Journal of Theoretical and Applied Information Technology
28th February 2025. Vol.103. No.4

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

THE USE OF ELECTRONIC SYSTEMS IN INTERROGATION CONDUCTION IN CRIMINAL PROCEEDINGS

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ABSTRACT

The article is dedicated to the study of the use of electronic systems in interrogation conduction in criminal proceedings. The relevance of the study is stipulated by the increasing demand for the improvement of the criminal process by the implementation of electronic systems during interrogations. The use of electronic systems enables ensuring the collection, documentation, and storage of testimony and evidence, and hearings conduction, which enhances the objectivity of investigative actions, reducing the risk of prejudice and possible abuses. The research aim is to study the influence of electronic systems on the process of interrogation conduction in criminal cases. Their effectiveness, accuracy, and influence on the quality of the received evidence are also analysed. Descriptive method, comparative analysis, qualitative data collection method (Questionnaire-survey), quantitative analysis. The received results confirm that implementation of electronic systems for interrogation conduction enables the reduction of errors, increasing the rate of testimony reliability and process transparency and ensuring protection of the rights of suspects and law enforcement officers. The introduction of innovative electronic systems for interrogation conduction has critical meaning for the increase in the effectiveness of the criminal process. Further integration of these technologies into law enforcement practice is important for the improvement of the justice system. The scientific novelty of the study is in the analysis of electronic systems for interrogation conduction and testimony fixing. These systems are seen as the means for enhancing the accuracy of testimonies and reducing the risk of abuses in law enforcement activity. Further studies perspectives include recommendations for the expansion of electronic systems use in investigation practice, training of investigators and other participants of the process to effectively use electronic systems, etc.

Keywords: *Electronic systems, Criminal proceedings, Innovative technologies, Polygraph, "Electronic court".*

1. INTRODUCTION

In the modern world, the role of technology is growing in all activity spheres, in particular in the justice and law enforcement system [1]. Processes of suspect interrogation conduction in criminal cases are undergoing significant changes associated with the development of electronic communication means and the latest information technologies [2]. According to international standards, the implementation of innovative electronic systems becomes important for documenting all investigative actions [3]. This not only enhances the accuracy of testimony fixing but also contributes to the protection of the rights of all participants of the process, ensuring transparency and objectivity of investigation [4].

Nowadays, discussion of the effectiveness of the use of electronic systems in interrogation conduction takes place in Ukraine and many countries of the world [5], [6]. The study

demonstrates that interrogation, which was conducted and documented qualitatively, can become important evidence in the trial and significantly influence decision-making [7].

Generally, programs for interrogation conduction involve polygraphs [8], which are used to detect deception by the analysis of physiological reactions. The selection of the best programs for interrogation depends on the specifics of use [9]. Axon Interview Room [10] and Nuance Dragon Legal [11] are ideal for testimony documenting and fixing, while Cisco Webex ensures the effectiveness of remote interrogations. Regarding evidence storage, Evidence.com offers reliable data management, while Converus EyeDetect may be used for deception detection, with the use of eye movement analysis [12]. Layered Voice Analysis (LVA) technology of Israeli company Nemesysco enables analysis of voice changes (timbre and volume) for the detection of hidden emotions and conditions of an individual. FaceReader of a Netherlands-based company Noldus Information Technology recognises human emotions based on the analysis of facial expressions while answering questions [13]. In general, the combination of all technologies of electronic systems can significantly improve the effectiveness of the interrogation process [14].

Still, Ukraine has problems related to insufficient financing, a lack of specialists, as well as lack of relevant skills in law enforcement agencies. Furthermore, there are risks related to personal data protection and consideration of genetic confidentiality issues, which require attention for the effective implementation of such technologies. Research shows that well-made recordings can become important evidence in court proceedings and significantly influence decision-making [15] noted that the subjective factor of legal interpretation is important because it affects the content and legal force of enforcement outcomes. This aspect becomes particularly important in the context of the use of electronic systems, where the quality of documentation and understanding of legal requirements may depend on the level of professional training and legal awareness of persons conducting interrogations.

The main research aim is to study the influence of electronic systems on the process of interrogation conduction in criminal cases. In particular, analysis of their reliability, effectiveness, accuracy, and influence on the general quality of the received results in the judicial process.

Tasks:

– to identify and analyse modern technologies, used during interrogations in the criminal process;

– to study them for investigation effectiveness;

– to compare electronic systems, and learn their advantages and disadvantages;

– to analyse the international experience of electronic systems use in interrogations.

The study focuses on the necessity for the integration of modern technologies in the criminal process, which will significantly improve the accuracy and reliability of the received testimonies. We found how electronic systems can improve the effectiveness of interrogation in criminal cases, and determine key barriers preventing these technologies implementation in Ukraine. Moreover, the study will enable the examination of international experience. This may serve as the basis for further improvement of the justice system and innovations implementation in criminal justice.

2. LITERATURE REVIEW

The article [6] studies the challenges and possibilities of the use of innovative technologies in criminal procedure law. The authors focuse on the importance of the implementation of the latest information technologies into the activity of law enforcement agencies. The authors believe that such systems can significantly improve the quality of evidence collection, accelerate legal proceedings and increase access to justice. The researchers also pay attention to the risks related to the implementation of these technologies. In particular, the issue of data confidentiality and the possibility of their improper use is studied, as it needs appropriate regulation and control.

According to the results of the study [16], polygraphs, integrated into electronic interrogation systems, can significantly increase process objectivity. Analysis of psycho-physiological changes with the use of polygraph enables minimising the possibility of manipulations [16].

Video-recording of interrogation of suspects has become more and more common in criminal justice systems, as it performs an important role in the protection of the rights of suspects. Still, the study by M. Ibusuki, which is based on Japanese experience, indicates the risk of misuse of visual evidence [17]. This emphasises the necessity for caution in the use of video recordings and the introduction of independent expert evaluations to ensure the reliability of visual

evidence. This is especially important within the context of interrogations in criminal proceedings.

Husieva et al. [18] drew attention to the investigative and judicial practice. They have also analysed international experience to determine possibilities of innovation technologies implementation in criminal justice of Ukraine. The authors emphasised the importance of digitalisation, automation and artificial intelligence technologies. This underlined the relevance of updating electronic systems for interrogation conduction in criminal proceedings [18]. As Kobets et al. [19] noted, the digital transformation process cannot be standardised and needs a thorough and comprehensive strategy that includes institutional reforms, change of management culture, active involvement of management culture and civil society.

Yunin et al. [20] analysed the importance of the legal framework for effective court functioning. They believe that this may become the basis for the implementation of electronic systems in the processes of interrogations in criminal proceedings, ensuring convenience and accessibility of justice. They also offered new approaches to reforming the system of administrative justice, which may be useful for technology integration into the judicial process [20].

Nedilko [21] underlines the role of video conferences for interrogations. They enhance the effectiveness of the investigation, but the dependence of the result on the modernity of technical means and data transmission speed is emphasised [21]. The author underlines the necessity to improve the process of fixation of investigator's acts by developing a special program based on Linux. This program can ensure detailed recording of all acts in an electronic environment.

Deep Sandipkumar Patel [22] analyses the role of photographs during the examination of the scene of crime. The author emphasises the importance of modern technologies, in particular, high-resolution cameras, for the collection and documentation of evidence in criminal investigations [22]. Like in forensic photography, the use of photographs during interrogations ensures the accuracy of fixation of important details. This maintains the evidence control chain and contributes to the objectivity of the judicial process.

Pasiuk and Antoniuk [23] explore the use of video-conference mode in criminal proceedings both from positive and negative perspectives. The authors studied conditions under which remote investigation and judicial actions may be substantiated. They also present examples of successful implementation in Europe and the USA. This study creates an important basis for further analysis of the use of electronic systems in interrogation conduction in criminal proceedings. With this study, we can understand advantages and disadvantages of remote technologies [23].

Digital shreds of evidence significantly influence criminal investigations, demanding following the principle of fair litigation in the digital field. The article [24] studies the right to fair litigation with a focus on evidence law. Issues, which arise during investigations with the use of digital evidence, are identified in the article. Analysing principles of party equality and presumption of innocence, the work discusses new challenges related to digital evidence management in modern conditions.

González [10] studied how the use of video conferences for the conduction of declarative hearings reflects procedural violations and social issues of confidence in these technologies. Lack of confidence in virtual testing is caused by both the content of evidence and the form of their presentation, which affects the perception of the fairness of the process. This underlines the necessity of evaluation of technological means within the context of their admissibility in the judicial system and concerning the principles of fair litigation [10].

Audio forensics, which ensures authentication and analysis of audio files, has a direct relationship with the effectiveness of electronic systems in criminal processes. During interrogation conduction, it is important that audio recordings are not only improved but confirmed in regard to their authenticity to avoid manipulations. Within the context of electronic systems use, such methods become essential for ensuring the quality of evidence, influencing transparency and fairness of investigative actions [11].

However, currently, not enough attention is given to technical components directly affecting the quality of the interrogation procedure. This prevents enhancing their effectiveness and ensuring better protection of human rights within criminal justice.

Analysis of modern systems of interrogation conduction is critically important for the improvement of law enforcement. It opens new possibilities for the improvement of mechanisms of evidence collection and ensuring justice in the judicial process [25]. This study can contribute to the elimination of the present deficiencies,

increasing trust in law enforcement agencies and the judicial system in general.

3. METHODS AND MATERIALS

The study procedure involved several stages. Analysis of literature sources on the use of electronic systems in criminal proceedings was conducted in the preparatory stage. Scientific publications and international experience were studied. The sample of respondents was determined: representatives of law enforcement agencies, with experience of electronic systems use in interrogations – investigators, judges, and lawyers.

The following stage was data collection, namely survey conduction among the selected respondents, oriented on the practical experience of the use of different types of electronic systems for the detailed analysis of their effectiveness and quality.

The final stage was results analysis. It aimed to:

– analyse collected information by system types, experience of respondents, frequency, and specifics of technologies use in different subdivisions;

– compare available data to international practice to identify common tendencies and unique aspects.

Study methods included a complex approach to the study of the use of electronic systems in interrogation conduction in criminal proceedings:

– descriptive method for the description of electronic systems enabled systematisation of the data on technologies use in investigating activity;

– comparative analysis in regard to the effectiveness of different electronic systems;

– a qualitative data collection method (survey) was directed at receiving practical experience of investigators, judges, and lawyers working with electronic systems during interrogation;

– qualitative analysis for processing results of respondents' survey to determine the frequency of the use and effectiveness of separate electronic systems. This method enabled the receipt of qualitative indicators, which may be used for statistical conclusions.

Materials of the study. Several key institutions, representing various aspects of law enforcement activity and legal practice in Ukraine, served as the base of the study. They included:

1. Kamianske District Police Department, police station No. 3 of the Main Administration of the National Police in Dnipropetrovsk Region - local police unit, employees of which are engaged in investigative actions.

2. Shevchenkiskyi District Court (city Zaporizhzhia), engaged in consideration of criminal cases, in particular cases in which electronic systems for interrogation conduction are used.

3. Lawyer Association (LA) Gallex (city Lviv), specialising in criminal cases. The organisation has experience in client defence in criminal proceedings with the use of electronic systems. The association is actively participating in investigative actions and ensures observance of the legal rights of clients.

These organisations provided necessary data for comprehensive analysis of the use of electronic systems in criminal proceedings.

The total number of respondents accounted for 78 individuals, out of which 50 participants were selected, including:

– 21 investigators;
– 14 judges;
– 15 lawyers;

Sampling criteria included work experience in the area of criminal law, active participation in investigation actions or judicial processes, as well as the ability to provide informative data. Such distribution enabled receiving a comprehensive view of the theme of our study.

During the study, the division of the respondents was conducted based on several criteria, which enabled analysis of the influence of these systems on different aspects of the criminal process.

Main criteria for respondents' division:

1. Position of the respondent.
2. Total work experience.
3. Experience in working with electronic systems.

These criteria enabled receiving a more structured sample and profound analysis of different aspects of the use of electronic systems during interrogation conduction.

The number of respondents (50 persons) is sufficient for the conduction of quantitative analysis and receipt of meaningful results due to the diversity of professional groups, representation of several institutions – police, district court, and lawyer association, enables ensuring breadth of the information and considering specifics of different approaches and practices.

The survey was conducted in conditions of anonymity and voluntary participation of the respondents in electronic form using protected online platforms. Participants were informed about the aim of the study, as well as the confidentiality of the received data.

Instruments. Questionnaires, which were sent to the participants by email with the link to Google Forms, were used for data collection (please use https://docs.google.com/document/d/1elpvks0uE_8PiN07Slkc2DSKPtsD4MS6/edit?usp=sharing&ouid=117895114898188353870&rtpof=true&sd=true).

Filling out questionnaires was conducted with consideration of the needs of the study, which required obtaining reliable information. The questionnaire was developed in a way that participants were able to express their opinions and experiences in a convenient form.

We used Excel programs to process quantitative data from the survey, which enables calculating percentages and receiving a clear understanding of the influence of structural and procedural peculiarities on the work of the respondents.

4. RESULTS

During the survey, our respondents were presented the questions on the conditions under which electronic systems are used in criminal proceedings (Figure 1).

According to the receipt responses, 70% of investigators confirmed that electronic systems are always used during interrogations. This indicates their importance for testimony collection and documentation, ensuring the accuracy of fixing and proper storage of information presented by witnesses or suspects. Using these systems, law enforcement officers can effectively fix nuances in the intonation and emotions of the interrogated. This is important for the analysis of their testimonies in court, enables the prevention of possible testimony distortion and creates process transparency.

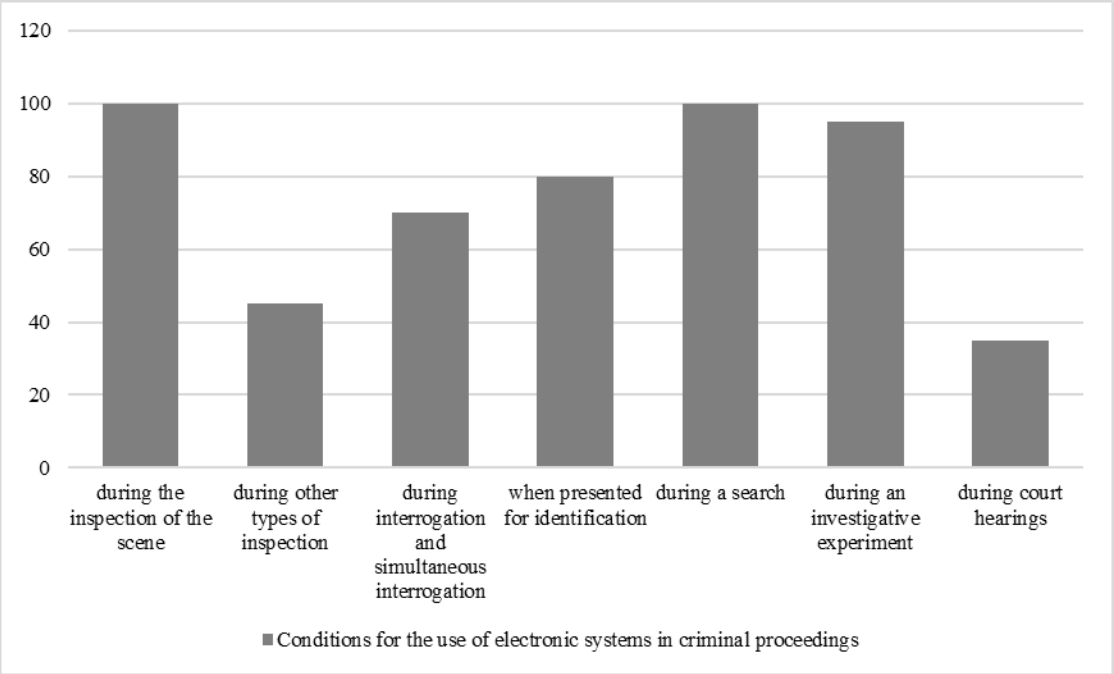

Figure 1. Conditions of electronic systems use in criminal proceedings

*Author's development.

Judges as participants in the judicial process can observe the use of electronic systems during evidence submission in court. Their presence in case consideration enables ensuring control over the legitimacy of procedural actions.

Lawyers also play an important role during interrogations, as they may use electronic systems to ensure the protection of the interests of their clients. Representatives of LA Gallex could verify the accuracy of records and indicate possible violations during interrogations. This significantly

increases the level of the protection of the rights of the accused.

In such a way, electronic systems not only improve the quality of testimony collection and documentation but also facilitate transparency and legitimacy within the interrogation process, which is important for all participants of litigation.

Based on the survey results, the main types of electronic systems, used during interrogation in criminal proceedings in Ukraine, involve:

– video-recording or video-conference (with the means of the subsystem "Single judicial information and telecommunications system" (modules "Electronic court" and "Electronic Office", electronic court system on Scriptum platform);

– system of technical fixation and recording of the judicial process "SRS Femida", service EasyCon, Zoom, Cisco Webex). Respondents indicated their importance in fixing testimonies. Video recording enables the storage of accurate versions of testimonies, which prevents discrepancies in testimony. Video conference during interrogation enables the conduction of remote investigation actions in real-time, ensuring direct contact between participants. It also facilitates transparency of the process. Respondents noted that the presence of video recording increases the confidence in the interrogation process;

– audio recording ("Triton systems", "Oberih", "Kamerton", "SRS Femida"). The respondents also underlined that this method ensures the accuracy of collection and fixing oral information, which is critical to prevent data distortion. Audio recordings were underlined to be effective in the fixation of nuances in intonation and emotions of witnesses;

– electronic systems for evidence storage (integrated database "Argus", the Unified Registry of Pre-Trial Investigations (URPTI)) and integrated interdepartmental automatic information exchange systems ("Arkan", "Scorpion", "Armor", "Hart"). They make information exchange easier, increasing the effectiveness of investigative actions;

– systems of voice and behaviour analysis (Layered Voice Analysis (LVA) technology);

– instruments for human emotion recognition based on the analysis of facial expression while answering questions and deception detection (Affectiva SDK & API, FaceReader, polygraph "Barrier", "Rubikon", polygraph EyeDetect);

– automated identification of dactyloscopic, trasological and ballistic systems, using artificial intelligence algorithms for forensic record-keeping ("Dakto-200", "TrasoScan", "BalScan");

– system for improvement of the effectiveness of work, unification, automation of document-keeping, and document storage (automated information systems: "Slidstvo", "Slidchyi-M", "Versiia", "Criminal", complex of automated workplace "Pre-Trial Proceeding", "Specialised automated territorial distribution system");

– specialised automated territorial distribution system ("Unified automated system of law enforcement agencies on the composition and activities of international terrorist and criminal organisations");

– hardware-software tools. Forensic distributions of Linux operating system (Deft Zero, Kali, Parrot Security OS, Debian, Mint, Manjaro);

– technical devices for DNA-identifier creation aimed at rapid individual identification (Rapid DNA "ANDE").

Generally, respondents noted significant progress in forensic technologies.

At the same time, insufficient financing, lack of technical specialists and skills remain the main barriers for these technologies' introduction.

Based on the survey, the percentage of each respondent group was fixed concerning characteristics of electronic systems during criminal proceedings. They indicate general acceptance of electronic systems by respondents and underline their importance in criminal proceedings (Table 1).

Attitude to the effectiveness of electronic systems among respondents varies depending on their professional role and activity specifics (Figure 2).

Investigators demonstrated the highest level of positive attitude (82%) as electronic systems make documenting interrogations, investigation experiments and searching easier. They see these systems as means of improving the accuracy and effectiveness of investigative actions, which facilitates objectivity and reduces the possibility of errors.

Table 1. Advantages of characteristics of electronic recording systems, noted by the respondents

Characteristics of electronic systems	Investigators (21)	Judges (14)	Lawyers (15)	Total (50)
Compactness	100%	100%	100%	100%
Sound sensitivity and quality of video recording	95%	86%	93%	92%
Large storage capacity	90%	79%	87%	85%
Easy to use and setting	86%	71%	80%	79%
Support of different recording formats	95%	79%	87%	85%
Autonomous work	100%	100%	100%	100%
Function of autonomous records saving	90%	71%	80%	80%
Possibility of connection with other devices	95%	79%	87%	85%
Availability of encryption systems for data protection	81%	64%	75%	74%

*Author's development.

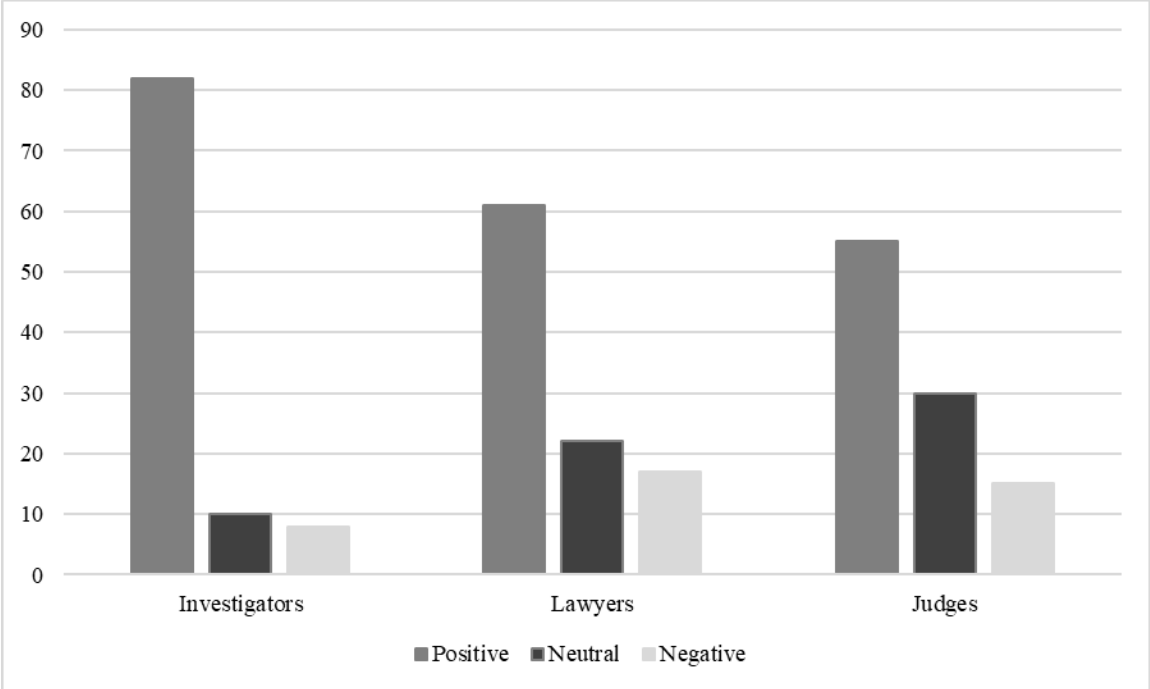

Figure 2. Attitudes towards the effectiveness of electronic systems

*Author's development.

Lawyers evaluate electronic systems positively in general (61%). At the same time, they face some difficulties during video-conference questioning in court. One of the disadvantages of video conferences is the inability for confidential communication between lawyers and clients during such questioning.

The lack of the possibility of direct private communication makes defence coordination difficult. It is especially difficult when there is a need for operative case details clarification or agreeing on the line of defence. This can influence the defence of the client and creates additional risks for advocates, therefore, negative attitude – 21%, neutral – 17%.

Judges demonstrate an ambiguous attitude to electronic systems, in particular to evidence storage and emotion identification systems. Although 30% of judges have neutral positions, as they are not confident in the positive influence of technologies, 15% note negative aspects. They believe that polygraph and emotion analysis systems can create additional technical difficulties which complicate the process of case consideration. In general, judges are less dependent on such instruments compared to investigators and lawyers (Figure 3).

The chart demonstrates that evidence storage systems such as the integrated database "Argus" and the Unified Registry of Pre-Trial Investigations (URPTI) play key roles in material storage for further investigation. They ensure storage and access to documents, which improves the effectiveness of investigative actions. Respondents evaluated them highly (85%).

Automated integrated information exchange systems such as "Arkan" and "Scorpion" and others contribute to interdepartmental cooperation. This enables receiving important data quickly. Although these technologies are positively evaluated (51%), their introduction is complicated because of lack of financing, skills and technical specialists.

Modules "Electronic Court" and "Electronic Office", which ensure communication between the participants of processes and the court, have numerous defects. 44% of users complain about inconvenient interfaces, frequent technical failures (issues with signing up, "missing" cases) and insufficient information on document status. Numerous technical issues occur during video conferences, which complicates the work of participants in processes.

Voice and behaviour analysis systems such as Layered Voice Analysis enable the evaluation of emotional reactions during interrogation, which is useful for false testimony identification. 60% of respondents note serious barriers to their use. Participants believe these systems to be effective, but there is a need for special training and necessary material support (Figure 4).

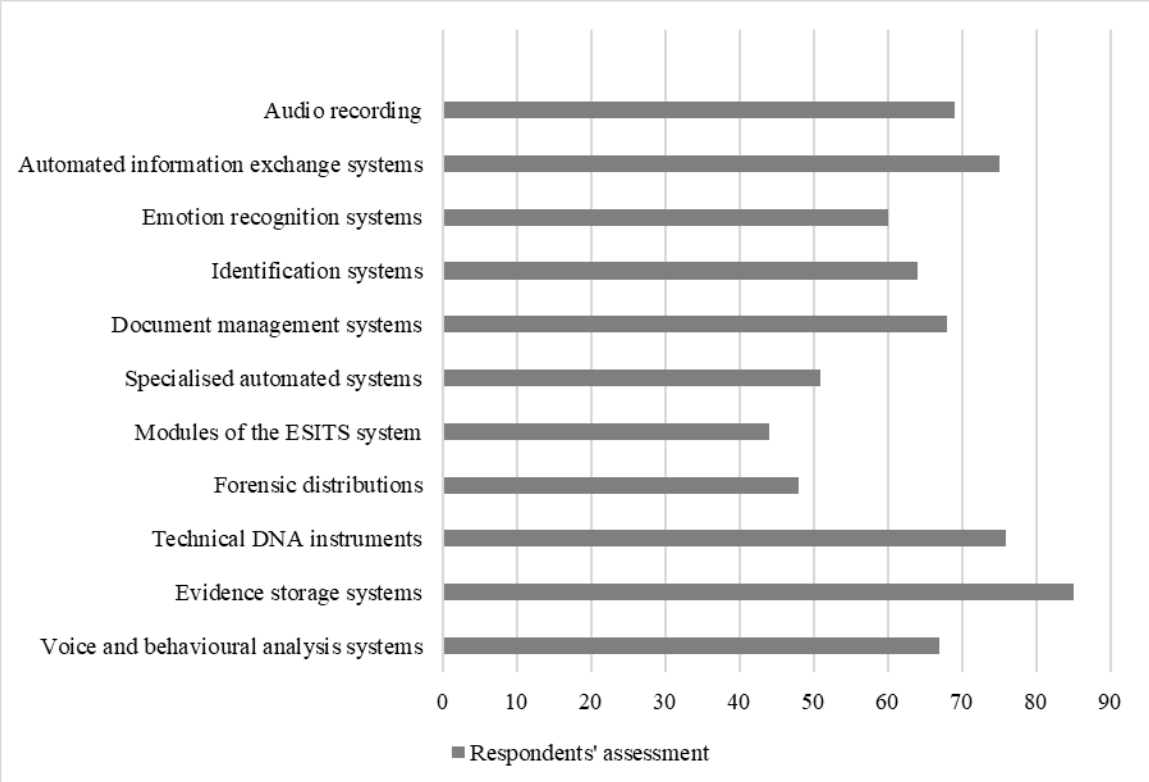

Figure 3. Evaluation of the importance of electronic systems

*Author's development.

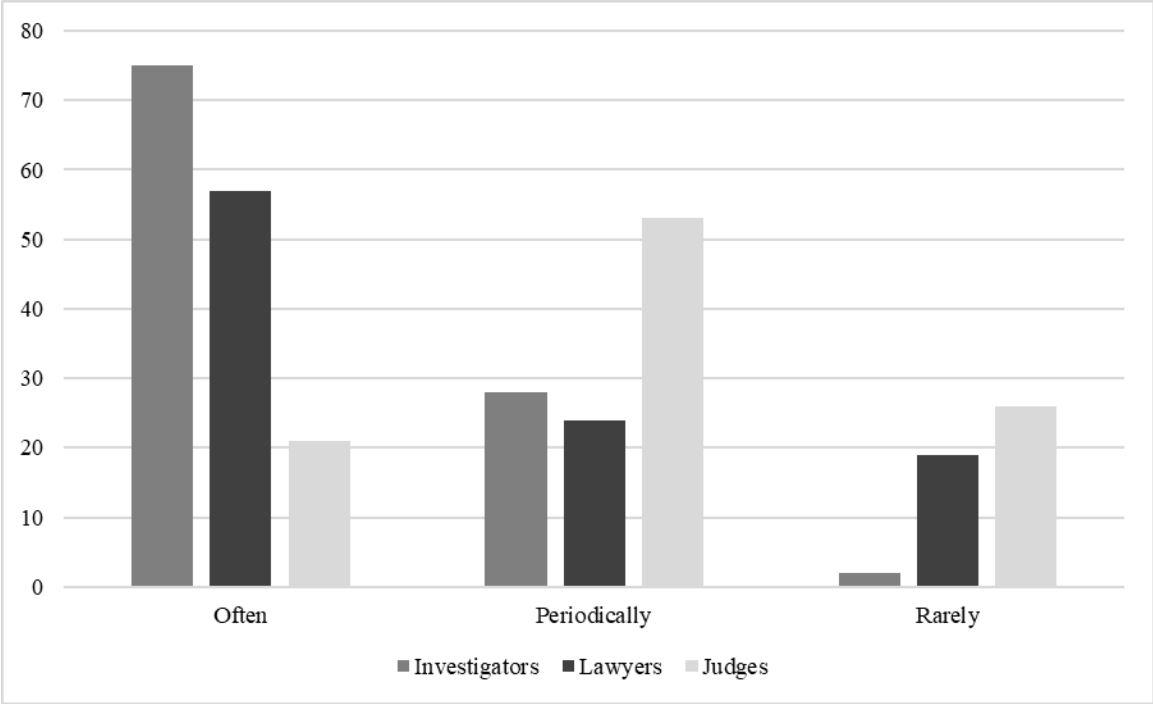

Figure 4. Frequency of the use of electronic systems during interrogations
*Author's development.

In relation to the use of electronic systems, 61% of respondents, in particular, most of the investigators (75%) and lawyers (57%) informed that they frequently use video conferences and other electronic means during interrogation. 29% of respondents, mainly lawyers and judges, use them periodically, and only 10%, mostly judges (26%) noted that they rarely use these technologies in their practice.

At the same time, during the study, we detected several negative aspects affecting the use of electronic systems in interrogations. Firstly, insufficient organisation in the implementation of these technologies creates confusion in operational processes and leads to ineffectiveness. Secondly, the lack of qualified technical specialists limits the possibilities of proper system implementation and maintenance, which negatively influences their effectiveness. Moreover, the lack of stable financing complicates the modernisation of the equipment and ensures its proper functioning. Finally, an imperfect legislative framework does not create clear limits for the use of electronic evidence, which can lead to legal conflicts and abuses.

Thus, generally, electronic systems play a more and more important role in interrogation conduction. They enhance the effectiveness, objectivity, and transparency of investigative actions. Their use is necessary for ensuring the reliability of the collected evidence and their further use in the judicial process.

5. DISCUSSION

The study of the use of electronic systems in interrogation conduction showed a complicated picture. Some aspects correspond to expectations, which are based on modern scientific studies, while some contradict the present scientific understanding.

We agree with [26] that the implementation of technologies such as functional magnetic resonance imaging can improve the detection of false testimony and enhance the effectiveness of electronic systems during interrogations. This is especially important in complex criminal cases, in which testimonies are the key evidence. However, we do not support the idea of absolute appropriateness of MRI conduction in all interrogations.

We believe this requires a lot of resources and additional specialists, which may be problematic in practice due to difficulties of technical and organisational realisation. Our work is focused on the use of technologies more accessible for situations in Ukraine. Available technologies can ensure accurate information

documentation and improve the quality of the interrogation process without the need for complex and expansive medical studies [26].

The article [27] is important for our study. Poliak underlines the role of video and audio recordings during interrogations, which is the key aspect of our work. The focus on ensuring data accuracy and objectivity corresponds to our purpose of the analysis of the effectiveness of electronic systems in criminal proceedings. Thus, the use of technical devices for fixing procedural actions is consistent with our findings on the improvement of the quality and legal protection during interrogations.

This work supplements our study and provides additional arguments for the use of technologies for the improvement of procedural actions in criminal processes.

Comparative analysis of electronic systems during investigative actions conduction in Ukraine and abroad demonstrates significant differences and similarities. We agree that international experience, in particular in the USA and Europe, is ahead of Ukrainian practice due to the use of artificial intelligence and evidence analysis automation. For example, the study [28] demonstrates how video fixation and eye movement fixation facilitate the improvement of suspect identification.

At the same time, we disagree that digital evidence is less significant in Ukraine than in the USA [29]. These instruments significantly improve investigation effectiveness in the USA. The common aspect of our study is the importance of adaptation of advanced international technologies in Ukraine. This will enable the improvement of technical infrastructure and integration of automated instruments into investigation actions.

The studies [13] and [30] are relevant for our work. Both studies have a common area – the implementation of modern technologies in investigative practice. Programs LVA and FaceReader, which analyse voice and facial expressions, are examples of such technologies. They are used not only in Ukraine but in many other countries to improve the objectivity of interrogations and detect false testimonies.

We agree that data on national or ethnic origin, physical or mental health, and sexual life are considered sensitive information. AI programs such as HART and COMPAS analyse how such data can intensify prejudice in court decisions. These programs' algorithms can lead to injustice. The study [6] demonstrated that systems on the base of AI are imperfect and can discriminate. Thus, more basic technologies are used in Ukraine.

Our work partially confirms the conclusions of [31] on the role of ANDE technology in the forensics revolution. Rapid identification of the deceased with the use of mobile laboratories is an important step for more effective crime investigation.

Thus, our study confirms the importance of the introduction of electronic systems in the process of interrogation, in particular concerning the aspects of transparency, accuracy, and effectiveness of investigative actions. We emphasise the necessity for further studying of the influence of these technologies on the legal protection of the participants of criminal proceedings, as this issue remains understudied. Admitting positive results of the implementation of such systems, we draw attention to the importance of legislation adaptation. This will ensure the proper legal status of digital evidence in judicial practice.

5.1. Recommendations

Legislation adaptation is recommended for regulation of the use of electronic systems of interrogation documentation, which will correspond to international standards. We also recommend financing for the implementation of modern technologies. It is important to organise training for law enforcement officers aimed at the development of skills necessary for the work with electronic systems. Mechanisms of monitoring and evaluation of implementation of such systems shall be conducted for timely problem detection and elimination.

6. CONCLUSIONS

Key aspects affecting the effectiveness and quality of investigative actions were outlined during the analysis of electronic systems use in the process of interrogation. The results of a survey conducted among judges, lawyers, and representatives of law enforcement agencies confirmed the importance of the integration of electronic technologies in the legal system. This, in turn, improves confidence in the interrogation results.

Adaptation of legislation for the regulation of digital evidence within the context of interrogation is essential, as electronic systems gradually become standard in the criminal process in the whole world.

Establishing clear regulations and rules for the use of digital evidence during interrogation guarantees observance of the rights of the participants of the process, ensuring transparency

and objectivity of testimony. Consideration of international experience in this field will help Ukraine to integrate modern practices, which correspond to the world standards in criminal justice.

The scientific novelty of this work lies in the attempt at complex analysis of the influence of electronic systems of interrogation documentation on the effectiveness of the criminal process. In particular, in the evaluation of the advantages of electronic systems for improving the accuracy of testimony and abuse reduction in law enforcement activity.

The practical significance of the study is determined by the possibility of the use of the received results on the stages of policy improvement concerning the implementation of electronic systems in criminal cases. This can improve the effectiveness of justice and ensure observance of human rights.

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