



The Use of Digital Technologies in the Judicial Stages of Criminal Proceedings: A Comparative Analysis of Foreign Experience

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Abstract: The development of digital justice is a global trend. At the initial stage of introducing digital technologies, States demonstrated noticeable restraint due to the specific nature of the administration of justice. However, over time, these technologies have proven their reliability and are now being actively integrated into law enforcement practice. The complexity of digitalizing criminal proceedings lies in the need for a comprehensive and systemic approach that takes into account technical, legal, organizational, and socio-humanitarian issues. This branch of law faces the greatest resistance to digital technologies, as it is here that fundamental human rights may be most significantly affected. Nevertheless, the gradual adaptation of society to the automation of legal matters is reducing distrust, transforming digital justice from an intimidating unknown into a comprehensible tool for ensuring legal certainty. Within the professional legal community and among participants in the judicial process, a generational shift is taking place: a new generation, accustomed to digitalization, is replacing those used to paper-based bureaucracy. It must be acknowledged that the digitalization of criminal proceedings is inevitable; however, technological progress is outpacing the doctrinal understanding of the changing nature of justice, creating a conflict between functional efficiency and classical procedural guarantees.

The object of the research is the social relations that arise during the application of digital technologies at the judicial stages of criminal proceedings. The subject of the research encompasses the norms of foreign

and domestic legislation regulating electronic document management, remote participation in court sessions, and the use of artificial intelligence elements in judicial decision-making. The aim of this work is to conduct a comparative analysis of foreign experience in the digitalization of criminal proceedings at the judicial stages. The methodological basis of the study includes general scientific methods (analysis, synthesis, induction) and specific legal methods, primarily the comparative legal method, which allowed for a comparison of approaches to digitalization in 15 post-Soviet countries (as a group with a common Soviet legacy) and 18 leading countries in the development of e-government.

Keywords: criminal process; e-government; electronic document management; artificial intelligence

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I. Introduction

One of the digital tools used in criminal proceedings is the electronic submission of procedural documents, i.e., electronic document management. This possibility is provided for in the criminal procedure of Australia (Art. 1.23 of the Federal Court Criminal Procedure Rules¹),

¹ Federal Court (Criminal Proceedings) Rules 2016. Available at: <https://www.legislation.gov.au/F2016L01726/latest/text> [Accessed 05.04.2026].

Azerbaijan (Art. 51-1 of the Criminal Procedure Code of the Republic of Azerbaijan²), Armenia (Part 6, Art. 8 of the Criminal Procedure Code of Armenia³), Bahrain (Art. 411 of the Criminal Procedure Code of Bahrain⁴), the United Kingdom (Art. 4.2 of the Criminal Procedure Rules⁵), Germany (Art. 32a of the Criminal Procedure Code⁶), Denmark (Art. 148c of the Administration of Justice Act (*Bekendtgørelse af lov om rettens pleje*)⁷), Iceland (Art. 2a of the Icelandic Criminal Procedure Act⁸), Kazakhstan (Art. 42-1 of the Criminal Procedure Code of Kazakhstan⁹), Spain (Art. 258 of the Criminal Procedure Code of Spain¹⁰), the Republic of Korea (Republic of Korea Act on the Use of Electronic Docu-

² The Criminal Procedure Code of the Republic of Azerbaijan (adopted by the Law of the Republic of Azerbaijan No. 907-IQ of 14 July 2000) (as amended and supplemented as of 28 February 2025). Published in: Collection of Legislative Acts of the Republic of Azerbaijan, 2000, No. 8; Azerbaijan newspaper, 20 July 2001, No. 162.

³ The Criminal Procedure Code of the Republic of Armenia No. ZR-306 of 27 July 2021 (as amended and supplemented as of 14 July 2025). Available at: <http://www.parliament.am/legislation.php?sel=show&ID=7747&lang=rus> [Accessed 05.04.2026].

⁴ The Criminal Procedure Law of Bahrain (Legislative Decree No. 46 of 2002). Legislation and Legal Opinions Commission (LLOC). Available at: <https://www.lloc.gov.bh/PDF/L4602.pdf> [Accessed 05.04.2026].

⁵ Criminal Procedure Rules 2014 (SI 2014/1610). Available at: <https://www.legislation.gov.uk/ukxi/2014/1610/article/4.2/made> [Accessed 05.04.2026].

⁶ The Criminal Procedure Code 1877. Available at: [gesetze-im-internet.de/englisch_stpo](https://www.gesetze-im-internet.de/englisch_stpo) [Accessed 05.04.2026].

⁷ The Law of the Kingdom of Denmark “On the Administration of Justice” (*Bekendtgørelse af lov om rettens pleje*). Official website of normative legal acts of the Kingdom of Denmark. Available at: <https://www.retsinformation.dk/eli/lta/2024/250> [Accessed 05.04.2026].

⁸ The Criminal Procedure Act of Iceland 88/2008 (*Lög um meðferð sakamála*). Available at: <https://www.althingi.is/lagas/nuna/2008088.html> [Accessed 05.04.2026].

⁹ The Criminal Procedure Code of the Republic of Kazakhstan No. 231-V of 4 July 2014 (as amended and supplemented as of 8 March 2026). *Kazakhstanskaya Pravda*, 10 July 2014, No. 133 (27754); Official Gazette of the Parliament of the Republic of Kazakhstan, August 2014, No. 15-II (2664-II), Art. 88.

¹⁰ The Criminal Procedure Law of Spain of 14 September 1882 (*Ley de Enjuiciamiento Criminal*). Official State Gazette (BOE). Available at: <https://www.boe.es/buscar/act.php?id=BOE-A-1882-6036> [Accessed 05.04.2026].

ments in Criminal Proceedings¹¹), the Kyrgyz Republic (Part 6, Art. 264 of the Criminal Procedure Code of the Kyrgyz Republic¹²), the Republic of Latvia (Art. 317.1 of the Criminal Procedure Code of the Republic of Latvia¹³), the Republic of Lithuania (Art. 8.1 of the Criminal Procedure Code of Republic of Lithuania¹⁴), the Republic of Moldova (Part 3³, Art. 300 of the Criminal Procedure Code of Republic of Moldova¹⁵), the Netherlands (Part 4, Art. 257e of the Criminal Procedure Code¹⁶), New Zealand (Art. 2.3 of the New Zealand Criminal Procedure Rules¹⁷), Norway (§ 3a of the Norwegian Rules for Electronic Communication with Courts¹⁸), the UAE (Art. 425 of the UAE Criminal Procedure Code¹⁹),

¹¹ The Act of the Republic of Korea on the Use of Electronic Documents in Criminal Proceedings No. 10258 of 15 April 2010. Available at: <https://law.go.kr/lsc.do?section=&menuId=1&subMenuId=15&tabMenuId=81&eventGubun=060101&query=%ED%98%95%EC%82%AC%EC%82%AC%EB%B2%95%EC%A0%88%EC%B0%A8%EC%97%90%EC%84%9C%EC%9D%98+%EC%A0%84%EC%9E%90%EB%AC%B8%EC%84%9C+%EC%9D%B4%EC%9A%A9+%EB%93%B1%EC%97%90+%EA%B4%80%ED%95%9C+%EB%B2%95%EB%A5%A0#undefined> [Accessed 05.04.2026].

¹² The Criminal Procedure Code of the Kyrgyz Republic No. 129 of 28 October 2021 (as amended and supplemented as of 1 January 2026). Erkin Too, 16 November 2021, No. 122–123.

¹³ Criminal Procedure Code of the Republic of Latvia of 21 April 2005 (as amended and supplemented as of 1 April 2026). Available at: <https://likumi.lv/ta/id/107820-kriminalprocesa-likums> [Accessed 05.04.2026].

¹⁴ Criminal Procedure Code of the Republic of Lithuania of 14 March 2002 (as amended and supplemented as of 12 February 2026). Available at: <https://www.e-tar.lt/portal/lt/legalAct/TAR.EC588C321777/asr> [Accessed 05.04.2026].

¹⁵ Criminal Procedure Code of the Republic of Moldova No. 122-XV of 14 March 2003 (as amended and supplemented as of 14 February 2026). Official Monitor of the Republic of Moldova of 7 June 2003, No. 104-110/447.

¹⁶ Criminal Procedure Code of the Netherlands (Wetboek van Strafvordering). Official Legal Information Portal of the Netherlands. Available at: <https://wetten.overheid.nl/BWBR0001903/2026-01-01> [Accessed 05.04.2026].

¹⁷ Criminal Procedure Rules of New Zealand 2012 (Criminal Procedure Rules 2012). Available at: <https://www.legislation.govt.nz/secondary-legislation/pco-drafted/2012/415/en/latest/#DLM4914753> [Accessed 05.04.2026].

¹⁸ Rules for Electronic Communication with the Courts of Norway of 28 October 2016. No. FOR-2016-10-28-1258 (Forskrift om elektronisk kommunikasjon med domstolene). Available at: <https://lovdata.no/dokument/SF/forskrift/2016-10-28-1258/%C2%A714%C2%A714> [Accessed 05.04.2026].

¹⁹ Federal Decree-Law No. 38 of 2022 “On the Enactment of the Criminal Procedure Code of the United Arab Emirates.” Official Legislation Portal of the UAE. Available at: <https://uaelegislation.gov.ae/ar/legislations/1609> [Accessed 05.04.2026].

the Russian Federation (Art. 474.1 of the Criminal Procedure Code of Russia²⁰), Saudi Arabia,²¹ Singapore (Art. 9 of the Supreme Court Electronic Document Management and Service Rules²²), the Republic of Uzbekistan (Art. 27 of the Criminal Procedure Code²³), Ukraine (Part 2, Art. 35 of the Criminal Procedure Code²⁴), Sweden (Ch. 33, Art. 1a of the Swedish Judicial Code²⁵), and Estonia (Art. 160.2 of the Estonian Criminal Procedure Code²⁶). At the legislative level, this form of interaction with the court is not established in Belarus, Georgia, Tajikistan, Turkmenistan, Finland, and Japan. Thus, in 11 out of 15 post-Soviet countries, there is a legislative provision for the electronic submission of procedural documents (i.e., 73 %). In 16 out of 18 leading countries, this possibility is also established in e-government development (i.e., 89 %).

The common features of the application of electronic document management in the aforementioned countries include: legislative consolidation of electronic document management; the use of electronic digital signatures to grant legal force to electronic documents; provid-

²⁰ The Criminal Procedure Code of the Russian Federation No. 174-FZ of 18 December 2001 (as amended and supplemented as of 8 March 2026). *Rossiyskaya Gazeta*, 22 December 2001, No. 249.

²¹ Procedural Guide on Electronic Court Services (Saudi Arabia), approved by Ministry of Justice Decision No. 8056 of 13.05.2020. Available at: https://laws.moj.gov.sa/en/legislation/myVO-TMtIwgPSdkK_pOfJw [Accessed 05.04.2026].

²² Criminal Procedure Code (Electronic Filing and Service for Supreme Court) Rules 2022. Available at: <https://sso.agc.gov.sg/SL/CPC2010-S259-2022?DocDate=20220331#:~:text=Search%20within%20Legislation,heard%20in%20the%20Supreme%20Court> [Accessed 05.04.2026].

²³ Criminal Procedure Code of the Republic of Uzbekistan (adopted by the Law of the Republic of Uzbekistan of 22 September 1994 No. 2013-XII) (as amended and supplemented as of 9 November 2025). *Vedomosti of the Supreme Council of the Republic of Uzbekistan*, 1995, No. 2.

²⁴ Criminal Procedure Code of Ukraine No. 4651-VI of 13 April 2012 (as amended and supplemented as of 31 July 2025). *Golos Ukrainy*, 19 May 2012, No. 90–91.

²⁵ Judicial Code of Sweden (*Rättegångsbalk*) (1942:740). Available at: https://www.riksdagen.se/sv/dokument-och-lagar/dokument/svensk-forfattningssamling/rattgangsbalk-1942740_sfs-1942-740/ [Accessed 05.04.2026].

²⁶ Criminal Procedure Code of the Republic of Estonia of 12 February 2003. Available at: <https://www.riigiteataja.ee/akt/119032015021?leiaKehtiv> [Accessed 05.04.2026].

ing the parties to criminal proceedings with the opportunity to submit certain procedural documents in electronic form; the preparation of court hearing protocols in electronic form and granting the parties access to them for review. A particular aspect is the format of interaction between the participants in criminal proceedings and the court. Some countries use an electronic criminal case information system for this purpose (for example, Azerbaijan, Kazakhstan, and Kyrgyzstan), while others create a platform for the electronic submission of documents (for example, Russia and Belarus).

II. Remote Participation via Videoconferencing and Its Limits

The possibility of remote participation in criminal proceedings via videoconferencing is provided for in Australia (Section 279.2 of the Australian Criminal Code²⁷), Azerbaijan (Art. 51-2 of the Criminal Procedure Code of the Republic of Azerbaijan), Armenia (Art. 327 of the Criminal Procedure Code of Armenia), Bahrain (Art. 125 of the Criminal Procedure Code of Bahrain), Belarus (Part 31, Art. 286 of the Criminal Procedure Code of the Republic of Belarus²⁸), United Kingdom (Art. 51 of the Police, Crime, Sentencing and Courts Act²⁹), Germany (Art. 247a of the Criminal Procedure Code), Georgia (Art. 188 of the Criminal Procedure Code of Georgia³⁰), Denmark (Art. 748a of the Administration of Justice Act), Iceland (Art. 9 of the Icelandic Criminal Procedure Act), Spain (Art. 325 of the Criminal Procedure Code of Spain), Kazakhstan (Art. 213 of the Criminal Procedure Code of Kazakhstan), Republic

²⁷ Criminal Code Act 1995 (No. 12, 1995). Federal Register of Legislation of Australia. Available at: <https://www.legislation.gov.au/C2004A04868/latest/text> [Accessed 05.04.2026].

²⁸ Criminal Procedure Code of the Republic of Belarus No. 295-Z of 16 July 1999 (as amended and supplemented as of 17 February 2025). Vedomosti of the National Assembly of the Republic of Belarus, 25 August 1999, No. 28–29, Art. 433.

²⁹ Police, Crime, Sentencing and Courts Act 2022 (UK). Available at: <https://www.legislation.gov.uk/ukpga/2022/32/section/200/enacted> [Accessed 05.04.2026].

³⁰ Criminal Procedure Code of Georgia No. 1772-IIc of 9 October 2009 (as amended and supplemented as of 16 October 2025). Legislative Gazette of Georgia (LGG), 3 November 2009, No. 31.

of Korea (Art. 165.2 of the Criminal Procedure Code of the Republic of Korea), Kyrgyz Republic (Art. 290 of the Criminal Procedure Code of the Kyrgyz Republic), Latvia (Art. 140 of the Criminal Procedure Code of Latvia), Lithuania (Art. 8.2 of the Criminal Procedure Code of Lithuania), Moldova (Part 3.2 Art. 109 of the Criminal Procedure Code of Moldova), Netherlands (Art. 131a of the Criminal Procedure Code), New Zealand (Art. 9 of the New Zealand Courts Act (Remote Participation)³¹), Norway (Art. 29a of the Criminal Procedure Code³²), UAE (Art. 414 of the Criminal Procedure Code), Russian Federation (Art. 278.1 of the Criminal Procedure Code of Russia), Saudi Arabia,³³ Singapore (Art. 256C of the Criminal Procedure Code), Turkmenistan (Art. 369 of the Criminal Procedure Code³⁴), Uzbekistan (Art. 91-3 of the Criminal Procedure Code), Ukraine (Art. 336 of the Criminal Procedure Code), Finland (Ch. 8, Sec. 13 of the Finnish Criminal Procedure Act³⁵), Estonia (Part 5, Art. 287 of the Criminal Procedure Code), Sweden (Ch. 5, Art. 10 of the Swedish Judicial Code), Japan (Art. 157-b of the Criminal Procedure Code³⁶).

Thus, in 14 out of 15 post-Soviet countries, the possibility of participating in criminal proceedings at the judicial stages via videoconferencing is established at the legislative level (i.e., 93 %). In all 18 leading

³¹ New Zealand Courts (Remote Participation) Act 2010. New Zealand Legislation. Available at: <https://www.legislation.govt.nz/act/public/2010/0094/latest/DLM2600709.html> [Accessed 06.04.2026].

³² Criminal Procedure Act of Norway No. 25 of 22 May 1981. (Lov om rettergangsmåten i straffesaker). Lovdata. Available at: https://lovdata.no/dokument/NL/lov/1981-05-22-25/KAPITTEL_1-4#KAPITTEL_1-4 [Accessed 06.04.2026].

³³ Procedural Guide on Electronic Court Services (Saudi Arabia), approved by Ministry of Justice Decision No. 8056 of 13.05.2020. Available at: https://laws.moj.gov.sa/en/legislation/myVO-TMtIwgPSdkK_pOfJw [Accessed 05.04.2026].

³⁴ Criminal Procedure Code of Turkmenistan of 18 April 2009 (as amended and supplemented as of 12 April 2025). Continent Information System.

³⁵ Criminal Procedure Act of Finland No. 689 of 11 July 1997 (Laki oikeudenkäynnistä rikosasioissa 689/1997). Finlex: Finnish Legislation Database. Available at: <https://www.finlex.fi/fi/lainsaadanto/1997/689?language=fin&highlightId=989291&highlightParams=%7B%22type%22%3A%22BASIC%22%2C%22search%22%3A%22oikeudenkäynnistä+rikosasioissa+%22%7D> [Accessed 06.04.2026].

³⁶ Criminal Procedure Code of Japan No. 131 of 10 July 1948. Official Internet Portal of Japanese Legislation. Available at: <https://laws.e-gov.go.jp/law/323AC0000000131> [Accessed 05.04.2026].

countries in the field of e-government development, this possibility is also provided for.

An analysis of the legislation of the presented countries allows us to identify both standard approaches to the use of videoconferencing in the administration of justice in criminal cases, as well as specific features in different countries. The common approaches for all countries include the following features.

1. Grounds for application: most often, videoconferencing is used to ensure the safety of participants (witness protection), in cases of unsuitable health conditions for personal appearance and during the interrogation of minors.

2. Equality of evidentiary value: remote interrogation is equated with interrogation conducted in person.

3. Uniformity of procedure: remote interrogation is conducted according to the same rules as a regular one, i.e., participants must be able to hear the proceedings and ask questions in real time.

4. Mandatory recording: all actions via videoconferencing are subject to video recording, which is attached to the case file.

One can see the following peculiarities in the legal regulation of the use of videoconferencing.

1. Establishment of technical standards for communication quality. For example, in accordance with Art. 91-1 of the Criminal Procedure Code of Uzbekistan, technical means and equipment must meet the following minimum requirements: image resolution of 1920×1080 , 50 frames per second; audio frequency range of 100–12,000 Hz; and information security through the use of a protected communication channel via VPN.

2. Use of personal technical devices. For instance, according to Part 5 Art. 336 of the Criminal Procedure Code of Ukraine, participants in criminal proceedings take part in court hearings via videoconferencing from outside the courtroom using their own technical devices and a qualified electronic signature.

3. Ensuring the openness of court proceedings through online broadcasting. Pursuant to Part 1 Art. 290-1 of the Criminal Procedure Code of the Kyrgyz Republic, the court, upon request of the parties or on its own initiative, may authorize the live broadcast of a court session on television, radio, and/or the Internet.

4. Prohibition on the use of videoconferencing in jury trials. Such a ban is established, for example, in Russia (Part 4 Art. 241.1 of the Criminal Procedure Code of the Russian Federation).

5. Providing the possibility of participating in interrogations via videoconferencing from abroad. For instance, according to Part 3.2 Art. 109 of the Criminal Procedure Code of Moldova, if a witness is outside the country and their presence at the hearing is difficult, the interrogation may be conducted via videoconferencing. In this case, the procedure takes place at a diplomatic mission or consular office of the Republic of Moldova. P.A. Samsonov proposes introducing a remote participation format for defendants through Russian consular institutions into the Russian criminal process (Samsonov, 2024, p. 360).

For example, an independent expert observation of 370 court cases revealed that elements such as “voice,” “respect,” and “neutrality” in the administration of justice are significantly lower during hearings conducted via videoconferencing compared to in-person hearings (Baldwin et al., 2020, pp. 743–758). Thus, videoconferencing has transformed the principle of immediacy, as it no longer implies only the physical presence of the trial participants in the same room, but also the continuity and quality of the broadcast during remote participation. Surveys among professional participants in criminal proceedings (judges, lawyers) indicate that the remote participation of defendants via videoconferencing introduces vulnerabilities associated with an additional communication barrier. This is because the defendant, while in prison and in front of a camera, experiences a form of double isolation: they are separated not only from the court, but also from their own lawyer (McKay and Macintosh, 2024, pp. 323–324). This creates a communication barrier that may be misinterpreted by the judge as a lack of remorse or hostility, simply due to the quality of the video or the camera angle (McKay and Macintosh, 2024, pp. 323–324).

Given that some countries allow the use of videoconferencing without direct supervision of the person “on the other end,” in the future, countries may face the risk of real-time image substitution. This issue could be addressed by implementing biometric facial authentication before each hearing. In this regard, the question arises regarding the necessity of establishing a unified national biometric database.

III. Algorithmization: From Narrow Artificial Intelligence to Justice by Choice

The use of artificial intelligence in criminal proceedings in some countries during 2024–2026 has transitioned from the stage of conceptual discussion to practical implementation and legislative regulation. In academic literature, the following roles performed by AI during the AI integration into the justice system are identified: AI translator, AI argument constructor for the parties, AI judge's assistant, and AI decision-maker (artificial intelligence that makes decisions independently) (Volokh, 2019, pp. 1143–1156). A gradual implementation of artificial intelligence in criminal proceedings should be expected.

The current application of artificial intelligence in judicial activities has already moved beyond theoretical discussions and is actively used as an objective factor in the decision-making mechanism. Global practice shows that only “narrow” AI is currently in operation — capable of performing specific tasks faster than the human mind, but unable to think, reason, or learn.³⁷ For example, in the United States, the COMPAS (Correctional Offender Management Profiling for Alternative Sanctions) program predicts the likelihood of recidivism, assisting judges in determining sentences based on an analysis of the defendant's employment and social background.³⁸ In Malaysia, the AiCOS (the Artificial Intelligence in Court Sentencing) system provides real-time sentencing recommendations by analyzing a database of past decisions in similar cases.³⁹ In China, the Judicial Assistant handles intelligent review of case materials and generates draft documents, reducing judges' time expenditures by 50 percent.⁴⁰

³⁷ International Business Machines official website. Available at: <https://www.ibm.com/think/topics/artificial-intelligence-types> [Accessed 08.04.2026].

³⁸ The official website of the Wisconsin Department of Corrections, USA. Available at: <https://doc.wi.gov/Pages/AboutDOC/COMPAS.aspx> [Accessed 08.04.2026].

³⁹ The official website of the e-Kehakiman Sabah Sarawak (e-KSS) electronic justice system of the Malaysian states of Sabah and Sarawak. Available at: https://ekss-portal.kehakiman.gov.my/portals/web/home/article_view/0/5/1 [Accessed 08.04.2026].

⁴⁰ The official website of the Supreme People's Court of the People's Republic of China. Available at: https://english.court.gov.cn/2025-06/13/c_1100759.htm [Accessed 15.06.2025].

However, the implementation of such technologies gives rise to serious legal risks. The evaluation of evidence using mathematical algorithms, where each fact is pre-assigned a certain value, directly contradicts the fundamental principle of freedom of evaluation of evidence, which is enshrined in criminal procedure (Spiridonov, 2023, p. 490). There is a danger that if the historical set of decisions on which the AI was trained contained judicial errors or violations of law, the system will begin to reproduce them in new verdicts. A similar problem regarding the need to mitigate bias for certain population groups is also discussed in medicine in the context of the application of artificial intelligence, whose operation is based on historical data (Singh and Kecher, 2025). A proposed solution is the preliminary selection of judicial decisions that will be approved and embedded into the algorithm. However, this raises the question of the necessary number of such decisions (Reiling, 2020). The preliminary selection of expert-approved judicial decisions (reference samples) for training would allow the artificial intelligence not to inherit the flaws of judicial practice. It seems that in this situation, it would be advisable to start with a single qualification of an act for testing purposes, in order to subsequently determine the required number and quality of judicial decisions to be embedded in the algorithm. This would allow for the accumulation of error statistics without harming the rights of defendants. Furthermore, examples from the U.S. practice have revealed a problem of transparency: when the software code is protected as a trade secret, the defendant is deprived of the opportunity to understand and challenge the logic by which the system assessed them as “dangerous.”⁴¹ Thus, for criminal proceedings, only a state-developed algorithm may be suitable, the logic of which must be open to audit by the parties.

Despite the rapid digitalization, the post-Soviet countries maintain a procedural conservatism regarding the use of artificial intelligence in making decisions in criminal cases. The risks of implementing AI for decision-making can be summarized as follows. Firstly, artificial intelligence cannot bear criminal responsibility for issuing a knowingly unlawful verdict, as it is not a physical entity possessing legal con-

⁴¹ Supreme Court of Wisconsin. *State of Wisconsin v. Eric L. Loomis*. Decision No. 2015AP157-CR (2016). Available at: <https://courts.ca.gov/sites/default/files/courts/default/2024-12/btb24-2l-3.pdf> [Accessed 11.06.2025].

sciousness. Secondly, a judge evaluates evidence based on their inner conviction, whereas artificial intelligence operates on the basis of mathematical probability and pre-programmed algorithms.

In the foreseeable future, the final decision on matters requiring the analysis of evidence in criminal proceedings can only be entrusted to a human, not a machine (Przhilenskiy and Vilkova, 2025). Artificial intelligence must remain an auxiliary tool that enhances the efficiency of the court, but does not replace the judge's inner conviction. Any implementation of such systems into practice, including in the Russian Federation, is only possible under the condition of prior approval of ethical and legal principles governing their use, such as transparency, impartiality, and respect for fundamental human rights. For example, the European Commission for the Efficiency of Justice (CEPEJ) has adopted five fundamental principles for the use of artificial intelligence in judicial systems and their surrounding environments: respect for fundamental rights, non-discrimination; quality and security, transparency, impartiality, and reliability.⁴²

Thus, at present, in the post-Soviet countries, only the prerequisites are being created for the use of artificial intelligence as a digital assistant to a judge, but not as a fully-fledged electronic judge. In the initial stages of AI implementation for making final decisions in criminal cases, a "double control" system may be established, where the algorithm issues a decision, and a human judge is required to approve it for compliance with the law. However, this should not become a mere formality, where the judge simply clicks OK.

In this regard, the Italian SICP (Sistema Informativo della Cognizione Penale – Criminal Cognition Information System) system and its modules Acts and Documents 2.0 and Proposal for Penalties deserve attention.⁴³ In this system, within the Acts and Documents 2.0

⁴² European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and Their Surrounding Realities, adopted in Strasbourg on 3–4 December 2018, at the 31st Plenary Session of the European Commission for the Efficiency of Justice. ConsultantPlus Legal Reference System.

⁴³ Official website of the Italian Higher Council of the Magistracy. Available at: https://www.csm.it/web/csm-internet/il-processo-penale-telematico/sicp/console-del-pm-e-atti-documenti/-/journal_content/56_INSTANCE_edArvldFGFha/21768/119930?p_p_state=pop_up&_56_INSTANCE_edArvldFGFha_page=1&_56_INSTANCE_edArvldFGFha_viewMode=print#Atti_e_documenti [Accessed 05.04.2026].

module, the judge is offered a selection of the most appropriate wording to be included in the reasoning part of the judgment. The adoption and signing of the final decision remain with the human, who acts as a controlling entity with the ability to make edits. Such a system is an actual implementation of “double control” in the judicial decision-making process. The Proposal for Penalties module helps to eliminate errors in the qualification of the act and the calculation of terms for sentencing. Precise calculation of terms often becomes a subject of judicial disputes, as difficulties in their computation still arise.

Some countries practice the integration of state information systems and registries with procedural document constructors. For example, the Lithuanian IBPS (Integrated Criminal Procedure Information System) system allows for the automatic loading of data from dozens of state registries, ranging from the register of registered residents to data on border crossings and bank accounts.⁴⁴ As a result, judges do not need to send additional court requests to confirm or gather case-related information. Furthermore, this system automatically removes the personal data of participants in criminal proceedings. Thus, such judicial decisions are ready for official publication, which, on the one hand, addresses the issues of transparency and openness of court proceedings, and, on the other hand, preserves the privacy of the participants in criminal proceedings. At present, almost all court decisions are subject to publication on the official websites of courts. Apart from the defendant, who, if found guilty, receives public censure through the publication of information about the committed crime, other individuals also participate in criminal proceedings. It is extremely rare for information about a person’s participation as a victim or witness to be removed from published court decisions. The example of using the IBPS system demonstrates how an algorithm can protect the privacy of witnesses and victims more effectively than a human, who might mistakenly forget to remove personal data.

⁴⁴ Regulation on the Unified Information System of Criminal Proceedings, approved by Order of the Minister of the Interior of the Republic of Lithuania, the Prosecutor General of the Republic of Lithuania, and the Director of the National Judicial Administration of 27 September 2012, No. 1B-702/I-294/6II-101-(1.1). Available at: <https://www.e-tar.lt/portal/lt/legalAct/TAR.36CFoFD8o75B/meGWSsOUSS> [Accessed 05.04.2026].

The adoption of a judicial decision in one criminal case is sometimes linked to the execution of a court decision in another criminal case. For example, this is necessary for assessing recidivism and selecting the most appropriate punishment. Such a system exists in Azerbaijan, it is called “Electronic Enforcement,” which allows a judge to see in real time the status of the execution of previous decisions regarding the defendant.⁴⁵

In the academic community, the concept of granting the defendant a choice between a traditional court and algorithmic justice is actively discussed. This algorithmic justice may serve as a second stage in the implementation of artificial intelligence for making decisions in criminal cases. This proposal is based on the idea of ensuring maximum “mathematical objectivity” and eliminating the subjective factor from a human judge. The defendant may prefer an algorithm if they believe that the case is typical and that the human factor could negatively affect the outcome of the proceedings. In this context, artificial intelligence does not act as a replacement for justice, but rather as an alternative mode of adjudication, guaranteeing impartiality through strict adherence to embedded algorithms. For the defendant, this also means predictability of the verdict, rather than a “lottery” of human factors.

This concept is largely based on the already existing institution of a jury trial in the Russian criminal process. Just as a defendant today has the right to choose between a professional judge and a jury panel, they are proposed to be given the choice in favor of algorithmic justice.

In both cases, the logic is identical: justice is rendered only with the consent (petition) of the individual themselves. If, in the case of a jury, the defendant seeks protection from a possible prosecution bias of the system, then in the case of artificial intelligence, they seek mathematical impartiality of the code. Thus, the algorithm can be not a coercive tool, but another procedural guarantee that expands the citizen’s right to a fair trial. If society trusts non-professional judges (jurors), who do not know the law, to decide a person’s fate, then why should an algo-

⁴⁵ Regulation on the Information System Electronic Court, approved by Decree of the President of the Republic of Azerbaijan No. 1043 of 1 June 2020 On Approval of the Regulation on the Electronic Court Information System. Available at: <https://e-qanun.az/framework/45080> [Accessed 11.06.2025].

rithm that knows the law be rejected? The right to choose a simplified criminal procedure with the participation of an algorithm removes the problem of the machine's lack of legal consciousness. The legitimacy stems not from artificial intelligence, but from the will of the defendant.

Larisa N. Maslennikova (2000) identified two trends in the development of criminal procedure: the complication and simplification of procedural forms. An algorithm can be viewed not merely as a technical tool, but as a new criminal procedure form. Within the system of existing differentiated procedures, justice based on the use of artificial intelligence could become the most simplified form of criminal proceedings, one that does not require deep judicial discretion. However, science issues warnings against excessive "digital romanticism." For example, Leonid V. Golovko insists on the preservation of the classical process, emphasizing that technologization should not replace the foundations of justice (Golovko, 2019, p. 21). Thus, an algorithm can be considered exclusively as an auxiliary tool, but not as an independent procedural form that could replace judicial discretion.

The first widely known example of algorithmic accountability is the system of automatic photo-fixation for exceeding the established speed limit, which constitutes an administrative offense. When this system was introduced, a 50 % discount for prompt payment of the fine was widely used. The reasons for the success of this project are obvious: the elimination of subjectivity, mathematical precision, speed of accountability, reduced workload, uniformity of practice, and the automation of routine tasks. Similar reasons are driving States toward the increasing application of artificial intelligence in the administration of justice. If an algorithm can flawlessly issue a fine for speeding, why can it not check for the elements of a crime in simple criminal cases and assign a punishment?

However, not everyone supports the ideas of techno-optimism in the administration of justice. Frank Pasquale (2019) argues that technologies should function as tools to enhance the intelligence of human lawyers, assisting them rather than replacing their decision-making function. Pasquale presents the following serious arguments: language is a human right and cannot be reduced to binary code, artificial intel-

ligence lacks sincerity, while criminal justice requires compassion, and there is a risk of losing control over the justice system and professional degradation.

The clash between the positions of digital reformers and procedural classicists is a natural stage in the transformation of justice. It seems that the true path of development lies in high-tech assistance, where digital tools take on routine operations, freeing up the judge's intellectual resources to resolve complex issues. The introduction of artificial intelligence into the administration of justice as an additional, voluntary procedure for obvious elements of a crime appears to be a promising direction. The application of artificial intelligence is suitable for resolving routine issues based on past experience, whereas a human lawyer should focus on the future and the strategic development of law.

Under the situation of court overload, a judge physically lacks the opportunity not only to show empathy and compassion, but even to delve into the essence of the dispute being considered. In a district court in Moscow, a judge may hear about 30 civil cases per day. This amounts to approximately 16 minutes per case, considering that some participants in the proceedings must leave the courtroom while others enter, and the judge must each time explain the rights and obligations to the parties. Because of this, judges often take a formal approach to conducting procedures such as, for example, case preparation for trial. In criminal cases, the situation is somewhat better (about 5 cases per day), but there is also a greater time requirement to comply with criminal procedure legislation. The media has widely covered a study that showed judges are statistically less likely to rule in favor of defendants before lunch.⁴⁶ In this regard, artificial intelligence will be able to treat everyone equally, regardless of gender, race, or even their lunch schedule.

In the context of a crisis in the accessibility of legal aid, the concept of rejecting the achievements of digitalization effectively becomes a justification for the high cost and low efficiency of the judicial process. The evolution of social relations directly leads to the complication of legal regulation. Thus, lawyers are required to retain more and more

⁴⁶ Available at: <https://www.kommersant.ru/doc/1639006> [Accessed 04.05.2026].

information in their memory. The history of the development of the legal profession demonstrates the inevitability of transformation due to technological progress. If, in the pre-digital era, updating regulatory legal acts required manual labor from a lawyer (purchasing newspapers, pasting in changes), the emergence of legal reference systems has relieved this burden. Richard Susskind predicted back in the 1990s that lawyers who “paste in changes” would disappear as a class, giving way to specialists in legal knowledge management (Susskind, 1996, p. 272). The discussion about the implementation of artificial intelligence in the work of human lawyers is a continuation of this process, but now there is a transition from the automation of searching for legal norms to the automation of their application. Digitalization cannot be considered a threat to the elimination of the profession, as it serves as a stimulus for its qualitative complication.

IV. Conclusion

The development of digital justice in 2024–2026 has definitively moved from the realm of science fiction into the sphere of everyday law enforcement practice. If, at the initial stages of introducing digital technologies, restraint prevailed — due to the specifics of criminal procedure relations and the risks of restricting constitutional rights — today, the automation of routine legal issues is becoming a tool for ensuring legal certainty. The conducted research on the digitalization of criminal proceedings has allowed for the formulation of the following conclusions.

1. Inevitability and global nature of digitalization. The transition of criminal case consideration at the judicial stages to a digital environment is recognized as a global trend and an objective necessity. This study shows that post-Soviet countries demonstrate a high rate of normative consolidation and application of digital institutions in criminal proceedings compared to the leading countries in e-government development: remote participation in courts is enshrined in 93 % of post-Soviet countries, and electronic document management in 73 %. Thus, the legislative consolidation of remote participation in courts is more developed than the possibility of submitting procedural documents electronically.

2. Transformation of fundamental principles (General Conditions of Judicial Proceedings in the Russian Federation). The use of videoconferencing transforms the principle of immediacy (in the Russian Federation, this is a general condition for judicial proceedings), creating new communication barriers and risks of reducing the level of respect and neutrality.

3. Phased Implementation of Artificial Intelligence. Currently, artificial intelligence is being fragmentarily introduced into the administration of criminal justice. At present, this is only in a small number of States; however, the same path was once taken by electronic document management, electronic criminal case files, and videoconferencing.

4. Maintaining a balance between efficiency and human rights compliance. The main obstacles to the automation of manual processes remain the conservatism of scholars and practicing lawyers, due to the lack of transparency of algorithms, the commercial secrecy of software code, and the inability of a machine to bear responsibility for an unlawful decision.

5. The algorithm serves as a new criminal procedure form of administering justice. Criminal procedure law knows various simplified and complex forms of administering justice: private prosecution, admission of guilt, pre-trial cooperation agreements, and trial by jury. Algorithmic justice can act as a new simplified form for conducting criminal proceedings.

6. Transformation of the legal profession. The technological process is irreversible, and therefore, a generation accustomed to paper bureaucracy has been replaced by specialists in legal knowledge management, who are now being succeeded by experts in its automated application.

References

Baldwin, J.M., Eassey, J.M. and Brooke, E.J., (2020). Court operations during the Covid-19 pandemic. *American Journal of Criminal Justice*, 45(4), pp. 743–758, doi: 10.1007/s12103-020-09553-1.

Golovko, L.V., (2019). The digitalization in criminal procedure: local optimization or global revolution? *Vestnik ekonomicheskoy bezopasnosti*, 1, pp. 15–21. (In Russ.).

Maslennikova, L.N., (2000). Public and Dispositive Principles in the Criminal Procedure of Russia: Doctoral Dissertation in Law: 12.00.09. Moscow. 554 p. (In Russ.).

McKay, C. and Macintosh, K., (2024). Digital vulnerability: People-in-prison, videoconferencing and the digital criminal justice system. *Journal of Criminology*, 57.3, pp. 313–333, doi: 10.1177/26338076231217794.

Pasquale, F., (2019). A Rule of Persons, Not Machines: The Limits of Legal Automation. *The George Washington Law Review*, 87(1), pp. 1–55.

Przhilenskiy, V.I. and Vilkova, T.Y., (2025). Philosophical Contexts of Russian Criminal Proceedings Digitalization. *RUDN Journal of Philosophy*, 29(4), pp. 1289–1302, doi: 10.22363/2313-2302-2025-29-4-1289-1302. (In Russ.).

Reiling, A.D., (2020). Courts and Artificial Intelligence. *International Journal for Court Administration*, 11(2), pp. 1–10, doi: 10.36745/ijca.343.

Samsonov, P.A., (2024). Remote production of investigative actions with the participation of the accused located outside the Russian Federation. *Eurasian Law Journal*, 4 (191), pp. 358–360. (In Russ.).

Singh, M.P. and Keche, Y.N., (2025). Ethical Integration of Artificial Intelligence in Healthcare: Narrative Review of Global Challenges and Strategic Solutions. *Cureus*, 17(5), pp. 1–16, doi: 10.7759/cureus.84804.

Spiridonov, M.S., (2023). Artificial Intelligence Technologies in Criminal Procedural Proving. *Journal of Digital Technologies and Law*, 1 (2), pp. 481–497. (In Russ.).

Susskind, R., (1996). *The Future of Law: Facing the Challenges of Information Technology*. Oxford: Clarendon Press.

Volokh, E., (2019). Chief Justice Robots. *Duke Law Journal*, 68(6), pp. 1135–1192.

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