through its functions. In addition to the goal, the concept of the "tasks of the state" is included in understanding the term "functions of the state" as a complex phenomenon. Currently, a common approach in legal science involves differentiating between the state's activities as tasks and functions. It is asserted that these are interconnected yet distinct concepts. Accordingly, the "tasks of the state" are interpreted as the spheres of societal relations that require state intervention and the realisation of its objective, while the "functions of the state" are defined as specific directions of its activity ensuring the achievement of the state's tasks. Considering the systemic nature of societal relations, the functions of the state should also be viewed as the subject of systemic analysis, allowing the determination of the state's activity, the purpose of which is to regulate societal relations through managerial influence, ensuring their stability and development (Melnychuk, 2018).

The tasks of the state serve as the external (defining) factor regarding the state's functions. They facilitate their realisation. Thus, the tasks of the state are the means to achieve the ultimate or existing objective of the state, which is to be accomplished independently or with the assistance of other public authorities. In the plane of the functions of the state, there is also the question of their importance, i.e., the objective necessity in the development of social relations, about the scope of their action. Thus, the concept of the functions of the state has a complex elemental meaning because it includes the purpose of the state in society, the nature and spheres of influence on social relations. This connection is a direct factor influencing the formation and development of the state's functions at any historical stage and under any legal regimes. In addition, this influence is mutual. That is, the main areas of state influence on public relations always occur in accordance with their social purpose or role. Considering this, the social purpose of the state characterises its role in different historical periods and in the future; the focus is on ensuring the implementation of socio-economic and political reforms, and so on.

Furthermore, the priority of state functions is determined by the importance of the goal and the tasks defined in accordance with it, which are solved by the state in different historical stages. Thus, in the objective realities of the formation and functioning of the state, certain areas of its activities may acquire greater or lesser significance, while others are always implemented, regardless of the priorities set by the state at this historical stage of its development (Volynets, 2012). Accordingly, in extraordinary circumstances, such as a state of war, the state simultaneously takes measures to restore territorial integrity, liberate occupied territories, preserve vital infrastructure, and, on the other hand, ensures the fulfilment of its usual functions.

The social purpose of the state is also important in terms of assessing the effectiveness of its functioning in ensuring the legal regulation of social relations, the rights and freedoms of individuals and citizens, the conflict-free existence of subjects of social

relations as its main goal. For example, according to Article 3 of the Constitution of Ukraine[1], the highest social value in the state is the human being. Accordingly, the rights and freedoms of individuals, their provision, protection, and defence are defined as the duty, content, and direction of the state's activities, the sphere of its responsibility. This provision of the Constitution of Ukraine reflects the essence of the relationship between the functions, purpose, social purpose, and tasks of the state. It can be concluded that the functions of the state are a complex concept, the content of which is the unity of purpose, tasks, purpose in society, and the main areas of their influence on social relations. The functions of the state implemented in practice determine its role in society.

In the absence of doctrinal unity regarding the classification of state functions, their division into basic and additional, external and internal, open and latent, economic, political, social, etc., based on different criteria, remains constant.

One of the attempts to modernise the doctrine regarding the distribution of state functions based on different criteria and to move away from their general division into internal and external can be the approach proposed by M.V. Dzyavelyuk (2016). Based on the philosophical perception of statehood as a certain image, a nomenclature of state functions is introduced instead of classification. Accordingly, only the most active, significant, and most important activities of the state can be among the functions. Accordingly, the inclusion of any field of state activity in its functions should have a nomenclature character. Among the nomenclature functions, according to the author, are ensuring national security, competitiveness, social order, and development; avoiding and countering crises and dysfunctions in the functioning of the social organism; supporting the reality of state sovereignty, reproducing its properties.

In view of the meaning of the concept of "nomenclature" in general and in jurisprudence in particular, it can be conditionally agreed with this approach. After all, "nomenclature" as a nominative way of designating objects does not have the meaning of the concept and does not carry its semantic and essential load. Moreover, in jurisprudence, it can be used to denote a specific list of positions according to the principle of subordination. However, in the context of this study, attention should be paid to the list of state functions provided. Among them, there is an absence of legal, legislative, law enforcement, and law-making functions. Therefore, the author does not consider law-making as a separate function of the state, thus determining its derivative nature. Nevertheless, the functional analysis of the state, which involves the analysis of a wide range of its functions, is inherently determined by its institutional organisation, i.e., the way of organising state power, the mechanism, and the apparatus of the state.

The value of the separation of powers in a democratic society lies in its potential to organise the political power of the state and protect individual autonomy through the distinction between law-making and law-application. Meanwhile, the organisational value of the separation of powers provides the basis for the "formal" theory, its protective value leads to the "normative" theory. As a method of organising political power, the division of powers goes hand in hand with the technique of separating functions. The distribution of powers relates to one or several norms of competence, ensuring "independence" in the execution of functions. On the contrary, the division of functions means the allocation of the execution of a specific function among one or several individuals making decisions. The interaction between the distribution of powers and the division of functions leads to different strategies for organising public authority. These categories can be applied to most state structures, regardless of the number of official branches recognised by these structures (e.g., judicial power) (Sandro, 2022).

These considerations create the necessity to differentiate between the functions of the state and the forms of their implementation. Any function of the state requires a specific instrument for its realisation – a legal form. For a long time, the internal functions of the state were classified based on the nature of the activities of state authorities: legislative, executive, and judicial, thus replacing the phenomenon of functions of state authorities with organisational forms of their implementation. As forms of implementing state functions, it is necessary to understand the homogeneous activities of state authorities, thanks to which its functions are realised, tasks are performed, and goals are achieved. Among such forms, from the perspective of the purpose of the study, it is necessary to highlight the legal form of implementing state functions, which defines and establishes all other forms of implementing state functions, giving them a defined and legal character. Although, in a general sense, three legal forms of implementing state functions should be distinguished – law-making, law application, and law enforcement – among these forms, law-making activity occupies a special and defining place due to its essence, content, and purpose. It is about this activity in the aspect of the functioning of the state in legal science that the debates still do not

[1] Constitution of Ukraine. (1996, June). Retrieved from https://zakon.rada.gov.ua/laws/show/254%D0%BA/96-%D0%B2%D1%80#Text.

subside and there is no unity regarding the nature of law-making, its independent or derivative character.

The Problem of the Phenomenon of Law-Making

Firstly, it is worth emphasising that the analysis of foreign legal doctrine in recent decades indicates a wide range of studies on issues related to the creation of legal norms by various subjects of lawmaking and their implementation. In particular, these are separate aspects of normative drafting, the effectiveness of legislation and its quality (Lewis, 2023); forms, content, and the process of implementation of regulations; the scope and specifics of the implementation of the powers of law-making subjects (Hopkins, 2020), and so on. Regarding law-making as one of the areas of state activity, state functions, or forms of its implementation and manifestation, the vast majority of research has an applied character and relates to the analysis of law-making by judicial authorities. Among others, it is worth highlighting a study on the features of law-making in the conditions of digitalisation of justice (Costantini *et al.*, 2023), the mechanism of judicial law-making as a source of law, judicial law-making, and the general law of negligence (Amirthalingam, 2020). The features of the legislative activity of international organisations and the European Court of Justice are actively studied (Iglesias, 2020; Florczak-Wątor, 2020; Maisley, 2023), and so on. However, questions directly related to the clarification of the instrumental properties of law-making as one of the areas of state activity and one of the problems of the theory of state and law, concerning the development and improvement of the conceptual-categorical apparatus of jurisprudence as a whole, have remained beyond the attention of foreign researchers.

For the domestic legal tradition and contemporary research in the field of legal theory and statehood, a constant appeal to the general theoretical issues of legal science is inherent, including the problems of state functions and its law-making activity as a factor in improving sectoral legislation and enhancing the effectiveness of legal regulation. Traditionally, in Soviet legal literature, law-making was considered the activity of state authorities in the creation, improvement, or cancellation of legal norms.

Currently, the issues related to activities associated with law, state legal influence on society, and law-making are extremely multifaceted. A fairly wide range of research is devoted to these issues. However, existing developments have not led to the creation of a unified concept of law-making as one of the types of legal activities of the state. Summarising the results of the studies conducted by the researchers mentioned above, it can be argued that the definition of the concept of law-making, due to the complexity of its essence and content, has taken place in different dimensions, namely: from the perspective of the philosophy of law, sociology of law, and the dogma of law as an instrumental aspect of law-making.

In addition, it was emphasised that the content of the activities of state bodies authorised to engage in law-making; the provision by the relevant state bodies of the binding nature of the results of law-making – legal norms, objectified in the form of regulations; the task of the state to create and organise the regulatory framework; the affirmation of the state as the main subject of law-making, determining the paradigm of legal influence, etc., determine the place and role of the state in the law-making activity. Regarding the recognition of the independence of law-making as a state function or its derivative character, it is worth noting that while performing the legislative (law-making) function, the state is simultaneously a prerequisite for the existence and effective implementation of the functions of law-making (legislation). However, the functions of the state and law-making are different institutions with a certain interrelation (Didych, 2017). Thus, the author adheres to the conceptual approach recognising the independence of the law-making function of the state. In the opinion of the researchers, the state plays a decisive role in the implementation of law-making, which is covered by the corresponding function of the state, which occupies a central place in the system of state functions.

It is worth agreeing with the opinion of M.O. Teplyuk (2013), who, distinguishing three functions of the state: legislative, administrative, and law enforcement, emphasises their correspondence to different types of law-making: administrative function corresponds to sub-legal law-making, law enforcement corresponds to judicial precedent, legislative function corresponds to lawful law-making. However, such an approach, especially regarding the legislative function, which is conducted through lawful law-making activity, appears somewhat controversial in terms of nomenclature. After all, in this case, all other types of law-making can be considered illegal. V.V. Sukhonos (2015), while covering this issue, emphasises that the state performs law-making activities within the framework of the implementation of the political function of the state. Indeed, by exercising the political function, the state, through legal regulation of social relations, influences their state, transformation, areas of development, thereby organising them.

Another group of researchers, particularly L.O. Shapenko (2022) and V.P. Plavych (2017), adhere to the opposite position, considering law-making not as one of the functions of the state but as one of the forms of its functions' implementation. According to studies on the mechanism of the state and its functions during the Soviet era in Ukraine, law-making,

like legal regulation and various organisational activities of the state in the implementation of the rules it creates, including through encouragement, coercion, and persuasion, are forms of performing state functions. In this area, L.O. Shapenko (2022) states that law-making is a specific form of state activity or a form of regulatory activity performed by competent state bodies, authorised public organisations, or the entire population for the creation and development of the legal system. V.P. Plavych (2017) considers law-making simultaneously as a form of activity of state authorities or other subjects delegated with law-making powers and as a state function regarding the preparation, improvement, or cancellation of regulations.

On the other hand, this form of state function implementation in legal theory is sometimes referred to as legislative, the essence of which is understood as the constitutionally defined activity of the highest state authorities in creating mandatory norms, which, as rules, become laws and determine both the essence and content and the nature of state functions and the procedure for their implementation. However, in the author's opinion, this is a narrow approach that does not encompass all types of objectification of regulations in the modern state and, consequently, forms of law-making.

Regarding the further development of the doctrine of law-making activity as a form of state functions' implementation, it is worth emphasising that the material-legal content, which consists of competent authorities' decision-making on the establishment, modification, or repeal of legal norms, is an essential aspect of legal regulation, and the procedural-process form is only a means of implementing the material-legal content of law-making activity. Accordingly, law-making has a legal nature and is a complex material process in which both form and content are dialectically combined. Considering these concepts as categories of philosophy, such as content and form, it can be argued that the term "content" denotes the phenomenon of "law-making activity", and the term "form" denotes the "law-making process" (Plavych, 2017). Therefore, law-making activity is one of the forms of state functions' implementation – legal, the content of which is the activity of constitutionally authorised state authorities in adopting regulations, which has a homogeneous character (Shai, 2014). It is one of the state's activities in the field of law, like legal realisation, law enforcement, legal interpretation, and simultaneously – a legal form of state functions' implementation, which has legal consequences, one of the ways of their implementation, and is aimed at achieving the state's goals.

Conclusions

The functions of the state are its inherent dynamic characteristic associated with the activities of state authorities, primarily law-making bodies, the analysis of the transformation of which allows tracking changes in the state and determining possible ways for its further development. Law, due to its valuable properties, is a tool that defines the limits of state activity, its areas of development and functioning, and exerts regulatory influence on social relations. The analysis of scientific literature allows outlining several features and instrumental properties of law-making.

Legal values delineate the foundations of the legal system, and thus, they are simultaneously legal principles. Through law-making activities, legal principles are enshrined in regulations, primarily the constitution, permeating the fundamental tasks of the state and the mechanisms for their implementation. This is the so-called state policy – a connecting, mediating link between the state and its activities. By normatively defining the goal, the state undertakes corresponding obligations and creates mechanisms for their implementation, and ultimately can determine the effectiveness of performing a certain function as the ratio of the goal and the result. Thus, the creation of legal norms, compared to other forms of state activity, always aims to regulate specific areas of social relations, which, in turn, constitute the content of the state's political, economic, informational, and other functions. Therefore, understanding law-making as one of the forms – legal, ensuring the implementation of state functions, through which the state can achieve its goal in the most optimal and efficient way, is correct. Moreover, law-making is precisely the instrument that allows not only defining various state functions but also establishing connections between them, giving the state's activities a comprehensive, integrated, and adjusted character, ultimately leading to stable legal order and societal progress.

However, the conducted study does not exhaust the content of the issue, so it is essential to further clarify the features of forms, methods, and areas of law-making activities of authorised subjects during emergencies (martial law), fulfilling the state's obligations in the context of European integration processes, the transformation of the underlying principles of law-making, and others.

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Conflict of Interest

None.

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Інструменталізм правотворчості в аспекті функціонування сучасної держави

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■ **Анотація.** Передумовою та чинником ефективного функціонування будь-якої сучасної держави, виконання покладених на неї завдань є запровадження відповідних організаційно-правових механізмів її діяльності. У XXI ст. відбувається трансформація завдань держави, напрямів впливу на суспільні відносини, основних і додаткових функцій, що потребує нагального теоретичного осмислення іманентних функцій держави. Метою дослідження є аналіз інструментальних характеристик процесу створення законів як важливого аспекту діяльності держави. Для дослідження інструментальних характеристик правотворчості в аспекті функціоналізму сучасної держави було залучено окремі методи наукового пошуку, а саме: діалектичний, функціонального аналізу, порівняння, історико-правовий, формально-логічний, формально-юридичний та системно-структурний. У результатах дослідження зауважено, що трансформація завдань держави та її вплив на суспільство є наслідком її ролі як соціального феномену з основним завданням забезпечити цілісність і стабільний розвиток суспільства. Встановлено, що ефективність функціонування будь-якої держави залежить від комплексу чинників, головними серед яких є правильність визначення методів і засобів, які потрібно залучити для виконання завдань, що постають на певному етапі її розвитку. З огляду на це, було визначено, що функції держави є її іманентною динамічною характеристикою, пов'язаною з діяльністю органів державної влади, насамперед правотворчих. Створення норм права, порівняно з іншими формами діяльності держави, завжди має на меті впорядкування певних сфер суспільних відносин, які своєю чергою є змістом політичної, економічної, інформаційної та інших функцій держави. Коректним є розуміння правотворчості як правової форми забезпечення реалізації функцій держави. Такий концептуальний підхід дає змогу уповноваженим суб'єктам державної влади за допомогою правотворчої діяльності визначити, легалізувати напрями впливу держави на ті сфери суспільних відносин, які потребують втручання держави, корегувати їх сутність і зміст

■ **Ключові слова:** функції держави; форма реалізації функцій держави; мета й завдання держави; правотворчість як інструмент; правове регулювання; цінність права

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Legal regulation of combating organised crime in Ukraine: Current state and areas of improvement

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■ **Abstract.** The relevance of this study is conditioned by the need to develop concrete proposals for improving the legislation in the field of combating organised crime at the present stage. The purpose of this study was to identify, based on the identified gaps in the legal regulation of combating organised crime, the ways of its improvement with due regard to current socio-political realities and international practices. The study addressed these issues using a system of general scientific and special methods of scientific cognition: analysis, synthesis, analogy, comparison, generalisation, content analysis, as well as formal legal, comparative legal, and systemic methods. The results of the analysis of the legal regulation of combating organised crime in Ukraine show that there are substantial gaps in the national legislation, which creates preconditions for further criminalisation of the key areas of the state's functioning, especially in the context of the ongoing military operations in the country. The study focused on several draft laws, the provisions of which are aimed at strengthening the capacity of actors to combat organised crime and will have a positive impact on eliminating the causes and conditions of its existence. It is proved that modernisation of criminal, criminal procedural, anti-corruption, law enforcement intelligence, and counter-intelligence legislation, as well as improvement of legal acts in the areas of counterterrorism and sanctions policy are of great importance. The study argued that it is necessary to accelerate the implementation of the Europol methodology for assessing the threats of serious and organised crime in Ukraine to provide a strategic vision of the socio-political spheres vulnerable to criminal influence. It was proved that an important prerequisite for effective counteraction to crime is the implementation of the provisions of the Strategy for Combating Organised Crime concerning the creation of stable and systematic legislation for the introduction of new methods and mechanisms of counteraction. The practical significance of this study is that the findings of the study may serve as a basis for improving the legal regulation of combating organised crime in Ukraine as a threat to its national security, primarily during the martial law regime

■ **Keywords:** national security; law enforcement; countering crime; organised criminal group; terrorism; sanctions

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Introduction

In the context of a full-scale war in Ukraine, organised crime is a threat to national security. Organised crime is used by foreign intelligence services and is one of the most powerful tools for destabilising the situation in the country. For the law enforcement agencies to build an effective system of combating organised crime and eliminate the causes and conditions of its existence, it is important to have proper legal regulation of this area, including stable and systematic legislation that should be consistent with the socio-political and socio-economic conditions of today, as well as international practices in this area.

The quality of legal regulation of combating organised crime is of immense importance, as law is the main regulator of social relations in all spheres of life (Bilozorov *et al.*, 2017). Therefore, the study of the current state of legal regulation of the sphere of combating organised crime in Ukraine is always relevant in terms of timely identification of legal gaps in legislative and sub-legislative acts and development of ways to improve them, considering the practices of developed foreign countries.

The conceptual foundations and legal regulation of combating organised crime have been sufficiently covered in Ukrainian and foreign legal science. Among the most recent published studies, attention should be paid to the fundamental studies by H.P. Zharovska (2019) and V.S. Burkal (2021) on the theory and practice of combating transnational organised crime in Ukraine, which outline the problems of legal support for this process. Specifically, the authors provide a substantive critical analysis of the provisions of criminal legislation of Ukraine regarding criminal offences which are considered to be manifestations of transnational organised crime. The authors emphasise several gaps in the current Criminal Code of Ukraine (CCU) that need to be addressed. T. Obokata (2019) covered some aspects of the fight against transnational organised crime through international human rights law. The researcher concludes that international human rights law, apart from simple criminal justice measures, encourages states to adopt a holistic approach capable of addressing the complex and multifaceted nature of transnational organised crime.

A. Kupatadze (2019) studied the development of organised crime in post-Soviet Eurasia, how geography, natural resources, types of political leadership and the involvement of international actors give rise to various forms of collusion. He argued that even if the authorities' capacity to counter organised crime through legal means is strengthened, the link between political and criminal structures stays strong. O. Horbachov *et al.* (2020) investigated the specific features of combating ethnic crime in Ukraine, including the structure of modern and outdated organised criminal groups. L.P.G. da Costa (2018) revealed that organised crime is part of a geopolitical and asymmetric warfare strategy. Using specific examples, he demonstrated how developed countries in various historical periods have used criminal and terrorist organisations in covert intelligence operations and proxy wars as a tool to strengthen their geopolitical influence. He presented common views on combating organised crime, including through legal means.

Despite a considerable number of scientific studies on the problems of combating organised crime, the current state of its legal regulation shows that several issues are still unresolved. These include the delineation of the functions of state bodies involved in combating its manifestations, the procedure for their interaction and coordination, determination of the status of the entity responsible for organisational support of the implementation of the state strategy for combating organised crime, monitoring and reporting in the relevant area through the introduction of a strategic communications mechanism, etc. This necessitates further scientific research in this area, namely, identifying ways to improve the current legislation and the mechanism of its practical implementation to increase the efficiency of the subjects of the fight against organised crime.

The purpose of this study was to analyse the regulations governing the fight against organised crime and to provide proposals for modernising national legislation to strengthen the capacity of Ukrainian state bodies involved in combating organised crime.

Materials and Methods

To fulfil the purpose of this study, the most suitable methodology was used, which ensured its comprehensiveness and completeness. The study is based on the analysis and synthesis of the provisions of laws and regulations of Ukraine and NATO member states in the field of combating organised crime. When studying the legal provisions of national and foreign legislation and identifying the links between them based on their similarities, the study employed the methods of theoretical and legal research: analogy and comparison. The use of analogy is a way to eliminate legal uncertainty in identifying gaps in national legislation, including through the implementation of European and international acts, to increase the effectiveness of combating organised crime by law enforcement agencies of Ukraine. Using the method of content analysis, the study investigated invariant sources of information which substantiate the functional model of organised crime to identify legal conflicts in the regulations on combating organised crime and develop a single abstract model of the text of the law.

The study used the formal legal method to investigate the internal content of legal provisions governing the activities of Ukrainian state authorities aimed

at detecting and preventing organised crime with their further classification, systematisation, and generalisation. The systemic method of legal regulation of combating organised crime in Ukraine was used to consider the legal regulation of combating organised crime in Ukraine as an integral system of interrelated elements. The comparative legal method was used to compare the norms, institutions, and categories used in the legal systems of the partner countries and to identify their common and distinctive features.

The study was based on the materials of regulations (laws, strategies, concepts), according to which the fight against organised crime, the fight against terrorism, national security, state security, cybersecurity, sanctions policy, as well as draft laws of Ukraine, the provisions of which are aimed at improving criminal, criminal procedural, anti-corruption, law enforcement intelligence, and counter-intelligence legislation. Specifically, the following documents were analysed in the study: Constitution of Ukraine[1], Criminal Code of Ukraine[2], Law of Ukraine "On Legal Framework for Combating Organised Crime"[3], Law of Ukraine "On Fundamental Principles of Ensuring Cybersecurity of Ukraine"[4], Decree of the President of Ukraine "On the Decision of the National Security and Defence Council of Ukraine "On the National Security Strategy of Ukraine"[5], Order of the Cabinet of Ministers of Ukraine "On Approval of the Strategy for Combating Organised Crime"[6], etc.

To bring national legislation in the field of combating organised crime in line with European law, Europol's materials on the harmonisation and implementation of the IOCTA methodology (Europol, 2018), as well as data from analytical reports on the assessment of organised cybercrime threats, were used.

Results and Discussion

A key element of society's effective fight against organised crime is the proper level of its legal regulation (Vodko & Podobnyi, 2021). It defines the types and signs of criminal offences committed by organised criminal groups; responsibility for such illegal activities; particular powers of law enforcement agencies to prevent this criminal phenomenon, eliminate the causes and conditions of its existence; means that can be used for this purpose, etc. (Kupka *et al.*, 2021). Therewith, national legislation must be necessarily harmonised with international norms and standards, as dictated by the international and European community (Dotsenko, 2019).

Repeatedly amended and supplemented since 1993. The Law of Ukraine "On Legal Framework for Combating Organised Crime"[7], does not meet the current political, economic, and law enforcement needs in this area. As O. Bakhurynska (2020) notes, the content of the law does not contain the fundamental principles on which the law enforcement, preventive and punitive activities of counteraction actors should be based. T.M. Mishchenko (2018) addresses the absence of a reference in the law to the fact that legislation on combating organised crime is based, among other things, on the norms of anti-corruption legislation. Agreeing with the position of the majority of experts, it can be assumed that the provisions of the law are outdated and do not keep pace with the dynamics of reforming the system of judicial, law enforcement, and human rights bodies of Ukraine, which leads to a violation of the harmonisation and unification of legislation in the field of combating organised crime.

The consolidation of new basic criminal law institutions on organised crime in the Criminal Code of Ukraine[8] (CCU) in 2001 was a major achievement of the Ukrainian legislator, which generally ensured the possibility of criminal law combating organised forms of crime in the context of Ukraine's attempts to enter the European legal field. Nevertheless, the legislative description of the criminal law provisions on organised crime cannot be considered complete, and the responsibility of the legislator includes their further improvement. In this context, one of the steps towards strengthening the fight against organised illegal activities of criminal communities in Ukraine was the introduction of amendments to the Criminal Code of Ukraine to expand the corpus delicti of Article 255 and criminalise the status of a "code-bound criminal" and the concepts of "criminal influence"

[1] The Constitution of Ukraine. (1996, June). Retrieved from https://zakon.rada.gov.ua/laws/show/254%D0%BA/96-%D0%B2%D1%80#Text.
[2] The Criminal Code of Ukraine. (2001, April). Retrieved from https://zakon.rada.gov.ua/laws/show/2341-14#Text.
[3] Law of Ukraine No. 3341-XII "On Legal Framework for Combating Organised Crime". (1993, June). Retrieved from https://zakon.rada.gov.ua/laws/show/3341-12#Text.
[4] Law of Ukraine No. 2163-VIII "On the Fundamental Principles of Ensuring Cybersecurity of Ukraine". (2017, October). Retrieved from https://zakon.rada.gov.ua/laws/show/2163-19#Text.
[5] Order of the President of Ukraine No. 392/2020 "On the Decision of the National Security and Defence Council of Ukraine of September 14, 2020 "On the National Security Strategy of Ukraine". (2020, September). Retrieved from https://www.president.gov.ua/documents/3922020-35037.
[6] Resolution of the Cabinet of Ministers of Ukraine No. 1126-p "On Approval of the Strategy for Combating Organized Crime" (2020, September). Retrieved from https://zakon.rada.gov.ua/laws/show/1126-2020-%D1%80#Text.
[7] Law of Ukraine No. 3341-XII "On Legal Framework for Combating Organised Crime". (1993, June). Retrieved from https://zakon.rada.gov.ua/laws/show/3341-12#Text
[8] The Criminal Code of Ukraine. (2001, April). Retrieved from https://zakon.rada.gov.ua/laws/show/2341-14#Text.

and "criminal assembly"[1]. For instance, Law of Ukraine No. 671-IX of 04.06.2020 supplemented the Criminal Code of Ukraine with new articles, namely, 255-1, 255-2, 255-3, and Article 255 was supplemented by Part 4 on liability for "creating a criminal community, i.e., the union of two or more criminal organisations, and the management of such a community"[2]. The same law defines the terms "criminal influence" and "a person in the status of a subject of increased criminal influence, including the status of a "code-bound criminal". However, according to court practice, even before the criminalisation of the above actions in national legislation, information received by domestic law enforcement agencies from foreign colleagues was factually treated as a criminal offence. K. Yakovenko (2020) provides specific examples of such court decisions.

With the entry into force of the above-mentioned Law No. 671-IX[3], liability for participation in a criminal organisation has increased, as its provisions establish liability without any qualifying features, including organisation of criminal groups, participation in grave or particularly grave crimes, and prescribe confiscation of property. This opinion is shared by judges of appellate courts when reviewing the decisions of investigating judges to impose a preventive measure in the form of detention (Yakovenko, 2020). Thus, today's realities show that Ukraine, along with other states, is trying to introduce new methods and mechanisms for combating organised crime, for which purpose it is gradually updating its legislative framework, as well as introducing new state bodies, types, and methods of information exchange, specifically within the framework of international cooperation.

The next reaction of the state to the need to improve the legal regulation of law enforcement agencies' activities in combating organised crime was the adoption of a governmental act – the Strategy for Combating Organised Crime, approved by the Order of the Cabinet of Ministers of Ukraine No. 1126-p dated 16.09.2020.[4] As a strategic planning document, the Strategy outlines the stages, principles, ways, and areas of its implementation. One of such areas is the improvement of the regulatory framework for combating organised crime, which is the basis for prompt detection and prevention of this socially dangerous phenomenon.

The analysis of the political and economic situation in Ukraine suggests that the implementation of the national policy in the field of combating organised crime at the present stage will require fundamental changes in the institutional and legal measures to ensure this fight. The current system of law enforcement agencies of Ukraine and the existing regulatory framework for their activities in combating organised crime do not allow for offensive steps to effectively combat this anti-social phenomenon and the key threat to national security.

V.I. Lytvynenko (2020), having investigated the problems of implementing the Strategy for Combating Organised Crime at the present stage, notes that the document needs substantial revision, as it is more reminiscent of the relevant Concept, i.e., defines a system of views on the fight against organised crime, rather than ways to implement national policy in this area. The problems of implementing the Strategy arise not because of its content, but because of the systemic crisis in the legislative, executive, and judicial branches of government, the incompetence of their representatives, who at many key stages slow down the processes related to the development and adoption of legislative acts and constantly lobby for the adoption of acts whose provisions do not comply with the Constitution of Ukraine. One example is the development of a draft law amending the Law of Ukraine "On Legal Framework for Combating Organised Crime", which, according to the Action Plan for the Implementation of the Strategy for Combating Organised Crime, was to be submitted to the Cabinet of Ministers of Ukraine in March 2023, but for subjective reasons, work on this project is still ongoing[5].

The danger of organised crime is also highlighted in the National Security Strategy of Ukraine[6]. According to paragraph 19 of the Strategy[7], the special services of foreign countries are conducting intelligence and subversive activities against Ukraine. They try to support separatist sentiments, use and support organised crime groups and corrupt officials, and make efforts to strengthen their infrastructure of influence. The above strongly suggests that effective counteraction to organised crime cannot be ensured without counter-intelligence activities in this area, which use special methods, forces, and means of collecting

[1] The Criminal Code of Ukraine. (2001, April). Retrieved from https://zakon.rada.gov.ua/laws/show/2341-14#Text.
[2] Law of Ukraine No. 671-IX "On Amendments to Certain Legislative Acts of Ukraine on Liability for Crimes Committed by a Criminal Community". (2020, June). Retrieved from https://zakon.rada.gov.ua/laws/show/671-20#Text/
[3] Ibidem, 2020.
[4] Resolution of the Cabinet of Ministers of Ukraine No. 1126-p "On Approval of the Strategy for Combating Organized Crime". (2020, September). Retrieved from https://zakon.rada.gov.ua/laws/show/1126-2020-%D1%80#Text.
[5] Order of the Cabinet of Ministers of Ukraine No. 850-p "On Approval of the Action Plan for the Implementation of the Strategy for Combating Organised Crime". (2022, September). Retrieved from https://zakon.rada.gov.ua/laws/show/850-2022-%D1%80#Text.
[6] Order of the President of Ukraine No. 392/2020 "On the Decision of the National Security and Defence Council of Ukraine of September 14, 2020 "On the National Security Strategy of Ukraine". (2020, September). Retrieved from https://www.president.gov.ua/documents/3922020-35037.
[7] Ibidem, 2020.

information. Timely detection of manifestations of organised criminal activity from the perspective of foreign intelligence services and their neutralisation can prevent the destruction of public administration and local self-government mechanisms in Ukraine. Furthermore, Item 24 of the Strategy[1] states that "inconsistent and incomplete reforms and corruption make it impossible for the Ukrainian economy to grow steadily and dynamically, increase vulnerability to threats, and foster the criminal environment", while Item 63 of the Strategy[2] states that to protect Ukraine from all threats to national security, the state should focus on systemic reform of law enforcement agencies, specifically in the fight against organised and transnational crime. This confirms the urgent need to improve the system of actors in the fight against organised crime, as well as the need to introduce modern forms and methods of countering this illegal activity.

The State Security Strategy, approved by the National Security and Defence Council of Ukraine on 30 December 2021 and enacted by the Decree of the President of Ukraine No. 56/2022 dated 16 February 2022, also became an important basis for the development of a system of statutory regulation of law enforcement agencies' activities to combat organised criminal groups[3]. The document states that apart from legality, transparency, the rule of law, accountability, and democratic public control over the functioning of the security and defence sector, and respect for human and civil rights and freedoms, the Strategy is based on the principles of countering terrorism and transnational organised crime. The regulation declared organised criminal activity as a threat to state security, as the intelligence services of some foreign countries continue to conduct intelligence, subversive, and other illegal activities against Ukraine, including through organised criminal groups, and attempt to influence corrupt officials to make management decisions in their favour.

The issue of combating organised crime is also reflected in the Strategy for the Development of the Justice System and Constitutional Justice for 2021-2023, proclaimed by the Decree of the President of Ukraine No. 231/2021 dated 11.06.2021[4]. Specifically, the areas of development of the justice system include increasing the effectiveness of law enforcement agencies' cooperation in combating crime and ensuring the proper performance of functions and powers of the prosecutor's office in the criminal justice system.

The issue of depriving the Security Service of Ukraine (SSU) of its powers in this area is problematic for organising the fight against organised crime. The amendments to the Law of Ukraine "On Legal Framework for Combating Organised Crime"[5] proposed by the Draft Law of Ukraine reg. No. 3196-d "On Amendments to the Law of Ukraine "On the Security Service of Ukraine" Concerning the Improvement of the Legal Framework of the Security Service of Ukraine", dated 26.10.2020[6] as amended for the second reading may lead to the destruction of an effective mechanism for combating organised crime. In the future, the SSU is to be entrusted with counter-intelligence support for the system of fighting organised crime.

The EU and NATO require that the SSU be stripped of functions that are not typical for the intelligence service during reform. At the same time, law enforcement officials agree that the spread of organised crime, including transnational crime, is still one of the most dangerous threats to the national security of each country (Buciunas, 2019). PACE Recommendations No. 1402 (1999) and No. 1713 (2005) state that in cases of direct threat of organised crime to the democratic regime of a country, the special services should take part in measures to counter this socially dangerous phenomenon[7]. With the outbreak of the armed conflict in Donbas in 2014, part of eastern Ukraine came under the control of quasi-governmental structures, where organised criminal groups benefited financially from the chaos, lawlessness, and impunity of their illegal activities (Zabyelina & Markovska, 2019). The Russian special services actively used these circumstances to fuel separatism and further destabilise the political situation in the region, which led to a full-scale military invasion of Ukraine in February 2022. In the context of the ongoing military operations in Ukraine, including those involving

[1] Order of the President of Ukraine No. 392/2020 "On the Decision of the National Security and Defence Council of Ukraine of September 14, 2020 "On the National Security Strategy of Ukraine". (2020, September). Retrieved from https://www.president.gov.ua/documents/3922020-35037.
[2] Ibidem, 2020.
[3] Order of the President of Ukraine No. 56/2022 "On Decisions of the National Security and Defence Council of Ukraine". (2021, December). Retrieved from https://www.president.gov.ua/documents/562022-41377.
[4] Order of the President of Ukraine No. 231/2021 "On the Strategy for the Development of the Justice System and Constitutional Justice for 2021-2023". (2021, June). Retrieved from https://www.president.gov.ua/documents/2312021-39137.
[5] Law of Ukraine No. 3341-XII "On Legal Framework for Combating Organised Crime". (1993, June). Retrieved from: https://zakon.rada.gov.ua/laws/show/3341-12#Text.
[6] Draft Law of Ukraine No. 3196-d "On Amendments to the Law of Ukraine "On the Security Service of Ukraine" Concerning the Improvement of the Legal Framework of the Security Service of Ukraine". (2020, October). Retrieved from https://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=70243.
[7] Opinion of the Main Scientific and Expert Department of the Verkhovna Rada of Ukraine No. 3080 "On the Draft Law of Ukraine "On the Security Service of Ukraine". (2020, February). Retrieved from https://itd.rada.gov.ua/billInfo/Bills/pubFile/65869.

private military companies financed by criminal organisations, countering organised criminal activity as a threat to state security should still be a priority for the national intelligence service.

Currently, the adoption of the Draft Law reg. No. 3196-d[1] has been postponed, as the reform of the SSU during martial law, as well as the institutional reform of any military formation, which involves a complete review of the agency's staffing, certification of most of its employees and reduction of personnel, is considered to be untimely. The Law of Ukraine "On Amendments to the Criminal and Criminal Procedural Codes of Ukraine in connection with the ratification of the Additional Protocol to the Council of Europe Convention on the Prevention of Terrorism, as well as to certain legislative acts of Ukraine on improving the fight against terrorism" adopted in March 2023 was important for improving the legal framework for combating organised crime[2]. The law was drafted with the involvement of the SSU representatives, considering foreign practices in the field of counterterrorism, to strengthen the capabilities of security agencies and the national system of counter-terrorism in general. This resulted in amendments to the Criminal Code of Ukraine to establish criminal liability for "terrorist training", "crossing the state border of Ukraine for terrorist purposes", as well as financing of these acts, and the Criminal Procedural Code of Ukraine (CPCU) to determine the jurisdiction of the above crimes for the SSU investigators. During martial law, the application of preventive measures to persons suspected or accused of committing crimes is limited to the use of only one measure – detention. It also envisages the introduction of special pre-trial investigation procedures (*in absentia*) and the expansion of the types of sanctions that may be applied in such cases, namely to terrorist organisations and groups, following the Law of Ukraine "On Sanctions". Additionally, the Law of Ukraine "On Combating Terrorism" prescribes the establishment of a legal framework for anti-terrorist training of the population, the establishment of new entities responsible for combating terrorism and, specifically, their powers, the expansion of the powers of the SSU, as it is the main actor in the fight against terrorism, as well as the formation and updating of the list of terrorist organisations and groups, etc.

In the context of a full-scale armed aggression against Ukraine, prompt detection of terrorist activities is essential for ensuring national security to prevent its negative consequences, eliminate factors that facilitate terrorist acts, as well as to stop, investigate, and solve them. Accordingly, the implementation of the above provisions should lay the groundwork for improving the organisation of law enforcement agencies in Ukraine in the area of countering terrorist activity.

An important regulation that, if adopted, will have a positive impact on eliminating the causes and conditions of organised crime is the Draft Law of Ukraine, reg. No. 7684-d dated 30.11.2022.[3] The main reason for drafting this regulation was the urgent need to increase the effectiveness of the counter-intelligence units of the national special service in countering intelligence, subversive, terrorist, and other illegal activities of the special services of the Russian Federation in the context of war, including the use of various forms of organised crime.

Among other innovations, the Draft Law proposes to add to the list of grounds for conducting counter-intelligence activities set out in Article 6 of the Law of Ukraine "On Counter-Intelligence Activities"[4] such grounds as verification of information on the conduct of intelligence and subversive activities against Ukraine by foreign states and their organisations, special services, including the use of criminal structures, as well as the performance of tasks related to counter-intelligence support for the system of combating organised crime. Furthermore, the draft law sets out a provision on the system of bodies that will combat organised crime.

It should be considered that in the context of armed aggression against Ukraine, attempts by Russia to create terrorist organisations in the country and the active use of organised criminal groups for this purpose, the adoption of the Draft Law No. 7684-d[5] will be a major step forward for Ukrainian legislation.

[1] Draft Law of Ukraine No. 3196-d "On Amendments to the Law of Ukraine "On the Security Service of Ukraine" Concerning the Improvement of the Legal Framework of the Security Service of Ukraine". (2020, October). Retrieved from https://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=70243.

[2] Law of Ukraine No. 2997-IX "On Amendments to the Criminal and Criminal Procedural Codes of Ukraine in Connection with the Ratification of the Additional Protocol to the Council of Europe Convention on the Prevention of Terrorism, as Well as to Certain Legislative Acts of Ukraine on Improving the Fight Against Terrorism".". (2023, March). Retrieved from https://zakon.rada.gov.ua/laws/show/2997-20#Text.

[3] Draft Law of Ukraine No. 7684-d "On Amendments to Certain Legislative Acts of Ukraine on Strengthening the Capacity of Counterintelligence Agencies to Counteract the Large-Scale Military Aggression of the Russian Federation against Ukraine". (2022, November). Retrieved from https://itd.rada.gov.ua/billInfo/Bills/pubFile/1561605.

[4] Law of Ukraine No. 374-IV "On Counter-Intelligence Activities". (2002, December). Retrieved from https://zakon.rada.gov.ua/laws/show/374-15/ed20021226#Text.

[5] Draft Law of Ukraine No. 7684-d "On Amendments to Certain Legislative Acts of Ukraine on Strengthening the Capacity of Counterintelligence Agencies to Counteract the Large-Scale Military Aggression of the Russian Federation against Ukraine". (2022, November). Retrieved from https://itd.rada.gov.ua/billInfo/Bills/pubFile/1561605.

Strengthening the capabilities of counter-intelligence actors can considerably increase the effectiveness of counter-intelligence measures to counter terrorist and sabotage activities at counterintelligence facilities and help prevent organised criminal activity and combat criminal organisations in areas where there is an elevated risk of criminal acts.

Ukraine's ability to effectively counter threats of any origin and nature, including organised criminal activity, should be facilitated by the state's systemic sanctions policy. According to the provisions of the Law of Ukraine "On Sanctions"[1], the grounds for the application of coercive measures are the actions of a foreign state, foreign legal entity, or individual to the detriment of the national security, sovereignty, and territorial integrity of Ukraine, which lead to violations of human rights and freedoms, the interests of society and the state, occupation of the territory and other adverse consequences.

As of 2023, the sanctions legislation, which was urgently introduced in 2014 as a response to the aggressive actions of the Russian Federation, is outdated and needs to be amended. Currently, the National Security and Defence Council (NSDC) of Ukraine has prepared a Draft Law reg. No. 5191 "On the Principles of Sanctions Policy of Ukraine" dated 02.03.2021[2], considering the practice of developing and implementing sanctions policies of international partners (EU countries, the USA, Canada, and other states). One of the key innovations for the fight against organised crime is the addition of national and international sanctions to the lists of sanctions applied in the fight against terrorist financing. At the same time, the draft law is not without substantial drawbacks, such as the lack of provisions on the grounds for imposing sanctions, too long a timeframe for making a decision on their imposition (up to one month), and the lack of a mechanism for mandatory approval of the NSDC's decision to lift and amend international sanctions by a relevant resolution of the Verkhovna Rada of Ukraine. Furthermore, the draft law prescribes criminal and administrative liability for violation of the requirements of this Law. Currently, there is no such responsibility. Therefore, it would be advisable to make provision for appropriate amendments to the CCU and CPCU, as well as to the Code of Ukraine on Administrative Offences.

Along with the Draft Law reg. No. 5191, the Verkhovna Rada of Ukraine registered two more draft laws related to sanctions policy, namely the Draft Law of Ukraine reg. No. 5191-1 "On Restrictive Measures (Sanctions) of the State to Protect the National Interests of Ukraine" dated 16.03.2021[3] and the Draft Law of Ukraine reg. No. 5191-2 "On Amendments to the Law of Ukraine "On Sanctions" dated 19.03.2021.[4] The main ideas of the draft laws are to systematically reform the sanctions policy and create legislative conditions for the implementation of effective sanctions programmes. The imposition of sanctions on the identified Russian assets (of the Central Bank of the Russian Federation, private companies, individuals, etc.) is a prerequisite for further confiscation of these assets to be used as sources of recovery of the Ukrainian economy.

A major step towards improving Ukraine's sanctions policy was the adoption in May 2022 of the Law of Ukraine "On Amendments to Certain Legislative Acts of Ukraine on Improving the Effectiveness of Sanctions Related to Individual Assets"[5], which aims to introduce a procedure for identifying and confiscating assets of those entities that support military aggression against Ukraine in any way. The law establishes new sanctions, such as the seizure of assets of an individual or legal entity in favour of the state. The decision on such a penalty will be made by the High Anti-Corruption Court. However, the institution of asset confiscation is quite new in modern law. The first precedents of confiscation of property of Russian oligarchs in Ukraine by terminating their ownership rights demonstrated the inability of the state to effectively manage confiscated assets (Transparency International Ukraine, 2022).

One of the key features of organised crime in Ukraine is the use of corruption. In the context of widespread corruption, growing influence of organised crime, which is taking place against the backdrop of numerous contradictions in the current legislation and the lack of an effective strategic initiative to counter these phenomena, it is important that the legislator, at the initiative of the President of Ukraine, take measures aimed at reducing the level of corruption in Ukrainian society. For example, the Law of Ukraine "On Prevention of Threats to National Security Related to Excessive Influence of Persons with Significant Economic and Political Weight in

[1] Law of Ukraine No. 1644-VII "On Sanctions". (2014, August). Retrieved from https://zakon.rada.gov.ua/laws/show/1644-18#Text.
[2] Draft Law of Ukraine No. 5191 "On the Principles of Sanctions Policy of Ukraine". (2021, March). Retrieved from https://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?id=&pf3511=71291.
[3] Draft Law of Ukraine No. 5191-1 "On Restrictive Measures (Sanctions) of the State to Protect the National Interests of Ukraine". (2021, March). Retrieved from https://itd.rada.gov.ua/billInfo/Bills/pubFile/611788.
[4] Draft Law of Ukraine No. 5191-2 "On Amendments to the Law of Ukraine "On Sanctions". (2021, March). Retrieved from https://itd.rada.gov.ua/billInfo/Bills/pubFile/623524.
[5] Law of Ukraine No. 2257-IX "On Amendments to Certain Legislative Acts of Ukraine on Improving the Effectiveness of Sanctions Related to the Assets of Individuals". (2022, May). Retrieved from https://zakon.rada.gov.ua/laws/show/2257-20#Text.

Public Life (Oligarchs)"[1] defined the procedure for the NSDC to recognise a person as an oligarch, prescribed restrictions on their rights, and measures to influence oligarchs and their associates. Some opponents of the law questioned its political feasibility, as there is no analogous legislation in the EU.

According to several Ukrainian experts, the legal act has certain shortcomings related to contradictions in legal provisions. For example, the proposed provision of Article 7 of the Law, which bans the financing of political parties, could be interpreted as a restriction on the right of persons recognised as oligarchs to own their property (Sushchenko, 2021). This restriction includes a ban on the transfer of money to political party accounts at their discretion. In practice, this means that the NSDC of Ukraine and the President of Ukraine will be entitled to restrict the disposal of people's property without their consent, in violation of Article 41(4) of the Constitution of Ukraine[2] on the inviolability of private property rights. Furthermore, it is believed that the circle of oligarchs could theoretically become extremely wide, and some measures prescribed by the Law could be ineffective in terms of their practical application. At the same time, foreign scholarly sources emphasise that to qualitatively change national legislation and bring it closer to European law, legal measures should be taken to prevent a situation in which organised crime controls part of society and politics (Kupka *et al.*, 2021). Ukraine lacks the institutions necessary to effectively prosecute organised crime and needs to work on strengthening its legal system and introduce best practices and countermeasures (Williams & Picarelli 2017). Therefore, despite all the possible shortcomings of the wording of this law and the lack of tools to achieve the goals declared in it, its adoption is a major step by the state to counteract the systemic signs of the oligarchy's criminal influence on the functioning of the national economy, which is the most complex part of organised crime.

It is important to adapt national legislation on combating organised crime to the norms of European law and UN requirements. Implementation of the provisions of EU regulations is Ukraine's obligation on its path to European integration (Leun, 2021). One of the examples of Ukraine's compliance with international legal norms is the introduction of the Europol Serious and Organised Crime Threat Assessment (SOCTA) methodology into law enforcement activities, which is highly effective in EU countries and is constantly reviewed and supplemented by the Europol Advisory Group. The SOCTA report provides a detailed analysis and assessment of the socio-political areas of EU Member States vulnerable to criminal influence and targeted by criminal groups, as well as an analysis of organised criminal groups, including the forms, methods, and means of their activities (Europol, 2021). According to O.Y. Korystin & N.P. Sviridyuk (2022), the modern paradigm and world practice of combating organised crime is to focus on identifying the sources of its existence and ways to influence it. Therefore, the possibility of a strategic vision of the threats and risks to national security posed by criminal activity, as well as the conditions of existence of criminal groups and the mechanisms they choose to commit criminal offences, makes the SOCTA methodology unique (Sanakoiev *et al.*, 2022). It is believed that the use of this methodology will allow law enforcement agencies of Ukraine to conduct a thorough analysis of the current state of organised crime, based on which they will formulate strategic and operational goals, as well as appropriate tactics to counter this socially dangerous phenomenon.

At the same time, gaps in Ukrainian legislation, the lack of specialised software and the lack of competent IT analysts and specialists in this area considerably slow down the implementation of the SOCTA methodology. These problems can be solved through professional training of actors in the fight against organised crime in the specifics of criminal analysis at the strategic level, the purchase of licensed software, the introduction of best European practices and the implementation of a set of legislative measures. A study of foreign practices in the offensive strategy of fighting organised crime (Perelyhina & Dmytryshak, 2019) shows that European countries try to update their legislation every year to strengthen the capacity and efficiency of law enforcement agencies. The SOCTA methodology is being implemented in Ukraine with the support of the EU Advisory Mission. The initial stage of such implementation is the approval of Resolution of the Cabinet of Ministers of Ukraine No. 59 dated 26 January 2022[3]. This resolution approved the composition of the Interagency Working Group to coordinate the implementation of the assessment system in the activities of executive authorities. However, the tasks of this working group do not contain provisions that

[1] Law of Ukraine No. 1780-IX "On Prevention of Threats to National Security Associated with the Excessive Influence of Persons with Significant Economic and Political Weight in Public Life (Oligarchs)". (2021, September). Retrieved from https://zakon.rada.gov.ua/laws/show/1780-20#Text.

[2] The Constitution of Ukraine. (1996, June). Retrieved from https://zakon.rada.gov.ua/laws/show/254%D0%BA/96-%D0%B2%D1%80#Text.

[3] Resolution of the Cabinet of Ministers of Ukraine No. 59"On Some Issues of Implementation of the SOCTA Ukraine Assessment System in the Activities of Central Executive Authorities". (2022, January). Retrieved from https://www.kmu.gov.ua/npas/deyaki-pitannya-zaprovadzhennya-v-diyalnist-centralnih-organiv-vikonavchoyi-vladi-sistemi-ocinki-socta-ukrayina-59-260122.

would prescribe the development of a state policy on combating organised crime based on the implementation of the SOCTA methodology (setting strategic goals, developing comprehensive action plans), which, according to the authors of the present paper, considerably slows down its implementation.

The rapid development of digital technologies is driving the improvement of forms and methods of digital crime. Organised cybercrime is associated not only with cybersecurity issues, but also with threats to national security, namely critical infrastructure, the military-industrial complex, etc. M.V. Hutsaluk (2019) notes that it is impossible to carry out a complete criminological analysis that would fully cover all aspects of global cybercrime, including its organised forms. This phenomenon is substantially different from conventional types of crime and cannot be adequately assessed by the usual criminological approach. Currently, the legal framework for protecting the interests of the state, society, and individuals in cyberspace is defined by the Law of Ukraine "On the Fundamental Principles of Ensuring Cybersecurity of Ukraine"[1], which is also not without its drawbacks. As digital transformation is one of the priorities of modern development, Ukraine is taking effective steps towards the global digital environment. Thus, on 17 January 2018, the Government approved the Concept for the Development of the Digital Economy and Society of Ukraine for 2018–2020, and on 03 March 2021 – the Concept for the Development of Digital Competencies. At the same time, the rapid development of digital technologies encourages the improvement of forms and methods of "digital crime"[2].

Europol's analytical report "Internet Organised Crime Threat Assessment (IOCTA), 2018" (Europol, 2018) states that an effective tool for prompt detection and further localisation of criminal groups' activities in cyberspace is the creation of databases on cybercrime and its criminological state. Other important components of successful counteraction to organised cybercrime should be technical support of authorised entities, including constant updating of licensed software to detect malware and new business models of cybercrime, involvement of IT specialists in counteraction measures, international digital integration, regulation of interagency information exchange, and application of best practices in countering crime in foreign countries with developed digital economies.

■ Conclusions

The legal regulation of this activity, primarily national legislation that is in line with current socio-political realities and international practices, has an important impact on the organisation of countering organised crime. Ukraine, along with other countries, is trying to introduce new ways and mechanisms to combat organised crime and is gradually updating its national legislation. The results of the analysis of certain regulations in terms of their potential impact on the organisation of countering organised crime show both positive developments in this area and indicate legal gaps that need to be addressed. The new laws create legal grounds for law enforcement agencies and special purpose state bodies to use the latest forms, methods, and means of countering intelligence and subversive, terrorist, sabotage, and other illegal activities of organised criminal groups, primarily in the context of full-scale armed aggression against Ukraine. Gaps in anti-crime legislation slow down democratic processes and create preconditions for further criminalisation of the key areas of state functioning. The most substantial gaps include incomplete and sometimes absent legal provisions that should regulate the implementation of effective anti-corruption programmes, criminal, and administrative liability for violation of the sanctions policy, and criminalisation of intelligence and subversive activities carried out through organised criminal groups.

As of 2023, the regulations governing the law enforcement intelligence, counterintelligence, anti-terrorism, anti-corruption, and criminal procedural activities of law enforcement agencies need to be improved. It is also urgent to accelerate the implementation of the Europol Serious and Organised Crime Threat Assessment (SOCTA) methodology in Ukraine, the full implementation of the Convention on Cybercrime and the implementation of the provisions of the National Strategy for Combating Organised Crime, which emphasises, among other things, the need for a permanent comprehensive analysis of the causes and conditions under which organised criminal groups emerge and develop, and strengthen their activities.

Further research on this topic should be focused on defining the current system of actors involved in countering organised crime, the list of their powers and principles of interaction, the specifics of counteraction measures under martial law, and the organisation of international cooperation with law enforcement agencies of NATO member states.

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None.

■ Conflict of Interest

None.

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Правове регулювання протидії організованій злочинності в Україні: сучасний стан і напрями вдосконалення

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■ **Анотація.** Актуальність наукового дослідження зумовлена необхідністю розроблення конкретних пропозицій з удосконалення законодавства у сфері протидії організованій злочинності на сучасному етапі. Мета статті – на основі виявлених прогалин у правовому регулюванні протидії організованій злочинності визначити шляхи його вдосконалення з огляду на сучасні соціально-політичні реалії та міжнародні практики. Дослідження вирішує ці питання за допомогою системи загальнонаукових і спеціальних методів наукового пізнання: аналізу, синтезу, аналогії, порівняння, узагальнення, контент-аналізу, а також формально-юридичного, порівняльно-правового та системного методів. Результати аналізу правового регулювання протидії організованій злочинності в Україні засвідчують наявність суттєвих прогалин у національному законодавстві, що створює передумови для подальшої криміналізації найважливіших сфер функціонування держави, передусім в умовах воєнних дій, що тривають на території країни. У статті акцентовано на низці проєктів законів, положення яких спрямовані на посилення спроможностей суб'єктів протидії організованій злочинності та матимуть позитивний вплив на усунення причин й умов її існування. Доведено, що вагоме значення має модернізація кримінального, кримінального процесуального, антикорупційного, оперативно-розшукового та контррозвідувального законодавства, а також удосконалення правових актів у сферах боротьби з тероризмом і санкційної політики. Аргументовано необхідність пришвидшення імплементації в Україні методології Європолу з оцінки загроз тяжких злочинів та організованої злочинності щодо можливості стратегічного бачення вразливих для кримінального впливу суспільно-політичних сфер. Доведено, що важливою передумовою ефективної протидії злочинності є реалізація положень Стратегії боротьби з організованою злочинністю, що стосуються створення стабільного й системного законодавства для впровадження нових методів і механізмів протидії. Практичне значення роботи полягає в тому, що отримані результати дослідження можуть слугувати підґрунтям для вдосконалення правового регулювання протидії організованій злочинності в Україні як загрозі її національній безпеці, насамперед під час дії правового режиму воєнного стану

■ **Ключові слова:** національна безпека; правоохоронна діяльність; протидія злочинності; організоване злочинне угруповання; тероризм; санкції

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Possibilities of applying artificial intelligence in the work of law enforcement agencies

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■ **Abstract.** In the context of the development of neural networks and the legality of their use, the substantiated need to analyse the capabilities of artificial intelligence in the work of law enforcement agencies and to protect society from crime becomes increasingly relevant. The purpose of this study was to characterize the use of artificial intelligence in law enforcement, specifically, its impact on the level of crime, its detection and investigation, and the overall efficiency of law enforcement agencies. Using the comparative legal method, the author assesses various approaches to the use of artificial intelligence and analyses scientific representations of this issue based on the dialectical method. The terminological and normative-dogmatic methods helped to investigate the interpretation of the term "artificial intelligence" in modern scientific discussions and to give an axiological assessment of this phenomenon. The systemic-structural and formal-logical methods helped to consider the specific features of introducing artificial intelligence into law enforcement at the present stage. The study highlights the impact of artificial intelligence tools on the efficiency of law enforcement agencies, and substantiates the need to introduce regulations at the state level to avoid the risks of using artificial intelligence in law enforcement considering European integration. It is argued that the use of artificial intelligence to protect society from threats should follow the internationally established principles of its responsible use, which has not yet been prescribed in law. The risks of using artificial intelligence for human safety were highlighted. The study identified the main trends, problems, and prospects for the introduction of artificial intelligence in law enforcement. International practices in the use of artificial intelligence tools were updated. The results of this study can be used in the development of state policy in the field of artificial intelligence, development of legal regulation of its use, integration of artificial intelligence into the activities of state bodies, including law enforcement agencies

■ **Keywords:** information technology; crime prevention; risk avoidance; use of artificial intelligence; legal regulation; offences; digital technologies

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Introduction

Improvements in digital technologies have facilitated their introduction into various areas of human life. Artificial intelligence has become one of the leading areas of their development. Robotics, the Internet of Things, big data, cloud infrastructure, augmented reality glasses, etc. are modern capabilities that help professionals solve their tasks quickly, efficiently, and functionally. Technical achievements in artificial intelligence are one of the most promising and undiscovered areas of development of information systems and technologies that successfully help law enforcement agencies around the world. Intelligent security systems controlled by command centres, combined with video surveillance systems, are effective in preventing crime and deterring acts of terrorism. The introduction of artificial neural networks in law enforcement naturally contributes to its efficiency and automation of routine law enforcement actions.

A review of recent studies shows that the introduction of artificial intelligence into law enforcement is a considerable tool for combating crime, a means of improving its efficiency and implementation. This was emphasised by M. Karchevskyi (2023), who noted the importance of classifying artificial intelligence and its legal regulation. Furthermore, the author examined the possibilities of using weak artificial intelligence and the prospects for a strong type of artificial intelligence. The characterisation of these technologies and their role in combating crime was the subject of a study by V.V. Holina & S.S. Shramko (2020), who noted that law enforcement agencies are tasked with monitoring many people potentially prone to commit crimes, which is why it is so important to introduce the latest technologies into law enforcement. M.I. Maietnyi (2021) analysed the evolution of AI and the introduction of artificial neural networks in law enforcement and the legality of their use, emphasising that they can become an effective tool for combating corruption and organised crime. The reverse side of this issue was considered by O. Radutnyi (2017), who noted that the achievements of artificial intelligence can be used to commit crimes in the field of information relations or directly threaten the interests of human and society. S. Matuliene *et al.* (2022) considered the use of digital technologies through the lens of European integration processes, highlighted gaps in the regulatory framework for their use, and outlined areas for its improvement. According to scientists who investigate and highlight the essence of artificial intelligence and its impact on all spheres of life, including law enforcement, it is increasingly capable of autonomously detecting suspicious activities (Rademacher, 2019), countering cyberattacks (Trifonov *et al.*, 2018), predicting crimes (Elsherif, 2021), and capturing a criminal at the crime scene (Becker *et al.*, 2022).

Despite a considerable number of scientific studies on the possibilities of artificial intelligence in law enforcement, which are of scientific and practical importance, the subject under study stays open for discussion of the effectiveness of artificial neural networks, investigation of the legality of their use and the need to introduce a legal framework that would regulate the legality of the use of digital technologies in law enforcement.

The purpose of this study was to analyse the effectiveness of artificial intelligence in law enforcement to solve and investigate crimes, to reduce the workload of law enforcement officers and minimise professional risks, and its impact on expanding the methods of combating crime. Tasks of this study: to formulate, based on scientific research, substantiated generalisations regarding the use of artificial neural networks in law enforcement; to provide recommendations on the legality of artificial intelligence in law enforcement.

Materials and Methods

The following scientific methods were used to investigate the topic: terminological, systemic and structural, dialectical, comparative legal, formal-logical, and regulatory and dogmatic. The term “artificial intelligence” was studied using the terminological method. The system-structural method was used to determine the classification of artificial intelligence and formulate a holistic approach to the totality of its means. The dialectical method was used to cover the discourse of scholars on the legality of the use of artificial intelligence in various spheres of life, including law enforcement, and to summarise the fundamentally important conclusions. That is why this method provided an opportunity to compare views and arguments for and against the use of artificial intelligence in law enforcement. The comparative legal method helped to assess different approaches to the use of artificial intelligence in Ukraine and internationally, and to formulate an opinion on the legal framework for the use of artificial intelligence in various countries, which will facilitate international cooperation in this area. Using the formal logical method, the study analysed the systematic approach to the introduction of artificial intelligence into law enforcement. The method helped to define the limits and criteria for the use of artificial intelligence, considering the prediction of negative consequences and the possibility of minimising them. The normative-dogmatic method helped to outline the importance of artificial intelligence for law enforcement in the detection and investigation of offences and provided arguments for the irreversible development of smart technologies.

The theoretical framework of this study included the research y such scholars as V.V. Holina & S.S. Shramko (2020), K. Blount (2022),

T. Rademacher (2019). In drafting this paper, the legal acts of Ukraine and the European Union that prescribe the development of artificial intelligence technologies were used, namely, the Order of the Cabinet of Ministers of Ukraine approving the Concept of Artificial Intelligence Development in Ukraine[1], EU Digital Europe Programme (2021-2027) (n.d.), which allows enterprises to introduce digital technologies, develop leading digital skills and expand digital infrastructure, to which Ukraine has also joined, the Civil Code of Ukraine[2], the Law of Ukraine "On the National Police"[3], the Law of Ukraine "On Personal Data Protection"[4], the Order of the Ministry of Internal Affairs of Ukraine No. 357 "On Approval of the Instruction on Organisation of Response to Applications and Reports of Criminal, Administrative Offences or Events and Prompt Informing in the Bodies (Units) of the National Police of Ukraine" dated 27.04.2020[5], the Order of the Ministry of Internal Affairs of Ukraine No. 1026 "On Approval of the Instruction on the Use of Technical Devices and Technical Facilities with Photo and Film Filming and Video Recording Functions by Police Bodies and Units" dated 18.12.2018[6].

Results

In the scientific community, the concept of artificial intelligence (AI) and the legitimacy of its use is a matter of debate not only in the EU but also in Ukraine. The Concept for the Development of Artificial Intelligence in Ukraine defines it as "an organised set of information technologies that can be used to perform complex tasks by using a system of scientific research methods and information processing algorithms"[7]. The main purpose of the entire security sector is to make society safer (Vermeeren *et al.*, 2021). For law enforcement agencies, digital technology programmes increase efficiency, facilitate data management processes, and enhance capabilities that deliver a range of benefits to public safety and criminal justice. For example, road safety systems detect violations and notify the authorities, identifying offenders. Facial recognition is becoming increasingly popular as an AI application. Its technologies help law enforcement agencies to make decisions and perform tasks in general, increase efficiency or expand opportunities for certain actions or choices (Roksandic, *et al.* 2022). The use of such systems helps to improve law enforcement control over urban space, disciplines citizens, and increases their level of comfort. The overwhelming majority of all regional preparatory meetings for the 14th United Nations Congress on Crime Prevention and Criminal Justice (United Nations, 2021), which took place in Japan in 2020, stressed the importance of law enforcement officers' skills in applying information and communication technologies, including big data, in the fight against crime.

V.V. Holina & S.S. Shramko (2020) emphasise the importance of five technologies that can be used by the police in combating crime. The first of these methods is to use big data in mapping to predict the geographical areas that have the highest crime rates. The Internet of Things helps law enforcement agencies collect data through video surveillance in public places. The police have access to massive amounts of data, which enables them to better understand social trends, predict potential crime, and act in a more targeted and rational manner. Regarding the use of drones, their effectiveness lies in constant surveillance and maintenance of law and order without the involvement of individuals, searching for missing persons, investigating fatal accidents, tracking suspected criminals, etc. Using just one drone can reduce crime rate by 10%.

Thanks to advances in high technology and the development of the infrastructure of large cities, systems are becoming smarter and can transmit information in real time. This helps to detect crimes instantly in hot pursuit, predict future crime scenes and increase patrolling. The use of facial recognition and number plate scanning to identify people and cars makes augmented reality glasses useful for law enforcement. This allows law enforcement agencies to easily identify and detain individuals they suspect of committing crimes. Although the use of this technology is still at an experimental stage, it is hoped that in the near future, smart augmented reality glasses

[1] Resolution of the Cabinet of Ministers of Ukraine No. 1556-p. "On Approval of the Concept of Artificial Intelligence Development in Ukraine". (2020, December). Retrieved from https://zakon.rada.gov.ua/laws/show/1556-2020-%D1%80#Text.
[2] Civil Code of Ukraine. (2023, September). Retrieved from https://zakon.rada.gov.ua/laws/show/435-15#Text.
[3] Law of Ukraine No. 580-VIII "On National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.
[4] Law of Ukraine No. 2297-VI "On the Protection of Personal Data". (2010, June). Retrieved from https://zakon.rada.gov.ua/laws/show/2297-17#Text.
[5] Order of Ministry of Internal Affairs of Ukraine No. 357 "On Approval of the Instruction on the Organization of Response to Applications and Reports of Criminal, Administrative Offences or Events and Prompt Informing in the Bodies (Units) of the National Police of Ukraine". (2020, April). Retrieved from https://zakon.rada.gov.ua/laws/show/z0443-20#Text.
[6] Order of Ministry of Internal Affairs No. 1026 "On Approval of the Instruction on the Use of Technical Devices and Technical Facilities with Photo and Video Recording Functions by Police Bodies and Units". (2018, December). Retrieved from https://zakon.rada.gov.ua/laws/show/z0028-19#Text.
[7] Order of the Cabinet of Ministers of Ukraine No. 1556-p. "On Approval of the Concept of Artificial Intelligence Development in Ukraine". (2020, December). Retrieved from https://zakon.rada.gov.ua/laws/show/1556-2020-%D1%80#Text.

will become part of regular police equipment (Holina & Shramko, 2020).

Notably, the police, within its competence, applies preventive measures and coercive measures defined by the Law of Ukraine "On the National Police"[1] (Article 31, Item 9), and therefore, sometimes it may deviate from the norms of the Civil Code of Ukraine[2]. According to this Article, a police officer is entitled to use preventive measures, including means that have the functions of photography, film, and video recording. For example, researchers at the University of Cambridge found that police officers wearing body cameras had 93% fewer complaints from the public, as video recording increases accountability on both sides (Holina & Shramko, 2020). It is also natural that the use of AI in today's law enforcement activities to detect and investigate offences is one of the most promising and progressive areas of development of information management systems and technologies.

For example, the use of robots and drones in law enforcement helps law enforcement agencies around the world to more effectively detect crimes (e.g., illegal mining of natural resources and minerals; illegal logging; areas illegally sown with hemp); video recording of traffic violations, road accidents (Kaskad automatic road control system); face recognition and verification with a database; data collection during explosions, fires, natural disasters), simplifying their work, and protecting police officers from accidents and excessive aggression. An example of the use of neural networks in law enforcement is the information and telecommunication system "Information Portal of the National Police of Ukraine" (IPNP), a set of hardware and software tools designed to process information that is part of the unified information system of the Ministry of Internal Affairs of Ukraine[3].

The 14th United Nations Congress on Crime Prevention and Criminal Justice emphasised the importance of intensifying the use of emerging digital technologies, such as AI and information and communication technologies, including the use of big data in the fight against crime. Departmental specialised intelligent information systems were created: for the police – automated fingerprint information systems (ADIS Sonda, Dacto-2000, Morpho – France, Printrak – USA, NEX – Japan, etc;) for the Border Guard Service – integrated information and telecommunication systems "Arkan" and "Hart"; for the Customs Service – multifunctional integrated information system "Electronic Customs" (Tvoroshenko, 2016). The introduction of programmes such as Kasandra and geographic information systems (GIS) into the work of Ukraine's law enforcement agencies enables them to meet international standards. In practice, law enforcement agencies are already actively using digital video surveillance technologies to search for offenders: face recognition, illegal mining, amber, deforestation; auto-fixation; automated hot pursuit systems; security systems that can recognise hacking threats, call emergency services, and carry out environmental design to create safer areas.

In 2020, the Ministry of Justice of Ukraine officially introduced Kasandra software with AI elements (Artificial intelligence will help..., 2020). Kasandra analyses the personality of the offender and determines the possibility of repeated violations of the law. Practitioners praise this software, which is one of the tabs of the unified register of convicts and detainees, which includes risk and needs assessment. Kasandra helps police officers to assess the probability of a new crime being committed, automates the description of criminals' personalities, and assesses the probability of breaking the law. Over time, Kasandra will learn to analyse all the data available on the criminal.

Some countries have long been using automatic face recognition software systems. Scientific developments (Becker *et al.*, 2022) show that high accuracy of face recognition is achieved through biometric parameter index technologies. In 2019, only 18 such cameras operated in the Safe Kyiv Region ("Bezpechna Kyivshchyna") system (Ukraine). As of 2023, there were 1,883 CCTV cameras in operation, of which 480 could recognise vehicle licence plates and 905 were view cameras. Spatial face recognition uses a 3D sensor to capture information about the shape of the face to detect characteristic features (A video surveillance system with..., 2023). Back in 2019, EUAM organised drone management training for 16 officers of the criminal support departments of the National Police of Ukraine (The police expand the..., 2019). Such special aerial reconnaissance groups were planned to be established in every region of Ukraine.

In 2023, police attention is focused on the growing need for a reliable criminal identification system that is efficient and cost-effective for mass use. N. Mittal & R. Singh (2022) propose a system consisting of advanced hardware and software that can considerably improve the accuracy and reliability of a criminal identification system by incorporating machine learning and artificial intelligence. Verification through AI-blockchain helps to achieve end-to-end encryption, timestamps, and legitimacy verification (Mittal & Singh, 2022).

[1] Law of Ukraine No. 580-VIII "On National Police". (2015, July). Retrieved from https://zakon.rada.gov.ua/laws/show/580-19#Text.
[2] Civil Code of Ukraine. (2023, September). Retrieved from https://zakon.rada.gov.ua/laws/show/435-15#Text.
[3] Order of the Ministry of Internal Affairs of Ukraine No. 676/БД "On Approval of the Regulation on the Information and Telecommunication System "Information Portal of the NP of Ukraine". (2017, August). Retrieved from: https://zakon.rada.gov.ua/laws/show/z1059-17#Text.

Since the use of AI in the legal system provides a great opportunity to effectively detect, solve, and counteract offences, countries in North America, Europe, and East Asia are investing heavily in its development. This is becoming a key element of success in international markets. Detecting and tracking crimes contributes to the effectiveness of law enforcement agencies in preventing and investigating offences. A positive experience of using AI in law enforcement is the use of a geographic information system (GIS). These scientific developments allow not only tracking people and vehicles, but are also useful at customs, in preventing riots, terrorist attacks, and ensuring security at concerts or other crowded places (The role of GIS..., 2019).

The combination of model images of territories (space and aerial images of the earth's surface, electronic maps, diagrams) has become possible thanks to modern computer technology. This greatly simplified the search for the offender. AI is used in the fight against terrorism by locating criminals. Analysing social media posts, phone calls, and locations are commonly used methods of detecting and investigating crime. For example, Evolv Technology's AI-based security system, which operates through the Evolv Pinpoint app, uses face recognition and functions like a conventional metal detector. The capacity is 600-900 people per hour (Maietnyi, 2021). The built-in camera compares the visitor's face with the faces in the watch list uploaded to the system's databases. The information and photo of this person are displayed on the security tablet, marked in red. The yellow highlighting indicates an unverified threat, and the profile is verified in real time within seconds. According to M.I. Maietnyi (2021), to ensure centralised monitoring and surveillance in smart cities, it is necessary to use artificial neural system programs, cameras, and motion sensors to monitor order in crowded places, to predict dangerous situations, and to recognise the faces of criminals.

The use of artificial intelligence in the development of analytical tools helps to identify the characteristics of modern criminals, which contributes to their timely detection and prediction of criminal intentions. This makes it possible to effectively counteract them, and that is why it is appropriate to use the existing system of crime prevention through environmental design, which is a programme of manipulating built-up areas of cities to create safer areas. The Crime Prevention Through Environmental Design (CPTED) programme was invented in 1960 by criminologist C. Ray Jeffery. It is thanks to CPTED that modern research on burglary prevention has moved to a qualitatively new level (Monchuk *et al.*, 2019). Conventional conceptions of crime fighting, according to K. Blount (2022), often oppose the police to the person, known or unknown, who is responsible for the crime. However, due to the increasingly rapid development of technology, police are prioritising crime prevention, making it necessary to identify who or what group of people might be the next likely offender before a crime is committed, which is known as predictive policing (Blount, 2022). This position of the scholar is well-reasoned, since the widespread use of various variants of this system has been observed in Western Europe and the United States since 2010. Notably, Time magazine proclaimed predictive policing as one of the 50 best inventions of 2011 (Wilson, 2018).

It is quite natural that to use "predictive policing" in modern law enforcement, the areas of this activity should be defined. G.G. Fuster (2020) believes that the effectiveness of this system will be to predict criminal offences and persons who commit or are likely to commit (or re-commit) them; to create profiles of such persons, considering the characteristics of already identified offenders; to predict the probability of victims of criminal offences. It can be argued that AI expands the possibilities of crime prediction, prevention, and detection. M.I. Maietnyi (2021) believes that for its effectiveness, radar, and laser location devices (e.g., LIDAR) should be used. The precision of this technology makes it possible to map large geographical areas with a level of detail that was previously possible only at excessive cost. M.I. Maietnyi (2021) provides several examples of the use of artificial neural networks in foreign countries. In Dubai, border guards have equipped airports with a system for detecting undeclared items. The UK has created its own system of preventive measures due to the considerable number of accidents caused by phone use while driving, while in Australia, such drivers are monitored by road cameras. The photograph is the basis for the charge of violation.

China is actively using the latest digital technologies as an effective tool in the fight against organised crime, including corruption. The Zero Trust functional system developed by the Chinese Academy of Sciences detects suspicious transactions involving the alienation or acquisition of property, illegal construction, and enrichment. Access to 150 secure databases makes it possible to analyse the behaviour of civil servants (Maietnyi, 2021). A robotic police officer has appeared at a railway station, and apart from controlling the order, it also communicates with passengers. They also use "smart glasses" that help to identify a criminal much faster. The Chinese political authorities plan to build an artificial intelligence industry with a turnover of USD 150 billion by 2030. The main function of AI should be to combat crime. The most ambitious development of Chinese scientists, according to V. Maietnyi (2021), is the Police Cloud system, which is supposed to collect information from shopping histories in retail chains, food delivery orders, and hospital visits during which DNA

samples are collected (Maietnyi, 2021). A "real-time forensic centre" that predicts the possibility of committing crimes and determines the "potential degree of threat" from individuals was opened in 2017 in California (Maietnyi, 2021).

Ukraine's active involvement in the world's best practices of implementing smart technologies by the national authorities is a positive indicator that gives hope for the introduction of advanced methods of crime prevention and combating in the country. In 2020, Ukraine established an expert committee on artificial intelligence under the Ministry of Digital Information and drafted a Concept for the Development of Artificial Intelligence[1]. Due to the considerable increase in the impact of smart devices on people's lives, the use of AI-based smart home applications is forecast to grow by 50%. Cisco drew attention to this[2]. However, full automation of the home space is still a task for the future. To solve conventional crime problems, modern law enforcement practice uses the strategy of "Predictive policing" (Yurtaieva, 2020). The main idea is to use the ability to analyse and process substantial amounts of information using artificial intelligence technologies. This helps to create reasonable forecasts to optimise the use of available resources and perform police tasks.

Discussion

The recorded features of the specifics of the use of neural networks indicate that the collection and accumulation of large amounts of data are fundamental to the detection of offences and the detention of criminals. Therefore, it is only natural that the use of AI tools is caused by a special social need to protect the rights and freedoms of citizens. But its use has a common prerequisite – safety and legality. This is the legal approach followed by K. Yurtaieva (2020), M. Demura & D. Klepka (2022) and others, emphasising the legality and morality of AI application.

Over the past five years, cybersecurity has moved from the stage of cybercrime to the stage of cyberwarfare (Trifonov *et al.*, 2018). In response to the new challenges, the expert community has two main approaches: to adopt the philosophy and methods of military intelligence and to use artificial intelligence methods to counter cyberattacks. The Technical University of Sofia has implemented a project related to the use of intelligent methods to improve security in computer networks. The analysis of the feasibility of using various artificial intelligence methods showed that it is impossible to identify a method that would be equally effective for all stages of cyberintelligence. While a multi-agent system has been selected and experimentally tested for tactical cyberthreat intelligence, recurrent neural networks are proposed to be used for operational cyberthreat intelligence (Trifonov *et al.*, 2018). International experience also proves that AI algorithms perform tasks more accurately, quickly, and cheaply. However, the modernity of this method has added some ambiguity in determining its legal nature and legality (Elsherif, 2021).

Given the research conducted by scientists, one can agree that the impact of neural networks on humanity has been understudied. Therefore, in further development of AI and the development of a regulatory framework, priority should be given to avoiding the risks of its use. To this end, society must control all processes of development of these technologies and their legal framework. The use of mainly national technologies will ensure the independence of the state, considering the European integration trajectory of digital technology development and the prospects for its use in law enforcement (Matuliene *et al.*, 2022).

Given all the risks of using AI in human life, the European Parliament plans to adopt a common regulatory framework for AI as an element of its product regulation by the end of 2024 (Polikovska, 2023). The draft law is the world's largest attempt to address the potentially harmful effects of artificial intelligence. Specifically, members of the European Parliament decided to classify the following systems as dangerous: biometric identification in public places; biometric classification systems based on socio-economic status; emotion recognition systems in law enforcement, border control, workplace and educational institutions; systems that can create databases of faces based on processing images from cameras in public places, etc. The search for a missing child, prevention of a terrorist threat, and detection or prosecution of a perpetrator or suspect in a criminal offence are defined as exceptions to the use of neural networks.

However, according to O. Etzioni (2016), it is still unclear how effective any regulation of AI can be. Modern technology capabilities are emerging faster than lawmakers can address them. Furthermore, according to the scientists, only a few researchers are concerned with the problem of controlling artificial intelligence, while hundreds of thousands are involved in its creation. Therefore, the question of how realistic it is to control AI risks stays open.

According to O. Karmaza & T. Fedorenko (2021), the use of neural networks is complicated by the fact that its concept, types (forms), principles, conditions, and rules of application are still undefined at the legislative level and are only the subject of theoretical discussions. International recommendations and

[1] Resolution of the Cabinet of Ministers of Ukraine No. 1556-p. "On Approval of the Concept of Artificial Intelligence Development in Ukraine". (2020, December). Retrieved from https://zakon.rada.gov.ua/laws/show/1556-2020-%D1%80#Text.
[2] Ibidem, 2020.

legislation do not provide concrete answers to some important questions in the field of artificial intelligence. On the other hand, scholars emphasise that international law and foreign doctrines are also relevant. That is why the development of regulatory frameworks and laws that would regulate the use of AI in Ukraine is now a topical issue (Karmaza & Fedorenko, 2021). However, the creation of a legal framework in this area requires a unified approach to understanding the nature of artificial intelligence, which is not yet available. This creates uncertainty for AI in the legal, social, and moral and ethical spheres. This leads to the existence of diverse opinions on the legal aspects of AI, its benefits, threats, and risks among legal experts. There are also discussions about the recognition of legal personality of artificial intelligence robots. More importantly, scientists and practitioners have not reached a consensus on the need to develop effective mechanisms for the implementation of legal liability in the context of AI use.

However, according to M. Demura & D. Klepka (2022), scientists and practitioners express consolidated opinions on the use of artificial technologies in the legal environment at scientific and practical conferences in the form of recommendations and protocols of intent. Therefore, the regulatory and conceptual uncertainty of AI requires their approval at the state level, as its potential is used for complex priority legal tasks in law enforcement. The principal areas of its implementation are various software, including databases, registries, and smart contracts. But the main thing is that AI should be socially oriented, meeting the interests of human security, preserving personal space, will, and consciousness. Rapid changes in public life have a fundamental impact on the modernisation of the neural systems of domestic law enforcement agencies. This includes, for instance, the Integrated Interagency Information and Telecommunication System for Controlling Persons, Vehicles, and Cargo Crossing the State Border (Maietnyi, 2021). Now, artificial neural networks are not without their drawbacks. M. Demura & D. Klepka (2022) believe that since artificial intelligence operates only with information that is known in advance, in some cases its work may be incomplete. If the offender has not previously had any contact with law enforcement agencies, their data will not be included in the database. As a result, the programme may underestimate its threat to society. It is reasonable to believe that the powerful development of neural systems also leads to the transformation of crime and its use of these technologies to commit cyberattacks (Demura & Klepka, 2022). Technology is increasingly being used by criminals in the field of information relations, producing growth and new types of crime.

S. Matuliene *et al.* (2022) also notes the use of digital technologies in criminal activities, emphasising the need for "close" attention to the security needs of AI: its reliability, transparency, and fairness. Especially when the effects of innovative technologies are unpredictable (Matuliene *et al.*, 2022). Modern researchers believe that one of the tasks of criminology is to understand how artificial intelligence is related to crime. It is becoming part of various aspects of criminal, police, and security strategies (Hayward & Maas, 2020). The key issue is to ensure that no innocent person is accused or convicted because of the misuse of artificial neural networks. NATO's AI Strategy, adopted in October 2021 (NATO Meetings..., 2021), considers AI as an opportunity to achieve technological advantage, but also as a source of threats from malicious use. That is why the world has developed universal principles for the responsible use of artificial intelligence as a defence against threats: legality, responsibility, and accountability, explicability, and traceability.

Conclusions

The analysis of the types, methods and classification of AI and its application in law enforcement makes it possible to summarise and characterise the use of modern technical neural information networks in this area of activity. The study examined the experience of using digital technologies in law enforcement activities of foreign countries. They are most effectively used in the US, Japan, China, and Germany. These are the countries that are actively using artificial neural technologies to fight crime and terrorism, improve cybersecurity, and ensure the inviolability of citizens' privacy and freedoms. It is important that their activities in this area are also aimed at raising public awareness of the legal and ethical standards of these media. International experience in the use of neural networks proves that their algorithms process big data more accurately, can analyse a large amount of information in the shortest possible time, and can achieve highly accurate results with less risk to system employees. This makes it possible to argue for the importance of expanding European cooperation to improve the application of these technologies. At the same time, the findings of this study strongly suggest that artificial intelligence tools not only increase the operational efficiency of the police, but also have risks in their use. Therefore, the issue of developing a regulatory framework for the use of artificial neural networks that would ensure the legitimacy of AI and prevent its adverse impact on humans stays urgent. Specifically, it is necessary to define the legal status of artificial intelligence, the regulatory framework for its application in various industries, the system of control over its creation, operation, and use, and outline strategic directions for the development of AI. All of these rulemaking areas are based on European standards, rules, and recommendations.

New unique developments in artificial neural networks require in-depth cooperation between practitioners and research centres, modernisation of the information system of all law enforcement agencies to enable them to use advanced digital technologies to process large amounts of data, improve the efficiency of law enforcement and ensure the safety of citizens, and minimise the risks of adverse consequences. Scientific conflicts are also caused by the lack of specificity in the definition of artificial intelligence in the legal sphere, since the different interpretations do not always consider modern achievements, challenges, opportunities, and prospects for the development of digital technologies. This violates legal relations in the government.

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Conflict of Interest

None.

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Можливості застосування штучного інтелекту в роботі правоохоронних органів

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■ **Анотація.** В умовах розвитку нейронних мереж і законності їх застосування актуальності набуває обґрунтована необхідність аналізу можливостей штучного інтелекту в роботі правоохоронних органів та убезпечення суспільства від злочинності. Мета статті – схарактеризувати застосування штучного інтелекту в правоохоронній діяльності, зокрема його вплив на рівень злочинності, її викриття та розслідування, загальну ефективність правоохоронних органів. За допомогою порівняльно-правового методу надано оцінку різним підходам до застосування штучного інтелекту, на підставі діалектичного проаналізовано наукові репрезентації цієї проблематики. Термінологічний та нормативно-догматичний методи дали змогу дослідити тлумачення поняття «штучний інтелект» у сучасних наукових дискусіях, дати аксіологічну оцінку такому явищу. Системно-структурний та формально-логічні методи допомогли розглянути особливості впровадження штучного інтелекту в правоохоронну діяльність на сучасному етапі. За результатами дослідження висвітлено вплив засобів штучного інтелекту на ефективність діяльності органів правопорядку, а також обґрунтовано необхідність упровадження на державному рівні нормативних документів для уникнення ризиків застосування штучного інтелекту в правоохоронній діяльності з огляду на євроінтеграцію. Аргументовано, що застосування штучного інтелекту як захисту суспільства від загроз має відповідати сформованим на міжнародному рівні принципам його відповідального використання, яке досі нормативно не закріплено. Виокремлено ризики застосування штучного інтелекту для безпеки людей. Визначено основні тенденції, проблеми й перспективи впровадження штучного інтелекту в правоохоронну діяльність. Актуалізовано міжнародний досвід застосування засобів штучного інтелекту. Результати дослідження може бути використано під час формування державної політики у сфері застосування штучного інтелекту, розроблення правової регламентації його використання, інтеграції штучного інтелекту в діяльність державних органів, зокрема правоохоронних

■ **Ключові слова:** інформаційні технології; протидія злочинності; уникнення ризиків; використання штучного інтелекту; правове регулювання; правопорушення; цифрові технології

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Discretion and electronic communications markets: O-RAN perspective

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■ **Abstract.** In the period of post-war reconstruction, an urgent issue for Ukraine will be the issue of integration into the supranational infrastructure of the European Union, including the electronic communications industry. Given the above, the research aims to reveal the impact of discretion on a digital single market in the electronic communications area. Using the dialectical general philosophical method, a current era of discretion in a post-industrial society, which is closely associated with a large-scale digitalization of all processes of building new models of technical solutions in the context of revolutionary standalone, evolutionary non-standalone, compromise approaches, is presented. Using the specific scientific system-structural method, the structure of the Open Radio Access Network framework for the convergence of the electronic communications market, such as open internal RAN stack interfaces (HTTP Live Streaming; Lan-Like Switching), open Northbound interfaces (management, optimization, orchestration), open interfaces for hardware and software disaggregation (vRAN functions running on Network Functions Virtualization Infrastructure), was demonstrated. The evolution of RAN has gained special attention in the context of openness and virtualization, using the general scientific formal empirical method of comparison, based on a combination of Open Radio Access Network and Cloud Radio Access Network regarding vRAN as a key enabling technology. The practical value of the results is that key issues of legal policy and the prospects of its coordination with revolutionary transborder processes of building a coherent GAIA-X network ecosystem based on a new generation communication technology have been revealed, including privacy, justice and non-discrimination, responsibility, consistency with human rights

■ **Keywords**: connectivity; digitalization; network ecosystem; tracking; legal policy

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Introduction

The current era of post-industrial society is closely related to the large-scale digitalization of all processes of building a new cross-border model of the electronic state. In the period of post-war reconstruction, an urgent issue for Ukraine is, in particular, the issue of integration into the supranational infrastructure of the European Union, including the electronic communications industry. For the effective implementation of this process, it is important to use relevant discretionary tools for ensuring the formation and development of the electronic state, which, of course, are electronic communications. During such activities in the electronic communications market, a set of processes begins regarding the establishment, implementation, and development of electronic communications to meet the needs and interests of the state and society, specific users of the electronic communications networks and consumers of the electronic communications services.

The establishment and implementation of the economic process management policy, in particular, in the industrial dimension, as well as the organizational and legal mechanisms for regulating the functioning of the electronic communications market, remains an unresolved issue. The main part of activities in the electronic communications market has a discretionary nature, as it provides free discretion of operators or providers on the appropriate exercise of their powers. Therefore, disputes regarding the implementation of the competence of authorized entities, as well as regarding the guarantees of technical security, protection of personal data and the interoperability of systems might arise.

At the national level of research activities regarding the use of electronic communications, the latest approaches have the following directions: digital transformation; operation of the "rule of law" principle; specifics of management; and procedural issues. For example, L. Shymchenko (2022) studied the indicators of communications effectiveness in the context of digitalization. At the same time, the approach is not fully covered, considering how exactly electronic communications contribute to the digital transformation of Ukraine and how to ensure the implementation of the national European integration policy. O.P. Metelev (2022) outlined the possibilities of using electronic communications during the administration of justice.

The Ukrainian doctrine is quite detailed regarding the application of the "rule of law" principle, in particular, in the context of implementing legislation on electronic communications. A. Donchenko & O. Petryshyn (2023) interpret this principle as the basis of democracy, including the use of electronic communications during the functioning of the media, as described by S. Burlakov (2020). V.M. Lazebnyi (2021) highlighted the regulations for the use of electronic communications during information removal. V.B. Marchenko (2023) detailed implementation features of electronic commerce under the provisions of the Law of Ukraine "On electronic communications"[1]. However, the issue of harmonizing Ukrainian legislation on electronic communications with the latest European regulatory practices, as well as the legal approaches of supranational judicial authorities, requires additional attention. The managerial dimension of the administrative telecommunications law functioning has been clarified by O.S. Fedorenko (2021) and R. Shchupakivskyi (2019). The issue of cross-border cooperation within the framework of the interaction of electronic communications markets needs further clarification.

The research aims to reveal technological and legal aspects of the O-RAN functioning in the context of defining clear limits for exercising discretionary powers by the participating subjects of the electronic communications market.

Materials and Methods

General philosophical, scientific, and specific methods were used to describe theoretical and practical issues of digitization as a strategic factor in the unity of the content component and external form of reflection related to increasing efficiency and productivity from using digital technologies and social transformation.

A formal-legal method as the specific research method was used to outline the gradual integration of all spheres of state and public life in the digital universe in terms of globalization, harmonization, decentralization, and empowerment. The dialectical general philosophical method was used to highlight the digitalization in the electronic communications area as the mechanism (platform) of the information society, the internal market of information and communication technologies via the build-up of efficiency and productivity from the use of digital technologies, ensuring equal opportunities for everyone to access information, knowledge and services, increasing confidence and security in using information and communication technologies. This legal category was studied based on the general research method of formalization as discretionary, characterized by such features as reliability, appropriate quality, and quantity, as well as ease of use and universal access to digital services. The axiomatic general research method was used to describe the

[1] Law of Ukraine No. 1089-IX "On Electronic Communications" (2020, December). Retrieved from https://zakon.rada.gov.ua/laws/show/1089-20.

adequacy of pricing policy, considering the interests of the maximum number of consumers (users).

A deductive method as the general research method of theoretical research was used to outline a large-scale expansion of the digital technologies scope among the subjects of private law; the service orientation, speed of response to the needs of the consumer (user), including the update of digital services and their use in real-time; the adaptability of digital services to the needs of local technological ecosystems.

Accordingly, the general research method of unity of historical and logical was used to clarify the features of national and transboundary legal policies regarding the discretion on a digital single market consistent with the revolutionary cross-border processes of institutionalizing a coherent network ecosystem based on 5G and 6G. In this regard, the comparative legal and system-structural methods were used to prioritise technological convergence, economies of scale, convergence of access and formation of metro-networks through the architecture of a switched packet via Voice over IP technology, synchronization of time-division multiplexing transmission systems, a set of consolidated broadband services such as "triple" and "quadrilateral" service (considering the addition of mobile communication). Empirical general methods of observation, description and comparison were used to outline the normative provision of spatial integration of the electronic communications markets, based on updating the corresponding legal framework in terms of the use of electronic communications through infrastructure shifts, i.e. the introduction of machine communication through the prism of creating conditions for advanced high-speed mobile broadband communications, universal availability of the latter, public anonymity and high reliability.

A hypothetical method has provided an opportunity to formulate recommendations regarding a GAIA-X network ecosystem functioning, considering the necessity to secure the tracking processes and guarantee personal status.

■ Results and Discussion

In 2018, 5 mobile carriers collaborated to launch the O-RAN Alliance (O-RAN Alliance Continues…, 2020), which has already united operators and providers worldwide, e.g., from China, Taiwan, Japan, United Kingdom, India, Germany, etc (44 Chinese companies have…, 2020). Major European Operators (Deutsche Telekom AG, Orange S.A., Telefonica S.A., and Vodafone Group Plc) are supporting the rollout of Open RAN (Major European operators accelerate…, 2023). Italian operator TIM (Telecom Italia Mobile) has also joined this initiative (Tomas, 2021) of collaboration to transform the Radio Access Network. As of September 2023, 13 countries have signed a Memorandum of Understanding, 11 have implemented a commercial launch of such an initiative, 10 are at the pre-commercial stage, 7 are in deployment, and 11 are in testing. Open Test and Integration Centres are located in the countries of America and Asia.

O-RAN structuring framework has instrumental and procedural characteristics. It could be considered as a dynamic category in the electronic communication market's convergence. In its technical dimension, it deals with openness and virtualization based on a combination of ORAN and Cloud RAN regarding vRAN as a key enabling technology. From its legal perspective, international legal sources for the regulation of relations in the area of electronic communications (international conventions, international treaties and agreements, directives) are to be primarily taken into account regarding the legal status of public administration, operators and providers (electronic communications operators and providers of electronic communications services), entities receiving services in the area of electronic communications (consumers and/or users), as well as the protection of individual rights and freedoms.

Software implementations of functionality might be considered one of the key factors of change during the implementation of the O-RAN framework (Hanselman, 2019), considering the technological base, software, communication speed, and data protection capabilities (Parallel Wireless, 2020). An Open vRAN is built to accelerate 5G Open RAN deployments. The xRan was designed for this task, which is now incorporated into O-RAN. ORAN defines the interfaces at the level, that which 3rd Generation Partnership Project does not (Third Generation Partnership Project Agreement, 2007). O-RAN does define interoperable profiles for F1 that have been defined for the 5G HTTP Live Streaming.

Technical solutions could have the following areas of discretionary implementation (Fig. 1): revolutionary standalone approach, based on the packet core, providing the latest services with ultr a-minimal delay, in particular, network segmentation, a new set of services with minimal delay for restructuring of technological solutions; evolutionary non-standalone approach with the development of existing technologies and products, possible simulation in combination with the "shake" approach, but with deteriorating quality or bandwidth service capabilities; compromise approach. It is important to consider the gold and millimetre frequency bands within the global map and synchronization, as well as the real effects and implementation problems. Radio network design involves stopping innovation from suppliers, and telecom industry leaders, and using open-source developments to collaborate.

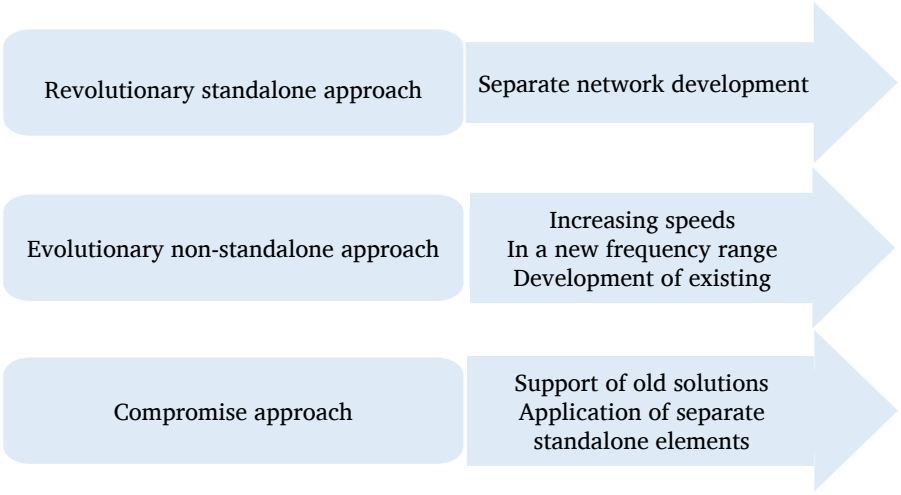

Figure 1. Discretionary implementation of technical solutions
Source: compiled by the author based on current technical solutions

O-RAN concerns the flexible architecture, being interoperable, with split and deployed layers with open communication (Kazemifard & Shah-Mansouri, 2021). O-RAN allows multiple architectural options. ORAN defines interfaces between various modules. These interfaces are fairly generic and could be used internally within a "box" if required. A primary advantage of ORAN is the possibility of innovation within the module. For a transboundary dimension, virtualized central unit server requirements are essential, regarding high central processing unit intensive, medium intensive, low storage intensive, high (SRIOV) input/output intensive, possible crypto hardware acceleration, no timing support, virtual machine, hardware-based container for virtualization, law environment constraints (standard indoor form factor compute, cases, temp hardening, Network Equipment-Building System compliance).

It is possible to form an intermediate conclusion that within the O-RAN common transport infrastructure. There are no solutions for hybrid automatic repeat request timing limit in 5G New Radio. Fronthaul is to have a minimum bandwidth usage even with no user equipment traffic. The constraint is to be on the operation of the random-access channel window, which could be set to 10ms. Fronthaul requires strict synchronization phase accuracy, but cluster relative sync could be used.

5G applications might be based on the cloud virtual reality regarding the appropriate quality of experience in "vertical" services, including the use of the Non-Real-Time RAN intelligent controllers and Near-Real-Time RAN intelligent controllers. As such, the O1 interface collects data for training in Non-Real-Time RAN intelligent controllers. The central unit software module helps support data provisioning to Near-Real-Time RAN intelligent controllers and Non-Real-Time RAN intelligent controllers and executes quality of service enforcement decisions from Near-Real-Time RAN intelligent controllers. The machine learning models about the multidimensional data could be trained offline in a Non-Real-Time RAN Intelligent Controller. The model inference is to be executed in a Near-Real-Time RAN Intelligent Controller. The Non-Real-Time RAN intelligent controllers could apply the A1 quality of service policies to re-allocate RAN resources via the same service and Near-Real-Time RAN intelligent controllers could implement these policies on central units / distributed units through the E2 interface (Li & Akman, 2020). Frontal security is a discussed issue. Some operators deploy IPSec on backhaul, as well as for Midhaul. The deployment strategy of IPSec on xHaul varies a lot from one part of the world to another. IPSec could be a useful tool for control and management messaging. The use of security encapsulation will vary on the level of trust the operator has in its infrastructure.

Convergence processes eliminate differences between the Anglo-Saxon and continental systems of law (Mykhailina & Hotsulyak, 2021). A legal framework is to be formed for adopting architectural decisions, using the resources and the latest technologies based on dynamic topology through the prism of consumer-oriented activities of government structures within the electronic communications industry (smart terminals, cloud technologies, personalized media centres, etc.). Accordingly, supranational law, as part of the regulation of activities of the subjects of the electronic communications market, objectively appears as the universal pluralistic regulatory order for their behaviour. The described model allows for establishing formalized criteria at the normative level for the effective use of electronic communications in the conditions of public and private life digitalization. There are rules of law on electronic communications relating

to the recognition of legal facts (validation rules) and those that establish conduct standards in the light of law-making facts, including conflict of laws, interpretations, and rules of logic operations (the rules of legal facts exegesis).

Within the GAIA-X initiative (an initiative that develops, based on European values, digital governance that can be applied to any existing cloud/edge technology stack to obtain transparency, controllability, portability and interoperability across data and services), it is crucial to adhere to the provisions of completion and antitrust law. The European Union Digital Markets Act is a legislative proposal that covers gatekeeper platforms and their obligations, data sharing between gatekeepers and business users (avoiding discrimination within the gatekeeper platform; data sharing obligations with business users inside the platform; data sharing with business users outside the platform); anti-competitive behaviour (tying and bundling, self-preferencing); advertising; app stores; mergers and merger policy (effects of mergers and acquisitions in the digital world, pre-emption, synergies, innovation); enforcement and the information gap between platforms and regulators; fair platform behaviour[1]. For the GAIA-X network ecosystem, regulations on anticompetitive behaviour and self-preferencing are exceptionally important.

The risks for GAIA-X and O-RAN ALLIANCE members of non-conforming with Regulation 2016/679[2] (General Data Protection Regulation) and the CLOUD Act[3] also remain. One such risk, concerning global processing services under supra-regional agreements, is data controllers' functioning, etc (Rojszczak, 2020). This issue is particularly relevant, as tracking is often about the status of persons or their geolocation, as well as data from digital certificates often used in mobile applications. This is a restriction on the fundamental conventional rights and could lead to the disclosure of pseudonymised data, especially if the information systems are centralized and/or if the information is released publicly.

It is advisable to preserve the essence of the rights and freedoms of individuals using this traditional three-part test, with an emphasis on the proportionality of such intervention. According to the ECtHR's settled case law, to determine the compliance of a measure with the principle of legality, it is necessary to analyse three criteria (Fig. 2): 1) whether such a measure is lawful (provided by national law); 2) whether the purpose of such a restriction is legitimate; 3) whether such a measure is proportional to the goal (ensures a fair balance between the interests of society and the need to respect the fundamental rights of the individual). If at least one of these criteria is not met, the ECtHR finds that the state has violated Article 1 of Protocol No. 1 to the Convention for the Protection of Human Rights and Fundamental Freedoms[4]. The aforementioned case does not adhere to such criteria. The following principles are breached: privacy; justice and non-discrimination; responsibility; and consistency with human rights.

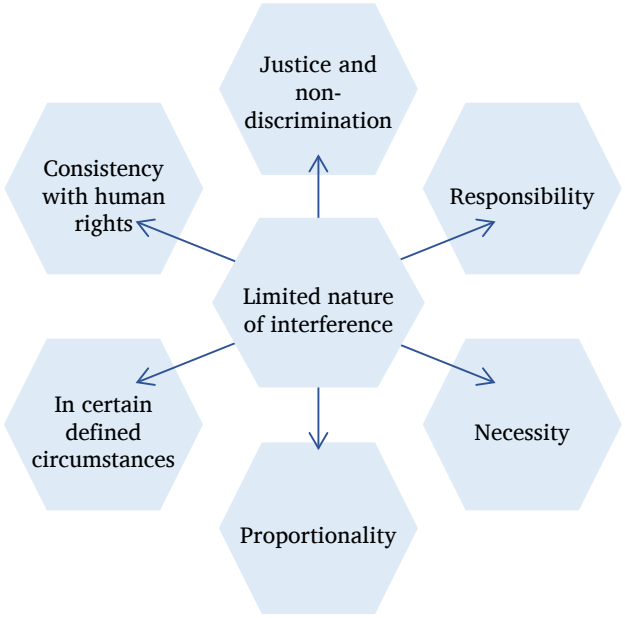

Figure 2. Guaranteeing the personal status within the tracking processes
Source: compiled by the author based on case law (Breyer v. Germany, 2020)[5].

However, requiring personal data from mobile operators does not always violate the right to privacy. The European Court of Human Rights has stated in the case "Breyer v Germany" that the interference

[1] Proposal for a regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act). (2020, December). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020PC0842.
[2] Regulation (EU) 2016/679 "On the Protection of Natural Persons Concerning the Processing of Personal Data and the Free Movement of Such Data (General Data Protection Regulation)". (2016, April). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679.
[3] The Clarifying Lawful Overseas Use of Data Act (CLOUD Act). (2022, December). Retrieved from https://www.eurojust.europa.eu/publication/cloud-act.
[4] European Convention on Human Rights. (1952, March). Retrieved from https://www.echr.coe.int/documents/d/echr/convention_ENG.
[5] Case of Breyer v. Germany App No. 50001/12. (2020, January). Retrieved from http://hudoc.echr.coe.int/eng?i=001-200442.

might be of a limited nature regarding certain defined circumstances (paras 61, 95, 100, 103)[1]. The state is to take care of a certain balance between the means of influence, an adequate assessment of illegal actions and the goal to be achieved. The principle of proportionality must ensure that an appropriate balance is struck between any adverse effects that might be caused by the rights, freedoms, or interests of the parties to the legal relationship, as well as the objectives of the actions. The principle of proportionality provides for the use of means proportionate to the objectives pursued, ensuring, through measures taken, a clear balance between the public interest and the interests of individuals. Disclosing personal data and its use for any kind of research is unlawful.

Consequently, the relevant conditions for the digitalization of the electronic communications market and protection of the rights, freedoms, and legitimate interests of consumers of the electronic communications services (users), the rights and legitimate interests of operators and providers of electronic communications are to be institutionalized. From the organizational and legal perspective, this point of view means that the conditions for the entry of the national market segment to the cross-border electronic communications space are formed by streamlining the procedures for the cooperation of subjects of the electronic communications law.

Prospects for implementing artificial intelligence in the context of electronic communications functioning are related to the possibility of digitizing the identity of the law enforcement officer. It is about creating the "core" of a single ecosystem of artificial intelligence at the national and supranational levels for decision-making based on the best personal and professional qualities of a person from the gene pool of nations and a computer as a system of interconnected information. Such models and algorithms will allow, through prognostic and evaluative cognitive activity, to simulate the processes of conscious human activity while working with various objects of the subject area and other individuals. The final decision is to be made in the symbiosis of human and artificial intelligence. The representation of the pairing of the interaction of people and technology is considered optimal at the current stage of the global development of mankind. Such a possibility of introducing artificial intelligence during the exercise of discretionary powers is a constructively solvable uncertainty and a completely solvable variation (Fig. 3).

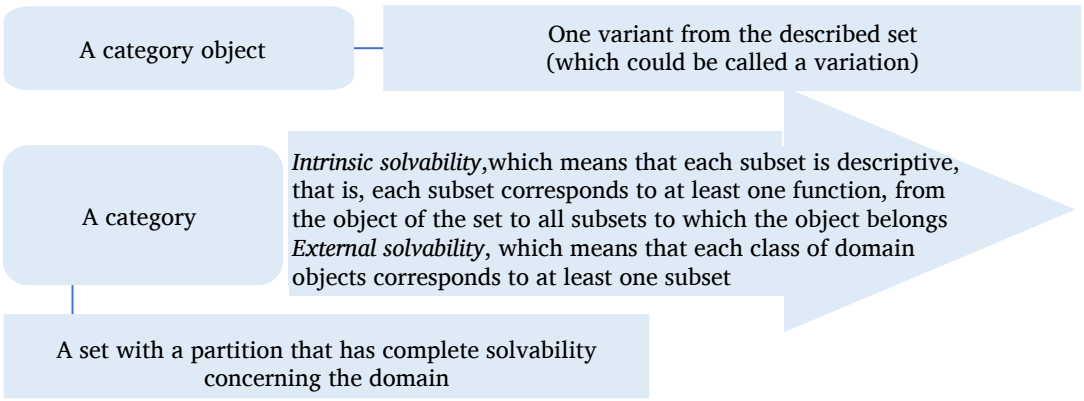

Figure 3. Introducing artificial intelligence during the exercise of discretionary powers
Source: developed by the author

On 9 June 2020, the Council of the European Union presented its Conclusions on shaping Europe's digital future[2]. Considering the provisions of this regulatory act, an urgent issue in the context of using the latest technologies of electronic communications is the creation of such an infrastructural environment where digital sovereignty and security are guaranteed, risks are minimized, conditions for connectivity are created, and post-crisis issues, which stand before humanity, will be resolved. It is about the formation of strategic international digital value chains and the provision of common European Union values that contribute to sustainable development, the institutionalization of fair competition on a global scale, autonomy, and transparency in the behaviour of subjects of the electronic communications market, as well as promoting human rights and fundamental freedoms, considering the position of the state, civil society, and scientific community.

[1] Case of Breyer v. Germany App No. 50001/12. (2020, January). Retrieved from http://hudoc.echr.coe.int/eng?i=001-200442.
[2] Council conclusions on Shaping Europe's Digital Future. (2020, June). Retrieved from https://www.consilium.europa.eu/media/44389/st08711-en20.pdf.

Thus, a challenge, which needs an urgent solution to achieve a substantial boost, is the attraction of investments, recovery planning, and the development of high-impact infrastructure projects, in particular, in the cross-border format, which will create conditions for the leadership of the European electronic communications market in the global dimension based on innovation and creativity. Considering the deployment of European Union-wide Gigabit networks, it is also important for Ukraine to reformat electronic communications markets appropriately, focusing on both global scale standards and national digital capacity to guarantee all-inclusive access to high-capacity digital infrastructures based on value chains. An important aspect of both legal policy and research activities is the formulation of a coordinated approach for members of the European and Ukrainian communities, both regarding the common framework for the functioning of electronic communications markets and ensuring cybersecurity during 5G and 6G deployment.

At the current stage of developing the electronic communications market in national and supranational dimensions, a scientific and practical discussion aims to evaluate the impact of the legal provisions on the electronic communication markets convergence, in particular, using empirical general methods of observation, description and comparison regarding the inextricable connection of such convergence with the transitional digitalization process. The main goal of scientific guidance is to advocate for public policies that support the development and implementation of open and interoperable technological solutions in the electronic communications market that are not only innovative but also secure, including wartime calls, in particular for the use of radio frequencies. The discussion on relevant practical technical solutions deals with ensuring convenience, universality, distribution, as well as observability and rationality of behaviour, transformation via virtualization through platforms in real-time, with dynamic updates from agency programs based on a combination of documentary and technical parts. It is about standard interfaces and network architecture for a decomposed, virtualized, open, and intelligent system.

The contemporary doctrine on digitization, including the electronic communications area, outlines the use of the legal and algorithmic normative systems, researched by P. Friedl (2022) in the Anthropocene, described by A. Camacho (2023) when controlling market power in the digital economy, which has been outlined within the digital services act. A characteristic feature of the European doctrine is the support of a practically established position regarding the adoption of a comprehensive regulatory act on electronic communications. The systematized normative act on electronic communications is to cover the scope of application, objectives, and principles; the institutional framework; the rules on market entry; the end-users rights; the obligations aimed to stimulate competition; the rules on universal service and must-carry (de Streel & Hocepied, 2021). It is worth agreeing with F. Liberator & J. Konidaris (2021) who single out such sources of law as treaties and conventions, regulations, directives, decisions, recommendations, communications, and notices, considering the proper cases. In the latest studies, special attention is paid to the "soft law" in the regulatory process to comply with European expectations (Sulev, 2020).

The positions, proposed in this study regarding the technical characteristics of ORAN are supported by doctrinal approaches considering the minimum delay function placement and resource allocation in mobile networks (Kazemifard & Shah-Mansouri, 2021). S.F. Schwemer *et al.* (2021) noted that the current liability exemption regime is to focus on transmission in, or access to, a communication network, as well as storage. In the context of the provisions of the ORAN Alliance outlined in the article, could partially support the outlined approaches, but consider the risks of excessive freedom in the electronic communications market. In the conditions of the digital economy, A. Camacho's (2023) conclusion is to be considered relevant regarding the essential requirement to pay attention to ethical and service circumstances for the use of mobile networks concerning adaptive law, in terms of the latest technological revolution and the aggravation of armed aggression.

One can agree with P.I. Colomo (2022), considering the market analysis procedure as the ideal of future-proof regulation with the ability to adapt to the economic and technological evolution of the industry. The approach of the integral "social" policy in establishing the digital society and economy deserves special approval regarding the balance between the "access rights and protection" and the "industrial policy" for the producers (Ruck, 2020). The author's development of this approach relates to the formulation of the comprehensive practice of the electronic communications market participants' behaviour, in particular, in the context of interpersonal relations, the introduction of artificial intelligence into the information and technical systems of operators and providers, as well as for security solutions. It is necessary to consider such privacy issues when using mobile applications as contact tracing, and use of personal data, on the one hand, as well as restrictions that violate interoperability on the other.

Particularly, O. Kokoulina (2023) deals with digital contact tracing regarding key subjects, technical processes, and data protection. The balance between privacy and transparency is a top issue against data exploitations by online platforms with a zero-price business model, which A. Toth (2023) has proven.

It is worth considering the opinion of researchers about the feasibility of reconciling transparency and privacy, particularly, in CLOUD Act agreements (Rojszczak, 2020) and tracing apps (Kokoulina, 2023). For Ukraine, the outlined approaches are extremely relevant, since the post-war reconstruction concerns, in particular, cross-border integration of electronic communications markets. This process requires coordinated regulatory regulation, management practices, and interoperability of networks and services.

Conclusions

The legal policy related to digitalization concerns the introduction of 5G and 6G in the transition to a discretionary technological mode. It is a whole ecosystem that can ensure the development not only of the communications industry but of the country's welfare as a whole, in particular, through revolutionary change. Key issues of coordinating the legal policy with revolutionary transborder processes of building a coherent GAIA-X network ecosystem refer to applying a new generation of communication technologies in the context of guaranteeing security and trust, system federalism, transparency and openness, digital sovereignty, opportunities for development and introduction of innovations to achieve a balance between the harmonization of the regulatory array in the area of electronic communications, the performance of rights and legitimate interests of the subjects of the electronic communications market and ensuring the synchronism of this process.

O-RAN architecture is truly open, covering accessible internal RAN stack interfaces (HTTP Live Streaming, Lan-Like Switching), open Northbound interfaces (management, optimization, orchestration), open interfaces for hardware and software disaggregation (vRAN functions running on Network Functions Virtualization Infrastructure). The baseline interoperability is guaranteed, but vendors can differentiate on top of that baseline. The O-RAN licence conditions enable such augmentation to their YANG models. O-RAN has a common transport infrastructure for all traffic types, allows any-to-any connectivity for evolved 5G architecture requirements and defines distributed unit (including radio) categories that determine transport latency.

The prospects for conducting additional research are intricately linked to the multifaceted technical and legal aspects surrounding the operational dynamics of a GAIA-X network ecosystem, which is founded upon cutting-edge next-generation communication technologies. Moreover, there is a compelling need to address and ensure the robustness of tracking processes and safeguard the personal status of individuals, particularly in the context of acquiring data sourced from digital certificates.

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Conflict of Interest

None.

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Дискреція та ринки електронних комунікацій: перспектива O-RAN

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■ **Анотація.** У період післявоєнної відбудови актуальним питанням для України буде, поміж інших, питання інтеграції в наднаціональну інфраструктуру Європейського Союзу, зокрема в галузь електронних комунікацій. З огляду на зазначене, метою статті було виявлення впливу дискреції на єдиний цифровий ринок у сфері електронних комунікацій. З використанням діалектичного загальнофілософського методу представлено сучасну еру дискретності в постіндустріальному суспільстві, яка тісно пов'язана із широкомасштабною цифровізацією всіх процесів побудови нових моделей технічних рішень у контексті революційного автономного, еволюційного неавтономного, компромісного підходів. Із застосуванням конкретно-наукового системно-структурного методу продемонстровано структуру O-RAN (відкритої мережі радіодоступу) для конвергенції ринків електронних комунікацій: відкриті внутрішні інтерфейси стека RAN (комунікаційний протокол для потокової передачі медіа на основі HTTP; комутація, схожа на локальну мережу), відкриті північні інтерфейси (керування, оптимізація, оркестровка), відкриті інтерфейси для дезагрегації апаратного та програмного забезпечення (функції vRAN, що працюють на інфраструктурі віртуалізації мережевих функцій). Розвиток RAN привернув увагу в контексті відкритості та віртуалізації з використанням загальнонаукового формального емпіричного методу порівняння на основі поєднання ORAN і Cloud RAN, причому vRAN розглянуто як ключову технологічну технологію. Висвітлено головні питання правової політики та перспективи її узгодження з революційними транскордонними процесами побудови цілісної мережевої екосистеми GAIA-X на основі комунікаційних технологій нового покоління, з огляду на приватність, справедливість і недискримінацію, відповідальність, узгодженість з правами людини. Практична цінність дослідження полягає в можливості використання запропонованих автором рекомендацій у сфері державного регулювання електронних комунікацій

■ **Ключові слова:** зв'язність; цифровізація; мережева екосистема; відстеження; правова політика

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Electronic evidence as a means of proof during the pillage investigation

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■ **Abstract.** The electronic evidence has become one of the key components of criminal investigations. The use of digital evidence allows investigating not only criminal offences against the property, environment, etc., but also offences committed during the war and invasion. Since the beginning of the large-scale invasion of Ukraine, the number of pillage cases, which became known from open sources of information, has increased. The purpose of this study was to investigate the problematic issues of using digital evidence in the pillage investigation. The methodological basis was general scientific methods of cognition, namely, scientific abstraction, deduction and induction, extrapolation, and logical generalisation. The paper examines pillage among other war crimes in the context of determining the concept, composition of a crime, and the admissibility of digital evidence during the pillage investigation of this crime. The urgency of solving problematic aspects related to the pillage investigation, primarily in the context of a full-scale war in Ukraine, is substantiated. The pillage is separated from other crimes against property committed under martial law or a state of emergency. The problems of terminology are considered and approaches to the qualification of criminal offences committed under martial law, including shortcomings in law-making, are outlined. It is proposed to amend the Criminal Procedure Code of Ukraine, defining the requirements for electronic evidence during the investigation of pillage. The practical significance of the study lies in the fact that such tools can be used for further research on the use of the digital evidence as a means of proof in the pillage investigation, as part of the development and improvement of legislation in this area

■ **Keywords:** digital criminalistics; information sources; digitalisation; criminal offence; war crimes; martial law

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Introduction

The hostilities on the territory of Ukraine have shown how important electronic tools for searching and collecting information are for investigating criminal offences. One of the types of such criminal offences is pillage. In this situation, the entire legal system of Ukraine is faced with new challenges that need to be solved by forensic means. To establish the fact of pillage, it is necessary to collect, investigate and submit evidentiary information to the court. In the process of proof, electronic evidence is of great importance, which can be recorded by technical means.

The use of electronic evidence has become increasingly important in the pillage investigation, as modern technologies and the digital environment have a significant impact on crimes of this nature. Attackers can leave traces in the form of electronic data on computers or mobile devices, such as: text messages, email, photos, videos, social networks, etc. Law enforcement agencies can analyse this data to get important information about the crime and possible persons involved in it. Many places where the pillage takes place are equipped with video surveillance systems. Video recordings can serve as the important evidence, revealing the crimes and identifying intruders by their appearance or movements. The correct use of the electronic evidence can significantly increase the effectiveness of the investigation and help to identify and bring to justice the perpetrators of pillage.

The problems of this topic are the specifics of pillage, the existing traces of this offence, the features of identifying the perpetrator, the insufficient use of technical means, etc. In addition, under martial law, it becomes more difficult to collect and record evidence. One of the new areas of forensics, digital forensics, is gaining importance. This industry allows developing effective tools for investigating criminal offences, especially those committed under martial law, the occupation of territories, or armed conflicts, when there is a limited access to the scene of an accident or when it is impossible to get there at all.

O. Predmestnikov *et al.* (2023) expressed concern that Ukraine, having been at war for more than a year, does not use all available means of the protection, including non-ratification of the Rome Statute of the International Criminal Court, which makes it difficult to implement some of the decisions of this international body. S. Depauw (2018) analysed the role of digital evidence in criminal cases in European Union countries, drawing attention to the collection of electronic evidence, in particular content data, for criminal justice in Europe. K. Latysh (2022) investigated the use of digital forensics during the war. The researcher proposed requirements for digital evidence and considered all the aspects of martial law.

H. Mamedov (2022) found out how digital forensics and electronic evidence were used to record traces of war crimes in Bucha. Satellite images were able to prove the involvement of Russian servicemen in the killing of civilians and that mass graves appeared during the occupation. O. Yanovska (2022) highlighted the fact that the procedure for collecting and recording electronic evidence must necessarily involve a computer technology specialist. According to the recommendations developed by the National Academy of Internal Affairs, computer technology specialists can help an investigator identify, collect and record the necessary electronic evidence. In addition, a significant amount of information is located on the internet, which can potentially, under certain conditions, be used as evidence of military and other criminal offences (Latysh, 2022).

Therefore, the purpose of this study was to investigate the possibilities of electronic evidence in the investigation of criminal offences related to pillage during the martial law.

Materials and Methods

The study used a complex of general scientific and special methods. These include, in particular, methods of formal logic, namely synthesis, analysis, deduction, induction, abstraction, and analogy. With the help of these methods, the content of the issues under study was clarified in detail in order to deepen their understanding. In particular, it was possible to establish the essence of the concept of "pillage" and other related issues. The concept of pillage and its interpretation were studied using the Criminal Code of Ukraine. In particular, the issue of the admissibility of electronic evidence in the pillage investigation in various research papers was investigated. The paper considered the state of use of electronic evidence in criminal proceedings in foreign countries. In addition, research in the legal sciences should be based on three components. Legislative and regulatory – requires selecting, studying, and analysing all laws and regulations in the field of criminal law. The second component is the practical component. It is necessary to investigate the practice of using electronic evidence in the criminal offences related to pillage. In the third, it is also important to investigate theoretically and analyse scientific sources that raised the issue of the electronic evidence, and pillage during the war.

The descriptive and analytical method allowed interpreting legal categories, formulating definitions, and outlining the procedure for collecting the electronic evidence during the pillage investigation. The comparative legal method was used in the comparison of concepts and scientific research, the opinions of researchers on the concept of digital evidence, their belonging and admissibility, and was also used in the analysis of the current Criminal Procedure Code

and other legislative acts. Due to this method, a distinction was made between pillage and other crimes against property committed during martial law.

This method helped to classify and identify the features of the subject under study, to develop mechanisms for determining the admissibility of electronic evidence during the investigation of pillage. The specific sociological method allowed studying the opinions and views of researchers on the issues under study, allowed identifying and solving some practical and theoretical problems, and formulating recommendations for improving legislation in the field of admissibility of electronic evidence. The statistical method was used to summarise the results of studying the materials of criminal proceedings on the investigation of war crimes, in particular, pillage during martial law, and to substantiate the theoretical provisions of the work with statistical data. They have been collected on the number of war crimes since the start of the full-scale invasion and the percentage of crimes related to pillage was determined. The methods of forecasting and modelling were used to develop proposals for improving certain provisions of the legislation.

The methodology of using electronic (digital) evidence in the investigation of pillage under the martial law includes a set of procedures, principles, techniques, and methods of research in this area. It is based on a dialectical method of cognition of phenomena and processes, the main principles of which are consistency and complexity.

Results

The pillage is often referred to in the media as the open or secret theft of property by a person during a war. However, according to the legislation, theft of private homes, premises, vehicles, shop premises, etc. is not the pillage. The Criminal Code of Ukraine (hereinafter – CC) defines pillage as a military criminal offence, that is, it can only be committed by military personnel. According to Article 432 of the CC, pillage is the theft of things on the battlefield that belong to the dead or wounded[1]. Article 432 of the CC defines two clear criteria for qualifying pillage as a criminal offence. Firstly, there is a clear location for the commission of this crime – a theft of property on the battlefield (that is, the area where military operations are being conducted or once conducted, and this also includes the area that is under fire from military equipment). Secondly, the theft of personal belongings that are located near the dead or wounded. This applies to personal belongings, not those that can be used in future to conduct hostilities. Therefore, this offence applies only to military personnel, not civilians, and only if it is committed on the battlefield. When certain illegal actions are aimed at seizing things for the purpose of their own profit without the above-mentioned circumstances, then they cannot qualify as the pillage and relate to other criminal offences. Thus, it is inappropriate to apply the concept of "pillage" to persons who have committed a criminal offence under the martial law, but not on the battlefield and are not military personnel (Table 1).

Table 1. Differentiation between the concepts of "pillage" and "theft"

Pillage	Theft
Concept: Theft of items on the battlefield that belong to the dead or wounded (Article 432 of the Criminal Code) **Subject:** Serviceman **Place of commission:** Battlefield **Subject:** Private property of the wounded or killed persons	**Concept:** Secret theft of property (Article 185 of the Criminal Code)[2] **Subject:** Natural person of sound mind who has committed a criminal offence **Place of commission**: Any locality **Subject:** Private property, military supplies, firearms, etc.

Source: developed by the authors

The use of electronic evidence can be an important tool in the pillage investigation. The electronic evidence is information in electronic form that contains data on circumstances relevant to the case: electronic documents (text documents, graphic images, plans, photographs, video and sound recordings, etc.); websites; text, multimedia and voice messages; metadata, databases, etc., in electronic form. Such data can be stored, in particular, on portable devices (memory cards, mobile phones, etc.), servers, backup systems, and other places where data is stored in the electronic form (including on the Internet) (Sabadin, 2021).

The Office of the Prosecutor General is the main body that has taken over the coordination of

[1] Criminal Code of Ukraine. (2001, April). Retrieved from https://zakon.rada.gov.ua/laws/show/2341-14#Text.

[2] Ibidem, 2001.

war crimes investigations since Russia's invasion of Ukraine. As of December 2022, prosecutors recorded 62,128 war crimes, including 60,387 (97.20%) violations of the laws and customs of war – Article 438 of the CC[1], in which 135 persons were served with a notice of suspicion. The rest is propaganda of war, genocide, waging aggressive war, sabotage, propaganda, pillage, and other crimes (About registered criminal..., 2022).

The main types of electronic evidence in the investigation of pillage can be:

1. Video and photo evidence: videos and photo recordings can show the facts of pillage, show the persons involved in the crime, or record other details. Such evidence can be obtained from surveillance cameras, mobile devices of witnesses, or social networks.

2. Electronic communications: email, social media messages, SMS messages, and other forms of electronic communication may contain important information about criminals, their accomplices, or their plans.

3. Online footprints: pillage can have an electronic footprint in the form of activity on websites, forums, social networks, etc. Such data can provide important information about the actions and motives of criminals.

For the successful use of the electronic evidence in the pillage investigation, it is necessary to carry out a proper procedure for collecting, analysing and preserving evidence so that it remains complete and reliable. The decision of the Joint Chamber of the Criminal Court of Cassation of the Supreme Court of 29.03.2021 in case No. 554/5090/16-k (proceedings No. 51-1878kmo21)[2] explained how the electronic evidence is evaluated and whether different versions of the same electronic document are considered admissible. According to the Law of Ukraine "On Electronic Documents and Electronic Document Management"[3], if an electronic document is stored on several electronic media, then each of these copies is considered original, and only the content of the electronic document is important, and not the medium on which it is stored (Sabadin, 2021).

With the help of effective digital forensics tools, the investigation of war crimes becomes much more effective, especially in war conditions, when there is often no access to the crime scene (Kostenko, 2019). Moreover, the Internet contains a large amount of information that can potentially be used as evidence of military criminal offences. The task of law enforcement agencies is to obtain this data stored on electronic media, which acts as a source of criminally significant information (Okpara *et al.,* 2023).

The main digital forensics tools that can help in pillage investigations are:

- analysis of satellite images;
- geolocation tag analysis;
- examination of publicly available video and photographic materials provided to the investigation;
- use of special software for image processing and analysis;
- monitoring of telephone conversations and email correspondence;
- use of a face recognition system and search for them in special databases (in Ukraine, the Clearview AI application for face recognition is used to identify criminals and the dead).

Notably, obtaining evidence from open sources of information is something new for the Ukrainian legal system. When searching for and recording such information, it can only become the electronic evidence under certain conditions. The Law of Ukraine "On Amendments to the Criminal Procedural Code of Ukraine and the Law of Ukraine "On Electronic Communications" on Improving the Effectiveness of Pre-Trial Investigation "On Hot Pursuit" and Countering Cyberattacks" changed the legal regulation of the use of digital evidence[4]. One of the changes was that the specialist received the right to provide explanations, consultations, and references. The current Criminal Procedure Code of Ukraine and the above-mentioned law do not describe the requirements that such a certificate must meet. It can be concluded that it will refer to documents as a source of evidence.

In addition, this law defined the possibility of taking readings from technical devices and means that have the function of photo and video recording from a person who is the owner or owner of such means or devices, in order to clarify the necessary circumstances of the case. Taking readings from these technical devices is carried out based on a decision of the investigator or prosecutor and, if necessary, an appropriate specialist is involved. This resolution must contain the following data: the number and name of the criminal proceedings, information about the owner of technical devices, the period of time for which readings from technical means should be taken. Analysing judicial practice, it can be concluded

[1] Criminal Code of Ukraine. (2001, April). Retrieved from https://zakon.rada.gov.ua/laws/show/2341-14#Text.
[2] Resolution of the Joint Chamber of the Criminal Court of Cassation of the Supreme Court No. 554/5090/16-K. (2021, March). Retrieved from https://verdictum.ligazakon.net/document/96074938.
[3] Law of Ukraine No. 851-IV "On Electronic Documents and Electronic Document Management". (2003, March). Retrieved from https://zakon.rada.gov.ua/laws/show/851-15#Text.
[4] Law of Ukraine No. 2137-IX "On Amendments to the Criminal Procedural Code of Ukraine and the Law of Ukraine "On Electronic Communications" on Improving the Effectiveness of Pre-Trial Investigation "On Hot Pursuit" and Countering Cyberattacks". (2022, March). Retrieved from https://zakon.rada.gov.ua/laws/show/2137-20#Text.

that the main sources of information about the perpetrators and organisers of criminal offences under martial law are mobile phones, laptops, tablets, photo and video cameras, social networks, e-mailboxes, search engines, etc. (Stefaniv, 2022).

One of the key problems of the investigation of war crimes in Ukraine is that the main provisions of the criminal procedure legislation regarding the regulation of the definition of digital evidence and the procedure for its collection, use, and examination in criminal proceedings do not meet the conditions of the present (Fil & Khoynatska, 2022). Therefore, considering current challenges, it is necessary to make additions and changes to Chapter 4 of the Criminal Procedure Code[1], which should provide for the definition of the electronic evidence and its source. It is also necessary to determine the criteria for the ownership and admissibility of electronic evidence. In addition, the procedure for detecting, searching, recording, seizing and storing electronic evidence during investigative actions needs to be regulated.

The cybersecurity strategy of Ukraine, which was approved by Presidential Decree No. 447/202 of August 26, 2021, determined that for strengthening the state in the field of cybersecurity, the legal settlement of the problem of electronic (digital) evidence is one of the key conditions[2]. These changes will improve the effectiveness of law enforcement officers' use of electronic databases and cyberspace in general for the purpose of comprehensive and impartial investigation of criminal offences committed during the martial law and pillage in particular (Shepitko & Shepitko, 2021).

Given the process of Ukraine's integration into the European Union, the experience of these countries in the use of the electronic evidence is important. Therefore, the Council of Europe has provided "Guidelines on electronic evidence" that describe in detail the process of obtaining and processing digital evidence. It also covers the basic principles that should be followed when collecting and processing digital evidence (Gisel *et al.,* 2020). These include: legality, appropriate training, data integrity, specialised support, and a control log. Considering these principles and the above research, the following basic requirements for electronic (digital) evidence can be proposed (Tosza, 2020).

Firstly, the information and data contained on electronic media should directly relate to the circumstances of the relevant criminal offence that is being investigated. Secondly, in order to the data to be truly reliable and authentic, it is necessary to carry out an appropriate verification procedure for these data. One of the most common and recommended is the Dublin Core Metadata Element Set. According to this document, a set of fifteen "core" elements is used. To describe resources, recipients, or developers of digital data must record the following once about digital information: author, reach, creator, date, description, format, identifier, language, publisher, relationship, copyright, source, subject, title, and type (Dublin Core metadata..., 1999). Special programmes and applications can be used to automatically capture metadata. For example, the "eyeWitness to Atrocities" camera app can be used, which allows capturing videos and photos with built-in metadata that cannot be changed later. This metadata shows where and when the photo and video material was taken and whether it was changed. These photos and videos are stored in the app's secure gallery, where they cannot be edited (Cerbo, 2021). Thirdly, digital evidence must have a tangible expression, i.e., be recorded on a technical medium (phone, flash drive, computer, hard disk, etc.). These media can be attached to the materials of criminal proceedings and then reproduced in the appropriate process. It is very important to determine the source of origin of such material and establish the video recording process.

By collecting information from open sources (social networks, news sites, blogs, etc.), it is possible to review photos and videos of pillage incidents. After the examination, the investigator should appoint a forensic portrait examination or an examination of photo, video, and sound recordings to identify the person who committed a criminal offence by voice, face, etc. (Riekkinen, 2019). To avoid any traces of editing or alteration of photo, video and audio recordings, a computer forensic examination should be appointed. In order to find out the value of the object of the encroachment, it is necessary to appoint a commodity expert examination. Things that are the subject of pillage can only be those objects of the material world in respect of which civil rights and obligations arise and which are related to ensuring the sphere of the private life of a person. These items may include watches, wedding rings, pendants, etc. (Lasaka, 2023).

Thus, one of the most important procedures in criminal proceedings related to the investigation of pillage is to conduct the above-mentioned examinations. The electronic evidence plays an important role in the modern justice, especially in the context of Ukraine's integration into the European Union. To ensure the reliability and authenticity of this evidence, it is important to follow principles that include legality, appropriate training, data integrity, specialised support, and the use of metadata. Such evidence

[1] Criminal Code of Ukraine. (2001, April). Retrieved from https://zakon.rada.gov.ua/laws/show/2341-14#Text.
[2] Decree of the President of Ukraine No. 447/2021 "On the Decision of the National Security and Defense Council of Ukraine Dated May 14, 2021 "On the Cybersecurity Strategy of Ukraine". (2021, August). Retrieved from https://zakon.rada.gov.ua/laws/show/447/2021#Text.

must have a tangible form on electronic media and be properly documented for use in court proceedings.

Discussion

Ye.O. Murzo (2023) investigates the specifics of the appointment and conduct of certain types of forensic examinations in the pillage investigation, divides electronic documents into several categories: 1) electronic documents contained on physical media; 2) electronic documents posted on the Internet; 3) electronic documents contained in special cloud services for storing information. K. Latysh (2022) studied digital forensics during the war. In particular, the researcher concluded that due to the rapid digitalisation, the role of digital forensics in the investigation of criminal offences has significantly increased. The global pandemic, frequent cyber-attacks, armed aggression, and information warfare have exacerbated the need to develop digital forensics. Generally accepted forensic scientific and technical means should be updated in accordance with the needs of the modern world, but at the same time, they should consider the requirements of the current criminal procedure legislation and international standards. This is especially true for the evidence that has been obtained and collected from publicly available sources, such as the Internet.

The authors of this study agree with this opinion, since digital forensics tools have helped to investigate pillage much more effectively. Digital forensics is of great importance in the investigation of pillage, as digital traces can provide valuable information about the crime and the persons involved (Wang & Liu, 2019). Digital forensics can include analysing social media, communication records, email, mobile phones, and other digital traces that can help identify looters (Marcello, 2015). Analysing these tracks can help identify how looters operate, their communities, and information about possible targets and plans. Criminologists can recover lost or deleted data from digital devices such as computers, mobile phones, or storage media (Abraha, 2020).

This may include recovering photos, videos, messages, or other digital evidence that can be used to identify individuals involved in pillage or establish their actions. They can also analyse network traffic passing through digital networks to identify pillage-related abuses. The use of computer vision and artificial intelligence algorithms allows forensic scientists to analyse photos and videos from surveillance cameras or mobile devices to detect pillage (Chan & Magotiaux, 2021). These tools help digital forensic investigators collect, analyse, and interpret digital data related to pillage. The use of these tools helps to collect independent, objective, and convincing evidence that can be used in legal proceedings to bring looters to justice. Thus, digital forensics plays an important role in pillage investigations, helping to identify perpetrators and establish the truth (Lewulis, 2021).

O. Predmestnikov *et al.* (2023) in their study concluded that Ukraine, which has been at war for more than a year, does not use all possible and available methods of protection. In particular, the attention was drawn to the fact that Ukraine has not ratified the Rome Statute of the International Criminal Court yet, which makes it difficult to implement some decisions of this international body. The study also established that the identification of pillage by legal scholars with a theft, robbery, or plunder is conditioned by the fact that the title of the law that increased liability for certain types of property crimes refers to the increase in liability for pillage, while the content of the law increases liability not only for this type of crime. In the course of this study, the issue of the qualification of pillage was highlighted. In order to bring real criminals to justice for a criminal offence committed, it is important to collect an evidence base, since pillage can only be committed on the battlefield.

S. Depauw (2018) investigated the role and significance of digital evidence in criminal proceedings in the European Union. This paper was intended to analyse recent developments in the collection of the electronic evidence, or rather content data, for criminal justice purposes in Europe. Firstly, a brief historical review of the EU's actions in the context of judicial cooperation in criminal matters (both in general and in relation to evidence) was conducted. Secondly, electronic evidence itself and legislation in its current form were discussed, followed by an assessment of the actions taken by both the Council of Europe and the European Union to overcome the difficulties faced by both public (law enforcement agencies) and private actors (service providers). The study evaluates the extent to which current discussions and proposals can be considered a step forward in light of technological and judicial reality.

T. Khashashneh *et al.* (2022) compared the powers of a criminal judge to evaluate digital evidence in the laws of Jordan, Egypt, and France. The interest enjoyed by digital (electronic) evidence has become great compared to other types of evidence. In fact, this is due to the spread of the use of digital information technologies, the role of which has increased with the introduction of the Internet and computers in various spheres of life. Thus, the problem with this study was that the virtual environment became a hotbed for a number of criminals, who are called information criminals. The crimes they commit are in a virtual environment. Several findings and recommendations have been made in this study, the most important of which is that digital (electronic) evidence is the best evidence to prove virtual crimes, as

it depends on the environment in which the criminal offence was committed. Hence, the interest in this type of evidence began, since the proof of a virtual crime is not limited to digital (electronic) evidence, because it can be proved by traditional methods of proof, such as: testimony, confession, etc.

J. Kancauskiene (2019) investigated the computer expertise and electronic evidence in Lithuanian criminal proceedings. Lithuanian Code of Criminal Procedure[1] first of all, regulates the receipt of electronic data, complementing the requirements of laws such as the Criminal Intelligence Act, the Police Activities Act and the Financial Crime Investigation Service, but not limited to them. Data are usually obtained in the manner prescribed by both the Criminal Intelligence Act and other laws prior to the start of a pre-trial investigation. After the opening of a pre-trial investigation, evidence is collected exclusively in accordance with the Code of Criminal Procedure[2]. The courts are particularly attentive to checking whether the evidence collected in accordance with the Law on Criminal Intelligence was obtained legally. The requirement to obtain evidence in accordance with the procedure established by law is closely related to the requirement to obtain evidence legally. Judges are obliged to carefully assess whether the evidence was obtained legally, i.e., whether the rules for obtaining evidence established by law were followed.

M. Rojszczak (2022) investigated cooperation in the field of the electronic evidence in criminal cases from the perspective of the European Union (EU). For several years, there has been a debate among EU member states about the need to regulate cross-border access to electronic data used as evidence in criminal proceedings, and how best to do this. The existing model of cooperation, based mainly on bilateral agreements, seems to be dysfunctional and is perceived by many as an obstacle to effectively combating the growth of cross-border crime. In response, work has begun on several new legal mechanisms, the main of which is the draft regulation on electronic evidence from the European Commission and the proposal to expand the convention on cybercrime, which has been in force for almost 20 years, with an additional new protocol. The United States has proposed its own model of cooperation, which follows from the CLOUD Law. This paper discusses the current state of affairs and the expected form of future regulations – in terms of both facilitating law enforcement cooperation and clarifying the obligations imposed on digital service providers.

Overall, digital forensics has become an important tool in the investigation of pillage and other crimes in the modern world. It allows the collection, analysis, and interpretation of digital data, in particular, electronic documents and other digital traces, which can be used to identify criminals and obtain reliable evidence in court proceedings. This is especially relevant in the face of modern challenges, such as: digital threats, information warfare, and rapid digitalisation. Updating and developing digital forensics tools are a necessity to ensure effective investigation and establishment of truth in the modern world.

Conclusions

This paper investigated the use of electronic evidence as a means of proof in the investigation of pillage. It is important to ensure the proper preservation of electronic evidence, as it can be used in court proceedings. This includes properly storing metadata, a chain of custody, and ensuring that it is inaccessible to third parties. The electronic evidence can be examined to confirm its authenticity and integrity. It is important to work with relevant security services, such as the police, intelligence or military, to ensure that electronic evidence is properly collected and processed. This will help to ensure the legal aspect of the pillage investigation.

In the course of the study, the requirements that electronic evidence must meet in a pillage investigation were put forward. Firstly, the electronic evidence must relate to a specific offence. Secondly, it is necessary to properly verify the evidence received. Thirdly, digital evidence must be tangible, i.e., it must be recorded on a specific technical medium (phone, computer, flash drive, etc.). It is described that proof of pillage requires the collection and presentation of convincing evidence confirming the existence of this crime. The reliable evidence and its adequate presentation will help ensure a fair investigation and the prosecution of all perpetrators. Collecting evidence of pillage on the battlefield can be difficult and cause some difficulties. Reports from people who have witnessed or suffered pillage can be an important source of information. These testimonies may be collected from civilians, military personnel, or journalists who were on the battlefield.

It is reasonable that official documents, such as police statements, medical records, or reports from human rights organisations, may contain information about cases of pillage on the battlefield. If the evidence of pillage is collected, it is important to contact the competent authorities, such as: the police, human rights organisations or international bodies, to transfer the collected information and evidence for further investigation and possible prosecution of those responsible. It is determined that international observers or missions aimed at verifying compliance

[1] Code of Criminal Procedure of Lithuania. (2002, March). Retrieved from https://www.wipo.int/wipolex/en/legislation/details/8195.
[2] Ibidem, 2002.

with human rights and international norms can work in conflict zones. Their reports and research may contain information about pillage and human rights violations on the battlefield. Notably, it is important to collect this evidence, verify its reliability and authenticity, and transfer it to the relevant authorities of the incriminated country or international organisations that have competence in investigating and bringing to justice the relevant persons.

The issue of using electronic evidence in the investigation of pillage is almost not considered by foreign researchers. The investigation of pillage may require cooperation between countries and international organisations. In the future, it is necessary to develop new norms of the international law aimed at countering pillage and punishing criminals. International legal structures may be involved in the investigation and enforcement of justice. The results of this study can be used to improve criminal legislation, in particular, to introduce amendments and additions to Chapter 4 of the Criminal Procedure Code concerning the definition of the very concept of "electronic (digital) evidence" and requirements for their relevance and admissibility.

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Conflict of Interest

None.

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Використання електронних доказів як засобу доказування під час розслідування мародерства

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■ **Анотація.** Електронні докази стають одними з ключових складових розслідування кримінальних правопорушень. Використання цифрових доказів дає змогу розслідувати не лише кримінальні правопорушення проти власності, довкілля тощо, а й правопорушення, вчинені в період війни та окупації. З початку широкомасштабного вторгнення в Україну збільшилася кількість випадків мародерства, про які стає відомо з відкритих джерел інформації. Метою цієї роботи було дослідження проблемних питань використання цифрових доказів у процесі розслідування мародерства. Методологічним підґрунтям слугували загальнонаукові методи пізнання, а саме наукової абстракції, дедукції та індукції, екстраполяції та логічного узагальнення. У статті здійснено дослідження мародерства серед інших воєнних злочинів у контексті визначення поняття, складу злочину, допустимості цифрових доказів під час розслідування цього злочину. Обґрунтовано нагальність вирішення проблемних аспектів, пов'язаних із розслідуванням мародерства, передусім у контексті повномасштабної війни в Україні. Відмежовано мародерство від інших злочинів проти власності, які вчинено в умовах воєнного або надзвичайного стану. Розглянуто проблематику термінології та окреслено підходи до кваліфікації кримінальних правопорушень, вчинених в умовах воєнного стану, а також недоліки законотворчості. Запропоновано внести зміни до Кримінального процесуального кодексу України, визначивши вимоги до електронних доказів під час розслідування мародерства. Практичне значення роботи полягає в тому, що такі інструменти можна застосовувати для подальших досліджень питання використання цифрових доказів як засобу доказування під час розслідування мародерства, у межах розроблення та вдосконалення законодавства за цим напрямом

■ **Ключові слова:** цифрова криміналістика; джерела інформації; цифровізація; кримінальне правопорушення; воєнні злочини; воєнний стан

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Representation of the victim of a road traffic accident at the subsequent stage of the pre-trial investigation

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■ **Abstract.** Due to the lack of professional staff and the high workload of investigators, investigations into crimes against road safety and transport operation are often conducted ineffectively. As a result, the rights of victims of car accidents stay unprotected. This makes the issue of providing them with legal aid especially important. The purpose of this study was to develop the principles of victim representation at the subsequent stage of pre-trial investigation of crimes against road safety. The methods used in this study include general scientific methods (inductive, deductive, analysis, synthesis, analogy, modelling) and special methods (systemic and structural analysis, logical-legal, comparative legal, sociological). The activities of a road traffic accident victim's representative during the subsequent stage of pre-trial investigation are considered with a division into separate components (procedural, control and advisory, and search) which are interrelated and interdependent. The features of these components in their interconnection were systematically outlined. The procedural and control-advisory components were studied inseparably from each other at the general level and at the level of concrete investigative (detective) actions. The search component was studied separately with the definition of its specific components, methods and means of their implementation. The study defined the principles of organisation and some tactical methods of representation of a road traffic accident victim at the subsequent stage of pre-trial investigation of crimes against road traffic safety. The author proposes a methodology for initiating the necessary investigative actions by the victim's representative in different types of interaction (constructive, official business, conflict) that develop at a later stage between them and representatives of the prosecution. Based on the analysis of Ukrainian legislation and its application practice, the study identified the range of problems arising in the practical activities of a representative of a road traffic accident victim at the subsequent stage of pre-trial investigation and suggested ways to resolve them. The use of the provisions of this study will contribute to the improvement of the activities of trial lawyers, increase the effectiveness of legal aid to victims of road accidents, and to further research in this area

■ **Keywords:** trial lawyer; investigative (detective) actions; criminal proceedings; criminal offence; protection of rights; traffic safety

■ **Suggested Citation:**
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■ Introduction

The problem of injuries and deaths due to criminal violations of traffic rules and vehicle operation in Ukraine and around the world is becoming increasingly relevant due to the steady increase in the number of cars and drivers and the intensification of traffic. Therewith, victims of road accidents often do not receive adequate compensation, and the perpetrators avoid deserved punishment. This is mainly due to mistakes and shortcomings of the investigators conducting the pre-trial investigation of the accident. There is often ineffective or complete absence of professional legal aid to the victim at the initial and subsequent stages of the pre-trial investigation. This necessitates scientific development of ways to remedy this situation.

V.M. Tertyshnyk (2020) has recently investigated the general issues of exercising the rights of the victim in criminal proceedings. The author suggests ways to improve the status of the victim, expand their statutory rights, establish a procedure for their implementation, eliminate legal conflicts and harmonise legislation in this area. N.Z. Rohatynska & K.I. Skliaruk (2022) presented to the scientific community their vision of the complex of existing problems regarding the procedural status of the victim in criminal proceedings and ways to solve them. In general, Ukrainian scholars have described the specific features and problems of the procedural status of the victim in criminal proceedings in sufficient detail for almost a decade since the adoption of the current Criminal Procedural Code of Ukraine. As for the range of these problems, their impact on the realisation of the victim's natural rights and ways to solve them, the conclusions of scholars are mostly consistent with each other. The only competing proposals are those concerning the wording of certain provisions of legislative acts. These discussions are taking place in the area of legal regulation of criminal proceedings.

At the same time, the issues of providing qualified legal aid to a victim in criminal proceedings have not received much attention from Ukrainian scholars in recent years. Two Ukrainian researchers conducted special research on these issues. I. Rakipova *et al.* (2023) in 2017-2022 investigated certain issues of protection of victims' rights under the Criminal Procedural Code of Ukraine, specifically, in terms of regulating and ensuring their right to representation in criminal proceedings, cases of mandatory participation of the victim's representative in procedural actions. In 2023, the researchers gave a detailed description of the current state of protection and defence of victims' rights, provision of professional legal aid, and identified prospects for reforming legislation in this area.

R.O. Yemelianov (2020; 2023) published several studies on criminal procedural activities of a victim's trial lawyers during 2020-2023. The real contribution of the researcher to solving problems in the field of providing professional legal aid to a victim in criminal proceedings is combined with several rather controversial provisions. All of them relate to the general problems of legal regulation of criminal procedural activities of a victim's representative.

Foreign researchers, including N. Elbers *et al.* (2020), K. Matthews (2021), J.S. Schulz *et al.* (2022), have also investigated this issue, but in the context of law enforcement practice in the Netherlands, the United States of America, and Australia. However, neither Ukrainian scholars nor representatives of the scientific community of other countries have considered the issue of victim representation in criminal proceedings for road traffic crimes. Accordingly, there has been a lack of attention to research on the provision of legal aid to road accident victims at different stages of criminal proceedings and at certain stages of pre-trial investigation.

Representation of a road traffic accident victim has several forensic features related to the specifics of pre-trial investigation of crimes against road safety. The activities of a lawyer-representative of a road accident victim, apart from the procedural aspect, also include the extra-procedural aspect related to their search and control and advisory work. The need to consider the specifics of investigating criminal road accidents is emphasised by scholars who study the issues of investigative, prosecutorial, and expert activity in criminal proceedings on crimes against road safety. At the same time, they contribute to research in this area. Thus, P.V. Bernaz (2020) provided a description of the individual elements of the system of circumstances to be proved during the pre-trial investigation of road traffic accidents. A.D. Koshkarov (2020) proposed a methodology for determining the causal relationship between vehicle malfunctions and road accidents. A.V. Piddubna (2021) made practical suggestions on how to organise the interaction of the investigator with other participants in criminal proceedings. Therewith, similar issues regarding the activities of a road accident victim's representative have not yet been addressed. That is why the purpose of this study was to formulate the conceptual framework for ensuring the effectiveness of the work of a lawyer representing the interests of a road accident victim at the subsequent stage of pre-trial investigation.

■ Materials and Methods

The study used general scientific and special methods of legal science. General scientific research methods include abstraction, generalisation, analysis, synthesis, induction, deduction, analogy, and modelling. The special legal methods used in this study included

a systematic analysis of legal norms and the practice of their application. The study comprehensively analysed certain provisions of the Criminal Procedural Code of Ukraine (CPCU) and the specific features of their implementation based on the materials of 200 criminal proceedings on crimes under Articles 286-288 of the Criminal Code of Ukraine[1] (the study examined materials in the proceedings of the investigative units of the Main Departments of the National Police in Vinnytsia Oblast and in Kyiv; Khmilnytskyi Municipal and District and Vinnytsia City Courts of Vinnytsia Oblast; Prymorskyi District Court of Odesa; Boryspil City Court of Kyiv Oblast). The formal legal (normative and dogmatic) and legal modelling methods were used to formulate proposals for amendments to the current legislation. The comparative legal method is used to determine the differences in the scope of rights granted by the legislator to the victim, the defence, and the investigator and prosecutor during the pre-trial investigation.

The study used the method of expert assessments. 200 investigators with experience in investigating crimes against road safety and 200 lawyers with experience in representing road accident victims were interviewed. In preparing for the survey, the purpose was to interview the number of investigators that would ensure a prominent level of representativeness of the results (as for investigators, the survey was conducted among both current police officers and those who had changed their career in the last three years). All survey participants were provided with the opportunity to stay anonymous, and the ways and guarantees of doing so were explained. They were informed about the purpose and objectives of the survey, how the data they provided would be used, and the risks that might be involved. The survey was conducted in compliance with ethical standards when working with people. The research was conducted following the rules of the Helsinki Declaration (1975).[2] The survey was conducted using the author's questionnaire presented in Table 1. For each of the questions, several answers were offered. Nevertheless, the questions were left open, asking the respondents to provide their own answer.

Table 1. List of questions contained in the author's questionnaire

No.	Question
1	What are the specific features of criminal proceedings in relation to criminal road accidents in terms of the time of serving a notice of suspicion to a person?
2	What should be the basis for the organisation and tactics of the victim's representative at the next stage of the pre-trial investigation?
3	Whether the victim's representative should use certain tactics when working with the client
4	Under what conditions will the investigator, on their own initiative, inform the victim's representative of all important news in the case?
5	Do investigators provide representatives of the road accident victim with access to the proceedings based on their oral statements?
6	Under what conditions, at the oral request of the victim's representative, does the investigator provide them with the opportunity to read the case file?
7	What does a victim's representative need to determine the scope and sequence of procedural actions to be taken to achieve the purpose of representation?
8	What does a victim's representative need to determine the scope and sequence of procedural actions to be taken to achieve the purpose of representation?
9	Is it always necessary to interrogate the victim, witnesses, and suspect in a road accident investigation?
10	Is it appropriate to use road traffic accident diagrams when interrogating a suspect?
11	Is it advisable to record interrogation by video; what is the significance of an investigative experiment for obtaining evidence?
12	What are the requirements for the work of a road traffic accident victim's representative during an investigative experiment?
13	Is it always necessary to involve an expert automotive technician in an investigative experiment?
14	Should a representative of a road accident victim control the involvement of an expert car technician in an investigative experiment?
15	What requirements should be met to conduct an investigative experiment in the proceedings of the category under study?
16	What are the consequences of making inaccuracies, errors, misprints, and non-compliance with the procedural form when conducting an investigative experiment?

Source: developed by the author

[1] Criminal Code of Ukraine. (2001, April). Retrieved from https://zakon.rada.gov.ua/laws/show/2341-14#Text.
[2] The Declaration of Helsinki. (1975). Retrieved from https://www.wma.net/what-we-do/medical-ethics/declaration-of-helsinki/.

The survey was launched in September 2022 and continued throughout the year. The interviewed police officers and lawyers live and work in Kyiv, Vinnytsia, Volyn, Zhytomyr, Kyiv, Odesa, Khmelnytskyi, Kharkiv, and Cherkasy oblasts. The survey of police officers was conducted in writing in a mixed format (in-person and offline). Police officers who had taken advanced training courses at the National Academy of Internal Affairs and Kharkiv University of Internal Affairs were interviewed in person (112 people). An additional 88 police officers (current and former) were interviewed by sending them questionnaires via the Internet (by prior agreement). All lawyers were interviewed in this way.

■ Results and Discussion

Limits and content of the further stage of pre-trial investigation of crimes against road safety. The active work of a road accident victim's representative during procedural actions at the beginning of the pre-trial investigation should find its logical continuation at other stages of the investigation. To fulfil the purpose of the representative office, such activities must be not only active but also effective. For this, such activities must be well organised and have scientifically sound tactics. However, the modern scientific community does not have a single approach to dividing pre-trial investigations into certain stages. Due to the lack of scientific research in this area, there is a need for theoretical development of forensic methodology and tactics for representing the interests of a road traffic accident victim not only at the initial but also at the subsequent stages of pre-trial investigation.

For the most part, this division is based on procedural criteria, relying on the provisions of Articles 214, 219, 276, 283, 290, 291, of the CPCU[1]. Specifically, the initial, subsequent (further), and final stages of the pre-trial investigation are distinguished. Therewith, the initial stage is considered to be the entry of information into the Unified Register of Pre-Trial Investigations (URPTI) and issuing the person a notice of suspicion. This notice starts the next (further) stage of the pre-trial investigation, which ends with the provision of access to the pre-trial investigation materials (Blahuta *et al.,* 2019). However, it is not always procedural criteria that should be used as a basis for determining the stages of pre-trial investigation. For example, in proceedings involving criminal road traffic accidents, it can take a long time from entering information into the URPTI to notifying a person of suspicion (this statement was supported by 95% of the surveyed investigators and 92% of lawyers). Sometimes this is explained by the complexity and duration of examinations, without which it is impossible to notify a person of suspicion (although it is already clear from the proceedings who caused the accident). Sometimes, it is the inability to quickly identify and detain the culprit who fled the scene of the accident. Therefore, all this time, the investigator is either waiting for the results of the examinations or is engaged in routine systematic work to establish the identity of the perpetrator, their location and the circumstances of the criminal offence.

As the analysis of criminal proceedings on crimes against road safety suggests, the initial stage of the pre-trial investigation should be considered the period that begins with the inspection of the scene (often before entering information into the URPTI) and ends with the completion of all urgent procedural actions (i.e., those whose slightest delay jeopardises the receipt of factual data on the circumstances of the criminal offence and may further serve as grounds for doubting the admissibility of such data).

Such actions may include inspection of the accident scene, medical examination of vehicle drivers, obtaining samples for examination at the accident scene during the initial inspection of the accident scene, temporary seizure of property and seizure of property, interrogation of the victim and witnesses, appointment of necessary examinations, sending necessary requests, temporary access to things and documents (carriers of video recordings of the accident), conducting investigative actions, including covert actions, to identify and detain the culprit of the accident who fled the scene. Notably, this stage is distinguished based on forensic factors. It is conditional and the specific list of actions included in it must be determined individually in each proceeding.

The author believes that the main criterion for distinguishing between the initial and the next (further) stage of pre-trial investigation is that the prosecution should perform all urgent procedural actions necessary to fulfil the tasks of criminal proceedings (or lose the possibility of their performance). In this case, the victim's representative must assess, based on the available materials, whether all these actions have been completed (or whether the possibility of their completion has been completely lost). This assessment becomes particularly relevant if the representative of the road traffic accident victim entered the case some time after it began. The organisation and tactics of further actions by the victim's representative should be based on the results of such an assessment. This approach was agreed by 67.5% of the surveyed lawyers.

The analysis of materials of criminal proceedings on crimes against road safety suggests that the investigative (detective) actions of the subsequent stage in

[1] Criminal Procedural Code of Ukraine. (2013, April). Retrieved from https://zakon.rada.gov.ua/laws/main/4651-17?lang=en#Text.

this category of cases should include re-examination of the scene; additional interrogation of witnesses and the victim; interrogation of the suspect; interrogation of two or more previously interrogated persons, investigative experiment. If the driver of the vehicle has fled the scene of an accident (with or without the vehicle) and has not been identified and detained at the initial stage of the pre-trial investigation, it may be necessary to conduct separate law enforcement intelligence activities and covert investigative (detective) actions at a later stage. This includes conducting radio reconnaissance, visual surveillance (Article 269 of the CPCU[1]); establishing the location of radio equipment (radio electronic means) (Article 268 of the CPCU[2]); covertly obtaining samples necessary for comparative research (Article 274 of the CPCU[3]). The same can be said for situations where there are grounds to believe that the accident is being used to conceal the commission of another crime.

These actions should be applied in a thoughtful and systematic manner, which is ensured by the use of appropriate forensic techniques and tactics by the prosecution. At the same time, the victim's representative should have their own methodology and tactics. When developing such a methodology and tactics, it is necessary to proceed not only from the provisions established in criminalistics regarding the investigation of these crimes (this is mainly necessary for active monitoring of the investigator's actions and their objective assessment), but also from the areas of procedural and extra-procedural interaction of the road accident victim's representative with other participants in the proceedings. This approach was agreed by 88% of the surveyed lawyers.

General principles of representation of a road accident victim at the subsequent stage of pre-trial investigation. A representative of a road traffic accident victim must interact with several entities, including the investigator, prosecutor, head of the pre-trial investigation body (prosecution); the suspect and their defence counsel (defence); experts and specialists. Furthermore, in collecting evidence, the representative of the road traffic accident victim communicates with witnesses and persons who have things and documents important for solving the tasks of the representation. By agreement with the client, the representative of the accident victim also interacts with representatives of insurance companies. For each of these areas of communication, one can outline their own tactics.

The victim's representative inevitably interacts with their client in their work. In this case, this can only refer to certain methods (algorithms) of work. The presence of tactics in this type of interaction would indicate possible resistance on the part of the partner, which is unacceptable in the relationship between an attorney and a client. This opinion is shared by 63.5% of the lawyers surveyed. At the same time, this type of interaction is the starting point for other communications of the road accident victim's representative. It is thanks to this type of interaction that the purpose of the activity and specific tasks of the representative of the road accident victim in a particular criminal proceeding are determined.

Interaction with the prosecution should be based on the principles previously proposed for communication between the victim's representative and the investigator for use at the beginning of the pre-trial investigation. As it was defined, "such interaction can be constructive, official, formal, or conflictual. For a representative of a road traffic accident victim, the most beneficial choice is constructive interaction, which involves mutual consultation, coordination of action plans, and simplified (informal) exchange of information. Therewith, the actions of the road traffic accident victim's representative should organically complement the investigator's activities, fill in the gaps in their work (if any), and serve as a safeguard against procedural and tactical errors" (Chervinskyi, 2023).

Representation of a road traffic accident victim throughout the pre-trial investigation (as well as at its beginning) should be conditionally divided into procedural, advisory and controlling, and search (detective) components. The saturation of the procedural component of the subsequent stage of the pre-trial investigation depends on the moment when the attorney-representative entered the case and what procedural measures, which are mandatory for achieving the purpose of representation, they have already taken at the previous stage. This also applies to the submission of relevant applications and motions to the investigator.

If a lawyer is involved in the case after the pre-trial investigation is completed, the first motion should be a motion to get acquainted with the pre-trial investigation materials following Article 221 of the CPCU[4]. It is impossible to file such a motion if the client does not have the status of a victim, which is often the case in proceedings of the category under study due to the failure of relatives of the injured or deceased to file the relevant statements and engage a lawyer. In such a case, the primary issue to be resolved by the lawyer concerns the organisation of the filing of the relevant applications by their clients. This approach is supported by 95% of the lawyers surveyed.

[1] Criminal Procedure Code of Ukraine. (2012, April). Retrieved from https://zakon.rada.gov.ua/laws/show/4651-17#Text.
[2] Ibidem, 2012.
[3] Ibidem, 2012.
[4] Criminal Procedural Code of Ukraine. (2013, April). Retrieved from https://zakon.rada.gov.ua/laws/main/4651-17?lang=en#Text.

In the future, it is advisable for the victim's representative to systematically review the pre-trial investigation materials to properly organise their activities. However, it is advisable to file a motion following Article 221 of the CPCU[1] only if the investigator insists on it. Thus, 81.5% of the surveyed lawyers said that in case of constructive interaction with the investigator, the latter informs them of all important new data received by them, and personal acquaintance with the case file takes place by oral agreement. 69% of the interviewed investigators stated that they always promptly provide access to the case file to the representatives of the road accident victim upon their oral requests. Furthermore, if necessary, at the request of the trial lawyers, investigators themselves send them scanned copies of the necessary documents via messengers (this saves time for both the investigator and the victim's representative).

A special type of petition filed with the investigator or prosecutor by a representative of a road accident victim during the pre-trial investigation is a petition for investigative (detective) actions following Article 220 of the CPCU[2]. Such motions should be filed when the investigator fails to conduct investigative (detective) actions necessary in the opinion of the victim's representative in a timely manner (or at all). The filing of such motions should be preceded by communication with the investigator (and, if necessary, with the prosecutor), the purpose of which is to find out the reasons for the failure to conduct investigative (detective) actions. Such reasons may include both objective (military operations; considerable workload of the investigator; lack of natural or technical conditions for a certain action; inability of specialists, witnesses, etc., to take part in the action) and subjective (disinterest in performing the tasks of criminal proceedings, negligence in the investigation). Sometimes investigators and prosecutors can disguise subjective reasons with objective ones. However, based on the results of communication, the victim's representative may well draw conclusions about the real reasons and choose a particular type of action tactic, which may include cooperation, accommodation, and confrontation. The latter option involves a conflict type of interaction, the mandatory filing of a motion to conduct the necessary investigative (detective) actions following Article 220 of the CPCU[3], appealing to the investigating judge against the refusal to satisfy these motions (Item 7, Part 1, Article 303 of the CPCU[4]) or delaying their consideration (Item 1, Part 1, Article 303 of the CPCU[5]).

The same can be said for other procedural actions, namely measures to ensure criminal proceedings, among which special attention should be paid to temporary access to things and documents. Thanks to this measure, in a manner clearly regulated by the CPCU[6], primary medical documentation necessary for forensic examination, video recordings from stationary surveillance cameras belonging to enterprises, institutions, organisations, and individuals, etc. are obtained and attached to the criminal proceedings.

When determining the scope and sequence of procedural actions necessary to obtain the desired result, the representative of the road traffic accident victim should keep in mind the issues of factual data that are missing for proof: the event of the criminal violation of traffic rules (time, place, method, mechanism, and other circumstances); the guilt of the person in committing it; the type and amount of damage caused by the accident, as well as other elements that, following Article 91 of the CPCU[7], are included in the subject of proof. This approach factually combines the search and control and advisory functions of a road accident victim's representative. It was supported by 95.5% of the lawyers surveyed.

To fulfil the purpose of representing a road traffic accident victim, a lawyer must file a motion not only to conduct the necessary investigative (detective) actions, but also to take part in them (specifically those initiated by the prosecution or defence). This procedural step ensures that it can apply the advisory, control, and search components of its activities. By taking part in these actions, the representative of the accident victim can actively observe the work of the investigator, correct it if necessary, and obtain the information necessary to perform their own tasks.

Interrogation as a means of obtaining factual data in a road traffic accident investigation. Interrogations of victims, witnesses, and suspects are an essential means of obtaining factual data in criminal proceedings for road safety offences. This statement was agreed with by 91% of investigators and 87% of lawyers surveyed.

It is natural that the victim's representative is entitled to be present during the interrogation of their client. This follows from a comprehensive analysis of the provisions of Item 8, Part 1 of Article 56; Article 58; Item 2, Part 1 of Article 66; Article 95 of

[1] Criminal Procedural Code of Ukraine. (2013, April). Retrieved from https://zakon.rada.gov.ua/laws/main/4651-17?lang=en#Text.
[2] Ibidem, 2013.
[3] Ibidem, 2013.
[4] Ibidem, 2013.
[5] Ibidem, 2013.
[6] Ibidem, 2013.
[7] Ibidem, 2013.

the CPCU[1]. But this is not explicitly stated in the Law. Therefore, it is advisable to establish the relevant right of the victim by setting out Item 8, Part 1 of Article 56 of the CPCU in the following wording: "to have a representative, to use their legal aid in all procedural actions and to refuse their services at any time during criminal proceedings". At the same time, it is necessary to establish the relevant powers of the victim's representative, specifically by supplementing Article 56 of the CPCU with Part 5[2], which should be set out in the following wording: "The representative is entitled to be present during procedural actions that are carried out with the involvement of the victim".

The interrogation of a victim in proceedings of this category is most often conducted after emergency aid has been provided, transportation to a hospital, necessary medical operations and manipulations have been performed, and the victim has recovered to a state that allows for conscious communication (i.e., a certain time after the incident). In such a situation, the task of the road accident victim's representative is to ensure that the interrogation is carried out with the permission of the doctor and that the physical and mental condition of the victim is considered during this investigative (detective) action. Therewith, it is important to strike a balance between performing the tasks of representing the victim in criminal proceedings and ensuring the conditions necessary for their recovery.

During the interrogation, the victim's representative should keep in mind that certain details of the accident may be forgotten or changed under the influence of external and internal factors (the development of retrograde amnesia in the case of a traumatic brain injury is not excluded). The following tactics can be used to restore the victim's forgotten memory: asking a series of questions that activate associative connections; using criminal proceedings materials (crime scene inspection report, diagrams, photographs) during interrogation; showing a video obtained during the inspection of the crime scene; presenting various objects during interrogation.

The involvement of a representative of a road accident victim in the interrogation of a suspect is possible only if the latter has acquired this status. As already noted, in criminal proceedings of the investigated category, a person is usually notified of suspicion a long time after the start of the pre-trial investigation, which is due to the need for the investigator to obtain the results of examinations that contain the grounds for suspicion. The interrogation of a suspect is usually carried out immediately after the notification of suspicion and without the involvement of the accident victim and their representative. However, the trial lawyer may always review the results of such interrogation and, if necessary, file a motion for re-interrogation. Having granted such a request, the investigator, following Part 6 of Article 223 of the CPCU[3], shall be obliged to invite the victim's representative to take part in the interrogation. Such actions of the road accident victim's representative are aimed not only at clarifying certain factual data, but also at eliminating contradictions and discrepancies between the suspect's testimony and other materials of the criminal proceedings, and at exposing them for providing knowingly false information. These contradictions, among other things, should be sought between the suspect's explanations given immediately after the accident and the testimony given earlier as a witness.

One of the key tactical methods of interrogating a suspect is the use of an accident scheme (88.5% of the surveyed investigators and 91% of lawyers agreed with this). It can be used to formulate concise and understandable questions about the location and direction of movement of the participants in the accident, the sequence of actions of the interrogator at various stages of the event. In this case, it is advisable to use a video recording of the investigative action, since both questions and answers will not be fully understood due to their linkage to the scheme, and their usual presentation in the protocol will not fully reflect the factual data provided (83% of the interviewed investigators and 90% of the lawyers agreed with this).

The above techniques should also be used when questioning witnesses to an accident. In case of considerable discrepancies in their testimony, interrogation (including of two or more previously interrogated persons) may be conducted at the scene of the accident. However, this is the competence of the investigator, who is not obliged by the criminal procedural law to involve the victim's representative or to notify them of the time and place of the investigative action. The latter may join it by submitting relevant requests in the same manner as for the interrogation of the suspect. This applies to both witnesses identified by the prosecution and witnesses identified by the victim's representative in their detective activities.

During interrogation, it should be borne in mind that the suddenness and short duration of the accident results in the eyewitness's incomplete awareness of its details and their inability to recall the details of the accident exhaustively. Furthermore, there is a possibility of distortion of the picture of the accident in the mind of the witness over time under the influence

[1] Criminal Procedural Code of Ukraine. (2013, April). Retrieved from https://zakon.rada.gov.ua/laws/main/4651-17?lang=en#Text.
[2] Ibidem, 2013.
[3] Ibidem, 2013.

of objective and subjective reasons. Therefore, it is advisable to identify all eyewitnesses to the accident, since only the totality of their testimony will help to most fully recreate the entire picture of the development of the event and the role of its participants.

Obtaining evidence in a road traffic accident investigation through an investigative experiment. An important means of obtaining evidence in criminal proceedings for road safety offences is to conduct an investigative experiment. This was unanimously supported by 100% of the investigators and lawyers surveyed. An analysis of the provisions of Article 240 of the CPCU[1] suggests that the purpose of an investigative experiment is to verify and clarify information relevant to establishing the circumstances of a criminal offence by reproducing actions, environment, circumstances of a particular event, conducting necessary experiments or tests.

In criminal proceedings concerning crimes against road safety, this investigative (detective) action is used to perform several important tasks. Firstly, it is the identification of individual characteristics of particular individuals, namely: the ability to perceive (see, hear) a certain obstacle, action, event, or phenomenon (approaching car, pedestrian movement, car collision, hit-and-run, etc.) in given conditions; the ability to take certain actions (emergency braking, change of direction) on a particular section of the road; availability of manoeuvring skills (reversing into a garage, turning with a small radius, parallel parking, etc.). Secondly, it is the determination of the duration (speed) of certain processes or the time required for certain actions, namely: for a person to walk a certain section of the roadway; for a car to drive a certain section of the road, for a certain manoeuvre; for determining the speed of a car, etc. Finally, it is to establish the mechanism of the entire accident, as well as its individual elements.

In general, the tasks that are solved by an investigative experiment do not exist in isolation from each other in practice, but are used in various combinations, which should result in obtaining new evidence. But the same investigative experiment can be aimed both at verifying evidence and establishing the conditions that contributed to the commission of a criminal offence, etc. (Antoniuk *et al.*, 2021). Thus, an important organisational and tactical issue is to determine the place of the investigative experiment among other procedural actions aimed at investigating a road traffic accident. Given that the investigative experiment often pursues the purpose of verifying testimony at the scene, interrogations of witnesses, suspects, and victims should precede it.

Theoretically, in criminal proceedings concerning crimes against road safety, the investigative experiment should also be preceded by examinations, namely transport and traceability examinations, and determination of the technical condition of vehicles, the results of which are the initial data to be considered during the said investigative (detective) action. At the same time, the study of criminal proceedings of the category under investigation strongly suggests that the sequence may be different: the results of the investigative experiment may be the initial data for certain types of automotive expertise. As noted by A.O. Chychyrkin (2020), there are often cases when an investigative experiment is appointed and conducted by the investigator on the initiative of an expert who has been notified of their involvement in the conduct of an automotive technical examination.

Furthermore, the perpetrators of road accidents often take part in the investigative experiment in the status of witnesses due to the lack of examination results that should form the basis of a notice of suspicion (e.g., the Supreme Court's rulings of 30 May 2019 in cases No. 164/1457/16-k[2] and 522/17642/17[3]; of 2 March 2021 in case No. 137/265/19[4]; of 28 January 2020 in case No. 359/7742/17[5], etc.). Thus, if the victim's representative concludes that it is necessary to conduct an investigative experiment before conducting certain examinations, they may initiate the said investigative (detective) action by exercising the right prescribed in Article 220 of the CPCU[6]. Moreover, there are no legal prohibitions on repeating the investigative experiment, which can be carried out both before and after certain examinations.

Important parameters that ensure the completeness, comprehensiveness, and effectiveness of the investigative experiment include the circle of persons taking part in it; time and place of conduct; compliance of the surrounding conditions and situation with those that existed at the time of the event being recreated. The circle of persons taking part in the

[1] Criminal Procedural Code of Ukraine. (2013, April). Retrieved from https://zakon.rada.gov.ua/laws/main/4651-17?lang=en#Text.
[2] Resolution of the Supreme Court of Ukraine in case No. 164/1457/16-к. (2019, May). Retrieved from https://reyestr.court.gov.ua/Review/82261840.
[3] Resolution of the Supreme Court of Ukraine in case No. 522/17642/17. (2019, May). Retrieved from https://reyestr.court.gov.ua/Review/82065567.
[4] Resolution of the Supreme Court of Ukraine in case No. 137/265/19. (2021, March). Retrieved from https://reyestr.court.gov.ua/Review/95345032.
[5] Resolution of the Supreme Court of Ukraine in case No. 164/1457/16-к. (2019, May). Retrieved from https://reyestr.court.gov.ua/Review/82261840.
[6] Criminal Procedural Code of Ukraine. (2013, April). Retrieved from https://zakon.rada.gov.ua/laws/main/4651-17?lang=en#Text.

investigative experiment is determined by the investigator and is regulated by the procedural criterion. Specifically, Part 3 of Article 240 of the CPCU[1] states that a suspect, victim, witness, defence counsel, and representative may be involved in the investigative experiment. This wording suggests that the involvement of the victim and/or their representative in the investigative experiment is the investigator's right, not their duty. If the investigator considers it possible to conduct an investigative experiment in the absence of a representative of the road accident victim, the latter is effectively deprived of the right to perform control, advisory, and search functions during this important investigative (detective) action.

Therefore, it is advisable for the representative of the road accident victim to submit a request to the investigator at the beginning of the pre-trial investigation to conduct all investigative (detective) actions with their involvement (with appropriate motions filed in advance). The criminal procedural law does not make provision for such motions (but does not restrict the lawyer's ability to file them) and the investigator's obligation to satisfy them. Therefore, this requirement can be included in other motions, e.g., in a motion to review the pre-trial investigation materials. Furthermore, Part 6 of Article 223 of the CPCU[2] prescribes that an investigative (detective) action carried out at the request of the defence, the victim, a representative of the legal entity in respect of which the proceedings are being conducted, shall be carried out with the involvement of the person who initiated it and/or their defence counsel or representative, unless this is impossible due to the specifics of the investigative (detective) action or such person has submitted a written refusal to take part in it. Therefore, to oblige the investigator to involve a representative of the road accident victim in the investigative experiment, it is necessary to file a request for its conduct in advance (to initiate it oneself).

Involvement of the road accident victim's representative in the investigative experiment allows them to make sure that the investigator follows all methodological requirements for its conduct, and, accordingly, that its results are reliable. The analysis of scientific and educational literature helps to identify the main requirements in proceedings for road traffic offences, specifically conducting the investigation in the place where the accident occurred and at the time when it took place; completeness of the reproduction of the situation and events; phased conduct of experiments (tests) with the location of participants, objects, items in the way they were located at certain stages of the accident; matching the natural (wind, precipitation, cloud cover, lighting, ice, etc.) and artificial (lighting, smoke, noise, traffic lights, traffic density, road surface condition, etc.) conditions to those that existed at the time of the accident; the use of the same (or similar, homogeneous) things (objects, tools, means) that were involved (affected, influenced) in the accident; compliance of the pace of experiments (tests) with the pace at which the real accident occurred; multiple repetition of homogeneous experiments, including (if necessary) in changed conditions; consideration of the conditions and circumstances of the accident that could not be reproduced at the time of the investigative experiment.

These conditions are tremendously important, but not every one of them should be applied in any investigative experiment. Therefore, a representative of an accident victim should not insist on fulfilling each of them: those requirements that in a particular situation cannot in any way affect the results of the experiment can be excluded. Therefore, when representing a road traffic accident victim, it is necessary to carefully analyse the investigative situation every time and, when communicating with representatives of the prosecution, focus on compliance with only those requirements, the failure to comply with which may lead to erroneous conclusions and false results. This statement was supported by 85.5% of the lawyers surveyed.

Furthermore, the procedural criteria for conducting an investigative experiment include the requirement of Part 4 of Article 240 of the CPCU[3] – ensuring safety for the life and health of participants and other persons, prohibition of humiliation of their honour and dignity. This is fully consistent with the provisions of Article 3 of the Constitution of Ukraine, which classifies these values as the highest social values. Since a road traffic accident is a dangerous and harmful event in itself, this requirement of the legislator is extremely relevant in criminal proceedings for crimes against road safety. Therefore, a representative of a road traffic accident victim should insist on an accurate reproduction of certain actions, elements (events) that may result in a threat to these social values and cause damage.

Notably, active monitoring by a representative of the road accident victim of compliance with the above organisational and tactical requirements for conducting an investigative experiment implies their involvement in the organisation of this investigative (detective) action. Furthermore, the location of the road traffic accident victim's representative during the investigative experiment is important: it should ensure the exercise of their rights to directly examine

[1] Criminal Procedural Code of Ukraine. (2013, April). Retrieved from https://zakon.rada.gov.ua/laws/main/4651-17?lang=en#Text.
[2] Ibidem, 2013.
[3] Ibidem, 2013.

evidence, monitor the actions of other participants and the course of the experiment. This statement was supported by 85% of the lawyers surveyed.

It is important for the victim's representative to be present during the investigative experiment with the persons whose testimony is being verified, especially the suspect and witnesses. These testimonies are often contradictory. If present during the investigative experiment, the victim's representative will have the opportunity to ask questions that will help eliminate these contradictions and further deprive the defence of the use of statements regarding the existence of reasonable doubt about the existence of certain circumstances. This statement was agreed by 87% of the surveyed lawyers.

Part 2 of Article 240 of the CPCU[1] states that, if necessary, an investigative experiment may be conducted with the involvement of an expert. In criminal proceedings for crimes against road safety, this is always necessary. According to the research conducted by A.O. Chychyrkin (2020), typical situations of involving a specialist car technician at the working stage of an investigative experiment during the investigation of road traffic crimes are as follows: "1) establishing visibility during an accident (determining the ability of the driver, pedestrians to see each other, cars, road signs, other objects; determining the possibility of blinding); 2) establishing visibility in an accident; 3) determining the speed of the vehicle; 4) determining the time required for the victim to cover the distance to the place of collision; 5) determining the ability of the driver to avoid an accident".

The involvement of an expert car technician in conducting an investigative experiment in proceedings of this category is prescribed by the current forensic methods. Its absence results not only in mistakes and inaccuracies in the conduct of this investigative (detective) action, but also casts doubt on the results of the future automotive technical examination. This was agreed by 64.5% of investigators and 89% of lawyers surveyed. For these reasons, the involvement of an automotive specialist in the investigative experiment by the investigator should be an element of the subject matter of the victim's representative's control and advisory function. If the investigator has not engaged one, it is advisable for the representative of the road traffic accident victim to insist either on the immediate engagement of such a specialist or on postponing the time of the investigative experiment. Exceptions may include cases of the simplest experiments with basic measurements that can be conducted by the investigator and verified by the victim's representative.

The legislator has included at least two disinterested persons (witnesses) to the list of mandatory participants in the investigative experiment, whom the investigator, following Part 7 of Article 223 of the CPCU[2], shall be obliged to invite. There is an exception to this rule – the use of continuous video recording of the course of the investigative (detective) actions. Investigators have different approaches to implementing this rule, but for the most part (73.5% of respondents), they apply both the rule (invite witnesses) and the exception (organise continuous video recording). At the same time, there are no legal prohibitions on the representative of the accident victim conducting their own video recording of the investigative experiment. Such a tool helps the trial lawyer to record the elements necessary to fulfil the purpose of representation, and subsequently analyse in detail the course and results of this investigative (detective) action. This was agreed by 92.5% of the lawyers surveyed.

An important procedural criterion for conducting an investigative experiment is the requirement of Part 6 of Article 240 of the CPCU[3] to draft a protocol of this investigative (detective) action with the obligatory indication of the conditions and results. Compliance with all the requirements for drafting such a protocol is a mandatory element of the control and advisory work of the representative of the road accident victim. Inaccuracies, mistakes, errors, and non-compliance with the procedural form in their entirety may later become the basis for the defence to declare the evidence inadmissible. This statement was supported by 90.5% of the lawyers surveyed.

The analysis of criminal proceedings for road safety offences shows that other shortcomings in the design of the investigative experiment protocol are also widespread, including the following: unclear indication of the purpose, inconsistency of the experiments conducted and the results obtained; the description of only the first experiment (indicating the total number of experiments and the identity of the results obtained); the investigator's own assessment of the results of the experiments (Chychyrkin, 2020).

Appointment and conduct of expert examinations during the investigation of a road traffic accident. Proof in the category of criminal proceedings under study is based mainly on the conclusions of various examinations. However, representatives of road accident victims have much narrower opportunities than the prosecution and defence in terms of engaging specialists, appointing, and conducting examinations. Their procedural powers to use the institute of special knowledge in criminal proceedings

[1] Criminal Procedural Code of Ukraine. (2013, April). Retrieved from https://zakon.rada.gov.ua/laws/main/4651-17?lang=en#Text.
[2] Ibidem, 2013.
[3] Ibidem, 2013.

are extremely limited. This opinion was shared by 89.5% of the surveyed lawyers. This leads to adverse consequences for the protection of the rights and legitimate interests of road accident victims.

Under current conditions, at the subsequent stage of pre-trial investigation, representatives of road accident victims are unable to properly influence the use of special knowledge (including these scientific achievements) in criminal proceedings to perform their tasks, due to the shortcomings of the criminal procedural law. To remedy this situation, it is necessary to amend Articles 71 (Parts 2 and 3), 242 (Part 1), 243 (Part 1), 244 (Parts 1 and 2) of the CPCU[1], making provision for the rights of the victim (equal in scope and content to the rights of the defence) to engage specialists and conduct examinations.

Prior to such amendments, the representative of the road traffic accident victim should: firstly, establish and maintain constructive interaction with the investigator; secondly, have a suitable level of training in the relevant fields of knowledge (motor vehicle engineering, trace evidence, forensic medicine, etc.); thirdly, establish personal contacts with specialists (preferably experts) in these fields of knowledge. All this allows: correctly assessing the forensic situation and concluding on the need to involve specialists and/or experts; providing the investigator with recommendations in this regard that will be accepted by them (with the possibility to recommend a particular specialist, with ensuring their appearance when the investigator cannot ensure it themselves); including in the list of quest ions posed to the expert those the answers to which are important for protecting the rights and interests of the road accident victim; effectively using the conclusions provided by specialists and experts to perform their own tasks within criminal proceedings; preventing procedural errors of the investigator in terms of organising the process of using specialised knowledge.

In the absence of constructive interaction with the investigator and unsatisfactory organisation of the process of using specialised knowledge in criminal proceedings, the representative of the road traffic accident victim may use procedural tools (request for an expert examination as an investigative action, followed by an appeal against the investigator's refusal or inaction) and non-procedural (formal and informal notifying of the head of the pre-trial investigation body, procedural supervisor, head of the National Police).

Detective activities of the road accident victim's representative at the subsequent stage of the pre-trial investigation. The involvement of a road traffic accident victim's representative in investigative (detective) actions and the initiation of their conduct are mostly covered by the control and advisory and procedural components of their activities. In this part, the search component is present only in the form of an analysis of the investigative situation and the trial lawyer's search for new factual data important for the performance of the tasks of representation during investigative (detective) actions.

At the same time, the search component of representing a road traffic accident victim at the subsequent stage of the pre-trial investigation is expressed in unassisted activities independent of the investigator. Thus, if a lawyer-representative enters the case some time after the start of the pre-trial investigation, it is advisable for them to personally visit the accident scene and examine it. This is necessary to form a clear picture of the accident mechanism. Furthermore, based on the results of the examination of the accident scene, the victim's representative may identify important circumstances that were not reflected in the criminal proceedings and verify the data obtained by the investigation. In some cases, it is worth not only examining the scene of an accident, but also observing it for some time, which helps the trial lawyer to understand the specific features of road traffic organisation, their connection with the terrain, vegetation, architecture, as well as the impact of these factors on the actions of drivers and pedestrians. Based on the data obtained in this way, the lawyer-representative may conclude that certain investigative actions are necessary. This includes a repeat inspection of the scene of the incident if the initial inspection did not include factual data on circumstances that are important for the purpose of the representation.

The search component of representing a road traffic accident victim at the subsequent stage of the pre-trial investigation includes identifying and interviewing still unknown witnesses to the accident. It should be practiced when the representative of the road traffic accident victim lacks factual data to perform their tasks and there is a possibility of finding witnesses to the accident and its consequences (this statement was supported by 87.5% of the surveyed lawyers). Such a search is carried out in the same way as at the initial stage of the investigation, namely through announcements in the press, reports on local television channels, appeals to local residents through social media groups created on a territorial basis, interviews with residents of nearby buildings and employees of local businesses. Such a search should be focused not only on identifying eyewitnesses to the accident, but also those who did not perceive it directly but witnessed the subsequent events. Testimony about the post-criminal behaviour of the perpetrator of the accident is important for establishing the circumstances that mitigate and

[1] Criminal Procedural Code of Ukraine. (2013, April). Retrieved from https://zakon.rada.gov.ua/laws/main/4651-17?lang=en#Text.

aggravate the punishment and characterise their personality. Having found the witnesses to the accident, the lawyer-representative should first interview them following Part 3 of Article 93 of the CPCU[1] and Item 7, Part 1 of Article 20 of the Law of Ukraine "On the Bar and Practice of Law"[2]. This was agreed by 61.5% of the surveyed lawyers.

The search component of representing a road traffic accident victim at the subsequent stage of the pre-trial investigation also includes the search and analysis of criminal proceedings related to road traffic accidents that occurred in analogous circumstances, possibly in the same place. This helps the victim's representative determine their legal position. Naturally, there are no two identical road accidents, but there are so-called typical situations, and, accordingly, the legal positions of courts of various instances on their resolution. The level of support for this approach among the surveyed lawyers is 77%.

We consider consultations with experts to be a separate element of the search component of representing a road traffic accident victim at the subsequent stage of the pre-trial investigation, which help to correctly formulate the questions in the petition for an expert examination, assess the technical capacity of the testimony of witnesses and the suspect, timely warn about the lack of initial data for the examination, etc. 94.5% of the surveyed lawyers agreed with the expediency of such a step.

The search activities of a road traffic accident victim's representative also include the collection of various information about the identity of the suspect, which must be considered by the court when passing a verdict. Such information includes, among other things, criminal records, facts of administrative liability, specifically for violation of traffic rules. Information about the property belonging to the suspect is also important, as it may be seized to secure a civil claim. Various open registers and lawyer's requests are tools for obtaining this information.

Comparison of the expert opinions obtained during the survey with the work of scientists helped to supplement the results of the study. As for the interrogation of victims, special requirements for their interrogation should be imposed if they are minors. These requirements are both legal (statutory) and psychological in nature. The representative of such a victim should take steps to ensure that the investigator or prosecutor follows such requirements. As pointed out by V. Zarubei *et al.* (2021), at the further stage of the investigation of a criminal road accident, it is advisable to rely on the researchers' conclusions that the method of obtaining testimony should be based on the age and procedural status of the minor, which requires a special approach given the vulnerable state, social immaturity, and the risk of violation of the rights and freedoms of such persons. O.Y. Guseva *et al.* (2021) emphasise that in each case of interrogation of an underage victim, it is advisable to ensure that the interrogation is conducted by an investigator specially trained for this purpose and of the same sex as the victim; the questions to be asked are clear, simple, and without alternative; and that specialists in age-related pedagogy and age psychology are consulted and present during the interrogation. The author also supports the practice of introducing "green rooms" in the field of criminal justice, as the child's environment during the relevant procedural actions is crucial for establishing contact with the child (Zarubei *et al.*, 2021).

Regarding the continuous video recording of interrogation, which according to the survey is not always used by investigators, important aspects are noted by I. Miroshnykov *et al.* (2022). The scientists argue that an additional useful effect of video recording during the interrogation of a suspect is that it will be possible to investigate all their non-verbal and paraverbal reactions to questions and evaluate the veracity of their answers based on behavioural patterns. Furthermore, scholars fairly point to the possibility of using other means of detecting lies in the testimony of a suspect that are extra-procedural in nature, namely, polygraph examination (Miroshnykov *et al.,* 2022). A suspect may, in an attempt to avoid punishment, provide deliberately false testimony. Therefore, if doubts regarding the veracity of the suspect's testimony are confirmed, the representative of the road accident victim may initiate the use of procedural means of exposing false testimony, to which scholars rightly include repeated interrogation, additional and simultaneous interrogation of previously interrogated persons, and an investigative experiment (Mohilevskyi, 2022).

At the same time, modern Ukrainian and world science pays great attention to the narrowly professional aspects of conducting certain types of examinations in cases of crimes against road safety. Specifically, this refers to such types of expertise as forensic and automotive. For instance, in 2023, medical experts investigated the issues of assessing the severity of facial and general trauma in children and adolescents injured in road accidents (Xavier *et al.,* 2023), as well as diagnosing facial fractures and determining the severity of associated injuries after motorcycle accidents (Chuang *et al.,* 2023). The introduction into expert practice and use of the methods proposed in this study are important for the criminal

[1] Criminal Procedural Code of Ukraine. (2013, April). Retrieved from https://zakon.rada.gov.ua/laws/main/4651-17?lang=en#Text.
[2] Law of Ukraine No. 5076-VI "On the Bar and Practice of Law". (July, 2012). Retrieved from https://zakon.rada.gov.ua/laws/show/5076-17#Text.

law qualification of criminal road accidents, which largely depends on the severity of the injuries sustained by the victim. The same can be said about the methods of determining the cause of death within 24 hours of the accident (Kamabu *et al.*, 2023) and determining the cause of death of road traffic victims in individual cases (Rastogi *et al.*, 2023)

Automotive experts have recently also been investigating specific issues of conducting examinations in the field of their professional activity. This includes determining the speed of the vehicles before the initial contact (Serdiukov, 2018), which is important legally for establishing causal links between the actions of the road traffic participants and the harmful consequences of a car accident. Scientists have also developed methods for determining the technical failure of a vehicle's braking system (Koshkarov, 2020) and establishing indicators of the traction of a vehicle's wheels (tyres) to the road surface (Kashkanov *et al.,* 2020). These techniques are important for determining the technical ability of a driver to avoid an accident, which in turn has a considerable impact on the decision on their guilt. To address this issue, in some cases, the results of examinations of automotive lubricants are important, which necessitates scientific research into their properties (Estevanes *et al.,* 2023). The above-mentioned scientific achievements enrich expert and legal practice and are important for the representative of a road accident victim.

Conclusions

Based on the results of the survey, analysis of criminal proceedings and regulatory documents, a list of appropriate investigative actions for a road accident victim's representative was established. The results of the survey showed that, based on the forensic methods of investigating crimes against road safety, it is effective to determine the most suitable list and sequence of investigative (detective) actions necessary to complete the objectives of the representation, actively monitor the work of the investigator and provide them with advice or adjust their activities in a procedural manner.

As a result of the analysis of criminal proceedings, it was found that investigative (detective) actions carried out at the subsequent stage of pre-trial investigation of crimes against road safety may include re-inspection of the scene; additional interrogation of witnesses and the victim; interrogation of the suspect; interrogation of two or more previously interrogated persons, investigative experiment, and expert examinations. The survey showed that it is advisable for a representative of a road traffic accident victim to initiate a re-inspection of the scene of the accident if, during a preliminary personal inspection of the scene, they have discovered circumstances important to the criminal proceedings that were not established and recorded by the investigator during the initial inspection of the scene or when conflicting witness statements can be verified in this way. Additional interrogations, including interrogations of two or more previously interrogated persons, should be initiated by the victim's representative when it is necessary to clearly record or eliminate contradictions in the testimony of different witnesses or the suspect, as well as to identify the reasons for the inconsistency of their testimony with other factual data obtained in criminal proceedings.

In the opinion of experts and based on the results of the analysis of criminal proceedings, it can be argued that the initiative of the road accident victim's representative to conduct an investigative experiment is appropriate when there are all the initial data and necessary conditions for its conduct, and the investigator does not appoint it, as well as when the investigator asks the victim's representative for such an initiative for certain tactical reasons. The search component of the activities of the road traffic accident victim's representative at the subsequent stage of the pre-trial investigation, depending on the circumstances, may include personal visit to the scene of the accident, its examination and observation; identification and interviewing of still unknown witnesses to the accident; search and analysis of criminal proceedings concerning road traffic accidents that occurred under analogous circumstances in the same place; consultations with experts; collection of data characterising the perpetrator of the accident, information about their property; detection and exposure of attempts to unlawfully influence the victim and witnesses.

Prospects for further scientific research in this area are a detailed investigation of the institution of using special knowledge in criminal proceedings as an instrument of activity of a road accident victim's representative at the subsequent stage of pre-trial investigation.

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Conflict of Interest

The author of this study declares no conflict of interest.

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Представництво потерпілого від дорожньо-транспортної пригоди на подальшому етапі досудового розслідування

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■ **Анотація.** Через брак професійних кадрів і високе навантаження на слідчих розслідування злочинів проти безпеки дорожнього руху та експлуатації транспорту часто проводять неефективно. Унаслідок цього права жертв автомобільних аварій залишаються незахищеними. Це зумовлює актуальність питань надання їм правової допомоги. Метою дослідження визначено розроблення засад представництва потерпілого на подальшому етапі досудового розслідування злочинів проти безпеки дорожнього руху. З-поміж методів, які використано в цьому дослідженні, слід виокремити загальнонаукові (індуктивний, дедуктивний, аналіз, синтез, аналогія, моделювання) та спеціальні (системно-структурний аналіз, логіко-юридичний, порівняльно-правовий, соціологічний). Діяльність представника потерпілого від дорожньо-транспортної пригоди під час подальшого етапу досудового розслідування розглянуто з розмежуванням її на окремі компоненти (процесуальний, контрольно-консультативний та пошуковий), які є взаємопов'язаними та взаємообумовленими. Системно окреслено особливості цих компонентів у їх взаємозв'язку. Процесуальний та контрольно-консультативний компоненти досліджено невідривно один від одного на загальному рівні й на рівні проведення конкретних слідчих (розшукових) дій. Пошуковий компонент досліджено окремо з визначенням конкретних його складників, прийомів і засобів їх реалізації. Визначено засади організації та деякі тактичні прийоми представництва потерпілого від дорожньо-транспортної пригоди на подальшому етапі досудового розслідування злочинів проти безпеки дорожнього руху. Запропоновано методику ініціювання представником потерпілого необхідних слідчих дій за різних типів взаємодії (конструктивна, офіційно-ділова, конфліктна), що склалися на подальшому етапі між ним і представниками сторони обвинувачення. На підставі аналізу законодавства України та практики його застосування встановлено коло проблем, які виникають у практичній діяльності представника потерпілого від дорожньо-транспортної пригоди на подальшому етапі досудового розслідування, та запропоновано шляхи їх розв'язання. Використання положень цього дослідження буде сприяти вдосконаленню діяльності адвокатів-представників, підвищенню ефективності надання правничої допомоги потерпілим від дорожньо-транспортної пригоди, а також проведенню подальших наукових розвідок за цим напрямом

■ **Ключові слова:** адвокат-представник; слідчі (розшукові) дії; кримінальне провадження; кримінальне правопорушення; захист прав; безпека руху

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