

## ***Analysis of the Implementation of E-Litigation with Artificial Intelligence Approach in Procedural Justice and Access to Justice in Pretrial Proceedings***

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### **Abstract**

*The development of Artificial Intelligence in the current digital era across every sector of society has become a topic of discussion among legal experts for its potential application within the realm of justice systems. Consistency and time efficiency have become key considerations for implementation within the judicial system. Pre-trial proceedings in Indonesia are often seen as a secondary trial process, leading to inconsistencies in time, understanding of legislation, and document management, resulting in disadvantageous situations for the suspects. The integration of Artificial Intelligence in legal proceedings can enhance efficiency, accuracy, and ensure access to justice for suspects within the legal process. In the context of pre-trial proceedings, AI can be utilized to aid in data processing and analysis, decision-making, and monitoring compliance with principles of procedural justice. The research problem in this study revolves around two main questions: First, how does the legitimacy and legal certainty of utilizing electronic media within the Indonesian judicial system stand? Second, how can procedural justice and access to justice be implemented through the utilization of electronic media, particularly artificial intelligence, in pre-trial proceedings? This research is a doctrinal or normative study, relying on secondary data sources consisting of primary legal materials and qualitative data.*

### **Abstrak**

*Kecerdasan Buatan yang berkembang pada era digital saat ini di setiap sektor masyarakat telah menjadi perbincangan bagi para ahli hukum untuk dapat diaplikasikan di dalam ranah sistem peradilan. Kemampuan konsistensi, dan efisiensi waktu menjadi nilai pertimbangan untuk diaplikasikan dalam sistem pengadilan. Pra peradilan di Indonesia dianggap sebagai proses persidangan kedua sehingga tidak jarang terjadi Inkonsistensi waktu, pemahaman perundang-undangan dan pengelolaan dokumen hingga waktu yang merugikan bagi tersangka. Integrasi Kecerdasan buatan dalam persidangan dapat meningkatkan efisiensi, akurasi, dan mewujudkan akses keadilan bagi tersangka dalam proses hukum. Dalam konteks pra peradilan, AI dapat digunakan untuk membantu dalam pemrosesan dan analisis data, pengambilan keputusan, dan pemantauan kepatuhan terhadap prinsip-prinsip keadilan prosedural. Adapun rumusan masalah dari penelitian ini adalah Pertama, Bagaimana legitimasi dan kepastian hukum dari pemanfaatan media elektronik dalam sistem pengadilan Indonesia? Kedua, Bagaimana Penerapan keadilan prosedural dan akses keadilan melalui pemanfaatan media elektronik khususnya kecerdasan buatan dalam persidangan praperadilan? Penelitian ini merupakan penelitian doktrinal atau normatif dengan sumber data berupa data sekunder berupa bahan hukum primer dan sekunder berwujud data kualitatif.*

## INTRODUCTION

The implementation of pre-trial proceedings has become a dilemma as it is considered supplementary to criminal procedural law. Courts and judges often prioritize trial proceedings, causing delays in pre-trial procedures, extending what should be a seven-day process to 14 days or more<sup>1</sup>. The maximum seven-day limit for decisions is frequently postponed. Based on observations from the Integrated Information System for Judicial Records (SIIP) regarding case histories in Central Jakarta, Bandung District Court, and Surabaya District Court, the average duration from determination to decision takes 14-20 calendar days<sup>2</sup>. Such delays can be detrimental to suspects who are wrongfully detained, depriving them of their fundamental right to freedom. Dismissal of pre-trial applications after the first hearing at the district court is sometimes exploited by investigators or prosecutors to annul pre-trial proceedings by promptly transferring case files to the district court<sup>3</sup>. Consequently, competition between defense attorneys and prosecutors is not uncommon. Prosecutors seek swift trials for resolution while defense attorneys strive to challenge the investigation. The crowded court schedule often forces judges to postpone trial dates. Delays beyond the maximum seven-day limit for delivering decisions undermine public trust in the judiciary and influence judges' rulings in general court proceedings<sup>4</sup>.

The failure to achieve the objectives of pre-trial proceedings is also due to inconsistencies in understanding legislation<sup>5</sup>. Dismissal of requests, such as Criminal Pretrial Case Petition No. 2/Pid.Sus-TPK/2023/PN.Jap dated March 1, 2023, and Criminal Case Petition No. 3/Pid.SusTPK/2023/PN.Jap dated March 1, 2023, illustrates differing perceptions regarding the definition of the prerequisites for pre-trial petitions<sup>6</sup>. The phrase "a case has begun to be examined" in Article 82

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<sup>1</sup> Lihat Pasal Pasal 82 ayat (1) huruf c Kitab Undang-undang Hukum Acara Pidana (KUHAP)

<sup>2</sup> [http://sipp.pn-jakartapusat.go.id/list\\_perkara/page/1/bTZUeFBCOHhGQ3pqeGpZa1ovQVBaSVNvT2orTGZDTXIVRkdyZjQzVnk1R2Vud1JOVjRRZkxWZWJYM0daak8wTjhTbE5FNkFZOU9EZWI2VE11QVVvdXc9PQ==/key/col/2](http://sipp.pn-jakartapusat.go.id/list_perkara/page/1/bTZUeFBCOHhGQ3pqeGpZa1ovQVBaSVNvT2orTGZDTXIVRkdyZjQzVnk1R2Vud1JOVjRRZkxWZWJYM0daak8wTjhTbE5FNkFZOU9EZWI2VE11QVVvdXc9PQ==/key/col/2)

<sup>3</sup> Putusan Mahkamah Konstitusi No. 102/PUU-XIII/2015,

<sup>4</sup> Tesis, sulijati, Analisis putusan hakim dalam gugatan praperadilan perkara pidana di pengadilan negeri kudas (telaah yuridis mengenai putusan praperadilan dalam perspektif hukum dan kebijakan publik), Universitas Sebelas Maret, 2008, hal.85-86

<sup>5</sup> <https://www.mkri.id/index.php?page=web.Berita&id=19186>

<sup>6</sup> <https://www.mkri.id/index.php?page=web.Berita&id=19186>

paragraph (1) letter d of the Criminal Procedure Code (KUHP), whether since the date of trial scheduling, registration, or recording, remains ambiguous<sup>7</sup>.

Inconsistencies in concluding evidence with minimal prerequisites for trial and examination pose problems during pre-trial hearings since pre-trial procedures are still governed by the KUHP, lacking specific regulations<sup>8</sup>. Sudibyo Triatmojo defines pre-trial as the District Court's formal oversight and correction of administrative procedures for detention and arrests conducted by the police and prosecutors.

Pre-trial proceedings in the criminal justice system play a crucial role in ensuring procedural justice and guaranteeing access to justice for individuals accused by law enforcement authorities. Compliance with the law should not only apply to society but also to law enforcement agencies in enforcing legislation. Judicial inaccuracies in deciding pre-trial cases affect legal substance, including justice, utility, and legal certainty. Violations of procedural justice and the loss of access to justice erode public trust in the judiciary, posing a threat to societal cohesion, as outlined in the 2010-2035 Judiciary Renewal Blueprint in Indonesia<sup>9</sup>. Failure to address these issues would deny defendants the opportunity to challenge the formal requirements of their arrest, detention, and seizure by law enforcement agencies. Formal requirements must be met as part of substantive legal principles in achieving the goals of criminal law, and the implementation of formal law represents procedural justice. Pre-trial proceedings can be interpreted as a mechanism for checks and balances, ensuring that law enforcement actions adhere to applicable legal procedures and uphold the human rights of suspects. According to the Rule of Law<sup>10</sup>, as articulated by Lon Fuller in his book "The Morality of Law," everyone, including the government, must adhere to the law, encompassing

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<sup>7</sup> Kafara, Safrun. "Analisis Hukum Pelaksanaan Putusan Praperadilan terhadap Perkara Setya Novanto oleh Komisi Pemberantasan Korupsi (Nomor 97/Pid. Prap/2017/PN. Jkt-Sel tanggal 29 September 2017)." *Jurnal Penegakan Hukum Dan Keadilan* 1.1 (2020): 81-94. hal. 85

<sup>8</sup> <https://icjr.or.id/mekanisme-praperadilan-harus-di-reformasi-total-perma-4-tahun-2016-belum-komprehensif-mengatur-soal-praperadilan/>

<sup>9</sup> Mahkamah Agung Republik Indonesia, Cetak Biru Pembaruan Peradilan 2010-2035, Mahkamah Agung RI, Jakarta, 2010, hlm. iii dan iv.

<sup>10</sup> Lon Luvois Fuller, *The Morality of Law* (Yale University Press, 1969). lihat juga Stanley Greenstein, "Preserving the Rule of Law in the Era of Artificial Intelligence (AI)," *Artificial Intelligence and Law* 30, no. 3 (July 17, 2021): 291–323, <https://doi.org/10.1007/s10506-021-09294-4>. Hal.294 lihat juga Hadar Aviram (2011). *Packer in Context: Formalism and Fairness in the Due Process Model.*, 36(1), 237–261. doi:10.1111/j.1747-4469.2010.01230.x, hal. 255

elements such as: rules, laws must contain rules regulating the behavior and actions of individuals and governments; prospectivity, rules must apply to the future and cannot be applied retroactively; publication, rules must be openly published for everyone to access and understand their obligations and rights; understandability, rules must be written clearly and understandable to all involved parties; non-contradiction, rules must not contradict each other or be confusing; compliance, rules must be complied with by everyone without unreasonable hindrance; consistency, rules must not change constantly and arbitrarily; access to justice, everyone must have equal access to the judicial system to resolve legal disputes.

The evolving digitalization of society has been leveraged in every sector of community life<sup>11</sup>. The use of technology, such as artificial intelligence (AI), is believed to offer solutions to consistency and management issues faced by judges during trials. The integration of true artificial intelligence has become a current issue in the legal domain. Countries like the United States and China have successfully integrated AI into their judicial systems. However, this integration also sparks debates regarding the functionality of judges during trials, the immediacy of trial formalities, evidence validation, and the transparency of the products used in reaching conclusions. From the above elaboration, it can be concluded that obstacles to the implementation of pre-trial proceedings arise from inconsistencies in interpreting the phrase "a case has begun to be examined," the termination of pre-trial applications when the substantive case has been referred and the first hearing has commenced, mismanagement of trial proceedings leading to postponements, differences in interpreting minimal evidence requirements for filing case petitions, and limitations in judicial resources and emotional capacity<sup>12</sup>. Artificial intelligence (AI) in trial processes is believed to provide significant benefits by supporting the need for judicial consistency, evidence analysis, trial management, accurate outcomes, and logical trial proceedings, as well as identifying and correcting errors in those outcomes<sup>13</sup>. This development brings about technology-based intelligence

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<sup>11</sup> Heikkinen, Tiia-Helinä. "How does the use of artificial intelligence affect the concept of fair trial?." (2019).

<sup>12</sup> Heikkinen, Tiia-Helinä. "How does the use of artificial intelligence affect the concept of fair trial?." (2019).

<sup>13</sup> Yaohui JIN; Hao HE; (2020). An Artificial-Intelligence-Based Semantic Assist Framework for Judicial Trials . Asian Journal of Law and Society, (), -. doi:10.1017/als.2020.33 h.532

capable of analyzing, deciding, and predicting issues. The concept of utilizing digital-based intelligence has been discussed for integration into legal systems worldwide, promising high success rates, consistency, and speed in decision-making<sup>14</sup>. Timely trial proceedings, accurate judgments, and consistent case handling will restore public confidence in the judiciary.

The objective of this research is to analyze how pre-trial proceedings achieve and realize access to justice and procedural justice. Furthermore, it aims to explore the relationship between procedural justice, guaranteeing access to justice, and the use of artificial intelligence integrated into the judicial system for pre-trial proceedings.

The research questions are:

1. What is the relationship between integrating artificial intelligence into pre-trial proceedings with access to justice and procedural justice?
2. How can the implementation of artificial intelligence be integrated into the judicial system for application in pre-trial proceedings to fulfill access to justice and ensure procedural justice?

This research is a doctrinal study based on primary legal research materials and secondary legal research materials, such as literature reviews, journals, and books related to the formulation of the research problem<sup>15</sup>. The approach used in analyzing and addressing the research problem includes the Statute Approach<sup>16</sup>, Conceptual Approach, and Comparative Approach. The Comparative Approach focuses on observing the success of countries like the United States and China, which have maximized technology in their judicial systems to achieve effectiveness, consistency, and transparency in trials. The Statute Approach involves analyzing relevant legislation, such as Law No. 8 of 1981 concerning the Criminal Procedure Code (KUHAP) of Indonesia and Supreme Court Regulations (Perma) of 2019. The Conceptual Approach focuses on the doctrines of Access to Justice and Procedural Justice, which concern the administration of justice. To support this research, the author also utilizes secondary data, including both primary

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<sup>14</sup> Reiling, A. D. (2020). Courts and artificial intelligence. In IJCA (Vol. 11, p. 1).

<sup>15</sup> Soerjono Soekanto dan Sri Mamudji, *Penelitian Hukum Normatif Suatu Tinjauan Singkat*, Penerbit PT Rajagrafindo Persada, Depok, 2019, hlm. 14.

<sup>16</sup> Mukti Fajar ND dan Yulianto Achmad, *Dualisme Penelitian Hukum Normatif dan Empiris*, Penerbit Pustaka Pelajar, Yogyakarta, 2019, hlm. 185.

and secondary legal materials. Primary legal materials are obtained from legislation, jurisprudence, and actions of authorized institutions, while secondary legal materials are derived from previous research, books, scholarly journals, and internet news<sup>17</sup>.

## **RESEARCH METHOD**

Penelitian ini termasuk dalam kategori penelitian normatif yang menggunakan metode pendekatan perundang-undangan. Penelitian hukum normatif ini melibatkan analisis literatur dengan memanfaatkan sumber hukum utama dan sekunder untuk mengatasi permasalahan hukum. Pendekatan perundang-undangan (Statute Approach) diterapkan dengan menganalisis Undang-Undang yang relevan terkait dengan isu hukum yang melibatkan korban pada tindak pidana penipuan di dalam transaksi jual beli di *platform marketplace*.

## **RESULT AND DISCUSSION**

### **A. Pre-trial Proceedings in the Indonesian Procedural Law System**

The concept of pre-trial proceedings facilitates access to justice for suspects to challenge their arrest or detention to prevent wrongful arrest or arbitrary actions against individuals. This function is known as a supervisory or check and balance function facilitated by the law. The main task of Pre-trial Proceedings as a supervisory function can be understood as checking the formal legal requirements of criminal procedural law because its regulation is found in Law No. 8 of 1981 concerning the Criminal Procedure Code as a formal legal source or *Lex generalis*<sup>18</sup>. The authority of Pre-trial Proceedings as regulated in Article 77 of the Criminal Procedure Code is to determine the validity of the suspect's arrest. Thus, Pre-trial Proceedings ensure that these actions are carried out in accordance with the law and applicable procedures or procedural justice. The principles of pre-trial proceedings are as follows:

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<sup>17</sup> Wijaya, Firman. "Pergeseran Paradigma Dalam Praperadilan: Menyongsong Keadilan Prosedural Yang Substantif." *Neoclassical Legal Review: Journal of Law and Contemporary Issues* 1.1 (2022): 56-70.

<sup>18</sup> Wijaya, Firman. "Pergeseran Paradigma Dalam Praperadilan: Menyongsong Keadilan Prosedural Yang Substantif." *Neoclassical Legal Review: Journal of Law and Contemporary Issues* 1.1 (2022): 56-70.



a. Principle of Access to Justice for Every Individual

Article 1 paragraph (10) combined with Article 77 of the Criminal Procedure Code provides the authority for pre-trial proceedings to challenge arrests or detentions, related to the termination of investigations and prosecutions, and rehabilitation in cases of wrongful arrest. This administration recognizes that every individual has the right to be protected and acknowledges their inherent rights recognized as human rights, also known as the principle of *Habeas Corpus*<sup>19</sup>. The examination is related to<sup>20</sup> the existence of an investigation warrant as the basis for investigator actions, both in collecting evidence and determining suspects, and the presence of sufficient preliminary evidence, namely the existence of two valid pieces of evidence.

b. Principle of Effective and Efficient Trial

This principle is enshrined in the interpretation of trials that are quick, simple, and cost-effective. It is stated in Article 82 paragraph 1 letter c of the Criminal Procedure Code: "the trial must be conducted quickly, and no later than seven days, the judge must have delivered his verdict."

c. Principle of Certainty as a Guarantee of Procedural Justice

It includes certainty regarding the scope of arrests and their authority (Articles 16, 17, 18, and 19 of the Criminal Procedure Code), certainty regarding officials, various detention periods and their postponements (Articles 19 to 31 of the Criminal Procedure Code), certainty regarding various officials and their authority to conduct searches (Articles 32 to 37 of the Criminal Procedure Code), and certainty regarding officials and their authority to seize, as well as the types of seizures and the continuation of seized items (Articles 38 to 46 of the Criminal Procedure Code).

Pre-trial proceedings are declared void if the regular court has commenced examination, and in resolving disputes no more than 7 (seven) days from the pre-trial request being received by the court. If the request is declared void, the legal

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<sup>19</sup> Wibowo, Moch Adhitya Rifka, and Sunarto Sunarto. "Analisa Yuridis Peran Pra Peradilan Dalam Penegakan Hukum Pidana Di Indonesia." *Terang: Jurnal Kajian Ilmu Sosial, Politik dan Hukum* 1.1 (2024): 306-320, h. 307

<sup>20</sup> Siregar, Muhammad Yusuf, and Zainal Abidin Pakpahan. "Kewenangan Mengajukan Pra Peradilan Atas Penetapan Tersangka Di Tinjau Dari Segi Hukum." *Jurnal Ilmiah Advokasi* 6.2 (2018): 34-54.

consequences entail that the burden of examination is transferred to the general court.

## **B. Procedural Justice**

Procedural justice is a crucial principle in the legal system that guarantees fair, transparent, and dignified treatment of all parties involved<sup>21</sup>. By upholding procedural justice, it serves as a benchmark to ensure that the legal process operates fairly, strengthens public trust in the judicial system, and provides legal certainty for all involved parties. Pre-trial proceedings are a mechanism in the Indonesian criminal procedural law system aimed at ensuring the implementation of due process or a fair trial<sup>22</sup>. Tyler and Blader formulated two dimensions of procedural justice: decision-making and treatment. The first dimension includes participation in decision-making, accountability, impartiality, trust, and opportunities for rectifying mistakes. The second dimension concerns the quality of interpersonal treatment, relating to whether authorities treat individuals with respect, dignity, and courtesy<sup>23</sup>.

Indicators of achieving procedural justice include<sup>24</sup>: Firstly, the quality of interpersonal treatment is crucial. This includes how parties involved in the legal process treat each other. It is essential that all parties feel respected, treated fairly, and acknowledged for their dignity. This includes how the court interacts with the parties, including providing them with opportunities to present their arguments and feel heard.

Secondly, procedural justice involves the quality of the procedures themselves. This means that the decision-making process must be neutral, transparent, and consistent. All parties should have equal opportunities to present

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<sup>21</sup> A. Mentovich, J. J. Prescott, and O. Rabinovich-Einy, "Legitimacy and online proceedings: Procedural justice, access to justice, and the role of income," *Law & Society Review*, vol. 57, no. 2, pp. 189–213, 2023. doi:10.1111/lasr.12653

<sup>22</sup> Moeliono, Tristam P., and Widati Wulandari. "Asas legalitas dalam hukum acara pidana: Kritikan terhadap putusan MK tentang praperadilan." *Jurnal Hukum Ius Quia Iustum* 22.4 (2015): 594-616.

<sup>23</sup> Turner, Bryan S (2017). *The Wiley-Blackwell Encyclopedia of Social Theory || Procedural Justice.* , (), 1–3. doi:10.1002/9781118430873.est0293

<sup>24</sup> A. Mentovich, J. J. Prescott, and O. Rabinovich-Einy, "Legitimacy and online proceedings: Procedural justice, access to justice, and the role of income," *Law & Society Review*, vol. 57, no. 2, pp. 189–213, 2023. doi:10.1111/lasr.12653



their evidence and arguments, and decisions should be based on relevant facts and applicable law. This principle ensures that no party is unfairly advantaged or disadvantaged by the legal process.

Lastly, procedural justice involves the importance of giving voice and participation to all parties involved in the legal process. This means providing opportunities for parties to speak and express their views, and ensuring that they are heard and considered in decision-making. In a fair legal process, all parties should feel that they have fair access to the process and that their views are taken into account by the court and decision-makers.

Quoting Herbert L. Pecker's view on modeling the criminal justice system, procedural justice must embody the following concepts<sup>25</sup>:

1. Presumption of Innocence: The defendant is presumed innocent until proven guilty in court.
2. Rights and Legal Protections: Defendants have legal rights and are protected during the trial process.
3. Compliance with Legal Procedures: It is important to follow the legal procedures established to protect individual rights.
4. Prohibition of Unreasonable Investigation and Seizure: Prohibiting investigations and seizures that are not in accordance with the law and violate individual privacy rights.
5. Protection against Double Jeopardy: Preventing someone from being tried twice for the same crime.
6. Equal Protection: Ensuring fair and nondiscriminatory treatment under the law.

Formal testing can be attempted through digital instruments for analysis and preliminary assessment by judges through artificial legal assistants. Through artificial intelligence-based digital systems, it facilitates the work of pre-trial judges who are the sole judges aided by substitute clerks. In document processing, data

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<sup>25</sup> Herbert L. Packer, "Two Models of the Criminal Process," *University of Pennsylvania Law Review* 113, no. 1 (November 1964): 1, <https://doi.org/10.2307/3310562>.

analysis, and providing decision recommendations to the judge. Pre-trial proceedings requested or conducted promptly given that often at the same time general trial proceedings are ongoing. Judges can be supported by algorithms in analyzing similar case data and specific risk factors to provide guidance to the judge in determining recommended sentences. Thirdly, defendant risk assessment using AI is increasingly used in many countries. Pre-trial proceedings as a formal law testing mechanism are a major factor in ensuring the effectiveness of the law, which cannot be separated between formal and substantive law. The effectiveness of the law has elements that must be fulfilled including legal substance, legal structure, and legal culture, a concept added by Peter Mahmud Marzuki related to one of the law enforcement components in the form of legal infrastructure<sup>26</sup>.

The integration of algorithms and artificial intelligence (AI) in the judicial process has the potential to enhance various judicial values, such as transparency, accountability, independence, impartiality, diversity, and efficiency. The principle of open justice, which emphasizes transparency and accountability, can be served by the ability of AI to process and present data clearly and easily accessible. Judicial independence can be supported by AI systems designed free from external influence. Impartiality and equality before the law can be enhanced through algorithms that apply legal rules consistently to all parties. Diversity and representation can be addressed by AI considering various perspectives and data sources, potentially reducing human bias. Finally, efficiency is a crucial area where AI can make significant contributions by simplifying case management and decision-making processes.

### **C. Access to Justice**

Access to justice is the ability for everyone to pursue and obtain legal remedies as protected legal rights in both informal and formal institutions<sup>27</sup>. Equal opportunity for everyone to seek and obtain justice is a commitment of the legal community to ensure protection for every individual. This commitment is

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<sup>26</sup> Lutfia, Vivi. 2022. "Optimalisasi Penegakan Hukum Terhadap Penyelenggaraan Peradilan Melalui E-Court Dalam Mewujudkan Keadilan Bagi Masyarakat Di Era Digitalisasi". *Lex Renaissance* 6 (4):677-91. <https://doi.org/10.20885/JLR.vol6.iss4.art3>.

<sup>27</sup> Putra, Dedi. "A modern judicial system in Indonesia: legal breakthrough of e-court and e-legal proceeding." *Jurnal Hukum dan Peradilan* 9.2 (2020): 275-297.

inseparable from the philosophy of social contract by Thomas Hobbes and John Locke and is also enshrined in international legal instruments such as the Montevideo Convention, UN Charter, and Universal Declaration of Human Rights<sup>28</sup>.

The guarantee of protection for access to justice for every individual is due to the vulnerability of civil society to abuses of power by the government over the authority they hold. Deviation from legal norms during criminal proceedings or abuse of power by the police, prosecutors, and judges in unjustified arrests will result in the violation of an individual's fundamental rights to their human rights. As mandated in Article 28G paragraph (2) of the Constitution: "Everyone has the right to be free from torture or inhuman treatment and has the right to seek political asylum from another country." The substance of the above article is a reaffirmation of the prohibition of all forms of torture, both physical and psychological, against everyone. This means that a fair, transparent, and nondiscriminatory legal process as procedural justice and if there is neglect of these norms, pre-trial serves as a means for the defendant to restore their violated rights in the criminal procedural law process.

Justice itself refers to the opinion of John Rawls in his book "A Theory of Justice" which states<sup>29</sup>: 1. Everyone must have an equal right to the broadest basic freedoms, as wide-ranging freedom as possible for all; 2. Socio-economic inequalities must be arranged so that (a) they are expected to benefit the least advantaged, and (b) all positions and positions are open to all. In the context of procedural justice, efficiency by prioritizing simple, fast, and inexpensive norms must still present substantive justice and consistency and transparency in decision-making. Delays in pre-trial proceedings can cause unjust detention and prolong the wait time for defendants to face trial. Delay in deciding pre-trial cases leads to the failure of prosecution, thus impacting the functioning of general courts. Therefore, it is important for the Indonesian judicial system to ensure that pre-trial proceedings

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<sup>28</sup> Bambang Sutyoso, "MENCARI FORMAT IDEAL KEADILAN PUTUSAN DALAM PERADILAN," *JURNAL HUKUM IUS QUIA IUSTUM* 17, no. 2 (2010): 217–32, <https://doi.org/10.20885/iustum.vol17.iss2.art5>.

<sup>29</sup> Tornado, Anang Sophan. "Praperadilan Sebagai Upaya Penegakan Prinsip Keadilan." *Al-Adl: Jurnal Hukum* 10.2 (2018): 237-252.

are conducted efficiently and in accordance with the principles of procedural justice to protect the rights of defendants and prevent human rights violations.

Digital integration provides answers in achieving efficiency and effectiveness of time. The ease of access and efficiency make parties involved in disputes more likely to use this ODR process. This also applies to online courts for small claims issues as implemented in Estonia<sup>30</sup>. Automation can also be used to improve access to justice through the development of chatbots that can answer questions and direct users to more relevant information. Some courts in the United States use chatbots to answer common questions and thereby reduce calls to court staff. For example, the Los Angeles Superior Court developed a chatbot for this purpose in June 2020. To make the chatbot run quickly and efficiently, the court designed it with the same pattern as the chatbot used to order pizza from Domino's. The chatbot uses initial questions or prompts to help users find the right answers from a knowledge base consisting of 100 questions based on user guides and FAQs.

#### **D. Implementation of Artificial Intelligence and Comparative States**

According to the Indonesian language dictionary, "kecerdasan buatan" is the equivalent term for Artificial Intelligence, which is defined as computer programs that mimic human intelligence, such as decision-making, providing reasoning, and other human characteristics<sup>31</sup>. The definition of "kecerdasan buatan" refers to this equivalent term, abbreviated as AI from Artificial Intelligence, which differs in grammar and sometimes its meaning is only understood by people with specialized knowledge of modern technology<sup>32</sup>. The definition from dictionaries like the Cambridge Dictionary states Artificial Intelligence as: "the science of making computers do things that human beings can do," indicating that artificial intelligence is a field of technology that studies the rules governing human mental behavior and creates computer programs or systems that simulate human thinking<sup>33</sup>.

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<sup>30</sup> Monika Zalnieriute and Felicity Bell, "Technology and the Judicial Role," in *The Judge, the Judiciary and the Court* (Cambridge University Press, 2021), 116–42, <http://dx.doi.org/10.1017/9781108859332.008>.

<sup>31</sup> <https://kbbi.kemdikbud.go.id/entri/kecerdasan%20buatan>

<sup>32</sup> Paweł Marcin Nowotko. "AI in judicial application of law and the right to a court." *Procedia Computer Science* 192 (2021): 2220-2228.

<sup>33</sup> <https://dictionary.cambridge.org/dictionary/english/ai>

Artificial Intelligence for Europe: systems displaying intelligent behavior by analyzing their environment and taking actions with a certain level of autonomy to achieve specific goals. The High-Level Expert Group on AI for the European Commission defines it as systems designed by humans that, with complex purposes, act in the physical or digital world by perceiving their environment, interpreting collected structured or unstructured data, reasoning based on knowledge acquired from this data, and deciding on the best actions to take (in accordance with predetermined parameters) to achieve given goals. The Oxford Dictionary defines it as "The capacity of computers or other machines to exhibit or simulate intelligent behavior; the field of study concerned with this"<sup>34</sup>. In later use also: software used to perform tasks or produce output previously thought to require human intelligence, especially by using machine learning to extrapolate from large collections of data." Considering the diversity of these definitions in terms of functionality, the use of artificial intelligence (AI) has both broad benefits in society and is also a controversial and ongoing topic in the field of law regarding transparency and accountability, independence, impartiality, diversity, and efficiency<sup>35</sup>. There are various AI applications used in the context of justice, such as online courts, algorithms for criminal sentencing, and risk assessment for defendants<sup>36</sup>.

The Law Society of England and Wales categorizes the use of legal technology into two forms: first (rules-based)<sup>37</sup>: AI is tasked with automating repetitive legal tasks and processing existing legal information, such as document automation, legal diagnosis, and legislative analysis. The second group is legal technology in seeking dispute resolution predictions, document analysis, and risk assessment. Dovile Baryse categorizes it into a more systematic grouping for

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[https://www.oed.com/dictionary/artificial-intelligence\\_n?tab=meaning\\_and\\_use&tl=true#38531565](https://www.oed.com/dictionary/artificial-intelligence_n?tab=meaning_and_use&tl=true#38531565)

<sup>35</sup> Zalnieriute, Monika and Bell, Felicity, Technology and the Judicial Role (2020). in Gabrielle Appleby and Andrew Lynch (eds), The Judge, the Judiciary and the Court: Individual, Collegial and Institutional Judicial Dynamics in Australia (Cambridge University Press, 2021), Available at SSRN: <https://ssrn.com/abstract=3492868> or <http://dx.doi.org/10.2139/ssrn.3492868>

<sup>36</sup> Barysè, D., Sarel, R. Algorithms in the court: does it matter which part of the judicial decision-making is automated?. *Artif Intell Law* 32, 117–146 (2024). <https://doi.org/10.1007/s10506-022-09343-6>

<sup>37</sup> Dovile arysè,, Sarel, R. Algorithms in the court: does it matter which part of the judicial decision-making is automated?. *Artif Intell Law* 32, 117–146 (2024). <https://doi.org/10.1007/s10506-022-09343-6>

integration into the legal realm, comprising four groups<sup>38</sup>: legal document collection, information analysis, assessment, and implementation. Legal document collection involves collecting, filtering, and validating documents; Information analysis involves analyzing to provide predictions; Decision selection involves providing decision results to serve as decision-making references; and finally, decision implementation involves executing orders. Here are some benefits of using artificial intelligence (AI) in court along with examples<sup>39</sup>:

1. Organizing information: AI can assist in recognizing patterns in documents and text files, which is useful in sorting through large numbers of cases or in complex cases with a lot of information. An example is the use of eDiscovery in the United States, which is automatic investigation of electronic information before the start of court proceedings. eDiscovery uses machine learning AI to extract relevant parts of vast amounts of information more quickly and accurately than manual file research.
2. Providing analysis: AI capable of providing advice can be useful for parties involved in a court case seeking solutions to their legal problems. AI advisors can search for relevant information and provide answers to legal questions. An example is the application used in the Civil Resolution Tribunal (CRT) in Canada, which provides public legal information and calculation tools to help people solve their legal problems more independently.
3. Prediction: AI can be used to predict court decisions. Although this is still a matter of debate, some AI tools have been developed to predict case outcomes in court. An example is a machine learning application that can predict case outcomes in the United States Supreme Court (SCOTUS) with a certain accuracy. This tool uses information about cases, political preferences, and individual judge voting behavior to make predictions. Additionally, there are also AI tools that can predict decisions of the

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<sup>38</sup> Dovile arysė,, Sarel, R. Algorithms in the court: does it matter which part of the judicial decision-making is automated?. *Artif Intell Law* 32, 117–146 (2024). <https://doi.org/10.1007/s10506-022-09343-6>

<sup>39</sup> Sumber:

- AI and the Rule of Law: A Dutch Perspective. (2019). The Netherlands Council for the Judiciary.



European Court of Human Rights (ECHR) using natural language processing and machine learning.

4. Assisting decision-making: AI can assist judges and legal professionals in decision-making by providing relevant data analysis and information. An example is the use of AI tools to analyze trends in court decisions, judge profiles, and courts. These tools can provide valuable insights for legal professionals in preparing and deciding legal cases.
5. Efficiency and time savings: The use of AI in courts can improve efficiency and save time in the legal process. AI can help organize information, find patterns, and perform data analysis more quickly and accurately than conventional methods. This can reduce the workload for judges, lawyers, and court staff.

Experts believe that the benefits of integrating artificial intelligence into the legal system can be utilized by judges, including: First, efficiency benefits: In the judicial process, it can provide direct benefits to judges by allowing them to spend shorter time obtaining documents, finding relevant legal provisions, or applying the law. This allows judges to be more efficient in performing their duties<sup>40</sup>. Second, accuracy benefits: Judges can obtain new information that cannot be detected by the naked eye. This can improve the accuracy of court decision-making and help judges analyze cases better, thereby minimizing inconsistencies in court decisions<sup>41</sup>. The use of AI is very helpful. In complex cases, humans may have limitations in detecting patterns or connecting relevant information.

### **1. AI in the United States Judicial System**

The integration of AI in the legal field of the United States has supported the development of more efficient, accurate, and fair legal practices, while also helping to reduce the burden on the criminal justice system.

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<sup>40</sup> Jin, Yaohui and Hao He. "An Artificial-Intelligence-Based Semantic Assist Framework for Judicial Trials." *Asian Journal of Law and Society* 7 (2020): 531 - 540. h. 531

<sup>41</sup> Dovile arysė, Sarel, R. Algorithms in the court: does it matter which part of the judicial decision-making is automated?. *Artif Intell Law* 32, 117–146 (2024). <https://doi.org/10.1007/s10506-022-09343-6> . h. 122

The integration of AI in the legal field of the United States, particularly following the launch of the Data-Driven Justice (DDJ) Initiative by President Obama in 2016, has brought significant changes in how law is applied and analyzed. This initiative aims to use data analysis to reduce unnecessary pretrial detentions and seek fairer solutions in the criminal justice system. This integration includes<sup>42</sup>:

- 1) Legal Research AI assists in automating the legal research process, allowing lawyers and legal researchers to obtain legal information and precedents more quickly and accurately.
- 2) Predictive Analysis for Litigation used to predict case outcomes based on historical data and legal trends. This helps law firms and their clients make strategic decisions about whether to proceed with litigation or seek alternative resolutions.
- 3) Contract Review and E-Discovery to speed up the contract review and e-discovery process by automating the identification of relevant documents and clauses.

The use of data analysis to identify individuals who can be directed to social services and mental health support rather than pretrial detention. This not only reduces unnecessary prison populations but also helps address mental health issues in society. DDJ is a step toward a fairer and evidence-based criminal justice system, prioritizing rehabilitation over punishment. Overall, In the realm of the United States criminal justice system, it is considered a pioneer in integrating artificial intelligence into its adjudication system as a supporter in the judicial process, one of which is artificial intelligence in supporting judges in considering their decisions. The tool known as COMPAS (Correctional Offender Management Profiling for Alternative Sanctions) provides predictive results from algorithms processed based on statistics to measure the likelihood of future criminal activity and has been implemented in the state of Wisconsin, United States<sup>43</sup>. Some cases that have been the focus of debate regarding this tool are, First, the Lizzy 2013 Case. In 2013, Paul Zilly was charged, tried, and convicted in Wisconsin for theft of lawnmowers,

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<sup>42</sup> Wang, Ran. "Legal technology in contemporary USA and China." *Computer Law & Security Review* 39 (2020): 105459. h.13

<sup>43</sup> Dović Barysè and Roe Sarel, "Algorithms in the Court: Does It Matter Which Part of the Judicial Decision-Making Is Automated?," *Artificial Intelligence and Law* 32, no. 1 (January 8, 2023): 117–46, <https://doi.org/10.1007/s10506-022-09343-6>

among other tools, with the intention of selling them as spare parts<sup>44</sup>. The prosecuting attorney, along with Zilly's lawyer, agreed to a plea deal recommending one year in county jail and subsequent supervision. Presiding Judge James Babler stated on appeal that he would likely have sentenced Zilly to 18 months in prison. However, based on COMPAS, which indicated Zilly's likelihood of reoffending, Judge Babler rejected the prosecutor's charges and sentenced Zilly to two years in prison.

Second, in the Loomis 2016 Case, Eric Loomis was arrested on charges of shooting. The judge used the risk score provided by COMPAS to help determine the sentence. COMPAS (Correctional Offender Management Profiling for Alternative Sanctions) is a risk assessment tool that uses a secret algorithm to estimate the likelihood of a defendant committing future crimes. The Wisconsin state court decided on a 6-year prison sentence based on the results of the risk assessment algorithm COMPAS.

The legal issues in both of these cases are related to Due Process trapped within Algorithm Confidentiality protected by Intellectual Property Rights of the product owner: The COMPAS algorithm is a trade secret, so it cannot be examined by the public or by parties involved in the issue<sup>45</sup>. Some important legal provisions and opinions included in the decisions include, The Court emphasizes that the use of COMPAS should not replace the judge's final decision. The judge must still make their own determination regarding the sentence, taking into account various other factors beyond the results of COMPAS. Regarding the limitations of COMPAS acknowledged by the judge, the validation of the methods used in processing data to determine risk scores was not disclosed for reasons of intellectual property, but this does not diminish the judge's understanding of a case because it is the judge

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<sup>44</sup> Felicity Bell / Lyria Bennett Moses, AI Decision-Making and the Courts A guide for Judges, Tribunal Members and Court Administrators, Joint research project between the Australasian Institute of Judicial Administration (AIJA) and UNSW Faculty of Law and Justice, through the Allens Hub for Technology Law and Innovation and the Law Society of NSW Future of Law and Innovation in the Profession (FLIP) research stream, The Australasian Institute of Judicial Administration Incorporated. 2022 h.23, Clinton Castro, Alan Rubel, and Lindsey Schwartz, "Does Predictive Sentencing Make Sense?," *Inquiry*, February 2, 2024, 1–20, <https://doi.org/10.1080/0020174x.2024.2309876>.

<sup>45</sup> *State of Wisconsin v Loomis* (2016) 881 N.W.2d 749 (Ann Walsh Bradley J) ('Loomis'). Cert denied, 137 S Ct 2290 (2017)

who determines the decision, not AI, in the final decision to protect the defendant's rights to a fair legal process.

## **2. AI in the Chinese Judicial System**

China has a variety of applications of artificial intelligence, both in the form of automated decision-making and in supporting decision-making. The entire process is observed by system developers, judges, and the media, and widely broadcasted on social media platforms. In December 2019, a robot judge known as Xiaozhi successfully resolved a case of personal loan dispute. Xiaozhi performed several important tasks: Claim Examination and Interpretation: Xiaozhi analyzed the claims submitted by both parties in the case. Using natural language processing technology, it could understand the arguments and evidence presented. Xiaozhi visualized the relevant evidence on the courtroom screen. This allowed all parties involved to view and understand the evidence simultaneously. Xiaozhi produced a decision that satisfied all parties involved in the case. This decision was based on facts and applicable laws<sup>46</sup>.

In the realm of criminal law, there is a system supporting judges in adjudicating cases called the 206 System in Shanghai, which is an artificial intelligence (AI) assistance system designed to aid in handling criminal cases. Here is an explanation of how this system works<sup>47</sup>:

- **Evidence Validation:** This system has a function to review evidence based on uniform evidence standards. This means that the system can check whether the evidence presented in a case meets the criteria set by the law and legal principles. The technology is supported by Optical Character Recognition (OCR) devices to recognize characters embedded in the system, thus assisting law enforcement officers such as police/prosecutors in fulfilling the necessary evidence requirements. Consistent evidence presented in court will expedite the case processing speed by judges.

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<sup>46</sup> Wang, Nu. ““Black Box Justice”: Robot Judges and AI-based Judgment Processes in China’s Court System.” *2020 IEEE International Symposium on Technology and Society (ISTAS)* (2020): 60

<sup>47</sup> Ran Wang, “Legal Technology in Contemporary USA and China,” *Computer Law & Security Review* 39 (November 2020): 105459, <https://doi.org/10.1016/j.clsr.2020.105459>.

- **Crime Analysis:** For each type of crime, data statistics sources are obtained to predict future possibilities that have previously been set indicators.
- **Legal Process Verification:** This system can identify contradictions or violations in legal processes. For example, if criminal procedural law requires minimum evidence, the system identifies whether it is met as required by legislation.

**Recognition Validation:** The system can also check for contradictions between the admissions of various suspects or defendants. By reviewing examination records, the system can determine whether there are differences or discrepancies in admissions that could affect case decisions.

### **3. AI in the Indonesian Judicial System**

Indonesia has begun utilizing digital technology starting with civil procedural law and followed by criminal procedural law in 2020, driven by the COVID-19 health crisis. Previously, the first online justice system in Indonesia, known as e-Court, was introduced and launched by the Supreme Court of the Republic of Indonesia in 2018 through Supreme Court Regulation Number 3 of 2018. This system allows for case registration, fee payments, and electronic summons. It is part of the judiciary's modernization efforts to make processes more effective and efficient. The birth of Supreme Court Regulation Number 3 of 2018 is in line with the Supreme Court's vision to become the creator of modern justice based on technological developments.

The e-Litigation system is implemented in the judicial process in Indonesia through several ways<sup>48</sup>:

- **Electronic case registration:** With the e-Litigation system, parties involved in a case can register their cases electronically. This reduces the need for manual registration in court, which can be time-consuming and hinder the process.

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<sup>48</sup> Mahkamah Agung. (2019). Buku Panduan E-Court, Jakarta: Mahkamah Agung RI. 6

- Electronic document exchange: The e-Litigation system allows for the exchange of documents between parties electronically. Documents required in the judicial process, such as complaints, responses, evidence, and others, can be uploaded and accessed through the online platform. This eliminates the need to physically send documents and allows parties to access them more quickly.
- Electronic summons: Through the e-Litigation system, courts can electronically summon parties involved in a case. These summons can be sent via email or other electronic messages, reducing the need to send summons via physical mail. This helps save time and expedite communication between the court and the parties.

Online case processing: The e-Litigation system allows parties to process their cases online. For example, payment of case fees can be made through the online platform, reducing the complexity associated with physical payments. Additionally, court hearings, information exchange, and evidence processing can also be done electronically, saving time and resources.

### **E. Analysis of Implementation Challenges**

For countries implementing Artificial Intelligence to be integrated into procedural legal systems, effectiveness and efficiency in court proceedings emerge as responses to public dissatisfaction with existing judicial services<sup>49</sup>. The presence of technological innovations has supported the creation of effective and efficient judiciaries. The principles of simplicity, speed, and affordability form the basis of an effective and efficient judicial system. This concept maintains public trust in the judiciary. By enabling this process to be conducted electronically, the system helps bridge geographical constraints and can reduce case costs, supporting the principles of simple, fast, and cost-effective justice. These two countries share similarities in terms of vast territory and population density. However, like any new technology

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<sup>49</sup> Jin, Yaohui and Hao He. "An Artificial-Intelligence-Based Semantic Assist Framework for Judicial Trials." *Asian Journal of Law and Society* 7 (2020): 531 - 540. Amarini, Indriati, et al. "Digital transformation: creating an effective and efficient court in Indonesia." *Legality: Jurnal Ilmiah Hukum* 31.2 (2023): 266-284.



implementation, this system also faces challenges. For example, limited internet access in some areas and a lack of technological knowledge among some parties involved in the judicial process. The transparency of the product and bias in decision-making need rigorous testing and supervision<sup>50</sup>.

Transparency brings trust and legitimacy to society for its accuracy and effectiveness, which are still subject to debate. This is because the tools used still originate from private entities, and the working system is protected by Copyright. The next issue is Bias, which according to the author introduces the complexity of legal issues into an algorithm requiring understanding and expertise from legal experts. If the data used is not representative or reflects existing injustices or discrimination within the legal system, algorithms using such data may produce unfair risk assessments for certain groups. This can lead to injustice in legal decision-making vulnerable to the recommendations of such tools.

Based on the experience in Indonesia through Regulation Number 4 of 2020, this aims, among other things, to assist seekers of justice in overcoming obstacles in achieving justice accessible to the public with the hope that cases hindered by "certain conditions" (including the COVID-19 pandemic) or the coronavirus require resolution while still respecting human rights<sup>51</sup>. Virtual hearings, in concept, are another form of Artificial Intelligence. However, during the implementation period<sup>52</sup>, there were normative criticisms, including<sup>53</sup>:

1. Loss of solemnity and symbolism of the trial: Remote hearings may eliminate the grandeur and symbolism present in physical courtrooms. Physical courtrooms are considered to have ritualistic functions and symbolic importance. Physical presence in the courtroom can convey the seriousness of the trial and emphasize the stakes involved.

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<sup>50</sup> arysè, D., Sarel, R. Algorithms in the court: does it matter which part of the judicial decision-making is automated?. *Artif Intell Law* 32, 117–146 (2024). <https://doi.org/10.1007/s10506-022-09343-6>

<sup>51</sup> Kamello, Tan, and Marlia Sastro. "The Development of Procedural Law Through the E-Court System After Pandemic in Indonesia." *Veteran Law Review* 6.SpecialIssues (2023): 15-27.

<sup>52</sup> Kamello, Tan, and Marlia Sastro. "The Development of Procedural Law Through the E-Court System After Pandemic in Indonesia." *Veteran Law Review* 6.SpecialIssues (2023): 15-27.

<sup>53</sup> de Vocht, D.L.F. Trials by video link after the pandemic: the pros and cons of the expansion of virtual justice. *China-EU Law J* 8, 33–44 (2022). <https://doi.org/10.1007/s12689-022-00095-9>

2. Decrease in the formal nature of the trial for defendants: Defendants appearing remotely, especially if they participate from prison or their own homes, may have a diminished understanding of the seriousness of the trial. Physical meetings in the courtroom are deemed important as they symbolize the resolution of "conflict" with the state. Physical presence can help defendants realize the importance of the charges they face and provide a transparent and legitimate trial experience.
3. Loss of control over defendant behavior: In physical courtrooms, judges have control over defendants and can discipline or, if necessary, remove them from the courtroom in cases of inappropriate behavior. However, in remote hearings, the court loses some of this control. The court must rely on third parties, such as prison officers, to manage unwanted behavior. This can affect the security and integrity of the trial.
4. Lack of experience of the "official" atmosphere of the courtroom: The experience of the "official" atmosphere of the courtroom is considered important in the context of truthfulness, where physical presence can encourage honest testimony. In remote hearings, defendants and witnesses may not experience this official atmosphere, which can affect the accuracy of the testimony given.

From the summarized challenges, experts continue to develop the capabilities of Artificial Intelligence with ongoing supervision and testing, looking at the potential it yields when applied in the judicial domain. The use of technology is believed to realize effectiveness and efficiency in realizing access to justice and procedural justice in pre-trial proceedings, but this needs to consider ethical values. Artificial Intelligence can ultimately decide and analyze based on an understanding of basic rights, avoid discrimination, safeguard data security, ensure transparency in data processing, and ensure that AI remains under user control. Currently, there are more than 25 documents outlining ethical principles for the use of AI, including principles from the Institute of Electrical and Electronics Engineers (IEEE), the

European Union, and the Council of Europe. The Commission for the Efficiency of Justice (CEPEJ) of the Council of Europe has addressed this issue. The CEPEJ Working Group on Quality (GTQUAL) has developed ethical principles for the use of AI in judicial administration<sup>54</sup>.

## **CONCLUSION**

Pre-trial is access to justice for every individual to ensure protection under the law. Procedural justice demands that law enforcement institutions provide objective decisions, effectiveness with simple, fast, and cost-effective processes as mandated in Article 2 paragraph (4) of Law No. 48 of 2009 concerning the Judicial Power while still presenting legal certainty as procedural justice. As for what needs to be considered in synergizing artificial intelligence in the pre-trial judicial system in Indonesia: Objective Decision Making: Artificial intelligence can help reduce bias and subjectivity in decision-making. Algorithms can process data quickly and provide recommendations based on relevant facts and laws. Standardization of Evidence: AI systems can analyze existing evidence, including forensic data, criminal records, and trial transcripts. This helps judges and prosecutors understand cases more deeply. Risk Prediction: By utilizing historical data, artificial intelligence can predict the risk of certain criminal behaviors. For example, the risk of reoffending or serious offenses. Judicial Management: AI systems can help manage the inmate population more efficiently. This includes determining whether someone should be released pending trial or remain detained

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