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АВТОМАТИЗАЦІЯ ПРИЙНЯТТЯ РІШЕННЯ СУДДЕЮ ПІД ЧАС КВАЛІФІКАЦІЇ КРИМІНАЛЬНОГО ПРАВОПОРУШЕННЯ ТА ПРИЗНАЧЕННЯ ПОКАРАННЯ

Анотація. *Враховуючи розвиток науково-технічного прогресу, який впливає на всі сфери життєдіяльності людини, можна констатувати зміну техніко-криміналістичних засобів фіксації доказової інформації та використання інформаційних технологій як під час здійснення досудового розслідування, а також під час судового розгляду, експертного, виконавчого провадження та виконання покарання. Стаття присвячена проблемам автоматизації прийняття рішення суддею під час кваліфікації та призначення покарання. З цією метою було досліджено кримінально-правові та криміналістичні передумови автоматизації прийняття рішення суддею, а також перспективи автоматизації прийняття рішення суддею. Під час дослідження були використані філософські, загальнонаукові та спеціальні методи наукового пізнання. В статті акцентовано увагу на необхідності запровадження автоматизації не тільки документообігу на стадіях досудового розслідування, судового розгляду або виконавчого провадження, що вже досягається в Україні в умовах діджиталізації, але й автоматизації прийняття рішення суддею. Найбільш важливими рішеннями при здійсненні автоматизації є кваліфікація кримінального правопорушення та призначення покарання. Це дозволить досягти мети справедливого суду, зменшити корупційні ризики та повернути довіру суспільства до органів правосуддя. Вважаємо, що досягти такої мети можна із використанням Автоматизованого робочого місця (АРМ) судді, яке має відповідати певним вимогам: 1) методичне забезпечення судового розгляду; 2) організаційне та тактико-криміналістичним засобам; 3) техніко-криміналістичним засобам; 4) здійснення підвищення кваліфікації; 5) використання додаткової довідкової інформації. Такий підхід дозволить додатково досягти економії витраченого часу на створення документів, прийняття рішень та їх фіксацію в єдиних реєстрах. Крім того, суддя буде мати змогу обирати запропонований системою варіант прийнятого рішення, який буде видаватися на підставі сформованої окремої криміналістичної методики та узагальненої судової практики за цим видом кримінального правопорушення.*

Ключові слова: злочин, автоматизоване робоче місце, АРМ судді, кваліфікація кримінального правопорушення.

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AUTOMATION OF JUDICIAL DECISION-MAKING UPON CRIMINAL OFFENSE CLASSIFICATION AND SENTENCING

Abstract. *Considering the development of scientific and technological progress, which affects all spheres of human life, a change can be stated in the technical and criminalistic means of recording evidence and the use of information technology both in the pre-trial investigation and during the trial, expert, enforcement proceedings and the execution of sentences. The paper covers the issues of automation of judicial decision-making upon crime classification and sentencing. To this end, the criminal law and forensic prerequisites for automation of judicial decision-making were investigated, including the prospects for automation of judicial decision-making. In the course of the study, philosophical, general scientific and special methods of scientific knowledge were used. The paper highlights the need to introduce automation of not only document flow at the stages of pre-trial investigation, trial or enforcement proceedings, which is already achieved in Ukraine in the context of digitalization, but also automation of decision making by a judge. The most important decisions in the implementation of automation are the qualification of a criminal offense and sentencing. This will help achieve the purpose of a fair trial, reduce corruption risks and restore public confidence in the judiciary. We believe that such a purpose can be achieved using the judge's automated workstation (AWS), which must meet certain requirements: 1) methodological support of the trial; 2) organizational, tactical and criminalistic means; 3) forensic means; 4) implementation of competence development; 5) use of additional background information. Such approach will additionally allow to spend less time on the creation of documents, decisions and their recording in unified registers. Furthermore, the judge will be able to choose the version of the decision made by the system, which will be issued on the basis of the prevailing private forensic technique and generalized judicial practice for this type of criminal offense.*

Keywords: crime, automated workstation, judge's AWS, criminal offense classification.

INTRODUCTION

The issue of the use of automated systems in the activities of persons conducting pre-trial investigations or trials was addressed by forensic scientists at different times. This approach is associated with the use of modern information technology to improve the quality or optimization of investigative activities (V. V. Bilous, L. I. Keryk, V. M. Shevchuk, V. Yu. Shepitko) [1; 2], informatization of the investigation process (R. S. Belkin) [3], algorithmization of investigative activities (H. K. Avdeeva, V. Yu. Shepitko), investigation programming, technical and forensic support of bodies of pre-trial investigation [4], use of criminalistic technologies (V. V. Semenogov) [5] or scientific organization of managerial work (V. M. Plishkin) [6].

Considering the development of scientific and technological progress, which affects all spheres of human life, it can be stated that the change of technical and forensic

means of recording evidentiary information and use of information technologies both during the pre-trial investigation, including upon the judicial review, expert, enforcement proceedings, and execution of punishment [7–10]. Currently, registers of pre-trial investigations, court rulings and methods of conducting judicial examinations have emerged[1], recording the status of judicial procedure (proceedings), automated distribution of cases between judges is carried out, as well as document flow of the court at large[2]. Of great importance was the introduction of the Unified State Register of Declarations of Persons Authorized to Perform State or Local Government Functions[3]. The said registers have different levels of access restriction, as this can lead to the disclosure of information on trial participants or infringement of copyright and related rights.

Databases used by professional and non-professional judicial procedure (proceedings) participants can be considered the Unified Register of Debtors, the Electronic Auction of Arrested Property System, technological cards for execution of enforcement proceedings by a state bailiff, presentation of European Court decisions by the Ministry of Justice of Ukraine [11], etc. The emergence of such databases, together with the above registers and automated systems, will minimize corruption risks, conflicts of interest, accelerate the process of adopting the practices of national and international courts, algorithmize the activities of professional judicial procedure (proceedings) participants [12–14].

1. MATERIALS AND METHODS

To determine the optimal forms of automation of the judicial decision-making by a judge during the qualification of a criminal offense and the imposition of punishment, a complex of scientific methods and practice of their application were used. Thus, philosophical, general scientific, and special methods of scientific cognition were employed in the course of the study. Methods of logic (analysis and synthesis, induction and deduction, analogy) were used upon the creation of this paper, the establishment of criminal and forensic prerequisites for automating the judicial decision-making, the identification of the scope of decisions subject to automation, the establishment of their content.

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[1] Order of the Prosecutor General's Office of Ukraine No. 149 "On regulations on the procedure for maintaining the Unified Register of Pre-trial Investigations". (2016, April). Retrieved from https://zakon.rada.gov.ua/laws/show/z0680-16; Order of the State Judicial Administration of Ukraine No. 37 "On instruction on the procedure for production, sending, registration, accounting and storage on paper and in electronic form of copies of court decisions subject to entry in the Unified State Register of Court Decisions". (2008, May). Retrieved from https://cn.court.gov.ua/tu25/7/326

[2] Decision of the Council of Judges of Ukraine No. 30 "On regulation on the automated system of court workflow". (2010, November). Retrieved from https://court.gov.ua/sudova-vlada/969076/polozhenniapasds/.

[3] Decision of the National Agency for the Prevention of Corruption No. 3 "On the functioning of the Unified State Register of Declarations of Persons Authorized to Perform State or Local Government Functions". (2016, June). Retrieved from https://nazk.gov.ua.

The philosophical method was applied in the analysis of views on the problem of decision-making automation; formal and logical method was used during the formation of a set of regulations necessary for the judicial decision-making automation process and formation of the said decisions so as to establish an automated workstation for a judge; comparative law method was applied upon comparing the mechanisms and forms of decision-making automation for a judge and other professional judicial procedure (proceedings) participants.

Due to the method of analysis and synthesis, it was concluded that the administration of fair justice can be ensured through the creation of automated systems that will facilitate the implementation of the purposes and objectives of judicial procedure (proceedings) by its professional participants [15; 16]. In our view, this will allow professional judicial procedure (proceedings) participants to have a maximum range of criminal, procedural and forensic tools for pre-trial investigation, trial, enforcement of court decisions and sentences. Thus, it is possible to accelerate the process of accomplishment of the purposes and objectives of judicial procedure (proceedings) by professional participants, to make their activities more efficient, to reduce the number of mistakes and to minimize the possibilities of abuse and excess by such persons by means of deception, bribery, use of information and other ways of committing criminal offenses against public justice at these stages.

2. RESULTS AND DISCUSSION

2.1 Criminal and forensic prerequisites for automating a judge's decision

A special place among the already existing automated systems that contribute to the fight against criminal offenses in the field of justice is the automated workplace of the investigator. Attempts to create such automated systems were made by forensic scientists. Thus, H. K. Avdeeva and V. Yu. Shepitko created the Insight Automated Workstation of Investigator (the Insight AWS), which is copyrighted and uploaded to the Internet [17]. The Insight AWS of Investigator includes the following blocks: 1) "legislation" (regulation governing the activity of the investigator); 2) "document" (samples of procedural documents); 3) "investigative actions" (procedural regulation and tactics of investigative actions, sample plans and schemes of the venue and conventions of objects); 4) "investigative practice"; 5) "scientific and technical means" (forensic technical support of pre-trial investigation bodies); 6) "forensic means" (theoretical bases of forensics, types of forensics, typical expert questions); 7) "criminal science techniques" (methods of crime investigation); 8) "glossary" (glossary of criminal science); 9) "law enforcement agencies and expert institutions" – basic information and addresses; 10) "training" (simulator programs; tests to verify the level of criminal science knowledge; training videos); 11) "bibliography"; 12) "helpful Information" (information about state authorities of Ukraine, embassies and consulates of foreign countries in Ukraine; codes of direct dialling lines of Ukraine; units of measurement, standard colour chart).

With that, V. M. Shevchuk proposed to supplement the system of "Criminal Science Techniques" with such an element as "Tactical Operations" regarding "individual criminal science techniques", factoring the following elements: a) stages of investigation; b) investigative situations; c) intermediate tactical tasks; d) the content of the tactical operation; e) subjects who cooperate upon carrying out a tactical operation; g) tactical operation plan" [18].

A similar attempt was made by specialists of the National Academy of Internal Affairs, headed by L. D. Udalova, regarding the formation of the software product "Information and reference software "Automated Workstation of the Investigator", which includes the following blocks: 1) "regulations"; 2) "types of crimes"; 3) "expert block"; 4) "document forms"; 5) "procedural activity"; 6) "reference book"; 7) "media" [19]. Such automated systems were developed by criminal science experts in a situational direction so as to record an event or simplify the investigation of a corresponding type of crime. For example, the GRAFIT software package, designed to document the circumstances of a traffic accident, was developed by the specialists of the Forensic Science and Research Centre of the Main Administration of the Ministry of Internal Affairs of Ukraine in Kharkiv region [20]. The "Vbyvstvo" (Murder) Computerized Computer System contains two modules, namely "Vbyvstvo-Diagnostics" and "Vbyvstvo-Typical Versions" to assist an investigator in a murder investigation.

The use of all of the specified software, databases, registers, and automated systems definitely has a positive effect on obtaining more information required by the investigator in their work and, following this logic, helps to counter criminal offenses in the field of justice. However, increasing information and duplicating it in an electronic network can not only have a positive effect but also have the opposite effect – instead of conducting a direct pre-trial investigation of the relevant criminal offense, the investigator only submits information on the pre-trial investigation [21–23]. Considering the heavy workload per investigator in Ukraine, there is a need for operators to provide such information or investigator assistants. However, such an approach may indicate that the activities of the investigator cease to be efficient and quick, and not only the form of recording the activities of the investigator from documentary to electronic is being replaced. Such duplication of pre-trial investigation in documentary (hard copy) and electronic forms testifies to the double burden on the investigator. In our opinion, factoring in the development of scientific and technological progress, there is already a possibility of conducting criminal proceedings by investigators exclusively in electronic form. It is clear that such approach may also extend to the judicial stage. Thus, in Estonia, participants in the procedure and their representatives can apply to the State Court and follow the trial via e-file [24].

2.2 Prospects for automating judicial decision-making

A positive impetus in the automation of legal proceedings is the creation of the Electronic Court. Thus, in 2013, the implementation of the Electronic Court was virtually

initiated[1], and in 2017, a mailbox and an Electronic Court System were created on the web-portal of the judiciary of Ukraine. In the Cabinet of Electronic Services of the Ministry of Justice of Ukraine, an Electronic Court section can be found, where one of the services can be selected: 1) payment of court fees online (information on banking details for payment of court fees; possibility of forming a receipt and online settlement of court fees); 2) information on the stages of court proceedings (information on the court that considers the case, the parties to the dispute and the subject of the claim, the date of receipt of the statement of claim, appeal, cassation appeal, statement of review of the case, the stage of the case consideration, the place, date and time of the court hearing, the movement of the case from one court to another); 3) the Unified State Register of Court Decisions (automated system for collecting, storing, protecting, accounting, searching, and providing electronic copies of court decisions); 4) e-mailing the procedural documents to the participants of the trial (exchange of electronic documents between the court and participants in the trial regarding the transfer of the procedural documents in electronic form to such participants by the court); 5) sending the summons in the SMS form (sending the participants of the trial and criminal proceedings the texts of summons in the SMS form by the courts); 6) disclosure of information on bankruptcy cases (provision of free access to information on business entities (contractors, debtors, guarantors, etc.) being in the bankruptcy proceedings) [26].

The implementation of the Electronic Court project facilitates amendments to the procedural laws[2] by which, for example, in the commercial courts, the Unified Judicial Information and Telecommunication System (Article 6 of the Civil Procedure Code of Ukraine[3]) operates, which includes the registration of a case, the appointment of a judge or a panel of judges (judge-rapporteur) for the consideration of a particular case, ensures the exchange of documents (sending and receiving documents) in electronic form between the courts, sends court decisions and other procedural documents to the participants of the trial on their official electronic addresses. The court also carries out other procedural actions in electronic form, and also conducts the hearing of the case on the materials of the court case in electronic form. In the same manner, Art. 120 of the Civil Procedure Code of Ukraine stipulates that the summons or notice of the expert, interpreter, specialist, including, in cases of urgent necessity provided for by this Code[4],

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[1]   Order of the State Judicial Administration of Ukraine No. 72 "On the implementation of the project on exchange of electronic documents between the court and participants of the trial". (2013, May). Retrieved from https://ips.ligazakon.net/document/view/SA13013?_ga=2.215357527.1978353140.1581928645-889467428.1581928645

[2]   Law of Ukraine No 2147-VIII "On Amendments to the Economic Procedure Code of Ukraine, the Civil Procedure Code of Ukraine, the Code of Administrative Judiciary of Ukraine and other legislative acts". (2017, October). Retrieved from https://zakon.rada.gov.ua/laws/show/2147-19.

[3]   Economic Procedure Code of Ukraine. (1991). Retrieved from https://zakon.rada.gov.ua/laws/show/1798-12.

[4]   *Ibidem*, 1991.

the participants of the case can be carried out (including) by e-mail or via other means of communication (including cellular) ensuring the recording of the notice or summons.

We believe that this approach allows to indicate the presence of automated court systems, which undoubtedly contribute, above all, to counteracting the commission of criminal offenses against public justice, constitute a modern means of access to justice, which is convenient for participants in legal proceedings. To some extent, it can be said that the Electronic Court system does not exclude the creation of a judge's AWS in the future, which will automate the adoption of decisions by a judge in the appropriate category of cases according to the structure of a separate trial procedure.

A positive example of the creation of the Electronic Court allows to point at the need for a new product in the form of an Electronic Pre-trial Investigation, which will minimize the impact from other participants in the proceedings on the investigator, including the prosecutor/supervisor of pre-trial proceedings and the head of the pre-trial investigation body, as well as the possibility of informing the participants of criminal proceedings on the results of the investigation, summons for investigative actions by electronic means and mobile communications, with factual recording of results in electronic form and presentation of electronic evidence. Similar to the Electronic Court, the Electronic Pre-trial Investigation will not exclude the formation of the investigator's AWS and the AWS of other professional participants in the proceedings. The provision on the possibility of making a call via e-mail or mobile communication and the transfer of individual copies of procedural documents, as well as on the possibility of issuing court decisions in electronic form, has already been implemented in the Code of Criminal Procedure of Ukraine[1] (Articles 135, 136, 232, 336, 371).

Systems created to assist a judge should not only perform the functions of programs, algorithms, or judicial review methods for certain categories of cases. Such systems should be automated, which points not only at the collection of information useful to the judge in one resource, but also at the independent performance of individual judicial functions by such a resource. Such an automated workstation of a judge should create those documents (draft judicial decision) that a judge usually draws up, with minimal time consumption. That is why the presence of the section "Document forms" or "Templates of procedural documents" in the judge's workstation, albeit aimed at assisting the judge, cannot be referred to as an automated system. Such a block would be more efficient if such templates of procedural documents were classified by type for the corresponding situations in which the judges find themselves and make certain decisions, record the data of the trial in the relevant document by filling out only those parts of the document that are variable and relate to specific criminal proceedings.

In our opinion, such approach is capable of automating and speeding up the work of a judge to a certain extent. Furthermore, it would be important to provide typical

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[1]   The Criminal Procedure Code of Ukraine. (2012). Retrieved from https://zakon.rada.gov.ua/laws/show/4651-17.

variants of the decisions that a judge can make in a particular situation with the transition to the relevant sample document, the variable parts of which must be filled. It is clear that such approach refers to the problem of judicial decision-making so that such an automated workstation does not reduce the judge's ability to make decisions, but provides certain solutions.

Considering approaches to automation of judicial decision-making, a key role in the future judge's AWS will be the element responsible for creating the document and proposing to adopt a decision based on generalized practice and adherence to the appropriate methodology. Such automation, in our opinion, may relate to the classification of the criminal offense and sentencing. Recently, with the acceleration of information influences, there has been a significant digitalization of society and development of the digital state in Ukraine. This process coincided with the initiation of the drafting of the new Criminal Code of Ukraine[1].

The Concept of reforming the Criminal Code of Ukraine and other legislative acts on liability for violations in the public sphere was developed on the basis of Decree of the President of Ukraine No. 584/2019 of August 7, 2019[2] and is associated, inter alia, with the use of digital technologies and with a view to future use in the context of digitalization... In the future, such legislation may become a tool of artificial intelligence in law enforcement" (paragraph 7 of the Concept[3]). Such position fully coincides with the already existing approaches in the criminal science literature regarding the creation of a judge's AWS with decision-making automation (as demonstrated above).

With that, recently, publications related to the digitalization of society have started to appear in legal and even technical literature. In particular, questions are already being raised about the prospects of the responsibility of artificial intelligence as the subject of a criminal offense for its decision [27; 28], including the prospects of introducing the Sugeno algorithm into the judicial decision support system [29].

We believe that the creation of a document with a proposal for a judge to adopt a decision should be based on the classification and sentencing rules for a particular type of criminal offense. The best way to make a decision by an automated system and to implement a proposal for a judge will be to assess the presence of signs of a criminal offense in the act of the accused, the presence of one or more signs aggravating and/or mitigating the punishment, circumstances of release from punishment, etc. The presence of such a "step-by-step" construction indicates the need to create a decision-making algorithm by which the system will operate. Of importance for the modern fact finder will be the possibility of providing judicial practice in the given category of cases (precedents of courts of various levels of Ukraine and the European Court of Human

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[1]   The Criminal Procedure Code of Ukraine. (2012). Retrieved from https://zakon.rada.gov.ua/laws/show/4651-17.

[2]   Presidential Decree No. 584/2019 "On Issues of the Legal Reform Commission". (2019, August). Retrieved from https://zakon.rada.gov.ua/laws/show/584/2019.

[3]   *Ibidem*, 2019.

Rights) for the correction of a decision made by the system with a motivation for deviating from it [30; 31].

In our opinion, this approach fully coincides with the desire to reform criminal law by reducing judicial discretion through the creation of "typical classifying and privileging features of corpus delicti" and "typical sanctions for crimes of various categories and grades" (paragraph 3 of the Concept[1]). The proposed automated system is quite capable of not only providing a draft decision, but also providing suggestions on classification of the actions of the guilty person, factoring in the signs established in the course of the trial, and providing options for the type and amount of penalty, taking into account the circumstances of the proceedings.

CONCLUSIONS

The judge's AWS may have the following structure: 1) preparatory proceedings; 2) a separate trial procedure (with "vertical" and "horizontal" classification of such methods); 2.1) the creation of a document (with a proposal for the adoption of a decision based on generalized practice and linked to the appropriate methodology); 2.2) templates of documents; 3) organizational and tactical and criminalistic means; 4) legislation; 5) forensic equipment; 6) advanced training (information on holding conferences, round tables, seminars, workshops, classes, testing, taking such measures online, through video communications and the possibility of receiving video lessons and video lectures); 7) reference information (glossary of terms, encyclopaedia of criminal law, criminal procedure, criminal science, information resources of pre-trial investigation bodies, the judiciary).

The creation of the proposed system in the form of an automated workstation of a judge will allow saving time spent on creating documents, making decisions and recording them in unified registers. Furthermore, the judge will be able to choose the version of the decision made by the system that will be issued on the basis of the prevailing private criminal science technique and generalized judicial practice for the given type of criminal offense. In our opinion, this will minimize the number of judicial errors in the course of the trial, reduce corruption risks, and facilitate counteraction to criminal offenses in this area.

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