

# REPOSITIONING DIGITAL SOVEREIGNTY AS A CONSTITUTIONAL RIGHT: A CRITIQUE OF THE LIMITATIONS OF PERSONAL DATA PROTECTION IN THE ERA OF ARTIFICIAL INTELLIGENCE

**M. Ferdiansyah Kholil**

State Islamic University of Sunan Ampel Surabaya

Email: ferdiansyahkholil6@gmail.com

## **Abstract**

*The advancement of Artificial Intelligence has transformed the landscape of personal data protection due to the ability of algorithms to generate inferred data and conduct profiling that extends beyond the original purpose of data collection. This situation challenges the effectiveness of data protection regimes that still rely on "notice and consent" mechanisms, as stipulated in Law Number 27 of 2022 concerning Personal Data Protection. Although various studies have addressed personal data protection and Artificial Intelligence governance, research framing digital sovereignty as a constitutional right in response to the limitations of the Personal Data Protection Law remains relatively limited. This study aims to analyze the limitations of personal data protection under the Personal Data Protection Law in the era of Artificial Intelligence and to reposition the concept of digital sovereignty as part of citizens' constitutional rights. The study employed a normative legal research method, utilizing both statutory and conceptual approaches. The results indicated that consent-based data protection mechanisms are currently unable to address the processing of inferential data generated by Artificial Intelligence systems, particularly those operating via "black box" algorithmic models. The findings offered a conceptual contribution by repositioning digital sovereignty as a constitutional right rooted in the protection of personal privacy and human dignity, as guaranteed under Article 28G paragraph (1) of the 1945 Constitution of the Republic of Indonesia. Consequently, personal data protection in the Artificial Intelligence era must be understood not merely as an administrative issue of data management, but also as an integral part of protecting citizens' constitutional rights within the digital space.*

**Keywords:** *Artificial Intelligence; Constitutional Rights; Digital Sovereignty; Personal Data Protection;*

## **Abstrak**

Perkembangan Artificial Intelligence telah mengubah lanskap perlindungan data pribadi melalui kemampuan algoritma untuk menghasilkan data turunan (*inferred data*) dan melakukan profilasi yang melampaui tujuan awal pengumpulan data. Kondisi ini menimbulkan tantangan terhadap efektivitas rezim perlindungan data yang masih bertumpu pada mekanisme persetujuan pengguna (*notice and consent*), sebagaimana diatur dalam Undang-Undang Nomor 27 Tahun 2022 tentang Perlindungan Data Pribadi. Meskipun berbagai penelitian telah membahas perlindungan data pribadi dan tata kelola Artificial Intelligence, kajian yang menempatkan kedaulatan digital sebagai hak konstitusional dalam merespons keterbatasan Undang-Undang Perlindungan Data Pribadi masih relatif terbatas. Penelitian ini bertujuan untuk menganalisis keterbatasan perlindungan data pribadi dalam Undang-Undang Perlindungan Data Pribadi di era Artificial Intelligence serta mereposisi konsep kedaulatan digital sebagai bagian dari hak konstitusional warga negara. Penelitian menggunakan metode hukum normatif dengan pendekatan perundang-undangan dan

pendekatan konseptual. Hasil penelitian menunjukkan bahwa mekanisme perlindungan data yang berbasis persetujuan belum mampu menjangkau pemrosesan data inferensial yang dihasilkan oleh sistem Artificial Intelligence, terutama yang beroperasi melalui model algoritmik Black Box. Temuan penelitian ini menawarkan kontribusi konseptual berupa reposisi kedaulatan digital sebagai hak konstitusional yang berakar pada perlindungan diri pribadi dan martabat manusia sebagaimana dijamin dalam Pasal 28G ayat (1) Undang-Undang Dasar Negara Republik Indonesia Tahun 1945. Dengan demikian, perlindungan data pribadi di era Artificial Intelligence perlu dipahami tidak hanya sebagai isu administratif dalam pengelolaan data, tetapi juga sebagai bagian dari perlindungan hak konstitusional warga negara di ruang digital.

**Kata Kunci:** *Artificial Intelligence; Hak Konstitusional; Kedaulatan Digital; Perlindungan Data Pribadi;*

## A. INTRODUCTION

The development of Artificial Intelligence has significantly transformed the landscape of personal data collection, analysis and exploitation, presenting new challenges for data protection systems originally designed for conventional data processing. AI's capacity to process vast amounts of data and generate insights has raised concerns regarding privacy, transparency, and accountability. These challenges require a reassessment of existing data protection frameworks to ensure they are adequately equipped to address the complexities introduced by AI technologies. The following section explores the key challenges and potential solutions within this evolving landscape.<sup>1</sup>

The increasing use of Artificial Intelligence across various sectors has transformed personal data into a strategic resource, raising significant concerns regarding its potential misuse. AI systems, which heavily rely on large volumes of personal data for training and algorithmic improvement, pose risks related to data breaches, digital profiling, and algorithmic surveillance. These risks are further exacerbated by the lack of robust legal frameworks and ethical guidelines governing the use of AI, leaving personal data vulnerable to

---

<sup>1</sup> Christoph Bartneck, Alan Wagner, and Sean Welsh, *An Introduction to Ethics in Robotics and AI* (Switzerland: Springer, 2021), <https://doi.org/doi.org/10.1007/978-3-030-51110-4>.

exploitation. The following section examines the key aspects of this issue, drawing insights from relevant research literature.<sup>2</sup>

The development of AI algorithms capable of generating inferred data and making decisions automatically poses a challenge to existing legal frameworks, particularly those that rely on user consent mechanisms. Traditional consent models, which assume informed and voluntary user participation, are increasingly inadequate for addressing the complexity and ambiguity of AI systems. This inadequacy is further exacerbated by AI's ability to process and reuse personal data in ways that are often unpredictable and fall outside the scope of the initial consent. As AI technology continues to evolve, there is an urgent need to revisit the existing legal framework.<sup>3</sup>

The concept of digital sovereignty has emerged as a key framework in contemporary legal and digital governance literature, emphasizing the importance of control over data, digital identity, and technology-based decision-making processes. This concept reflects a state's ability to independently manage its digital affairs, ensuring security, economic potential, and the protection of citizens' rights in the digital realm. Digital sovereignty is becoming increasingly relevant due to global digital transformation, the proliferation of data, and the complex cybersecurity landscape. It is a multifaceted concept that varies across different regions and political cultures, reflecting diverse priorities and governance approaches in the digital age. The following section explores key aspects of digital sovereignty as discussed in the provided literature.<sup>4</sup>

---

<sup>2</sup> Ms Upagya Sharma<sup>2</sup> Dr Amrita Rathi, "ARTIFICIAL INTELLIGENCE AND PRIVACY CONCERNS," *International Journal of Applied Mathematics* 38, no. 10 (2025): 2746–50, <https://doi.org/doi.org/10.12732/ijam.v38i10s.1291>.

<sup>3</sup> Jocelyn Maclure, "AI , Explainability and Public Reason : The Argument from the Limitations of the Human Mind," *Minds and Machines* 31 (2021): 421–38, <https://doi.org/10.1007/s11023-021-09570-x>.

<sup>4</sup> Eric Repetto, "Concept ' Stretching ' or Concept Innovation ? A Review of the Usages of Sovereignty in the Digital Sovereignty Literature," *Policy & Internet* 17, no. 3 (2025): 1–13, <https://doi.org/doi.org/10.1002/poi3.70011>.

Current discourse on personal data protection, AI governance, digital privacy rights, and data processing regulations often remains confined to administrative and regulatory frameworks. However, the rapid evolution of AI technology requires a more dynamic and comprehensive approach that goes beyond traditional regulatory paradigms. This involves addressing the various legal, ethical, and regulatory challenges posed by AI, which are not fully captured by existing frameworks. This article explores these challenges and suggests pathways toward more effective governance and protection mechanisms.<sup>5</sup>

The intersection of digital sovereignty and the constitutional protection of citizens' rights in the context of Artificial Intelligence and personal data protection represents a complex and evolving area of research. This intersection is particularly significant because digital sovereignty encompasses the state's capacity to govern digital infrastructure, data, and technological ecosystems in ways that safeguard fundamental rights in the digital age. However, existing data protection regimes often fail to adequately address the broader implications of digital sovereignty for constitutional rights. This limitation underscores the need to reassess current legal frameworks to ensure they are sufficiently robust to protect individual freedoms amid rapid technological advancement. The following section examines the key dimensions of this intersection by drawing on recent academic scholarship.<sup>6</sup>

Law No. 27 of 2022 on Personal Data Protection represents a significant advancement in Indonesia's legal framework for data protection. However, it faces substantial challenges in addressing the complexities introduced by

---

<sup>5</sup> Deepak Kumar and Amit Verma, "Artificial Intelligence and The Law of Data Protection: An Analytical Study of Emerging Global Norms," *Internasional Journal of Contemporary Research in Multidisciplinary* 4, no. 4 (2025): 510–17, <https://doi.org/doi.org/10.5281/zenodo.16879755>.

<sup>6</sup> Oskar J Gstrein and Anne Beaulieu, "How to Protect Privacy in a Datafied Society? A Presentation of Multiple Legal and Conceptual Approaches," *Philosophy & Technology* 35, no. 3 (2022): 1–38, <https://doi.org/10.1007/s13347-022-00497-4>.

Artificial Intelligence, particularly in areas such as profiling, behavioral prediction, and inferential data processing. These challenges are further intensified by the opaque nature of AI algorithms, often referred to as “black-box” systems, which hinder transparency and accountability. The current provisions of the law do not fully address these issues, leaving normative gaps that must be resolved to ensure effective personal data protection in the AI era.<sup>7</sup>

The repositioning of digital sovereignty as a constitutional right in Indonesia is fundamentally grounded in the protection of personal autonomy and human dignity, as articulated in Article 28G(1) of the 1945 Constitution of the Republic of Indonesia. This provision guarantees the right to personal protection, encompassing the rights to privacy and personal data protection as fundamental human rights. Indonesia’s legal framework has gradually evolved to address the challenges posed by digitalization, with the enactment of Law No. 27 of 2022 on Personal Data Protection representing a significant legislative milestone. Nevertheless, the legal regime governing personal data protection remains fragmented and requires further integration to fully establish digital sovereignty as a constitutional right. Strengthening constitutional safeguards, harmonizing sectoral regulations, and developing a comprehensive governance framework for artificial intelligence are therefore essential to ensure effective protection of citizens’ digital rights in the digital era.<sup>8</sup>

The approach used in this study is comprehensive, combining the statutory approach and the conceptual approach. The statutory approach involves examining the hierarchy of laws and regulations in Indonesia,

---

<sup>7</sup> Dwi Nugroho Masudianto and Megawati Barthos, “Optimization of Personal Data Rights Protection in Artificial Intelligence Era Under Indonesia ’ s Cybersecurity Law,” *Injuriy: Interdisciplinary Journal and Humanity* 4, no. 7 (2025): 452–62, <https://doi.org/https://doi.org/10.58631/injuriy.v4i7.1451>.

<sup>8</sup> Aprilia Dwi Rahmawati and Dodi Jaya Wardana, “Constitutional Guarantees of the Right to Privacy of Personal Data of Citizens in the Era of Government Digitalization,” *JLPH: Journal of Law, Politic and Humanities* 6, no. 2 (2025): 1052–63, <https://doi.org/doi.org/10.38035/jlph.v6i2>.

particularly the 1945 Constitution of the Republic of Indonesia as the constitutional foundation and Law No. 27 of 2022 on Personal Data Protection (PDP Law). Meanwhile, the conceptual approach is used to develop a new framework for understanding “Digital Sovereignty,” drawing on the perspectives of legal experts and evolving legal doctrines, given that this concept remains highly dynamic and has not yet been rigidly defined in written regulations.

## **B. FINDING AND DISCUSSION**

### **1. The Limitations of Personal Data Protection Regimes in Addressing Artificial Intelligence**

The rapid development of Artificial Intelligence (AI) has fundamentally transformed the landscape of personal data processing, evolving from simple data collection and storage to complex data analysis, predictive modeling, and automated decision making. This transformation has been driven by AI’s ability to process massive volumes of data efficiently, enabling organizations to generate actionable insights and make more informed decisions. AI technologies, including machine learning and cognitive computing, have significantly enhanced the speed and accuracy of data analysis, allowing businesses and public institutions to gain strategic advantages in an increasingly data-driven environment. The integration of AI into decision-making processes has profound implications across various sectors, improving operational efficiency, analytical accuracy, and innovation. However, these technological advancements also raise significant legal and ethical concerns, particularly regarding personal data privacy, algorithmic transparency, and the potential for biased or discriminatory decision-making. As AI systems become increasingly autonomous and capable of processing sensitive personal information, existing legal frameworks face growing

challenges in ensuring adequate protection of individual rights while fostering technological innovation.<sup>9</sup>

The characteristics of data processing performed by Artificial Intelligence (AI) systems present increasingly complex challenges to the effectiveness of personal data protection mechanisms that rely on user consent as the primary legal basis for data processing. Conventional consent models, which require consent to be informed, specific, freely given, and explicit, are becoming increasingly difficult to implement in the AI context. This is because AI systems operate through continuous, highly complex, and often opaque data processing, making it difficult for individuals to fully understand how their personal data are collected, analyzed, reused, and applied throughout the AI lifecycle.<sup>10</sup> Moreover, AI's ability to conduct automated profiling, infer sensitive information, and personalize digital interactions increasingly blurs the scope of users' original consent. As a result, traditional consent mechanisms are becoming inadequate in AI-driven environments, highlighting the need to reassess consent as the primary legal basis for data processing under modern data protection frameworks such as the General Data Protection Regulation (GDPR) and other contemporary data protection regimes.<sup>11</sup>

Law No. 27 of 2022 on Personal Data Protection establishes the rights and obligations of parties involved in personal data processing. However, it remains largely oriented toward conventional data management and does not fully address the challenges posed by Artificial Intelligence. As a result, important issues such as automated data processing, algorithmic

---

<sup>9</sup> Saleimah Al Mesmari, "Transforming Data into Actionable Insights with Cognitive Computing and AI," *Journal of Software Engineering and Applications* 16 (2023): 211–22, <https://doi.org/10.4236/jsea.2023.166012>.

<sup>10</sup> Tae Wan Kim and Bryan R Routledge, "Why a Right to an Explanation of Algorithmic Decision-Making Should Exist: A Trust-Based Approach," *Business Ethics Quarterly* 1, no. January 2022 (2021): 75–102, <https://doi.org/10.1017/beq.2021.3>.

<sup>11</sup> Isabel Román-martínez et al., "Blockchain-Based Service-Oriented Architecture for Consent Management, Access Control, and Auditing," *Institute of Electrical and Electronics Engineers* 11, no. January (2023): 12727–41, <https://doi.org/doi.org/10.1109/access.2023.3242605>.

transparency, and accountability for AI-driven decisions remain insufficiently regulated, creating legal gaps that may lead to data misuse and algorithmic discrimination. These limitations highlight the need to strengthen Indonesia's legal framework to ensure effective personal data protection in the AI era.<sup>12</sup>

Indonesia's personal data protection regime requires a more adaptive legal approach to effectively safeguard individual rights against the risks posed by AI systems. Although Law No. 27 of 2022 on Personal Data Protection provides a general framework for data protection, it does not specifically address challenges such as algorithmic transparency, accountability, and AI-driven data misuse. Therefore, strengthening and modernizing the legal framework is essential to ensure effective protection of personal data in the AI era.<sup>13</sup>

## **2. Digital Sovereignty from the Perspective of Human Rights and Constitutional Law**

The concept of digital sovereignty has emerged as a critical response to the growing dependence on digital technologies and data-driven systems that have become integral to modern society. Digital sovereignty refers to the capacity of a state to govern and control its digital infrastructure, data, and technological resources in order to ensure security, autonomy, and the protection of fundamental rights in the digital environment. As data has become a strategic asset and cyber threats continue to evolve, digital sovereignty has gained increasing prominence in both legal and policy discourse. It encompasses several dimensions, including data sovereignty,

---

<sup>12</sup> Rina Arum Prastyanti Giovania Madeira Do Carmo, "Tinjauan Yuridis Atas Penyalahgunaan Data Pribadi Dalam Transaksi Elektronik Berdasarkan Undang-Undang Nomor 27 Tahun 2022 Tentang Perlindungan Data Pribadi," *El-Mujtama : Jurnal Pengabdian Masyarakat* 5, no. 4 (2025): 588–94, <https://doi.org/10.47467/elmujtama.v5i4.7988>.

<sup>13</sup> Yudha Sri Wulandari, "KECERDASAN BUATAN DAN PERLINDUNGAN DATA: ANALISIS REGULASI YANG ADIL UNTUK SISTEM HUKUM INDONESIA," *Jurnal Ilmu Hukum "The Juris"* IX, no. 1 (2025): 24–31, <https://doi.org/doi.org/10.56301/juris.v9i1.1518>.

technological independence, and regulatory governance, each of which plays a vital role in shaping a secure and rights-based digital ecosystem.<sup>14</sup>

The concept of digital sovereignty is rooted in the principles of privacy and informational self-determination, emphasizing individuals' control over their personal data. In the digital era, where personal data are continuously collected and processed by both public and private entities, protecting these rights has become increasingly complex. Although the right to privacy remains a fundamental human right, its effective realization requires legal frameworks that address the unique challenges of digital technologies. Accordingly, the evolution of digital sovereignty reflects the ongoing effort to balance technological innovation with the protection of individual rights, particularly the rights to privacy, autonomy, and personal data protection.<sup>15</sup>

Digital sovereignty extends beyond the protection of personal data to encompass the safeguarding of human dignity, as the processing and use of digital data can significantly affect individual freedom, autonomy, and identity. It therefore requires not only the protection of privacy, but also the preservation of individuals' control over their personal information and digital identities. In this context, digital sovereignty serves as a constitutional and human rights framework that ensures digital technologies operate in a manner that respects human dignity, autonomy, and fundamental rights in the digital age.<sup>16</sup>

The expansion of the digital environment necessitates a broader interpretation of constitutional rights to include the protection of individuals' digital identity and existence. As digital technologies increasingly shape social, economic, and political life, constitutional safeguards must evolve to address

---

<sup>14</sup> Anna Litvinenko, "Re - Defining Borders Online : Russia ' s Strategic Narrative on Internet Sovereignty," *Media and Communication* 9, no. 4 (2021): 5-15, <https://doi.org/doi.org/10.17645/MAC.V9I4.4292>.

<sup>15</sup> Gstrein and Beaulieu, "How to Protect Privacy in a Datafied Society ? A Presentation of Multiple Legal and Conceptual Approaches."

<sup>16</sup> Lusine Vardanyan, "Digital Integrity : A Foundation for Digital Rights and the New Manifestation of Human Dignity," *TalTech Journal of European Studies* 12, no. 1 (2022): 159-85, <https://doi.org/10.2478/bjes-2022-0008>.

new forms of power, governance, and rights in the digital sphere. Consequently, the transformation of digital governance calls for a renewed constitutional framework that effectively protects fundamental rights while ensuring that both state and private actors remain accountable in the digital age.<sup>17</sup>

Therefore, digital sovereignty may be understood as a concept that integrates the protection of human rights and constitutional rights within the digital sphere by recognizing every individual's right to control their personal data, digital identity, and other information that represents them. In this context, digital sovereignty serves as a constitutional framework for safeguarding privacy, data security, and individual freedom amid the rapid advancement of information and communication technologies.

### **3. Reinterpretation of Article 28G, Paragraph (1) of the 1945 Constitution of the Republic of Indonesia Regarding Personal Data Protection in the Age of Artificial Intelligence**

Article 28G (1) of the 1945 Constitution of the Republic of Indonesia provides a constitutional guarantee for the protection of personal integrity, honor, dignity, and security, forming the foundation for the protection of individual rights in a democratic state governed by the rule of law. This provision is closely aligned with broader human rights principles that emphasize safeguarding individuals against arbitrary interference by both the state and private actors. In the era of Artificial Intelligence, the constitutional protection afforded by Article 28G(1) should be interpreted more broadly to encompass the protection of personal data and digital privacy, recognizing that digital information has become an essential component of individual autonomy, identity, and human dignity.

Advances in digital technology and AI require a broader interpretation of personal protection as outlined in Article 28G, paragraph (1), extending

---

<sup>17</sup> Giovanni De Gregorio and Roxana Radu, "Digital Constitutionalism in the New Era of Internet Governance," *International Journal of Law and Information Technology* 30, no. 1 (2022): 68–87, <https://doi.org/doi.org/10.1093/ijlit/eaac004>.

beyond physical aspects to encompass identity and presence in the digital realm. This expansion is crucial because digitalization and AI are increasingly affecting personal identity, privacy, and autonomy. The integration of digital sovereignty and ethical frameworks is essential to ensure that AI supports rather than undermines individual agency. This requires a comprehensive legal and ethical approach to protect digital identities and personal data in the evolving digital landscape.<sup>18</sup>

The constitutional perspective on personal data as a representation of an individual's identity is closely linked to the rights to privacy, freedom, personal autonomy, and human dignity. These rights are enshrined in various legal frameworks and are crucial for protecting individuals in the digital age. The protection of personal data is not merely a technical or regulatory issue but a fundamental aspect of human rights, reflecting the intrinsic dignity and autonomy of the individual. This perspective is essential for understanding how personal data is managed and protected in contemporary society, particularly given the challenges posed by digital technology.<sup>19</sup>

The approach to constitutional interpretation through the theory of the "living constitution" allows Article 28G, paragraph (1) of the 1945 Constitution of the Republic of Indonesia to be interpreted dynamically and adaptively in accordance with the changing times and social changes influenced by advances in digital technology. Through this approach, constitutional guarantees of personal protection, a sense of security, and privacy are not only understood in a traditional context but are also expanded to address various new challenges arising from the processing of personal data, algorithmic profiling, and AI-based automated decision-making. Thus, the Constitution remains relevant as an instrument for protecting citizens' rights amid increasingly complex digital transformation.

---

<sup>18</sup> Anna Kozyreva et al., "Legal Support of Information Security of the Individual in the Conditions of Digital Transformation of Society," *SHS Web of Conferences* 134 (2022): 1–4, <https://doi.org/doi.org/10.1051/shsconf/202213400043>.

<sup>19</sup> Vardanyan, "Digital Integrity: A Foundation for Digital Rights and the New Manifestation of Human Dignity."

Based on this reinterpretation, the protection of personal data in the age of AI can no longer be viewed merely as an administrative or technical issue in information management, but must be regarded as an integral part of the protection of citizens' constitutional rights. Personal data is a representation of an individual's identity that is closely linked to the rights to privacy, freedom, security, and human dignity guaranteed by the constitution. Therefore, every individual must be provided with adequate legal safeguards to control the collection, use, storage, processing, and dissemination of data pertaining to them. In the context of the development of AI technology capable of processing data on a large scale through predictive analytics, algorithmic profiling, and automated decision-making, the state has a constitutional obligation to ensure that the use of such technology does not undermine the fundamental rights of citizens. Thus, personal data protection must be understood as a constitutional instrument that guarantees individuals' sovereignty over their identities and personal information in the digital space while preventing data misuse that could potentially infringe upon citizens' rights.<sup>20</sup>

#### **4. Reaffirming Digital Sovereignty as a Constitutional Right in the Governance of Artificial Intelligence in Indonesia**

The limitations of current personal data protection regimes in the face of AI development highlight the need for a paradigm shift from an administrative approach to one that emphasizes the protection of constitutional rights. Traditional data protection frameworks, designed for a different era, are increasingly inadequate in addressing the complexities introduced by AI technology. These frameworks often focus on market regulation rather than protecting fundamental rights, which is insufficient given AI's far-reaching impact on personal data and privacy. This calls for a

---

<sup>20</sup> Nanang Subekti, I Gusti Ayu, and Ketut Rahmi, "Konstitusionalisme Digital Di Indonesia : Mengartikulasikan Hak Dan Kekuasaan Di Era Digital," *Peradaban: Journal of Law and Society* 2, no. 1 (2023): 1-22, <https://doi.org/doi.org/10.59001/pjls.v2i1.74>.

shift toward a rights-based approach that prioritizes the protection of individual freedoms and dignity in the digital age.

The repositioning of digital sovereignty as a constitutional right emphasizes individual control over personal data, digital identity, and information derived from algorithmic processing. This shift reflects a growing recognition of the need to protect personal data as a fundamental human right, particularly in the context of increasing data-driven decision-making and algorithmic decision-making. The concept of digital sovereignty aligns with the broader discourse on data ownership and privacy, highlighting the importance of individual autonomy and control in the digital age. This repositioning is supported by various legal and ethical frameworks aimed at balancing the benefits of data-driven technology with the protection of individual rights.<sup>21</sup>

Recognizing digital sovereignty as a constitutional right provides a stronger normative foundation for protecting citizens against practices such as digital profiling, surveillance, and automated decision-making that may undermine individual autonomy. In the digital age, where AI-driven technologies increasingly influence personal freedoms and privacy, constitutional recognition of digital sovereignty ensures that individuals retain meaningful control over their personal data and digital identities. Such an approach strengthens the protection of human dignity and autonomy while aligning constitutional rights with the challenges posed by rapid technological advancement.<sup>22</sup>

In the context of AI governance in Indonesia, digital sovereignty emphasizes the need for a robust regulatory framework that ensures not only the protection of personal data but also algorithmic transparency, AI system accountability, and safeguards for inferential data. Such a comprehensive

---

<sup>21</sup> Maryanne Kelton et al., "Virtual Sovereignty? Private Internet Capital, Digital Platforms and Infrastructural Power in the United States," *International Affairs* 98, no. 6 (2022): 1977–99, <https://doi.org/10.1093/ia/iia226>.

<sup>22</sup> Edoardo Celeste and Giovanni De Gregorio, "Digital Humanism: The Constitutional Message of the GDPR," *Global Privacy Law Review* 3, no. 1 (2022): 4–18, <https://doi.org/doi.org/10.54648/gplr2022002>.

approach is essential to fostering public trust and promoting the ethical development and deployment of AI. By incorporating these principles into its legal framework, Indonesia can better balance technological innovation with the protection of constitutional rights and fundamental freedoms in the digital era.<sup>23</sup> accountability,<sup>24</sup> and protection of inferential data,<sup>25</sup> each of which plays an important role within the regulatory framework.

The repositioning of digital sovereignty as a constitutional right represents a significant evolution in the protection of citizens' rights in the digital sphere, particularly in the context of AI governance.<sup>26</sup> This conceptual shift seeks to integrate digital rights into the constitutional framework, ensuring that individuals are adequately protected against challenges arising from digital technologies. The rapid advancement of AI has necessitated a reinterpretation of constitutional principles to address issues such as personal data privacy, digital surveillance, algorithmic accountability, and the protection of inferential data.<sup>27</sup> Accordingly, repositioning digital sovereignty is not merely a legal reform but a constitutional adaptation aimed at safeguarding fundamental rights and human dignity in the digital.

### C. CONCLUSION

The rapid development of Artificial Intelligence has introduced new challenges to the effectiveness of Indonesia's personal data protection regime. This study finds that the existing data protection framework, which primarily

---

<sup>23</sup> Yuliya S Kharitonova, "Legal Means of Providing the Principle of Transparency of the Artificial Intelligence," *Journal of Digital Technologies and Law* 1, no. 2 (2023): 337–58, <https://doi.org/doi.org/10.21202/jdtl.2023.14>.

<sup>24</sup> Helen Margetts, "Rethinking AI for Good Governance," *Daedalus* 151, no. 2 (2022): 360–71, [https://doi.org/doi.org/10.1162/daed\\_a\\_01922](https://doi.org/doi.org/10.1162/daed_a_01922).

<sup>25</sup> Sandra Wachter and Brent Mittelstadt, "A RIGHT TO REASONABLE INFERENCES: RE-THINKING DATA PROTECTION LAW IN THE AGE OF BIG DATA AND AI," *Columbia Business Law Review* 2 (2019): 494–620, <https://doi.org/doi.org/10.7916/cblr.v2019i2.3424>.

<sup>26</sup> Gregorio and Radu, "Digital Constitutionalism in the New Era of Internet Governance."

<sup>27</sup> Karamjit S Gill, "AI & Society : Editorial Volume 35 . 2 : The Trappings of AI Agency," *Springer and Nature* 35, no. 2 (2020): 289–96, <https://doi.org/10.1007/s00146-020-00961-9>.

relies on the notice-and-consent model under Law No. 27 of 2022 on Personal Data Protection, is not fully capable of addressing the unique characteristics of AI-driven data processing, particularly with respect to inferential data, algorithmic profiling, and automated decision-making. These findings reveal a normative gap between the rapid advancement of AI technologies and the current legal framework governing personal data protection.

The protection of personal data, from the perspective of human rights and constitutional law, can no longer be understood merely as an administrative issue in information management; rather, it must be viewed as an integral part of the protection of personal autonomy and human dignity. Through a reinterpretation of Article 28G(1) of the 1945 Constitution of the Republic of Indonesia based on the “living constitution” approach, the meaning of personal protection can be expanded to include digital identity, personal data, and various forms of information that represent an individual’s existence in the digital space.

Based on these findings, this study proposed a repositioning of digital sovereignty as a constitutional right that guarantees individuals control over their personal data, digital identity, and inferential information related to themselves. This repositioning constitutes the study’s conceptual contribution to strengthening the protection of citizens’ rights in the era of Artificial Intelligence, while also providing direction for the reform of personal data protection laws and artificial intelligence governance in Indonesia reforms that are grounded in respect for human rights and constitutional values.

## REFERENCES

- Bartneck, Christoph, Alan Wagner, and Sean Welsh. *An Introduction to Ethics in Robotics and AI*. Switzerland: Springer, 2021. <https://doi.org/doi.org/10.1007/978-3-030-51110-4>.
- Celeste, Edoardo, and Giovanni De Gregorio. "Digital Humanism: The Constitutional Message of the GDPR." *Global Privacy Law Review* 3, no. 1 (2022): 4–18. <https://doi.org/doi.org/10.54648/gplr2022002>.
- Dr Amrita Rathi, Ms Upagya Sharma<sup>2</sup>. "ARTIFICIAL INTELLIGENCE AND PRIVACY CONCERNS." *International Journal of Applied Mathematics* 38, no. 10 (2025): 2746–50. <https://doi.org/doi.org/10.12732/ijam.v38i10s.1291>.
- Gill, Karamjit S. "AI & Society : Editorial Volume 35 . 2 : The Trappings of AI Agency." *Springer and Nature* 35, no. 2 (2020): 289–96. <https://doi.org/10.1007/s00146-020-00961-9>.
- Giovanina Madeira Do Carmo, Rina Arum Prastyanti. "Tinjauan Yuridis Atas Penyalahgunaan Data Pribadi Dalam Transaksi Elektronik Berdasarkan Undang-Undang Nomor 27 Tahun 2022 Tentang Perlindungan Data Pribadi." *El-Mujtama : Jurnal Pengabdian Masyarakat* 5, no. 4 (2025): 588–94. <https://doi.org/10.47467/elmujtama.v5i4.7988>.
- Gregorio, Giovanni De, and Roxana Radu. "Digital Constitutionalism in the New Era of Internet Governance." *International Journal of Law and Information Technology* 30, no. 1 (2022): 68–87. <https://doi.org/doi.org/10.1093/ijlit/eaac004>.
- Gstrein, Oskar J, and Anne Beaulieu. "How to Protect Privacy in a Datafied Society ? A Presentation of Multiple Legal and Conceptual Approaches." *Philosophy & Technology* 35, no. 3 (2022): 1–38. <https://doi.org/10.1007/s13347-022-00497-4>.
- Kelton, Maryanne, Michael Sullivan, Z A C Rogers, Emily Bienvenue, and Sian Troath. "Virtual Sovereignty? Private Internet Capital , Digital Platforms and Infrastructural Power in the United States." *International*

- Affairs* 98, no. 6 (2022): 1977–99. <https://doi.org/10.1093/ia/iiaac226>.
- Kharitonova, Yuliya S. “Legal Means of Providing the Principle of Transparency of the Artificial Intelligence.” *Journal of Digital Technologies and Law* 1, no. 2 (2023): 337–58. <https://doi.org/doi.org/10.21202/jdtl.2023.14>.
- Kim, Tae Wan, and Bryan R Routledge. “Why a Right to an Explanation of Algorithmic Decision-Making Should Exist: A Trust-Based Approach.” *Business Ethics Quarterly* 1, no. January 2022 (2021): 75–102. <https://doi.org/10.1017/beq.2021.3>.
- Kozyreva, Anna, Galina Rustikova, Tatiana Pirozhkova, Valentin Shelmenkov, and Alexey Belyavskiy. “Legal Support of Information Security of the Individual in the Conditions of Digital Transformation of Society.” *SHS Web of Conferences* 134 (2022): 1–4. <https://doi.org/doi.org/10.1051/shsconf/202213400043>.
- Kumar, Deepak, and Amit Verma. “Artificial Intelligence and The Law of Data Protection : An Analytical Study of Emerging Global Norms.” *Internasional Journal of Contemporary Research in Multidisciplinary* 4, no. 4 (2025): 510–17. <https://doi.org/doi.org/10.5281/zenodo.16879755>.
- Litvinenko, Anna. “Re - Defining Borders Online : Russia ’ s Strategic Narrative on Internet Sovereignty.” *Media and Communication* 9, no. 4 (2021): 5–15. <https://doi.org/doi.org/10.17645/MAC.V9I4.4292>.
- Maclure, Jocelyn. “AI , Explainability and Public Reason : The Argument from the Limitations of the Human Mind.” *Minds and Machines* 31 (2021): 421–38. <https://doi.org/10.1007/s11023-021-09570-x>.
- Margetts, Helen. “Rethinking AI for Good Governance.” *Daedalus* 151, no. 2 (2022): 360–71. [https://doi.org/doi.org/10.1162/daed\\_a\\_01922](https://doi.org/doi.org/10.1162/daed_a_01922).
- Masudianto, Dwi Nugroho, and Megawati Barthos. “Optimization of Personal Data Rights Protection in Artificial Intelligence Era Under Indonesia ’ s Cybersecurity Law.” *Injuruty: Interdisciplinary Journal and Humanity* 4, no. 7 (2025): 452–62. <https://doi.org/https://doi.org/10.58631/>

injurity.v4i7.1451.

Mesmari, Saleimah Al. "Transforming Data into Actionable Insights with Cognitive Computing and AI." *Journal of Software Engineering and Applications* 16 (2023): 211–22. <https://doi.org/10.4236/jsea.2023.166012>.

Rahmawati, Aprilia Dwi, and Dodi Jaya Wardana. "Constitutional Guarantees of the Right to Privacy of Personal Data of Citizens in the Era of Government Digitalization." *JLPH: Journal of Law, Politic and Humanities* 6, no. 2 (2025): 1052–63. <https://doi.org/doi.org/10.38035/jlph.v6i2>.

Repetto, Eric. "Concept ' Stretching ' or Concept Innovation ? A Review of the Usages of Sovereignty in the Digital Sovereignty Literature." *Policy & Internet* 17, no. 3 (2025): 1–13. <https://doi.org/doi.org/10.1002/poi3.70011>.

Román-martínez, Isabel, Jorge Calvillo-arbizu, Vicente J Mayor-gallego, and Germán Madinabeitia-luque. "Blockchain-Based Service-Oriented Architecture for Consent Management , Access Control , and Auditing." *Institute of Electrical and Electronics Engineers* 11, no. January (2023): 12727–41. <https://doi.org/doi.org/10.1109/access.2023.3242605>.

Romlah, Siti, Salma Zavira, and Khansa Muafa. "Implementation of Progressive Legal Theory in Law Enforcement in Indonesia." *Journal La Sociale* 01, no. 06 (2020): 24–30. <https://doi.org/10.37899/journal-la-sociale.v1i6.187>.

Saputra, Ardi. "REFORMULASI PENGELOLAAN PENYERTAAN DAN PENATAUSAHAAN MODAL NEGARA PADA BUMN BERBENTUK PERSEROAN TERBATAS." *JURNAL ILMIAH PENDIDIKAN PANCASILA DAN KEWARGANEGARAAN* 7, no. 1 (2022): 57–67. <https://doi.org/10.17977/um019v7i1p57-67>.

Subekti, Nanang, I Gusti Ayu, and Ketut Rahmi. "Konstitusionalisme Digital Di Indonesia : Mengartikulasikan Hak Dan Kekuasaan Di Era Digital."

*Peradaban: Journal of Law and Society* 2, no. 1 (2023): 1–22.  
<https://doi.org/doi.org/10.59001/pjls.v2i1.74>.

Vardanyan, Lusine. “Digital Integrity : A Foundation for Digital Rights and the New Manifestation of Human Dignity.” *TalTech Journal of European Studies* 12, no. 1 (2022): 159–85. <https://doi.org/10.2478/bjes-2022-0008>.

Wachter, Sandra, and Brent Mittelstadt. “A RIGHT TO REASONABLE INFERENCES : RE-THINKING DATA PROTECTION LAW IN THE AGE OF BIG DATA AND AI.” *Columbia Business Law Review* 2 (2019): 494–620. <https://doi.org/doi.org/10.7916/cblr.v2019i2.3424>.

Wulandari, Yudha Sri. “KECERDASAN BUATAN DAN PERLINDUNGAN DATA : ANALISIS REGULASI YANG ADIL UNTUK SISTEM HUKUM INDONESIA.” *Jurnal Ilmu Hukum “The Juris”* IX, no. 1 (2025): 24–31. <https://doi.org/doi.org/10.56301/juris.v9i1.1518>.

