SECTION 7.
LAW AND INTERNATIONAL LAW

Konovalova Violeta Omelyanivna
Doctor of Legal Sciences, Professor, Academian
National Academy of Legal Sciences of Ukraine, Ukraine

chief researcher
Academician Stashis Scientific Research Institute for the Study of Crime Problems, Ukraine

Shevchuk Viktor Mikhailovich
Doctor of Legal Sciences, Professor
Professor of Criminalistics Yaroslav Mudryi National Law University, Ukraine

leading researcher
Academician Stashis Scientific Research Institute for the Study of Crime Problems, Ukraine

DIGITAL CRIMINALISTICS AS A STRATEGIC DIRECTION OF FORMATION OF CRIMINALISTIC KNOWLEDGE

Abstract. *The article is devoted to the study of the current problems of digital criminalistics as a strategic direction of the formation of criminalistic knowledge in the modern conditions of the war in Ukraine and global threats. It is justified that in today's realities, digital information is an integral attribute of the activities of criminal justice bodies and criminal activities, which in turn determines the development trends of criminalistics, which is at the forefront of the fight against crime. The necessity of intensifying scientific research on the role of digital criminalistics in documenting war crimes committed by the Russian Federation on the territory of Ukraine has been identified. It is noted that today the formation of digital criminalistics is a strategic direction of the development of criminalistic science, which has chosen a European course of development. Under such circumstances, the development and creation of a system of digital criminalistics tools in the modern conditions of military threats should be considered as an important strategic direction for the formation of criminalistic knowledge. An analysis of the debatable problems of the above-mentioned issues was carried out, and prospective directions of research in this field of knowledge were determined.*

Introduction. Today, digitization is a modern trend in the development of society, becoming the most important factor in the economic, social, political and international growth of any country, including Ukraine, which chose the European development vector [1, p. 890]. Granting Ukraine the status of a candidate for EU membership created an additional impetus for harmonizing approaches to digital transformation. In this regard, an important event was the fact that Ukraine joined the «Digital Europe» Program until 2027, the purpose of this program is to activate the recovery of the economy and the digital transformation of Ukraine [2]. The formation of a single digital market with the EU and the approximation of the digital sector of Ukraine to the European one are the priorities of the national policy of digital transformations in the conditions of war.

It is worth noting that with the development of society, digitalization of all spheres of life, the system of law enforcement agencies needs constant improvement, in particular, its transition

to a new reality - digital. Digital reality is associated with the emergence of new forms of crime - cybercrime, information fraud, a huge number of cyberattacks on various enterprises and institutions [3, p. 92-102]. Digital information, as an integral attribute of the activities of criminal justice bodies and criminal activity, determines the development trends of legal science, including criminalistics [4], which is at the forefront of the fight against crime and one of the tasks of which is to provide law enforcement agencies and courts criminalistic methods and means of combating modern challenges of crime, including taking into account military challenges [5, p. 187-195].

Results and discussion. The full-scale armed aggression of the Russian Federation and the introduction of martial law in Ukraine had a significant impact on our society. Starting from February 24, 2022, the tasks and priorities of our state changed, since the development and functioning of Ukraine, society and the world in general were significantly affected by the full-scale armed aggression of the Russian Federation and the introduction of martial law in our country. According to the official statistics of the Office of the Prosecutor General, the following are the most common crimes: a) crimes of aggression and war crimes - 64,508 crimes were registered (as of January 16, 2023); b) crimes against national security – 17,150 crimes; c) crimes against children – 455 children were killed, 897 children were injured; 4) the main case concerning the aggression of the Russian Federation – 636 suspects are representatives of the military and political leadership of the Russian Federation [6].

It is obvious that such dynamics and trends of crime in Ukraine during the war had a significant impact on changing the priorities of criminalistics tasks and the activities of the criminal justice system [7, p. 388]. Under such conditions, there was an urgent need to develop new approaches in the fight against modern military challenges, the need to modernize and update law enforcement and judicial bodies to modern conditions of martial law, to create and introduce an effective system for countering existing threats, including by means of criminalistics [8, p. 114-130].

In today's military realities, the main task of criminalistics is the development and application of tools, techniques and methods that allow collecting, researching, and using evidentiary information in the conditions of war and global threats [9, p. 190]. The system of pre-trial investigation bodies, the prosecutor's office, and criminal justice bodies are faced with new challenges related to the need for quick, comprehensive and high-quality documentation, gathering the evidence base of mass criminal violations of international humanitarian law, including the provision of a security environment in Ukraine, which has chosen the European the course of development today resists the military aggression of the occupying forces of the Russian Federation.

Today, the question of increasing the role of criminalistics in promoting and ensuring a safe environment in our country, optimizing and increasing the effectiveness of combating modern crime [10, p. 8-25], including war crimes and cybercrimes through the active use of digital technologies, is an acute issue. Under such circumstances, it is now possible to talk about the activation of trends in the formation and application of a new scientific direction - Digital Forensics [11] (or Digital Criminalistics), which today defines the strategic tasks of the development of modern forensics. As you know, other terms are used to denote this direction in criminalistic literature – «computer criminalistics» (Computer Forensic) [12, p. 29-30], «electronic criminalistics» [13, p. 79] or «criminalistics in computer systems» [14, p. 189].

The further development of criminalistics in the conditions of the information society, digitization and military realities of today is impossible without the wide use of innovative and fundamental knowledge in the field of digital criminalistics — a new field of criminalistics that is dynamically developing today and forms theoretical and methodological foundations in this field of knowledge [15, p. 160]. Today, criminalistics corresponds to the development of digital technologies, creating means and methods of the possibility of extracting forensically significant information from a new type of media. Thanks to scientific and technical progress, it becomes possible to use digital technologies in law enforcement activities, which accelerates the process of

pre-trial investigation, allows to more fully form the evidence base in the investigation of criminal offenses [16, p. 321], and in the future ensures the quality of judicial review of criminal materials proceedings

In the criminalistic literature [17], there are different approaches to defining the concept of digital criminalistics and its place in the system of forensics and criminalistic sciences. Some scientists point out that digital criminalistics is a separate branch of criminalistic science, which is a system of scientific methods for researching digital evidence in order to facilitate the detection and investigation of criminal offenses [18, p. 290]. Others believe that digital forensics is related to the process of collecting, receiving, saving, analyzing and submitting electronic (digital) data for the purpose of obtaining investigative information, evidentiary information and conducting investigations and prosecutions in relation to various types of criminal offenses [19, p.179], including cybercrimes and war crimes committed by the occupying forces of the Russian Federation on the territory of Ukraine [20].

Some sources indicate that digital criminalistics is «a branch of forensics that focuses on criminal procedural law and evidence related to computers and related devices» [21, p. 29], such as mobile devices (for example, telephones and smartphones), game consoles and other Internet-enabled devices (for example, health and fitness devices and medical devices) [22]. In addition, digital criminalistics is related to the process of collecting, obtaining, preserving, analyzing and presenting electronic (digital) evidence in pretrial and judicial proceedings. As noted by V. Yu. Shepitko (2021), digital criminalistics can be a strategic direction in the development of criminalistics [14].

In view of the above, it can be stated that the subject of digital criminalistics is the regularities of detection, recording, preliminary research, use of computer information and means of its processing in order to solve the tasks of detection, disclosure, investigation and prevention of criminal offenses, as well as development based on this knowledge regularities of technical means, techniques, methodical recommendations aimed at optimizing activities in the fight against criminal offenses.

The object of digital criminalistics is, on the one hand, criminal offenses related to the use of computer technologies and social relations that arise in the course of detection, disclosure and investigation, and criminal offenses when detection, recording, preliminary research is carried out, use of computer information and means of its processing [23, p. 389], and on the other hand - the activities of law enforcement agencies regarding the investigation of such criminal offenses and the issue of the development and application of criminalistic techniques, methods, means of using computer technologies in the fight against crime [24].

Therefore, digital criminalistics is a branch of criminalistics that studies the patterns of occurrence and use of digital traces and, based on the knowledge of these patterns, develops technical means, techniques and methods for detecting, recording, extracting and researching digital information and means of its processing for the purpose of disclosure, investigation and prevention of criminal offenses. We believe that it is necessary to clearly distinguish between digital criminalistics as a separate field of criminalistic knowledge, aimed at the study of digital traces, on the one hand, and on the other - the use of digital technologies in investigation and judicial proceedings [25, p. 40-47], that is, the process of digitalization of criminalistics as a natural modern stage of its development and formation, which involves the introduction of digital technologies in various fields of criminalistics technology and forensic examination, to the very process of pre-trial investigation.

Based on the above, it can be concluded that digital criminalistics is «one of the branches of forensics that focuses on criminal procedural law and evidence regarding computers and related devices» [26], such as mobile devices (eg telephones and smartphones), game consoles and other Internet-enabled devices (eg health and fitness devices and medical devices) [27]. In addition, digital criminalistics is related to the process of collecting, obtaining, saving, analyzing and

presenting electronic (digital) evidence in pretrial and judicial proceedings [28]. Therefore, digital criminalistics can be a strategic direction in the development of criminalistic science [29, p. 192]. In our opinion, digital criminalistics actually represents a strategic direction in the formation of modern criminalistics knowledge.

Conclusions. Thus, today there is an urgent need to develop and form a separate section of criminalistics - digital criminalistics, the application of which knowledge significantly increases the possibilities of collecting, researching, and using digital information as evidence in the modern conditions of the war in Ukraine [30]. Under such circumstances, intensifying the study of the role of digital criminalistics in documenting war crimes committed by the Russian Federation on the territory of Ukraine is a promising and strategic direction for the development of criminalistics as a European science. Moreover, the development and development of digital criminalistics tools in the modern conditions of global and military threats today can be considered as an important strategic direction for the formation of criminalistic knowledge and its successful application in investigative, expert and judicial practice in the realities of wartime.

References:

1. Konovalova, V. O. & Shevchuk, V. M. (2022). Modern criminalistics in the conditions of war: problems of adaptation and reload. *Modern research in world science*: Proceedings of the 5th International scientific and practical conference (August 7-9, 2022). SPC —Sci-conf.com.ua. Lviv, Ukraine, 896-903.
2. Україна долучилася до Програми «Цифрова Європа»: що це означає | Кабінет Міністрів України. https://www.kmu.gov.ua/news/ukraina-doluchylasia-do-prohramy-tsyfrova-ievropa-shcho-tse-oznachaie (дата звернення: 16.01.2023).
3. Шепітько, В. Ю., Коновалова, В. О., Шевчук, В. М., et al. (2021). Науково-технічне забезпечення слідчої діяльності в умовах змагального кримінального процесу. *Питання боротьби зі злочинністю*, 1, 42, 92-102.
4. Шевчук, В.М. (2022). Європейський вектор розвитку сучасної криміналістики. *Адаптація правової системи України до права Європейського союзу: теоретичні та практичні аспекти*: VI Всеукр. наук.-практ. конф. (м. Полтава, 29.09.2022 р.). Полтава: Полтавський юридичний інститут, 325-327.
5. Shevchuk, V. (2022). The role of criminalistics in improving the efficiency of the investigation of war crimes committed by the military of the rf in Ukraine. *Scientific Collection «InterConf»*, (122), 187-195.
6. Сайт Офісу Генпрокурора. URL: https://www.gp.gov.ua/ (дата звернення: 16.01.2023).
7. Konovalova, V. O., Shevchuk, V. M. (2022). Innovations in the methodic of teaching criminalistics in modern realities of war. *Modern scientific research*: *achievements, innovations and development prospects*: 15th International scientific and practical conference (August 14-16, 2022). Berlin, Germany, 2022, 385-396.
8. Шевчук, В. М. (2021). Криміналістична інноватика як доктринальний напрямок криміналістики. Право України, 8,114-130.
9. Shevchuk, V. M. (2022). The role of criminalistics in improving the efficience of the investigation of war crimes committed by military of the RF in Ukraine. *Scientific Collection «InterConf»*, (122): with the Proceedings of the 1st International Scientific and Practical Conference «Diversity and Inclusion in Scientific Area» (August 26-28, 2022). Warsaw, Poland: Ceac Polonia,187-195.
10. Shevchuk, V. (2021). Innovative optimization directions of investigative (detective) activity in modern condition. *Theory and Practice of Forensic Science and Criminalistics*: Collection of Scientific Papers. Kharkiv : NSC “Hon. Prof. M. S. Bokarius FSI”, 2021. Issue 2 (24), 8-25.
11. Шевчук В. М. (2022). Цифрова криміналістика: формування та роль у забезпеченні безпекового середовища України. *Нова архітектура безпекового середовища України*: зб. тез Всеукр. наук.-практ. конф. (м. Харків, 23 грудня, 2022 р.). Харків: Юрайт, 146-150.
12. Полотай О.І. (2022). Комп’ютерна криміналістика: основні завдання та проблеми. *Інформаційне суспільство: технологічні, економічні та технічні аспекти становлення*: міжн. наук. інтернет-конф. Тернопіль, 68, 29-30

13. Заєць І. С. (2020). Перспективи криміналістики в умовах інформатизації суспільства. *Актуальні питання виявлення та розкриття злочинів Національною поліцією: вітчизняний та зарубіжний досвід* : матеріали Міжнар. наук.-практ. круглого столу (Київ, 19 лют. 2020 р.). Київ, 79.
14. Шепітько В., Шепітько М. (2021). Формування цифрової криміналістики як стратегічний напрямок розвитку науки. *XVII Medzinarodny Kongres Kriminalistika a Forenzne Vedy. Criminalistics and Forensic Expertology: Science, Studies, Practice*. Abstracts of the XVII International Congress (September 16-17, 2021). Bratislava, Slovak Republic,187-198.
15. Shevchuk, V. (2022). Innovative Essence of Criminalistic and Prospective Directions of its Development. *Developments of criminalistics theory and future of forensic expertology: liber amicorum profesoriui Egidijui Vidmantui Kurapkai*. Collective. Vilnius, Mykolas Romeris University, 152-168.
16. Shevchuk, V., Vapniarchuk, V., Borysenko, I., Zatenatskyi D., Semenogov, V. (2022). Criminalistic methodics of crime investigation: Current problems and promising research areas. *Revista Juridica Portucalense*, 32, 320–341.
17. Samodin, A. V. (2021). Innovations in criminology and forensic examination: interdisciplinary materials. science and practice conf. (Kyiv, November 25, 2021). Kyiv : Nats. akad. vnutr. sprav, 275-279.
18. Степанюк, Р. Л. Перлін С. І. (2022). Цифрова криміналістика й удосконалення системи криміналістичної техніки в Україні. Вісник Луганського державного ун-ту внутрішніх справ ім. Е. О. Дідоренка, 3 (99), 290.
19. Колодіна А. С., Федорова Т. С. (2022). Цифрова криміналістика: проблеми теорії і практики. *Київський часопис права*, (1), 176-180.
20. Шевчук В. М. (2017). Проблеми вдосконалення науково-технічного забезпечення слідчої діяльності. Питання боротьби зі злочинністю: зб. наук. пр. / ред. кол. : В. І. Борисов та ін. Х. : Право, 2017. Вип. 33. С. 108-122.
21. Maras M.-H. (2014). Computer Forensic: Cybercriminals, Laws, and Evidence. Second Edition, 29.
22. Киберпреступность. Введение в цифровую криминалистику. (2019). Модуль 4. Вена: ООН, 2.
23. Konovalova V. O., Shevchuk V. M. (2022). Innovations in the methodic of teaching criminalistics in modern realities of war. *Modern scientific research*: *achievements, innovations and development prospects* : Proceedings of the 15th International scientific and practical conference (August 14-16, 2022), 385-396.
24. Shevchuk V. (2020). Modern problems of formation and prospects for researching the concept of criminalistic innovation. *Tendances scientifiques de la recherche fondamentale etappliquée:* collection de papiers scientifiques «ΛΌΓΟΣ» (Vol. 2), 30 octobre, 2020. Strasbourg, 67-72.
25. Шевчук, В. М. (2022). Перезавантаження криміналістики в умовах війни: проблеми, завдання, перспективи. *Проблематика документального оформлення, визначення шкоди та відшкодування збитків, завданих Україні та її громадянам внаслідок збройної агресії Російської Федерації*: тези наук.-практ. конф. (м. Харків, 22 червня 2022 р.). Х. : НЮУ імені Ярослава Мудрого, 40-47.
26. Maras Marie-Helen. Computer Forensic: Cybercriminals, Laws, and Evidence. Second Edition. Burlington, Jones & Bartlett Learning, 2014. 408 p.
27. Konovalova, V. O., Shevchuk, V. M. (2021). Prospective directions of research of innovations of separate criminalistic methodics. *Scientific practice: modern and classical research methods* : Collection of scientific papers «ΛΌΓΟΣ» (Vol. 1), February 26, 2021. Boston-Vinnytsia, 81-85.
28. Shevchuk, V. M. (2020). Innovations in criminalistic and practice of their implementation in law enforcement activity. Modern science: problems and innovations. Abstracts of the 2nd International scientific and practical conference. SSPG Publish (May 3-5, 2020). Stockholm, Sweden. 2020. Pp. 903-913.
29. Shepitko, V., Shepitko, M. (2021). The Formation of Digital Criminalistics as a Strategic Direction for the Development of Science. *XVII Criminalistics and Forensic Expertology* (September 16-17, Bratislava), 187-198.
30. Shevchuk V. Tasks of criminalistics in modern conditions of war. *Український дослідницький простір в умовах війни: адаптація й перезавантаження технічних та юридичних наук*: міжн. наук.-практ. конф. (Харків-Рига, 31 травня 2022 р.). Харків, 2022. С. 28-30.