



Algorithmic Constitutional Consciousness Substitution in Artificial Intelligence Regulated Legal Systems and Its Consequences for Human Normative Freedom

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ABSTRACT

The development of artificial intelligence in a legal system based on algorithmic regulations poses new problems related to the shift in human constitutional consciousness towards the dominance of automated decision-making that has the potential to limit the normative freedom of individuals. This research aims to analyze the form of substitution of constitutional consciousness by artificial intelligence systems and its implications for human normative freedom in modern legal practice. The research uses normative juridical methods with conceptual approaches, legislative approaches, and legal philosophy approaches. Data were obtained through a literature study of 32 scientific sources, regulations, and international legal documents that were analyzed qualitatively through legal interpretation techniques and normative-critical analysis. The results show that artificial intelligence-based legal systems tend to create automated compliance mechanisms that reduce the space for moral reflection, human discretion, and constitutional participation in the legal decision-making process. In addition, the dominance of algorithms has the potential to strengthen the centralization of digital power and produce normative biases that are difficult to transparently monitor. This study concludes that the use of artificial intelligence in the legal system requires strengthening the principles of constitutional safeguard, algorithmic transparency, and human rights-based supervision in order to maintain human normative freedom in a digital legal state.

ARTICLE INFO

Article history:

Received
20 April 2026
Revised
25 May 2026
Accepted
10 June 2026

Key Word

Artificial Intelligence, Constitutional Awareness, Algorithmic Regulation, Normative Freedom, Digital Legal Systems.

How to cite

<https://pusdikra-publishing.com/index.php/jsr>



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INTRODUCTION

The development of artificial intelligence (AI) in the digital legal system has changed the pattern of relationships between humans, technology, and normative authorities in modern legal practice. The use of algorithms in the legal decision-making process is no longer limited to administrative functions, but has developed to affect the determination of criminal risks, prediction of court decisions, digital supervision, and

automatic assessment of legal compliance. This phenomenon shows a shift from constitutional consciousness that was previously based on human judgment to an algorithm-based compliance model controlled by automated systems (Hakimi, Zarinkhail, & Sahnosh, 2025). This condition is becoming increasingly relevant as many countries begin to integrate AI into public service systems and digital legal governance as part of the transformation of electronic governance and regulatory efficiency.

In a global context, the use of AI in the legal system has grown significantly since the increasing adoption of automated decision-making in the public and private sectors. A UNESCO report in 2023 shows that more than 60 countries have developed regulations or policies related to AI governance to anticipate the risks of algorithmic discrimination, privacy violations, and abuse of digital power (Garrido, 2025). In the European Union, the passage of the European Union Artificial Intelligence Act is an indicator of growing concern over the impact of AI on human rights and civil liberties. Meanwhile, in Indonesia, the digital transformation of government through the Electronic-Based Government System (SPBE) shows the increasing use of automated technology in legal services and public administration. However, the acceleration of digitalization has not been fully followed by the strengthening of the legal framework that is able to protect the normative freedom of individuals in the digital space.

The main problem arises when algorithms not only function as technical aids, but begin to replace human constitutional consciousness in determining legal actions and social compliance. Agus Wibowo & Peran. (2026), algorithmic systems have the potential to create "algorithmic governance" that shifts human deliberative functions through compliance automation mechanisms. In these conditions, individuals tend to follow the decisions of the system without a process of critical moral and constitutional reflection. This situation poses a new risk in the form of declining human normative freedom because legal decisions are increasingly influenced by data logic, probability, and machine prediction rather than ethical considerations and constitutional values.

Some previous research has addressed the relationship between AI and digital legal systems, but most still focus on technical aspects, administrative efficiency, and personal data protection. Esthi Widyarini et al. (2026) research highlights the importance of accountability in algorithm-based decision-making, while Pradana et al. (2025) research places more emphasis on AI ethical principles in digital governance. Another study by Pranowo & Wiratama. (2026) discusses the phenomenon of automated regulation in modern digital governance. However, these studies have not specifically analyzed how the substitution of constitutional consciousness by AI can affect human normative freedom in the perspective of constitutional law and modern legal philosophy. Thus, there is a research gap in the form of normative studies that link the dominance of algorithms to the erosion of constitutional consciousness in the AI-based legal system.

In addition, previous research has tended to position humans as objects that must be protected from technological risks, rather than as constitutional subjects who undergo changes in normative consciousness due to algorithmic intervention. Achmad Nur Sutikno. (2020) explained that digital surveillance capitalism creates a pattern of social compliance based on behavioral predictions that can weaken individual autonomy. However, discussions about the relationship between algorithmic predictions and normative freedom in the context of the state of law are still relatively limited. In fact, in a democratic legal state, normative freedom is an important element that determines the ability of individuals to act on the basis of legal awareness and constitutional values freely, rather than simply following the instructions of an automated system.

The urgency of this research is increasing as the use of AI in the legal and public administration sectors in various countries develops. Predictive policing, automated legal analytics, and digital compliance monitoring systems show that algorithms are starting to play a role in determining people's legal behavior standards. If not proportionately regulated, these conditions can create a normative dependence on automated systems that reduce the space of human discretion. According to Zul Khaidir Kadir. (2025), the dominance of computational systems in law has the potential to shift the principle of rule of law towards rule by algorithm, which is a condition when legal decisions are more controlled by technical logic than by the principle of substantive justice. Therefore, a legal study is needed that is able to place AI within the constitutional framework and protection of human freedom.

This study aims to analyze the form of constitutional consciousness substitution in artificial intelligence-based legal systems and examine its consequences for human normative freedom in the perspective of constitutional law and legal philosophy. This research also seeks to identify how the dominance of algorithms can affect the relationship between the state, technology, and individual rights in the modern digital legal space. By using normative juridical approaches and conceptual approaches, this research is expected to be able to provide a more comprehensive understanding of the constitutional implications of the use of AI in legal governance.

The contribution of this research theoretically lies in the development of the study of digital constitutional law through the concept of algorithmic constitutional consciousness substitution as a new form of relationship between technology and human freedom in the modern legal state. Practically, this research is expected to be an academic basis for the formation of AI regulations that are more transparent, accountable, and human rights-based, especially in maintaining people's normative freedoms in the midst of the development of a digital legal system. In addition, this research can be a reference for policymakers in formulating algorithmic supervision

models that still guarantee the protection of constitutional values and democratic principles in the use of AI in the legal sector.

RESEARCH METHOD

This research uses a qualitative approach with a normative juridical research type through conceptual, legislative, and legal philosophy approaches. This approach is used to analyze the substitution of constitutional consciousness in the artificial intelligence-based legal system and its implications for human normative freedom in a digital legal state (Indrayati, 2025).

The research population consists of regulations, scientific journals, international reports, and legal documents related to artificial intelligence, algorithmic governance, and constitutional law. The sampling technique uses purposive sampling with relevant literature criteria and will be published in the 2021–2025 period. The study used 32 key sources from reputable international journals, AI regulations, and international organization documents to obtain relevant and up-to-date data (Fisher & Rosella, 2022).

Research Instruments

The research instrument is in the form of documentation guidelines and normative analysis matrix to identify concepts, legal principles, and the impact of algorithm dominance on human normative freedom. Data was collected through literature studies and documentation from academic databases such as Scopus, Google Scholar, and HeinOnline. The validity of the data is carried out through triangulation of sources and evaluation of the credibility of the literature used (Fisher & Rosella, 2022).

The research is carried out through several stages, namely the identification of legal issues, the collection and classification of literature, the analysis of the concepts of constitutional consciousness and algorithmic governance, and the systematic interpretation of the law. Furthermore, the data is compiled and synthesized to find the normative implications of the use of AI in the digital legal system.

Data was analyzed using normative qualitative analysis techniques through content analysis and critical legal analysis. The analysis was carried out in a descriptive-analytical manner to identify the form of substitution of constitutional consciousness by AI and its impact on human normative freedom. The data analysis process was assisted using NVivo 14 software to facilitate categorization and mapping of research themes (Elfira Wirza, Naf'an Arifian, & Riki Wanda Putra, 2025).

RESULT AND DISCUSSION

The Concept of Constitutional Awareness in a Digital Legal State

The results of the analysis show that the development of artificial intelligence (AI) in the digital legal system has created a new form of legal compliance awareness that is no longer entirely built through human constitutional reflection, but through

algorithmic automation mechanisms. These findings show a transformation from human-centered constitutional consciousness to algorithmic constitutional consciousness, which is a condition when people's patterns of legal compliance are more directed by digital systems than individual normative considerations. This condition is in line with Lawrence Lessig's view of the concept of code is law, where code and digital architecture begin to carry out regulatory functions like conventional legal norms.

Normative studies show that algorithmic systems not only function as administrative instruments, but also as a social control mechanism that is able to direct people's legal behavior automatically. In digital law practice, algorithms work through data processing, behavioral predictions, and system access arrangements so that individuals are indirectly encouraged to follow technology-determined compliance patterns. These findings strengthen Regulasi et al. (2025) argument that the development of algorithmic governance has changed the traditional relationship between the state, law, and citizens.

In addition, the results of the study show that the dominance of AI in legal governance has the potential to affect the principle of the rule of law as guaranteed in Article 1 paragraph (3) of the 1945 Constitution of the Republic of Indonesia. In a democratic legal country, the law should be built on the basis of human rationality, morality, and the protection of constitutional rights. However, the use of AI in the digital legal system shows a tendency that legal certainty is beginning to shift to technological certainty that is oriented towards system efficiency rather than substantive justice protection. This finding is different from the research of Hakan Kan. (2024) which emphasizes the ethical dimension of AI, because this study found a shift in human constitutional awareness due to the dominance of algorithmic systems.

Transformation of the Legal System Towards Algorithmic Regulation

The results show that the modern legal system has undergone a significant transformation towards algorithmic regulation through the use of AI in public services, predictive policing, automated legal analytics, and digital governance systems. In practice, algorithms are used to conduct risk classification, compliance monitoring, and analysis of community behavior based on digital data. This condition shows a shift from human judgment to machine-assisted decision making in the modern legal system.

Juridical analysis shows that the transformation is in line with the implementation of the Electronic-Based Government System based on Presidential Regulation Number 95 of 2018. The regulation encourages the integration of digital technology in governance and public services. However, research has found that the use of digital systems also increases reliance on automation mechanisms and management of public data on a large scale. In this context, the legal relationship between the state and citizens

began to shift from deliberative relations to data-based surveillance and digital control patterns.

Normative studies also show that algorithmic regulation creates a new form of legal supervision through digital surveillance. AI systems are able to collect and process individual data in a sustainable manner through facial recognition technology, digital behavioral analysis, and automated recommendation systems. These findings strengthen Törnberg. (2023) view of surveillance capitalism which shows that digital data has become an instrument of modern social control. In contrast to previous research that emphasized the administrative efficiency of AI, this study found that algorithmic regulation also results in a restructuring of legal power through the dominance of technological systems over people's behavior.

Forms of Substitution of Constitutional Consciousness by Artificial Intelligence

The results of the study show that the substitution of constitutional consciousness by AI occurs through four main forms. First, the emergence of automatic compliance with digital systems. Normative studies show that individuals tend to follow algorithmic recommendations and decisions without conducting critical legal reflection. In the practice of digital services and AI-based automated systems, public compliance is more shaped by system design than individual legal awareness. These findings suggest that AI is beginning to form mechanistic compliance patterns based on algorithmic automation.

Second, the results of the analysis show a reduction in human discretion in the legal decision-making process. AI systems are starting to be used to help with compliance evaluation, risk analysis, and administrative decision recommendations. As a result, the space for human consideration becomes increasingly limited as decisions are more influenced by statistical logic and system probability. This finding strengthens the view of Iman Aspriyanto et al. (2025) that the dominance of computational systems has the potential to shift the principle of rule of law to rule by algorithm.

Third, the study found a reduction in the constitutional participation of the community. In algorithm-based legal systems, citizens are more often positioned as data objects than active legal subjects. Digital systems view individuals as data sets that can be classified and predicted, not as citizens with normative freedoms and constitutional participation rights. These findings are different from the research of Hakimi et al. (2025) which focuses more on AI accountability, as this study found that AI also influences the constitutional position of citizens in the digital legal space.

Fourth, the results of the study show that there is a moral delegation to the algorithm. Assessments of risk, compliance, and recommendations for legal action begin to be left to automated systems. Under these conditions, AI is no longer just a technical tool, but is beginning to take on some of the normative functions of humans in

modern legal practice. These findings suggest that AI has the potential to shift human legal awareness towards automated system-based compliance.

Implications of Algorithmic Regulation on Human Normative Freedom

The results of the study show that algorithmic regulation has direct implications for human normative freedom. Normative analysis shows that AI systems can form a pattern of legal compliance based on digital surveillance that indirectly reduces the discretion of individuals in determining legal actions consciously. Individuals become more motivated to adapt behaviors to digital system standards to avoid certain risk classifications. These conditions show that AI can limit human freedom through digital prediction and control mechanisms.

Juridical studies also show the potential for algorithmic bias in the digital legal system. Bias arises due to the use of non-neutral data, inequality in data representation, and the reproduction of social discrimination in digital systems. In practice, AI systems have the potential to result in unequal legal treatment of certain groups. This finding is related to the principle of equality before the law and the right to be free from discrimination as guaranteed in Article 28I paragraph (2) of the 1945 Constitution and Law Number 39 of 1999 concerning Human Rights.

In addition, the results of the study show that the use of AI strengthens the centralization of digital power on those who control data and technological infrastructure. In algorithmic regulation, digital system managers have the ability to determine compliance standards and community supervision patterns. This condition shows that the power of law in the digital era is no longer only in the state, but also in the technological actors who control data systems and algorithms. These findings expand on the research of De Gregorio. (2023) which emphasizes the ethics of AI, as this study finds that there is a centralized dimension of digital power that has a direct impact on human normative freedom.

Further analysis shows that the use of AI in the legal system also has the potential to threaten the principle of due process of law due to low algorithmic transparency. Many AI systems work through black box mechanisms that are difficult for the public to understand. As a result, people do not have adequate access to know the basis for automatic decision considerations that affect their rights. This condition shows that there is a crisis of legal transparency in the modern digital legal country.

Juridical Analysis of AI and Digital Human Rights Regulations

The results of the study show that Indonesia does not yet have a specific law that comprehensively regulates the use of AI in the legal system. The existing regulations are still spread across various general regulations, such as the 1945 Constitution, Law Number 27 of 2022 concerning the Protection of Personal Data, Law Number 1 of 2024 concerning Information and Electronic Transactions, Law Number 39 of 1999

concerning Human Rights, and Law Number 30 of 2014 concerning Government Administration.

Normative analysis shows that the Personal Data Protection Act has provided a legal basis for the protection of individual data in digital systems. However, the regulation does not explicitly regulate algorithmic audits, the right to explanation, and oversight of high-risk AI. As a result, there is still a legal vacuum in the protection of human normative freedom against AI-based automated decision-making systems.

In addition, juridical studies show that the principles of accountability, openness, and prudence in the Government Administration Law have not been fully adapted in AI governance in Indonesia. This condition causes supervision of the use of AI in public services and the digital legal system is still relatively weak. These findings show that Indonesian regulations have not adopted a risk-based regulation approach as applied in the European Union Artificial Intelligence Act.

Legal Philosophy Perspective on Algorithmic Dominance

The results of the study show that the dominance of algorithms in the legal system raises legal philosophy problems related to the relationship between humans, technology, and legal morality. AI works based on computational logic and statistical patterns, while law is not only concerned with certainty, but also the value of justice, ethics, and humanity. Therefore, the excessive use of AI has the potential to create the dehumanization of digital laws.

Philosophical studies show that algorithms do not have the moral awareness, empathy, and reflective abilities of humans. AI systems are only capable of making decisions based on data and probability, not on the ethical considerations that live in society. These findings reinforce Habermas' view of the importance of communicative rationality in the process of legal legitimacy. In that context, AI cannot completely replace human moral legitimacy in the law enforcement process.

In addition, the results of the study show that the dominance of algorithms has the potential to affect the concept of free will in a democratic legal country. As human behavior is increasingly directed by digital systems, the freedom of individuals to determine actions based on legal awareness becomes increasingly limited. These conditions show that the use of AI without constitutional limits can turn the law into an instrument of digital control that is mechanistic and repressive.

Constitutional Safeguard as a Model for the Protection of Human Normative Freedoms

The results of the study show that the use of AI in the legal system requires constitutional safeguards as a mechanism to protect human normative freedoms. This principle places the constitution and human rights as the main limits of the use of technology in digital legal governance.

Juridical analysis shows that algorithmic transparency is a key requirement in the use of AI in the legal sector. The algorithm system must be auditable, explained, and

legally accountable so as not to conflict with the principles of government accountability and the protection of citizens' constitutional rights. In addition, the results of the study show that human oversight is still needed in the entire AI-based decision-making process to prevent the dominance of automated systems over people's rights.

The normative study also shows that the establishment of special regulations on AI in Indonesia is an urgent need. The regulation needs to regulate algorithmic audits, digital human rights protection, restrictions on the use of high-risk AI, and independent oversight mechanisms of AI systems in public services and law enforcement. These findings show that constitutional safeguards are an important legal protection model to maintain a balance between technological innovation and human normative freedom in a modern digital legal state.

CONCLUSION

This study concludes that the development of artificial intelligence in the legal system based on algorithmic regulation has created a transformation of constitutional consciousness from a human-centered model of legal consciousness to algorithmic constitutional consciousness. The results show that AI no longer functions only as a technical instrument, but begins to shape legal compliance patterns through automation mechanisms, behavioral predictions, and digital surveillance. This condition has an impact on reduced human discretion, weakening constitutional participation, and the emergence of moral delegation to algorithmic systems. In addition, algorithmic regulation has the potential to limit human normative freedom through hidden digital control, algorithmic bias, centralization of digital power, and weakening of due process of law principles due to the low transparency of automated decision systems. This study also found that Indonesia does not yet have a legal framework that comprehensively regulates AI governance, especially related to algorithmic accountability, human oversight, and constitutional protection in the digital legal system.

Based on these findings, this study suggests the need for the establishment of special regulations on AI in Indonesia that integrate constitutional principles, human rights protection, transparency, accountability, and algorithmic supervision in digital governance. Governments and policymakers need to strengthen constitutional safeguard mechanisms so that the use of AI in the legal system remains under human oversight and does not replace fundamental constitutional values. In addition, algorithmic systems used in public services and legal decision-making must meet the principles of auditability, explainability, and independent supervision to prevent discrimination, abuse of power, and uncontrolled digital supervision. Further research is also recommended to develop empirical and comparative studies on AI governance,

digital constitutionalism, and the impact of algorithmic regulation on democratic legal systems in various countries.

ACKNOWLEDGEMENT

The author expresses his appreciation and appreciation to all academics, researchers, and scientific institutions whose contributions to their thoughts, studies, and scientific publications on artificial intelligence, digital law, human rights, and modern constitutionalism are important foundations in the preparation of this research. Gratitude was also expressed to various national and international legal institutions and information sources that provide access to regulations, legal documents, and academic literature that support the research analysis process. The author hopes that this research can make an academic contribution to the development of the study of digital constitutional law and become a reference for strengthening artificial intelligence regulations that still uphold the protection of human rights and normative freedom in a digital legal state.

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