



Adapting the Application of Artificial Intelligence in the Constitutional Court : Opportunities and Challenges

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Abstract—The Constitutional Court, one of the most distinguished judicial institutions in Indonesia, is still under the curse of partiality or quality of decisions. To overcome these issues the technology of Artificial Intelligence (AI) is anticipated to serve as a workaround. However, the use of AI in the Constitutional Court is needed to be examined carefully, namely related to the potential and obstacles of implementing this technology. This paper aimed at providing a comprehensive evaluation of the opportunities and challenges to consider for implementing artificial intelligence (AI) in activities of the Constitutional Court. This research methodology is used in this study whereby it employs normative juridical approach. Upon the implementation of this strategy, a comprehensive study involving legal and regulatory principles as well as other relevant sources to the subject of study will be done. The use of AI in the Constitutional Court must observe judicial independence most importantly. It implies the understanding that judges are only to perceive AI as a tool of analysis for doing pattern recognition and trend identification from past cases, which might be helpful in handling similar instances elsewhere, then evaluate the laws that follow. Applying AI to the Constitutional Court offers the potential to enhance transparency, accessibility, and efficiency in the legal process, as well as promote objective decision-making. The obstacles encompass concerns related to data security and privacy, data quality and accuracy, rules and ethics, as well as acceptance and adaption.

Keywords—Artificial Intelligence (AI), Constitutional Court, Opportunities and Challenges

I. INTRODUCTION

In contemporary legal jurisdictions, law is commonly perceived as codified rules manifested in the shape of statutory regulations. In addition, court decisions, particularly those made by the Constitutional Court as a constitutional court, are likewise encompassed within legal products. Put simply, the ruling of the constitutional court provides hope for addressing and resolving constitutional issues encountered by citizens, which are brought before the court. Hence, it is imperative that the decisions rendered by the Constitutional Court exhibit a high standard of quality [1]. Therefore, the decision of the constitutional court must be formulated in order to effectively uphold the principles of law and justice.

An important concern at the Constitutional Court is ensuring the uniformity of its decisions, which is critical for promoting fairness. The decisions of the Constitutional Court are sometimes perceived as inconsistent due to variations in their application to matters with comparable content [2]. This is called overruling. When it comes to judgments, the overrule practice makes it seem as though Constitutional Court always lags behind with mistakes.

These conflicting decisions might also cause legal uncertainty. This means that in society there is a confusion about what decision should be followed.

In addition, there have been problems concerning independence of judges in giving their verdicts. One such instance is the Constitutional Court Decision Number 90/PUU-XXI/2023 which talks about minimum age requirement for president and vice-president [3]. The latest development pertains to the enactment of legislation concerning the minimum age requirement for the positions of president and vice president. The Constitutional Court is deemed incapable of upholding the impartiality and autonomy of the judiciary since it regards the decision in the aforementioned case as politically biased and lacking in objectivity [4].

To achieve and preserve independence in order to uphold public confidence in the court, it is necessary to develop specific ideas and take practical measures. The concepts and procedures mentioned are associated with imparting the necessary knowledge of the law required for making decisions in a legal matter. The support for legal literacy should empower the Constitutional Court, specifically the Constitutional Judges, to thoroughly research, comprehend, present, and compare legal considerations and opinions from all past decisions, including those made since the establishment of the Constitutional Court, that dealt with similar constitutional issues [5]. The objective is for constitutional judges to get a comprehensive understanding of a certain case by gathering all relevant information and legal perspectives on similar rulings, particularly concerning the underlying reasoning and the approach to constitutional interpretation employed.

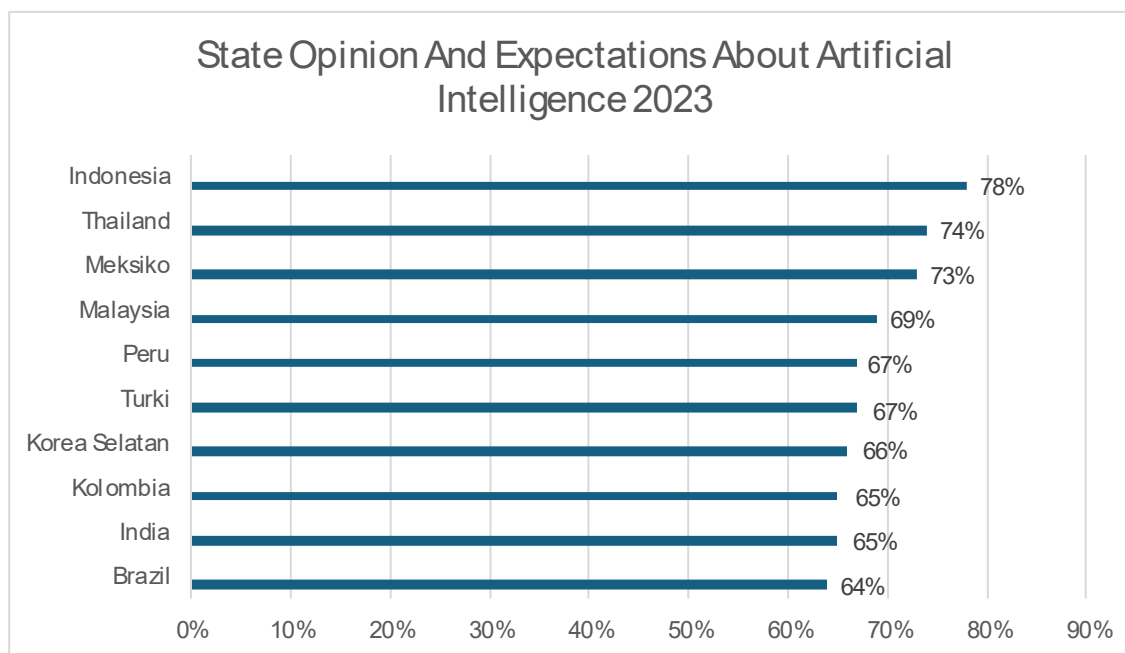
The decision-making process at the Constitutional Court involves various aspects, such as changes in norms and legal standing, which might impact the outcome of a petition case. Currently, Constitutional Court justices continue to rely on non-integrated archives of decisions when composing their own decisions. Consequently, the creation of Constitutional Court decisions heavily depends on the individual judges' recollections and capabilities. Undoubtedly, this is a legitimate worry, given that choices and judges are inherently interconnected.

The initial phase involves the management of the case and the formulation of the decision. The phases of case management must prioritize transparency at every step, including the application, file examination, trial, and decision-making processes. Clear and sequential stages of case management are crucial as they allow for an initial evaluation by the parties concerned in seeking justice, which is then followed by their active participation throughout the case.

The second word refers to the judge's ultimate decision, which is the result of their handling, addressing, and resolving situations within their jurisdiction. This decision is sometimes referred to as the judge's crowning achievement. In this scenario, a high-quality verdict is a manifestation of the judge's proficiency, competence, and aptitude in rendering judgments. Several theories have been suggested about the implementation of quality judge decisions, which aim to portray a sense of justice [2]. Nevertheless, it is indisputable that justice seekers consider a quality judgment to be one that not only achieves justice for them but is also acceptable and feasible to implement. This pertains to rulings made by the Constitutional Court (MK).

One of the strategic measures to achieve these aims is to employ artificial intelligence (AI) technology. Artificial intelligence (AI) has undergone significant advancement in recent years and has become an essential element in numerous industries. Artificial Intelligence (AI) possesses immense potential to revolutionize several aspects of life, employment, and human connection with the environment. Nevertheless, the utilization of AI also gives rise to significant apprehensions over equity in decision-making [6]. Justice is a crucial ideal in contemporary society, particularly in the context of growing digital interconnectedness [7]. Justice encompasses the fundamental concepts of fairness, impartiality, and responsibility when making judgments or choices.

The presence of AI in Indonesian society is now familiar. According to a May 2023 survey conducted by Ipsos, 78% of Indonesian respondents believed that AI would yield more advantages than drawbacks. Indonesia is the country with the highest level of optimism regarding the advancement of AI technology. Directly beneath that is Thailand, where the population firmly believes that AI will offer significantly improved guidance by 754%. The comprehensive roster of nations that hold a positive outlook on the advantages of AI technology is as follows:



Source : Ipsos Survey Results May 2023 (<https://www.ipsos.com/en>)

Fig. 1. 10 Most Optimistic Countries in the Use of AI Technology.

Given the positive outlook and enthusiasm of the Indonesian population towards the advantages of utilizing AI technology, it is fitting for the Constitutional Court to adopt this technology in order to establish a contemporary and equitable judicial system. Fairness in the realm of artificial intelligence pertains to the creation, execution, and utilization of AI systems that are just and impartial, without exhibiting any form of discrimination towards certain individuals or groups. This guarantees that the AI system's actions are not influenced by unfair prejudice; the outcomes must be just and impartial for all individuals without worsening existing societal inequalities [8]. Equity notion in AI is of vital importance because such technology can impact various aspects of life, including hiring, public policy and law enforcement, and basic service provision. Inequitable artificial intelligence systems have the ability to amplify inequality and prolong existing prejudices [9]. Therefore, it is important that artificial intelligence be designed and set into operation in a manner consistent with fairness - including those groups that may be more vulnerable or disadvantaged. This is surely something also to be done in the implementation of AI technology into the Constitutional Court.

The unique equipped feature of Artificial intelligence (AI) makes AI a real-time access to the future, signifies that it has huge benefits and most sophisticated characteristics compare with what Constitutional Court already facind leading in approach of being an autonomous court that provides transparency, accessebelity n etc. However, a deep dive is still needed in fulfillment of the attempts made to apply AI technology on Constitutional Court. Therefore, the main aim of this study is to assess you with the expected benefits and barriers in terms of the utilization of Artificial Intelligence (AI) in Constitutional Court.. The research results are expected to make a valuable contribution to theoretical studies and provide recommendations to the Constitutional Court for the implementation of AI in its legal system.

II. LITERATURE REVIEW

A. Authority and Power of the Constitutional Court

The Constitutional Court is a governmental entity that was established following the modification of the 1945 Constitution. The third amendment to the 1945 Constitution introduced the creation of the Constitutional Court as a separate and autonomous entity, operating alongside the Supreme Court. The powers and responsibilities of the Constitutional Court are defined in Article 24C paragraphs (1) and (2) of the 1945 Constitution. The Constitutional Court is established by Constitutional Court Law Number 24 of 2003, Article 1, Paragraph (1). According to this law, the Constitutional Court is a judicial institution that has the role of handling specific cases related to constitutional matters. Its main purpose is to safeguard the constitution and ensure its responsible implementation, in line with the desires of the people and the principles of democracy. The user's text is [10]. The primary role of the constitutional court is to ensure the continuous implementation and respect of the constitution by both state authorities and citizens. The constitutional court serves as the ultimate arbiter of the constitution. The Constitutional Court Law highlights the inclusion of the Constitutional Court as a state institution in the amendment to the 1945 Constitution. This court is responsible for addressing specific cases related to

constitutional matters, with the aim of ensuring the constitution is implemented responsibly, in line with the democratic ideals and the people's will. The Constitutional Court, established by the 1945 Constitution, possesses and operates within the authority granted and restricted by the same constitution. The exact regulations that differentiate and separate the Constitutional Court from other institutions are outlined in Article 24C, Paragraph 1 and Paragraph 2 of the 1945 Constitution. The user's text is [11] :

1. The Constitutional Court possesses the jurisdiction to adjudicate at both the initial and ultimate levels, with its decisions being conclusive. It is responsible for scrutinizing laws in light of the Constitution, settling conflicts concerning the jurisdiction of state institutions established by the Constitution, determining the dissolution of political parties, and resolving disputes related to election outcomes.

2. The constitutional court is required to make a ruling based on the view of the people's representative council about alleged violations by the president and/or vice president, as stated in the Constitution.

According to Article 10, Paragraph 1, of Law Number 24 of 2003 regarding the Constitutional Court:

1. The Constitutional Court is empowered to make final and binding decisions at both the first and final stages of adjudication. Its main role is to evaluate laws in light of the provisions of the 1945 Constitution.

2. Adjudicate conflicts regarding the jurisdiction of state institutions that are bestowed authority by the Constitution. For instance, if the president and/or vice president are found to have broken the law as stated in Article 7A of the 1945 Constitution, the DPR might propose their dismissal to the MPR.

3. Making a determination regarding the termination of political parties.

4. Adjudicate conflicts on the outcome of elections.

The Constitutional Court wields significant authority and power, playing a crucial and strategic role in the advancement of state administration. It possesses the ability to assess the constitutionality of all provisions or policies formulated by state administrators.

B. Independence of Judges in Deciding Cases

Article 24 paragraph 1 of the 1945 Constitution establishes the legal foundation for the notion of independence or freedom of judges in making decisions. It states that the judicial power is an autonomous authority responsible for administering justice and upholding the law and justice [12]. From a historical perspective, it is evident that the author of this text intended for the court to be independent and immune from interference by the executive branch, institutions, and individuals. The underlying idea is that independence, freedom, or autonomy is inherent in the institutional framework, namely that judges within the court system are able to render judgments based on their own conscience or views, without any external influence.

Judges have the freedom to analyze, substantiate, and render judgments on cases according to their personal conscience. In addition, it is also devoid of intervention by non-judicial entities. The user's text is [13]. Any external influence in judicial affairs, save than those specified in the 1945 Constitution, is strictly prohibited. Nevertheless, in reality, this regulation is frequently breached, often through the utilization of expedients such as enchanted missives, enchanted telecommunication devices, illicit payments, and similar means. Judges are not permitted to base their judgments only on their own subjective sense of justice. Instead, they are obligated to adhere to the objective standards that are applicable in society.

Judges are obligated to adhere to the legal framework that has been established and evolved within society. Through each ruling, the judge affirms and reinforces the presence of implicit legal principles [14]. Independence from interference and impact on judges' rulings extends not only to individuals but also to the instruments or technologies employed by judges. Consequently, it is imperative that judges retain their primary role as the leading agents responsible for scrutinizing and adjudicating issues in the Constitutional Court.

C. AI in the Legal Context in Indonesia

Given the present circumstances, the advancement of AI is still in the phase of rudimentary AI as it is still controlled by human operators. Nevertheless, AI has advanced to the point where it can perform tasks without the need for human input or instructions [15]. The regulation of AI in Indonesia is indirectly governed by the ITE Law [16]. According to Article 1 number 8 of Law (UU) No. 19 of 2016, which amends Law No. 11 of 2008 on Electronic Information and Transactions (UU ITE), an electronic agent refers to a device within an electronic system that is designed to automatically perform a specific action on electronic information owned by an individual.

According to this description, the current state of AI can be described as that of an electronic agent, as AI is still controlled by a user who desires a specific activity to be performed using AI. If there is an advancement in artificial intelligence that surpasses human capabilities, then the definition stated in Article 1 point 8 of the ITE Law will no longer be applicable for governing AI in Indonesia [17].

The rapid advancement of AI technology in Indonesia has outpaced the regulations outlined in the ITE Law, posing a significant challenge. For instance, the rules in the ITE Law currently do not encompass regulations on autonomous acts performed by AI without human instructions. It is necessary to establish regulations in order to proactively foresee and safeguard the interests of the community. This aligns with Satjipto Rahardjo's assertion on progressive law, which posits that law does not exist for its own sake, as claimed by positive legal science, but rather for the betterment of humanity, aiming to attain human welfare and happiness. Thus, law is constantly in a

state of "law in the making" [18]. Therefore, it is crucial for policymakers to promptly anticipate the presence of artificial intelligence (AI) by implementing legislation that can encompass all activities performed utilizing AI.

III. METHOD

The normative juridical technique, on which the study technique is based, relies on a deep examination of legal principles anchored in doctrinal and theoretical ideas. Civil law analysis is a way of systematically breaking down laws, doctrines, regulations other than laws, and derivative standards. It is intended to suggest legal reform and provide important information about the applicable regulations that are relevant to the study of this research (the opportunities and challenges in the implementation of AI in the Constitutional Court).

IV. RESULT AND DISCUSSION

A. *AI and the Constitutional Court*

With the help of artificial intelligence (AI), justices in the Constitutional Court are able to better analyze cases, as a consequence producing more impartial verdicts. Doesn't feel right as some nice teenager tape, but AI can support the judges in a more complete contrasting examination of relevant jurisprudences and equal treatment to all arguments and decipher very well which needs deeper exposition. Use of AI technology to make an accurate record of legal questions as they come up during trial, manage the flow of evidence and guarantee the thorough examination of proffered arguments; [19].

The highest level of efficiency of AI implementation in the work of the Constitutional Court will be reached when the Constitutional Court/Supreme Court is able to work in parallel with an effective big data system. Unfortunately, the Constitutional Court that would involve and integrate the use of AI and big data to the improving the performance of justices, including their administrative responsibilities, is yet to be attained. The Constitutional Court needs these two tools in order to complete the process that will lead the Court to become a fully digital and efficient courtroom of the modern society that is fair for all.

With the help of implementing big data and AI technologies in the Constitutional Court, they can address the cases and save the data in a unified body which is consolidated in the database and easily accessible. With the use of AI, decisions of previous cases are helped to be recognized and point out patterns and directions of similar cases to help judges, provide guidance on how a certain case was handled, and explanation of appropriate legal consequences. [20]. This makes the work of the judges easier since they need to give decisions that are more or less standardized and rooted in the paradigms of the law.

Furthermore, the combined application of the CBR and such a prototype will prove valuable in other aspects too. For example, amplifications of decision-making include fast and easy publication through AI support including online spaces. It also increases the visibility and thus, everyone is able to obtain the rulings which make it easy for them to understand the legal proceedings that supported the decision made by the Constitutional Court.

The Constitutional Court as a body of citizens has also embraced the deployment of the AI through positive feedback most especially because it boosts efficiency of the Court. The Chairman of the Constitutional Court, Suhartoyo, during delivering his speech at the Law competition seminar underlined the need to adopt artificial intelligence or commonly known as AI in various judicial institutions. To him, incorporating the technology in the legal sector and more specifically in the Constitutional Court as, leads to increased fluidity, efficiency, and the increase in the facets of openness and procedural fairness. Another advantage of AI is that this approach allows for the exclusion of human bias, when it is essential to make decisions in equal and linear fashion. [21].

B. *AI and the Independence of Constitutional Court Judges*

The real value of AI is for constitutional judges in the sense that it orients them to understand tendencies or frequency rates of prior cases, outlines the conduct of comparable circumstances in the past, and considers potential profound legal consequences. Consequently, the Constitutional Court should promptly implement these two technologies. The ultimate outcome of the Constitutional Court judge's decision will shape the public's impression of the Constitutional Court's evaluation. Nevertheless, it is important to highlight that the application of AI is restricted to supporting judges in delivering thorough and all-encompassing legal analysis and perspectives.

According to Sudikno Mertokusumo, judges possess the freedom to exercise their judgment based on their personal conscience or views, without succumbing to any external influences. Judges have the freedom to scrutinize, substantiate, and render decisions on issues according to their own conscience. In addition, it is likewise immune to influence from non-judicial entities [13]. Any external interference in court matters by non-judicial entities is strictly forbidden, unless explicitly allowed by the provisions outlined in the 1945 Constitution.

The principle of judicial discretion in determining cases is crucial, particularly since the Constitutional Court has incorporated and harmonized procedural legislation through the utilization of artificial intelligence (AI). Under this approach, courts acknowledge that AI serves solely as a tool for recognizing trends and patterns in past rulings, offering assistance on how similar cases have been handled, and examining pertinent legal ramifications. Judges are not required to intervene in the process of conducting a generic examination of AI. Consequently, the output

of AI data processing cannot be automatically considered as a definitive conclusion without a thorough examination by the court. Furthermore, the outcome of AI analysis is not an absolute mandate that the judge must adhere to when deliberating on the decision. AI technology serves as a mere instrument for judges, without impinging on their autonomy to analyze and make rulings on cases..

C. *Opportunities for AI Implementation in the Constitutional Court*

The opportunities for implementing AI technology in the Constitutional Court judicial system can be described as follows:

1) *Increase Transparency and Accessibility*

Implementing AI in the Constitutional Court has the potential to greatly enhance transparency and accessibility through a range of methods. First of all, artificial intelligence can help in providing the required information which can be easily processed and can be found easily. It helps in the conversion of legal papers to digital format based documents and helps arrange them in a sorted way. It has reports, judge's decision, and documents, and because of this, it clarifies information to the public. It can also develop efficient and unequivocal databases in the form of managed information systems, which allows users, including representatives of the population and various interested parties, to search and obtain the required information more efficiently and without any problems [22].

Furthermore, transparency can be improved through this technique because AI possesses the ability to analyze and present data. Information and communication technology can be applied to display facts concerning occurrences and decisions in graphic format to the understanding of the prevailing trends and diverse patterns to the society. At the same time, artificial intelligence technology helps generate an automatic summarized version of lengthy court ruling papers, making the contents...more understandable. These include preparation of routine statistics on the activity of Constitutional Court, number of cases solved, and time required to solve them, all of which can be done through the use of artificial intelligence (AI) means. It can also help to flag and document any delay or any conspicuous irregularity in the processes of law, which will increase procedural openness.

AI which includes the assistive technology offers revolutionary approaches to accessibility issues. The flexibility in understanding and the possibility to disseminate vast amounts of information quickly and efficiently, can be acquired when using AI-powered chatbots and virtual assistants in the provision of public information about legal procedures, case updates, and administrative requirements. In the same manner, they can offer the services in a second language to fit the needs of the citizens who may not be in a position to understand either of the official languages in the country [20]. AI can improve the spiels on the legal information by developing legal search engines that enable filtering of results by context rather than term, therefore, the search results will be more relevant to and of more value.

In conclusion, this paper has therefore demonstrated that the deployment of this AI technology in the Constitutional Court can hold a lot of potential in making the system more open and accessible to the public in order to gain more trust from the public and be more efficient in it's functioning. However, these implementations cannot ignore the challenges such as the need for secure data, quality data, and legal issues through the use of appropriate measures such as the use of encryption, data audit, and the development of legal standards that address all aspects of the problem..

2) *Legal Process Efficiency*

The AI capability was said to have the ability to not only process legal papers but also assess them. Advancements in software such as natural language processing enhances the abilities of artificial intelligence to fast and accurately go through, understand, and sort a vast number of legal documents hence reducing the workload of the court people or other officers who have to go through these procedures manually elucidated the administrative processes. AI contains myriad advantages including searching for and identifying relevant legal documents or cases for a legal case and in identifying the supporting arguments that a judge or lawyer may not have the time to research from legal databases through manual search [23].

In addition, it is posited that AI could be harnessed towards developing advanced case management platforms. This system has capacity to be used in closely supervising as well as to conduct several stages of the legal trial from establishing a case registry to giving final recommendations. Using artificial intelligence (AI) feature, activities may include providing automatic reminders on important dates, monitoring and tracking the progress of cases in real-time, as well as identify potential cause of delays and challenges in the legal process [20]. Through this approach, all the case management processes are well coordinated and enhanced making the process run as intended without anymore human errors or delay.

Therefore, with AI the Constitutional Court can improve a number of aspects within the work process, namely document flow, positioning of cases, and the analysis of decisions. This not only serves as a timeframe and money saving technique but also increases the efficiency of speed and management of cases to an extent of increasing the efficiency of the legal system. The integration of AI into the legal system requires much consideration and supervision to ensure the right and legal implementation of the technology.

3) *Objective Decision*

AI can help analyze legal information and its aspects in a deep, thorough, and scrupulous manner. The use of AI is suitable for this type of work because, through connecting to extensive legal databases, it is able to analyze and evaluate a large number of previous cases. It can locate profound correlations as well as precedents that could be out of notice for a human mind. This approach ensures that the judges are better prepared to make fair and balanced judgment on the case since they have a comprehensive understanding of the various legal precedents with regard to similar cases.

Furthermore, more utilization of the artificial intelligence systems can be used in determining any prejudice in the course of arriving at a conclusion. The prejudices are normally fed into the artificial intelligence systems where the particular type of prejudice involved in previous rulings, such as racism or sexism, can be trained in. It is possible that after finding such biases, these algorithms can notify judges of such presence, while proposing an idea of reconsidering impacts of such factors. Another way of looking at this is that AI contributes to the concept of equity as a natural regulator to guarantee that selection is made on merit and legal requirement and not on bias and bigotry. [20].

In addition, I benefit from AI in connecting more logical and structured conclusions. AI can help to build well-structured and logical legal arguments and premises as a result, reduce the risk of logic or contradiction in reasoning. Nevertheless, it can also provide a framework for building choice possibilities and ensure that all the key aspects and regulations are treated comprehensively [23].

In conclusion, the application of AI in the Constitutional Court can reduce the effect of subjective bias and combine massive data into more comprehensive legal perspectives and contribute to drafting clearer and more homogeneous judgments. Therefore, the use of AI in the legal services can bring about the improvement of the unbiased and high quality decisions of the judges, which in turn would provide for better reliability of the legal provisions.

D. Challenges of AI Implementation in the Constitutional Court

However, the use of AI in the Constitutional Court is not without significant hurdles on its way that have to be overcome to ensure proper and secure AI implementation. Specific challenges arise with the preservation of data security and privacy. Because of a very high sensitivity of documents managed by the Constitutional Court, analyzing and storing personal information of the persons as well as substances of legal cases, protection from cyber threats is a crucial issue. Data security leaks or improper assortment can weaken the general population's trust and endanger the legal framework. It is therefore necessary to use encryption to the data, the provision of very strong firewalls and regular updates on data security in order to deter any unauthorized access or potential threats.

Furthermore, another significant challenge when it comes to the adoption of AI is to secure the quality of the data that is being fed into algorithms as well as their reliability. AI requires that information collected is accurate, detailed, and non-biased in a bid to generate consistent, coherent and fair conclusions. If incorrect or biased data is provided, then it results in unsuitable output and thus compromising the legal processes as well as the prospects of the technology. Therefore, it is necessary to ensure that the information used for feeding AI algorithms is collected from reliable sources and that the corresponding data is checked for accuracy. To maintain the quality and accuracy achieved, one has to apply machine learning approaches with transparency and, therefore, have a constant check on the data and algorithms [24].

The next area of concern is concerning the regulation and ethical practices that will arise in the future. AI implementation into the legal structure can only be done as per the laws governing the legal practice and should consult on the consequences that go hand in hand with the consideration of using AI. The proper and necessary components of legislative regulation of AI usage in the Constitutional Court should be defined. It is important that this framework have several considerations including the areas of privacy, responsibilities, as well as transparency. Additionally, the study should consider ethical issues arising from the use of AI in undermining the independence of judges, the potential of achieving unfair biasness in AI solutions, and the possible effects of the decisions made by AI systems on society [25]. Introducing the ethics and regulatory committees with deep knowledge in the use of artificial intelligence in legal realms could manage to solve these issues adequately.

The final barrier is the act of acceptance, or the need to accept new conditions as they are and react to them appropriately. Luddites are known as users who are usually against the use of new technologies always resorted to the old techniques. Judges, lawyers as well as other employees in the Constitutional Court probably would have some level of reluctance or comfort in using the AI technology. Therefore, there is need to invest in an effective training and teaching regime to ensure that all the stakeholders are aware of the operations of AI and the benefits they hold. Moreover, sustained support is needed to help them cope with these changes which are issued frequently and in large numbers. In addition to that, continued involvement of people within the implementation process and providing them with tangible examples about how AI could add values to their work and increase the effectiveness of their outcomes may also help in ensuring acceptance and adoption of this technology.

All in all, it reflects that these barriers are significant but manageable in general. With the proper and strict planning and approach as well as embracing and maintaining the cooperation among technology expertise, the

legal system of the Constitutional Court can gain significant benefits including the efficiency, transparency and fairness in the legal process from using the AI.

V. CONCLUSION

The augmentation of AI technology in the constitutional court of law would improve the feasibility and law application credibility, law access and equity of the court processes. When it comes to integration of the AI technology in the Constitutional Court, there is a necessity of preserving the principle of judicial independence which is a cornerstone of the constitutional justice organization. In this approach, judges accept that AI is functional strictly as a tool to identify patterns and trends prevailing in previous decisions; provide the advisory advice on how similar occurrences in the past should be dealt with; and review the relevant legal repercussions. Their work is not supposed to be intervened and the judge should follow the overall analysis made by the AI. Therefore, the judges are expected to undergo an extensive assessment that involves analyzing outcomes from the AI analysis before making their final decision on a case. The judgement process of the judge is free to ignore the outputs of the information analysis committed to artificial intelligence. AI technology strengthens the operation of the judiciary by improving the efficiency of the assessments of judges without undermining their discretion over matters and violations heard and determined in the courts.

The use of AI technology to the Constitutional Court would only be beneficial because it makes them more open to the public hence easily accessible, fast-tracking on legal processes, and guaranteeing a fair ruling. In terms of its challenges, several issues arise when it comes to the application of AI in the Constitutional Court. Some of these challenges includes data security and privacy, quality and accuracy of data, legislation and ethics, and the adaption of AI technology. However, these barriers are not colossal, even though they are potentially large, in terms of their impact on the successful implementation of GHG mitigation measures. There is still a possibility for the Constitutional Court's relationship with AI to remain workable, provided that the integration of new approaches can make legal proceedings more unbiased, efficient, and transparent. It allows making strict and strategic decisions with the help of cooperation between engineers, legislators, and attorneys.

REFERENCES

- [1] A. M. Maharani and G. D. Suprobowati, "Mahkamah Konstitusi: Tinjauan Kewenangan dan Fungsi dalam Negara Hukum Demokratis Berdasarkan UUD 1945," *South Asian J. Bus. Stud.*, vol. 1, no. 4, pp. 714–723, 2022, doi: <https://doi.org/10.13057/souvereignty.v1i4.117>.
- [2] Z. F. Aditya, "Judicial Consistency dalam Putusan Mahkamah Konstitusi tentang Pengujian Undang-Undang Penodaan Agama," *J. Konstitusi*, vol. 17, no. 1 SE-Articles, pp. 80–103, May 2020, doi: 10.31078/jk1714.
- [3] H. Hardianto, S. W. K. Sakti, and Meliza, "Masalah Batas Usia Calon Presiden Dan Calon Wakil Presiden: Studi Open Legal Policy Dalam Putusan Mk No. 90 90/PUU-XXI/2023," vol. 14, no. 1, pp. 15–27, 2024, doi: <https://doi.org/10.35457/supremasi.v14i1.3313>.
- [4] H. Ulum and Sukarno, "Analisis Pengaruh Pelanggaran Kode Etik Hakim Mahkamah Konstitusi Terhadap Putusan Yang Di Tetapkan," *Unizar Law Rev.*, vol. 6, no. 2, 2023, doi: 10.36679/ulr.v6i2.60.
- [5] A. M. Sahara, P. S. Raharjo, S. Maret, and J. Tengah, "Asas-Asas Hukum Acara Mahkamah Konstitusi," *Sovereignty J. Demokr. dan Ketahanan Nas.*, vol. 1, pp. 373–378, 2022, doi: <https://doi.org/10.13057/souvereignty.v1i2.143>.
- [6] J. Collenette, K. Atkinson, and T. Bench-capon, "Explainable AI tools for legal reasoning about cases: A study on the European Court of Human Rights," *Artif. Intell.*, vol. 317, no. November 2021, p. 103861, 2023, doi: 10.1016/j.artint.2023.103861.
- [7] T. Sourdin, B. Li, and D. M. McNamara, "Court Innovations and Access to Justice in Times of Crisis," *Heal. Policy Technol.*, vol. 9, no. 4, pp. 447–453, 2020, doi: <https://doi.org/10.1016/j.hlpt.2020.08.020>.
- [8] D. Pechehin, "Judicial Evaluation of Data from Artificial Intelligence Systems and Judicial Evaluation of Data from Artificial Intelligence Systems and Other Innovative Technologies in Transport Other Innovative Technologies in Transport," *Transp. Res. Procedia*, vol. 63, pp. 86–91, 2022, doi: 10.1016/j.trpro.2022.05.010.
- [9] Z. Xu, "Human Judges in the Era of Artificial Intelligence: Challenges and Opportunities," *Appl. Artif. Intell.*, vol. 36, no. 1, p. 2013652, Dec. 2022, doi: 10.1080/08839514.2021.2013652.
- [10] M. Siahaan, *Hukum Acara Mahkamah Konstitusi*. Jakarta: Sinar Grafika, 2015.
- [11] S. Isra, "Peran Mahkamah Konstitusi dalam Penguatan Hak Asasi Manusia Di Indonesia," *J. Konstitusi*, vol. 11, no. 3 SE-Articles, pp. 409–427, May 2016, doi: 10.31078/jk1131.
- [12] "Undang-Undang Dasar Negara Republik Indonesia 1945."
- [13] S. Mertokusumo, *Bab-Bab Tentang Penemuan Hukum*. Bandung: Citra Aditya Bakti, 1993.

- [14] Margono, *Asas Keadilan, Kemanfaatan dan Kepastian Hukum dalam Putusan Hakim*. Jakarta: Sinar Grafika, 2012.
- [15] D. Doly, “Pemanfaatan Artificial Intelligence Dalam Penegakan Hukum Di Indonesia,” *Info Singk. (Kajian Singk. Terhadap Isu Aktual dan Strateg.*, vol. 17, no. 19, 2023.
- [16] R. A. Azis, W. Susetio, Nurhayani, and E. Hikmawati, “Pengaturan Dan Pertanggung Jawaban Pemanfaatan Artificial Intelligence (AI) Di Indonesia Dalam Perspektif Hukum,” *Forum Ilm.*, vol. 20, no. 4, pp. 243–254, 2023.
- [17] D. Kusumo and R. Afandi, “Digitalization of the Legal System: Opportunities and Challenges for Indonesia,” *Indones. J. Innov. Stud.*, vol. 11, no. 2, pp. 1–12, 2023.
- [18] S. Rahardjo, *Hukum Progresif; Sebuah Sintesa Hukum Indonesia*. Yogyakarta: Genta Publishing, 2009.
- [19] Nabila Fitri Amelia, Diva Maura Marcella, Hening Jiwa Semesta, Sabrina Budiarti, and Saskiana Fitra Usman, “Implementasi Artificial Intelligence (AI) Dalam Pembentukan Peraturan Perundang-Undangan Di Indonesia,” *Eksekusi J. Ilmu Huk. dan Adm. Negara*, vol. 2, no. 1, pp. 56–70, 2023, doi: 10.55606/eksekusi.v2i1.789.
- [20] J. M. Greacen, *18 Ways Courts Should Use Technology To Better Serve Their Customers*. Denver: Institute for the Advancement of the American Legal System, 2018.
- [21] U. Argawati, “Suhartoyo Sampaikan Penerapan AI pada Lembaga Peradilan di Semar Law Competition 2024,” *Mahkamah Konstitusi Republik Indonesia*, Solo, 2024. [Online]. Available: <https://www.mkri.id/index.php?page=web.Berita&id=20700>
- [22] A. Putra, P. Studi, and K. Indonesia, “Final And Binding Nature Of The Constitutional Court’s Decision In Judicial Review (An Analysis of Constitutional Court Decision Number 34/PUU-XI/2013),” *Yudisial*, vol. 14, no. 3, pp. 291–311, 2022, doi: 10.29123/jy.v14i3.425.
- [23] Anshori, “Gagasan AI Dalam Penerapan Hukum di Era 4.0 Perspektif Penyelesaian Perkara Model Restorative Justice dan Hukum Progresif,” *Leg. Stud. J.*, vol. 2, no. 2, pp. 1–13, 2022.
- [24] A. Lauterbach, “Artificial intelligence and policy: quo vadis?,” *Digit. Policy, Regul. Gov.*, vol. 21, no. 3, pp. 238–263, Jan. 2019, doi: 10.1108/DPRG-09-2018-0054.
- [25] S. Greenstein, *Preserving the rule of law in the era of artificial intelligence (AI)*, vol. 30, no. 3. Springer Netherlands, 2022. doi: 10.1007/s10506-021-09294-4.

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