

The Impact of Digitalization on the Level of Crime during the Pandemic

Larysa Arkusha¹, Oleh Dykyi², Mykhailo Kosiuta³, Nataliia Fedchun⁴, Mariia Diachkova⁵,
Bogdan Osadchy⁶

National University "Odesa Law Academy"^{1,2,3,4,5,6}

Summary

The digitalization process affects transformations in all spheres of social life. In today's conditions of the development of social relations, the growth of digital technologies has a consequence of the growth of changes in communication in society. Such innovative technologies manifest themselves especially noticeably during the pandemic, when opportunities are limited due to the threat of the coronavirus. Digitalization has allowed members of society to be in continuous communication even during the pandemic, but such communication has changed crime. Therefore, it is important to understand how digitalization has affected the level of crime in the world, to form the main features of such transformations and to determine the direction of these changes in the future. The purpose of the work is to study the specifics of the impact of digitalization during the pandemic on the level of crime. The object of the study is digitalization during the pandemic and the causal relationship between digitalization during the pandemic and its impact on the level of crime. The subject of the study is social relations that arise, change and cease during digitalization during the pandemic in the criminal-legal aspect. During the conducted research, the peculiarities of the impact of digitalization during the pandemic on the level of crime were clarified. In particular, it was concluded that the virus, which poses a threat to human health and has spread to the territory of the entire world, has revolutionized the usual law and order among both the law-abiding population and criminals. Moreover, the process of digitalization has changed a number of crimes, which also affected the level of crime. As a conclusion, it is concluded that the pandemic will affect the life of society and the level of crime in it for a long time, and therefore, when taking measures to introduce innovative information technologies, it is important to pay attention to how such measures are reflected in the level of crime in Ukraine and the world.

Keywords:

digitalization, crimes in the field of IT, pandemic, level of crime, factors of crime.

1. Introduction

In modern conditions of development, social relations are changing under the influence of various factors. To begin with, digitalization had a significant impact on such changes, and after the spread of the Covid-19 pandemic, the interaction between people took on new forms, and the practice of communication on the Internet – the so-called digital space – took on increasingly permanent forms.

Digitalization is directly related to the use of information and communication technologies. Today, it is impossible to imagine your life without personal computers, mobile phones and mobile communications, the use of ATMs, bank terminals, electronic banking on mobile devices, contactless payment for goods and services using PayPass technologies and others.

At the same time, despite the positive aspects provided by digitalization in the conditions of the pandemic, socially negative, socially dangerous, criminal behavior, crime as a social and criminal law continues to exist and take on new forms. Thus, the pandemic affected crime, as an integral part of social relations in the state, and became a significant threat to its national security.

It can be argued that society combines a number of interrelated processes. Such a mechanism consists of many elements (social relations), and, therefore, changes in one of the elements affect other elements. Considering the fact that Covid-2019 intervened in the social life of most countries of the world, the usual rhythm and lifestyle of millions of people on the planet have undergone changes. These changes naturally affected the level of crime.

According to information from Interpol, since the beginning of the pandemic, the number of sales of counterfeit medicines (antimalarial groups) and vitamins, falsified protective masks, and disinfectants has increased rapidly. Interpol warns that restrictive measures during the coronavirus pandemic have led to an increase in the number of sexually motivated crimes against children. Thus, according to law enforcement agencies, among the factors that caused such consequences, there is the closure of schools on the environment, an increase in the time that children spend on the Internet, restrictions on international travel and repatriation of foreigners, and limited access to social support services and teaching staff who have crucial in detecting cases of sexual exploitation of children [18].

The change in crime rates occurs in different countries. In Ukraine, in March-July 2020, the level of crime decreased by 30%, however, the structure of crime also changed. For example, there has been an increase in the level of cybercrime (the number of criminal offenses committed using computer equipment, information technologies, and global networks has increased), as well as

an increase in the number of frauds using Internet technologies

Considering the above, the issue of the impact of digitalization on the level of crime during the pandemic is necessary for understanding, including the legal regulation of this area, thus it is necessary to analyze this issue, understand the cause-and-effect relationship, and also pay attention to international experience in this problem, which contributed to the reduction of the level of crime during the pandemic.

2. Methodology

Philosophical methods were employed during the study of the impact of digitization during the pandemic on the level of crime. In particular, philosophical-dialectical laws and categories made it possible to understand how digitization affects the transformation of crimes in the modern world. In particular, philosophical-dialectical laws and categories were necessary and sufficient for studying information about crime during the pandemic. Taking into account the fact that legal questions about crime are transformed into cognitive ones, and then a theoretical mastery of the relevant social phenomena is carried out, to learn the essential basis of factors affecting the level of crime, the entire system of spatio-temporal characteristics of legal reality is included, in particular, social and historical conditioning, interrelationships connections, dependencies, the interaction of all legal factors, etc. At the same time, the most fruitful methodological basis for explaining the cause-and-effect relationship between the pandemic, digitalization, and the level of crime was served by such principles and laws of dialectics as the law on the general, universal connection of objects and phenomena of the surrounding world, the concept of social determinism, the principle of historicism, etc. Consequently, the concept of cause-and-effect relationship performs an important methodological function, because by knowing the causes and conditions under which a specific consequence occurs, it is possible not only to predict the occurrence of such a consequence but also to generate the consequence that is more necessary for it.

The biggest doubts and contradictions in the analysis of crime during the pandemic in the conditions of digitalization were considered using a systematic method. In particular, this method made it possible to understand that crime represents a relatively independent, dynamic, probabilistic social system, the elements of which are specific crimes, as well as separate types of crimes, united in homogeneous groups, and the connection reflects that crime has its own characteristics and a regularity inherent only to it. The study of this regularity in the conditions of the pandemic helped to form conclusions on the researched issue.

With the help of logical methods, the content of digitization, and the peculiarities of the influence of various factors on the growth and decline of crime among different countries were revealed. Thus, the use of the analysis method made it possible to consider in detail various factors affecting the level of crime, as well as how digitalization affects the transformation of social relations. The use of techniques such as induction, deduction, and synthesis helped to comprehensively consider the phenomenon of digitalization concerning social relations and the changes that such relations receive due to the pandemic and related restrictions. In general, the use of logical methods of knowledge, both at the theoretical and empirical levels, made it possible to obtain knowledge that is not only correct in form, but also new in essence, and therefore helped to form clearer conclusions for this study.

Using the statistical method, information on changes in the level of crime was analyzed in detail, taking into account various factors. Thus, the method of statistics as a complex method made it possible to investigate the relationship and interdependence of data for comparing the state of crime during the pandemic period, as well as in the pre-quarantine period. The collection and evaluation of statistical data and statistical observation contribute to the exposure of inherent general features, processes and patterns regarding the impact of digitalization during the pandemic on the level of crime.

3. Theoretical Background

Arkusha and Mandrychenko (2020) provided a general description of criminal activity under quarantine conditions. Thus, the authors concluded that under the conditions of quarantine it is possible to single out the following crimes in the field of digitalization: fraudulent activity using Internet resources to sell low-quality goods not only for medical purposes, for preparation for committing other crimes (i.e., for example, collecting information about "object of criminal encroachment") or for spreading false information; cybercrimes aimed at gaining access to and collecting confidential information, conducting illegal transactions, etc. [1].

General theoretical questions regarding the specifics of crimes committed during the pandemic were investigated by Bandurka O.M., Bandurka I. O. (2020) [2]. Moreover, Batyrgareeva, Borisov, Yevteeva, Kalinina, Kolodyazhnyi, and Shramko (2020) considered the socio-legal and criminological problems of the spread of the Covid-19 pandemic in Ukraine. In the article, the authors considered several socio-legal and criminological problems that arose in Ukraine as a result of the spread of the global COVID-19 pandemic, which became a challenge to the epidemic safety and social well-being of humanity, and noted that the most serious consequence of the considered

pandemic is a high mortality. Along with this, several negative consequences for the life of society in various spheres (for example, in the field of human rights, legal regulation of social relations, state economy, social life, and information space, state of law and order) have formed [3]. Besides, Golovkin (2017) considered the features of using the electronic crime prevention system in large cities [4]. In the work of Golovko, Shpak, and Mykyta (2021), the dynamics of offenses during the Covid-19 pandemic are discussed in detail, using the example of domestic violence and cyber-violence. The authors concluded that, unfortunately, during the quarantine, the level of certain types of offenses especially increased. Among such crimes are cybercrime and domestic violence offenses directly [5]. Additionally, Denisova (2020) considered the manifestations of crime determination in the context of a pandemic [6]. Ukrainian and foreign experiences of crime in the period before and after the pandemic were considered by Zabarnyi (2021). The author draws attention to the fact that during the pandemic there was a significant change in the structure of crime as a whole: there was a significant decrease in the first month of the number of "street" types of crimes and an increase, first of all, in cybercrimes, there was an increase in fraud using IT technologies, domestic violence, and theft [7].

What is more, Kalinina (2020) made a criminological forecast of the virus pandemic regarding the general legal order. In the opinion of the author, in connection with the COVID-19 pandemic and related quarantine measures, it is possible to predict: an increase in the number of criminally punishable violations of sanitary rules and norms regarding the prevention of infectious diseases and mass poisoning (Article 325 of the Criminal Code of Ukraine); an increase in the number of frauds; spread of cases of vandalism, looting, hooliganism, especially at night; increase in manifestations of cybercrime; an increase in the number of cases of domestic violence, violent crimes, crimes against sexual freedom and sexual integrity committed on domestic grounds; revitalization of some background phenomena for crime (especially alcoholism, drug addiction, suicides, homelessness, etc.); intensification of illegal migration and related crimes, etc. [8].

The article by Kryzhanovskiy (2020) examines the current and further consequences of the impact of the pandemic of the coronavirus disease COVID-19 and the quarantine regime introduced by the authorities of various states on law and legal order [9]. Features of the use of Smart Building technology in the crime prevention system in Ukraine were considered by Kulyk (2019) [10].

Litvinov (2020) considered the features of the implementation of digitization tools. According to the author, before introducing technological innovations into human life, one should take care of understanding the role of "number" in human life [11].

Theoretical and legal aspects of cyber-violence, as a crime that gained popularity in the context of the pandemic, were considered by Novikov, and Novikova (2021) [12]. Romanov (2020) considered the features of digitization and ensuring human rights during the pandemic [13].

A detailed analysis of coronavirus and post-coronavirus crime was conducted by E. Streltsov and L. Streltsov (2020). The authors emphasize that when studying the phenomenon of crime in the conditions of coronavirus and post-coronavirus, it is necessary to implement a complex and systematic approach: to isolate coronavirus crime; manifestations of this phenomenon can have both "quick" and long-term consequences, some of which can already be predicted today, others exist at the level of probability, and some, and this must also be taken into account, we still have no idea about [14].

Tretyak (2020) considered economic crimes and fraud in the context of a pandemic [15]. Also, Shevchuk (2020) was interested in the issue of the impact of the Covid-19 pandemic on crime. The author concluded that the pandemic has a negative impact on all social processes, first of all, economic ones [16]. Quarantine measures had a significant impact on the state's economy and, accordingly, reduced the well-being of almost every one of its citizens, which may become a prerequisite for a surge in self-interested and violent crime. However, its consequences are likely to manifest themselves in the future and they will concern not only changes in crime rates or the emergence of new types of criminal offenses.

The effect of quarantine on the crime rate in Chicago is analyzed by Bradley B. (2020) [17]. Tisdell C. A. (2020) focuses on the moral and ethical issues raised by policies to combat COVID-19, and factors affecting crime [19].

So, as can be seen from the above analysis of the literature, the question of the impact of the pandemic on crime has attracted interest among scientists and lawyers, however, a comprehensive study of the impact of digitization during the pandemic on the level of crime is currently absent, although it is relevant and necessary. Therefore, this topic should be analyzed in more detail.

4. Key Research Findings

Anti-epidemic measures regarding COVID-19 affected all spheres of social life. Thus, the pandemic as a social phenomenon increased the criminogenic potential in society, contributed to the repurposing of crimes, and changed the structure of crime.

The Interpol report notes that offenders quickly took advantage of the opportunities opened up by the crisis, adapting their illegal activities to it or resorting to new types of criminal acts. In particular, Europol concluded about the growth of cybercrime, fraud, the sale of counterfeit medical and sanitary products, personal protective equipment, and

the formation of a new, so-called "quarantine" type of organized crime, when groups of offenders carry out pre-designed scenarios - scams, pretending to be representatives of authorities and doctors in order to commit fraud and theft. [18].

Based on the analysis of scientific literature and statistical information, it is possible to generalize the following trends and consequences of the impact of digitization during the pandemic on the level of crime (Table 1).

Table 1: The impact of digitization during the pandemic on the level of crime

<i>Effects</i>	<i>Justification</i>
Increasing level of cybercrime	Contributed to the increase in the number of criminal offenses committed with the use of computer equipment, information technologies and global networks. The crisis had an impact not only on law-abiding citizens, but also on criminals, who quickly adapted to social reforms and began to conduct online activities more intensively. At the same time, the lack of proper protection of information on home computers, the increase in purchases of general goods and medicines online with payment using bank cards, etc., contribute to the successful activity of criminals.
An increase in the number of frauds using information technology	Using the imbalanced society in the new conditions of the pandemic, fraudsters take possession of other people's property by deception or abuse of trust (Shevchuk, 2020) [16]

Among the consequences of the interaction of digitalization, the COVID-19 pandemic and crime, the following should be noted:

1. The pandemic has put the issue of survival first on the agenda, and the use of convenient tools for public interaction have become tools for Internet fraud and data security breaches.

2. The pandemic increased the level of latency of certain types of crime, while not affecting its manifestation, such as criminal offenses in the field of road traffic safety and transport operation.

3. Among the main trends that can be followed with the impact of digitalization during the pandemic on the level of crime, it is possible to single out an increase in the manifestations of cybercrime.

Let us consider in more detail the national and foreign experiences regarding the impact of digitization during the pandemic on the structure of crime using the example of different countries (Table 2).

Table 2: The national and foreign experiences regarding the impact of digitization during the pandemic on the structure of crime

<i>Country</i>	<i>Key provisions</i>
Ukraine	In the first month of the pandemic, as follows from statistical data, a significant (compared to the same period last year in 2019) decrease in indicators for many types of criminal offenses was recorded in Ukraine. In Ukraine, cybercriminals created more than 10,000 fake resources related to the topic. The number of frauds increased by 48.5%, and actions using electronic payments – more than 2 times, IT crimes – by 83.9%. The total number of registered crimes by the end of March 2020 exceeded the figure of March last year by 4.4%, primarily due to the growth of cyber fraud – by more than 200%. the coronavirus pandemic [20,21].
Bulgaria	The statistics of crimes registered in Bulgaria immediately after the introduction of a special regime in the country show a significant decrease in their total number. Analyzing the trend of crime in Bulgaria in the first months of the last three years, one should recognize a decrease in indicators in February and an increase in March 2020. Under the conditions of quarantine, favorable conditions were created for cybercrime and fraud. During the state of emergency in Bulgaria, cybercrime increased by about a third compared to previous months. Almost half are hacking attacks on corporate networks for industrial espionage and extortion. The rest are crimes aimed at stealing personal data and money. (Zabarny, 2021) [7]
Spain	In the first month of the coronavirus pandemic, crime decreased by more than 70%. (Zabarny, 2021) [7]
United Kingdom	In the first month of the coronavirus pandemic, crime decreased by more than 70%. (Zabarny, 2021) [7]
USA	With the beginning of the announcement of the pandemic, there was a decrease in calls to the police by citizens, and therefore a decrease in the level of crime (in the states of Illinois, in particular in the cities of Chicago, Pennsylvania, Indiana, etc.). In some cases, the local police, with the help of official pages on social networks, appealed to criminals not to commit crimes during the pandemic, justifying the request by the fact that the number of coronavirus patients is constantly increasing (USA, Utah, Salt Lake City, etc.). (Zabarny, 2021) [7]

It can be concluded that the introduction of quarantine restrictions and digitalization, on the one hand, reduced the mobility of the population and contributed to the reduction of street crimes, although, at the same time, the expanded use of online stores and services, as well as online payments, significantly increased the number of frauds, especially cybercrimes.

5. Conclusions

1. The COVID-19 pandemic as a global phenomenon has transformed human civilization, on the one hand, creating new opportunities for population interaction using digitalization tools, and on the other hand, creating risks that bring new forms of crime and generally affect the level of crime.

2. Digitalization during the pandemic affected crime, both in the coronavirus and post-coronavirus conditions. In particular, "coronavirus crime" is singled out due to the impact of both the pandemic and digitalization, as such, which reflects through its content both the viral disease itself, the way of interaction, and those measures that are carried out to limit, reduce or stop the mass spread of this disease.

3. Foreign and national experience (USA, Great Britain, Bulgaria, etc.) shows that digitalization during the pandemic changed the structure of crime and its level. Thus, the number of cyberattacks and cybercrimes against organizations and individuals has increased, as the number of services, purchases, and electronic payments on the Internet has increased. In addition, another reason is the loss of jobs among the population and the rise of online fraud. As for further scientific research, we consider it expedient to analyze the specifics of crimes committed in the digital environment in the context of a pandemic, as well as ways to prevent them.

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Larysa Arkusha Doctor of legal sciences, Professor, Head of the Department of Criminal Procedure, Detective and Operational Investigation of the National University "Odesa Law Academy". ORCID: 0000-0002-0422-6416

Oleh Dykyi PhD in Law, Dean of the Faculty of Cybersecurity and Information Technologies of the National University "Odesa Law Academy", Associate Professor of the Department of Criminal Procedure, Detective and Operational Investigation of the National University "Odesa Law Academy". ORCID: 0000-0001-9659-9350

Mykhailo Kosiuta Doctor of Legal Science, Professor of Department of Judicial, Law Enforcement and Bar Organization of National University «Odesa Law Academy». ORCID: <https://orcid.org/0000-0002-6741-9207>

Nataliia Fedchun PhD in Law, Associate Professor of the Department of Criminal Procedure, Detective and Operational Investigation of the National University "Odesa Law Academy". ORCID: 0000-0002-9634-5411

Mariia Diachkova PhD in Law, Associate Professor of the Department of Criminal Procedure, Detective and Operational Investigation of the National University "Odesa Law Academy". ORCID: 0000-0003-4449-7648

Bogdan Osadchyi postgraduate student of the Department of Criminal Procedure, Detective and Operational Investigation National University "Odesa Law Academy" ORCID: 0000-0003-2290-9306