



Beyond Territoriality: Jurisdiction, Accountability, and Human Rights in Algorithmic Governance

Syafri Hariansah¹, Angga Aldilla Gussman¹, Ainulisa Amsyah², Laila Qhistina³,

¹Faculty of Law, University of Pertiba, Pangkalpinang, Indonesia.

² Faculty of Law, University of Al Washliyah, Medan, Indonesia.

³Faculty of Law, Van Vollen Hoven Institute, University of Leiden, Netherland.

*Corresponding author : hariansah@pertiba.ac.id

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Abstract

Background: The evolution of algorithmic governance has created an operational gap regarding the application of the International Covenant on Civil and Political Rights (ICCPR) to decision-making systems. This gap does not reflect a structural inadequacy of the ICCPR; rather, it highlights the need to translate the treaty's guarantee specifically regarding privacy (Article 17), freedom of expression (Article 19), effective remedy (Article 2(3)), and fair procedure (Article 14) into international legal standards for algorithmic governance. **Methodology:** This research employs a normative legal method with doctrinal and prescriptive approaches, examining ICCPR obligations through comparative case studies of Robodebt (Australia), SyRI (the Netherlands), and Indonesian practices (DTKS, IKD, and SSCASN). **Objectives:** This study analyzes the application of ICCPR guarantees within algorithmic governance to develop a doctrinal operational framework for the digital legal order, aiming to ensure the effectiveness of these guarantees through doctrinal expansion and interpretive adaptation. **Findings** Research indicates that the primary issue lies not in any normative inadequacy of the ICCPR, but rather in the absence of concrete procedural and institutional standards for its implementation within an algorithmic context. Domestic algorithmic systems give rise to compliance failures regarding transparency, explainability, contestability, and effective remedy. Meanwhile, the governance of cross-border platforms introduces jurisdictional complexities under Article 2(1), potentially revealing protection gaps between a state's territory and the jurisdiction where a platform is incorporated. **Novelty:** This research introduces a digital legal order as a framework for prescriptive harmonization based on functional jurisdiction, shared responsibility, and algorithmic due process. Its contribution lies in operationalizing ICCPR obligations into applicable international standards—encompassing the designation of authority, individual explanation, meaningful contestation, substantive review, auditability, and reasoned redress—thereby advancing the doctrinal development of international human rights law in response to digital transformation.

Keywords: algorithmic governance; iccpr; global administrative law; digital legal order; algorithmic due process.

Abstrak

Latar Belakang: Perkembangan tata kelola algoritmik menimbulkan kesenjangan operasionalisasi dalam penerapan Kovenan Internasional tentang Hak-Hak Sipil dan Politik (ICCPR) terhadap sistem pengambilan keputusan. Kesenjangan ini tidak menunjukkan



ketidakmampuan struktural ICCPR, melainkan kebutuhan menerjemahkan jaminan perjanjian internasional privasi (Pasal 17), kebebasan berekspresi (Pasal 19), pemulihan efektif (Pasal 2(3)), dan prosedur yang adil (Pasal 14) ke dalam standar hukum internasional untuk tata kelola algoritmik. **Metodologi:** Penelitian ini menggunakan metode hukum normatif dengan pendekatan doktrinal dan preskriptif dengan mengkaji kewajiban ICCPR melalui studi kasus komparatif Robodebt (Australia), SyRI (Belanda), dan praktik Indonesia (DTKS, IKD, SSCASN). **Tujuan:** Penelitian ini menganalisis penerapan jaminan ICCPR dalam tata kelola algoritmik dalam mengembangkan kerangka operasional doktrinal tatanan hukum digital untuk memastikan efektivitas jaminan tersebut melalui perluasan doktrinal dan adaptasi interpretatif. **Temuan:** Penelitian menemukan bahwa persoalan utama bukan pada ketidakmampuan normatif ICCPR, melainkan ketiadaan standar prosedural dan kelembagaan konkret untuk implementasi dalam konteks algoritmik. Sistem algoritmik domestik menimbulkan kegagalan kepatuhan dalam transparansi, penjelasan, kontestasi, dan pemulihan efektif. Sementara tata kelola platform lintas negara menghadirkan kompleksitas yurisdiksi berdasarkan Pasal 2(1) yang berpotensi mengungkap kesenjangan perlindungan antara teritorial negara dan negara tempat platform berbadan hukum. **Kebaruan:** Penelitian ini memperkenalkan tatanan hukum digital sebagai kerangka harmonisasi preskriptif berbasis yurisdiksi fungsional, tanggung jawab bersama, dan due process algoritmik. Kontribusinya terletak pada operasionalisasi kewajiban ICCPR ke dalam standar internasional yang dapat diterapkan yang mencakup penetapan otoritas, penjelasan individual, kontestasi bermakna, peninjauan substantif, auditabilitas, dan pemulihan yang beralasan dalam memajukan perkembangan doktrinal hukum hak asasi manusia internasional dalam merespons transformasi digital.

Kata Kunci: tata kelola algoritmik; iccpr; hukum administrasi global; tatanan hukum digital; due process algoritmik

A. Introduction

The rapid expansion of algorithmic governance has generated a concrete and documented legal problem: the growing doctrinal and practical difficulty of applying the International Covenant on Civil and Political Rights (ICCPR) to rights-affecting outcomes produced through automated systems.¹ This article does not argue that the ICCPR is structurally incapable of addressing algorithmic governance. Rather, it argues that the ICCPR was not originally designed for automated, data-driven, and algorithmically mediated forms of public decision-making. As a result, its application requires doctrinal extension and interpretive adaptation, particularly where algorithmic systems affect privacy, freedom of expression, due process, accountability, and access to effective remedies.²

Contemporary automated decision-making architectures increasingly challenge the effective protection of the right to privacy under Article 17 ICCPR through pervasive data extraction, algorithmic surveillance, and predictive profiling practices. Algorithmic content moderation also raises a specific Article 19 ICCPR concern when platforms restrict, remove, or downgrade speech through automated filtering and opaque

¹ Lorna McGregor et al., "International Human Rights Law As A Framework For Algorithmic Accountability," *International and Comparative Law Quarterly* 68, no. 2 (2019): 309–43, <https://doi.org/10.1017/S0020589319000046>; Sue Anne Teo, "How Artificial Intelligence Systems Challenge the Conceptual Foundations of the Human Rights Legal Framework," *Nordic Journal of Human Rights* 40, no. 1 (2022): 216–34, <https://doi.org/10.1080/18918131.2022.2073078>.

² Eleni Kosta, "Algorithmic State Surveillance: Challenging the Notion of Agency in Human Rights," *Regulation & Governance* 16, no. 1 (2022): 212–24, <https://doi.org/10.1111/rego.12331>.

moderation rules without providing users with clear reasons, notice, or effective avenues of appeal. The problem is not with Article 19 ICCPR itself, but with platform moderation practices that make it difficult to assess whether restrictions on expression comply with legality, necessity, and proportionality requirements.³ Moreover, the absence of transparency, explainability, and procedural accountability within algorithmic systems weakens the practical realization of the right to an effective remedy under Article 2(3) ICCPR, particularly where individuals are unable to contest or meaningfully review automated decisions affecting their rights.⁴

The difficulty becomes more complex because traditional applications of the ICCPR have largely been organized around territorial jurisdiction, identifiable state action, and vertically structured state individual relations. In specific contexts, particularly cross-border platform governance and hybrid public-private digital infrastructures, algorithmic governance may operate through opaque and multi-jurisdictional systems in which the decision-making actor, the territorial location of regulatory authority, and the causal chain of harm become difficult to identify.⁵ In such contexts, the difficulty lies not in structural limitations of the ICCPR, but in the practical and doctrinal challenges of ensuring compliance with existing human rights obligations when algorithmic systems are used in public decision making.⁶

These practical and doctrinal difficulties are illustrated by several cases. The Robodebt scheme in Australia (2016–2020), in which an automated income-averaging system wrongly issued debt notices to welfare recipients without adequate explanation or accessible challenge, has been analysed by Chowdhury in relation to the ICCPR, particularly Articles 17 and 2(3).⁷ The SyRI litigation similarly demonstrates that existing rights frameworks can respond to algorithmic governance, while also revealing the need for clearer standards on transparency, justification, and procedural safeguards in automated public administration. These cases therefore do not prove that the ICCPR is structurally incapable of addressing algorithmic governance. Rather, they show that states may fail to comply with existing human rights obligations when algorithmic systems are deployed without sufficient transparency, explanation, contestability, and effective remedies.

³ Nicolas Suzor, "A Constitutional Moment: How We Might Reimagine Platform Governance," *Computer Law & Security Review* 36 (April 2020): 105381, <https://doi.org/10.1016/j.clsr.2019.105381>.

⁴ Margaret Warthon, "Restricting Access to AI Decision-Making in the Public Interest: The Justificatory Role of Proportionality and Its Balancing Factors," *Internet Policy Review* 13, no. 3 (2024), <https://doi.org/10.14763/2024.3.1801>.

⁵ Karen Yeung, "Algorithmic Regulation: A Critical Interrogation," *Regulation & Governance* 12, no. 4 (2018): 505–23, <https://doi.org/10.1111/rego.12158>.

⁶ Syafri Hariansah and Laila Qhistina, "Algorithmic Governance And Democratic Legitimacy: Rethinking Digital Co-Creation in Constitutional Law-Making," *Al-Risalah: Forum Kajian Hukum Dan Sosial Kemasyarakatan* 26, no. 1 (2026): 199–216, <https://doi.org/10.30631/alrisalah.v26i1.2285>.

⁷ Serena Hildenbrand, "Robodebt and Novel Data Technologies in the Public Sector: How Human Rights Laws Plug Data Protection Gaps," *The University of Queensland Law Journal*, ahead of print, July 14, 2024, <https://doi.org/10.38127/uqlj.v43i2.8311>.

In Indonesia, three deployments of algorithmic systems in public administration present analogous concerns: the Data Terpadu Kesejahteraan Sosial (DTKS) welfare database, the Identitas Kependudukan Digital (IKD) digital identity infrastructure established under Presidential Regulation No. 82 of 2023, and the SSCASN automated civil servant recruitment system. These systems operate through limited disclosure of algorithmic logic, constrained contestation mechanisms, and weak remedial procedures. They therefore raise significant concerns regarding transparency, due process, and accountability within ICCPR protected rights frameworks, without necessarily demonstrating that the ICCPR itself is normatively inadequate.

To analytically capture this transformation, this article adopts Global Administrative Law (GAL) as its primary theoretical framework. Applied across contexts including WTO dispute resolution, the Basel Committee on Banking Supervision, and ICANN governance, GAL extends legal accountability beyond a purely state centric paradigm through principles of transparency, participation, reason-giving, and review.⁸ In the context of algorithmic governance, GAL enables a shift from formal attribution toward functional analysis of public power, helping to explain how accountability should be constructed when digital authority is distributed across states, platforms, vendors, and technical infrastructures.

Several scholars have addressed related issues. Di Stefano argues that many perceived limitations of international human rights law reflect processes of legal transformation rather than structural incapacity. Ayalew critiques the Eurocentric foundations of digital governance from a Global South perspective.⁹ Hariansah proposes algorithmic due process as a domestic constitutional response to procedural deficits within Indonesia's digital state.¹⁰ These studies reveal a critical gap: existing scholarship has not yet systematically examined how ICCPR obligations can be doctrinally extended and operationally translated to address the specific problems of jurisdiction, attribution, accountability, and remedy in algorithmic governance.

This article addresses that gap by advancing two central questions: how do existing ICCPR guarantees apply to algorithmic governance, and what forms of doctrinal extension are required to make those guarantees effective in automated, opaque, and hybrid public-private decision-making systems? How can a reconstructed normative framework, conceptualized as a Digital Legal Order, operationally translate ICCPR obligations into concrete duties of transparency, accountability, due process, and

⁸ Sabino Cassese, "Global Administrative Law: The State of the Art," *International Journal of Constitutional Law* 13, no. 2 (2015): 465–68, <https://doi.org/10.1093/icon/mov022>; Karl-Heinz Ladeur, "Global Administrative Law: A Transnational Perspective," in *The Oxford Handbook of Transnational Law*, 1st ed., ed. Peer Zumbansen (Oxford University Press, 2021), <https://doi.org/10.1093/oxfordhb/9780197547410.013.7>.

⁹ Yohannes Eneyew Ayalew, "A Third-World Critique of the International Human Rights-Based Approach to Content Moderation," *Transnational Legal Theory* 16, no. 4 (2025): 546–77, <https://doi.org/10.1080/20414005.2025.2523184>.

¹⁰ Syafri Hariansah and Laila Qhistina, "Toward Algorithmic Due Process: Constitutional Challenges and Human Rights Risks in Indonesia's Digital State," *Jurnal Pembangunan Hukum Indonesia* 8, no. 1 (2026): 24–45, <https://doi.org/https://doi.org/10.14710/jphi.v8i1.25-25>.

effective remedy? Methodologically, this article adopts a doctrinal and normative-prescriptive approach. It first examines how existing ICCPR obligations apply to algorithmic governance, particularly in relation to jurisdiction, accountability, due process, transparency, and effective remedies. It then uses selected cases, including Robodebt and SyRI, as illustrative examples to show how algorithmic public decision-making creates practical and doctrinal difficulties in the implementation of existing human rights obligations.

On this basis, the article proposes the Digital Legal Order as a proto-doctrinal and operational framework built upon three interrelated doctrines: functional jurisdiction, shared responsibility, and algorithmic due process. These doctrines are intended to translate existing human rights obligations into more concrete legal duties for states and, through appropriate regulatory arrangements, private actors involved in algorithmic governance. The aim is not to introduce a wholly separate or abstract normative framework, but to clarify how existing human rights obligations can be operationalized in algorithmically mediated governance.

B. Discussion

1. Doctrinal and Practical Difficulties in Applying the ICCPR to Algorithmic Governance

The ICCPR was not designed with algorithmic systems in mind, yet its provisions on privacy under Article 17, freedom of expression under Article 19, and effective remedy under Article 2(3) directly protect interests affected by automated decision making. The argument advanced here is therefore not that the ICCPR is structurally incapable of addressing algorithmic governance. Rather, the ICCPR remains normatively relevant, but its application to algorithmic systems requires doctrinal clarification and operational adaptation, particularly where public decisions are automated, opaque, data-driven, and mediated through hybrid public-private infrastructures.

The difficulty is not uniform across all forms of algorithmic governance. In domestic algorithmic public administration, such as Robodebt, SyRI, DTKS, IKD, and SSCASN, jurisdiction and attribution are generally clear because the relevant systems are adopted, authorized, or used by public authorities within the territory of the state concerned. The central problem in these cases is therefore not the absence of ICCPR obligations, but the failure to ensure that algorithmic decision-making complies with existing human rights requirements, including transparency, justification, procedural fairness, and effective remedy. By contrast, cross border platform governance raises more complex jurisdictional questions because rights-affecting outcomes may be produced by private digital platforms operating across multiple jurisdictions without a clear relationship of territorial control, personal control, or direct state action.

Robodebt and the three Indonesian cases examined in this study DTKS, IKD, and SSCASN illustrate different forms of implementation failure in algorithmic public decision-making. In Robodebt, the problem was not the complete absence of disclosed logic or criteria, since the income-averaging formula and relevant thresholds were formally

available. Rather, the legal defect lay in the flawed implementation of the automated system, the failure to provide affected individuals with adequate individualized explanations, and the absence of an effective pre-debt contestation mechanism. The Indonesian cases raise related concerns where limited transparency, weak procedural safeguards, and inadequate remedial mechanisms make it difficult for affected individuals to understand, challenge, or obtain review of algorithmic decisions affecting ICCPR protected rights.¹¹ These cases are therefore better understood as exposing implementation, compliance, and remedial difficulties rather than proving that the ICCPR is structurally unable to address algorithmic governance.

The first doctrinal difficulty concerns jurisdiction only in cross-border platform governance, not in domestic algorithmic systems. In cases such as Robodebt, SyRI, DTKS, IKD, and SSCASN, jurisdiction is clear because the relevant systems were deployed by domestic public authorities and affected individuals within the territory of the state concerned. The problem in these cases is therefore not jurisdictional indeterminacy, but the failure to ensure that algorithmic decision-making complies with existing ICCPR obligations, including transparency, justification, procedural fairness, and effective remedy.

Jurisdiction becomes more complex in genuinely transnational platform cases, such as the role of Meta in Myanmar, where algorithmic amplification and content governance may affect individuals outside the territorial jurisdiction of the state in which the platform is incorporated or regulated. Article 2(1) ICCPR remains tied to individuals within a state's territory and subject to its jurisdiction. Although the Human Rights Committee has extended this obligation to certain extraterritorial situations involving effective control, this doctrine remains difficult to apply where rights-affecting outcomes are produced by private digital platforms operating across borders without a clear relationship of territorial control, personal control, or direct state action. In this specific context, the difficulty lies in determining how ICCPR obligations should operate when digital power is exercised through transnational platform infrastructures rather than through conventional territorial state action.¹²

The second doctrinal issue should not be framed as a failure of attribution in domestic algorithmic public administration. In cases such as Robodebt and SyRI, ordinary attribution doctrines were sufficient because the relevant systems were adopted, authorized, or used by public authorities, even where private contractors or technology providers were involved in their design or operation. These cases therefore show that

¹¹ Aris Sarjito and Sundring Pantja Djati, *Administrative Justice In Algorithm-Based Social Assistance Distribution Systems: A Study Of Digital Transparency In Public Services In Indonesia*, 11, no. 2 (2025); Saabiq Chowdhury, "Technology Is Never Neutral: Robodebt and a Human Rights Analysis of Automated Decision-Making on Welfare Recipients," *Australian Journal of Human Rights* 30, no. 1 (2024): 20–40, <https://doi.org/10.1080/1323238X.2024.2409620>.

¹² M. Milanovic, "From Compromise to Principle: Clarifying the Concept of State Jurisdiction in Human Rights Treaties," *Human Rights Law Review* 8, no. 3 (2008): 411–48, <https://doi.org/10.1093/hrlr/ngn021>.

attribution can still function in hybrid algorithmic systems when the state deploys the system as part of public administration.

The more precise problem is not the doctrinal impossibility of attributing conduct to the state, but the tendency of public authorities to obscure, dilute, or avoid responsibility by presenting algorithmic outputs as technical or vendor driven processes. In such cases, the relevant legal difficulty lies in ensuring that states cannot rely on outsourcing, automation, or technical complexity to evade existing ICCPR obligations concerning transparency, justification, procedural fairness, and effective remedy.¹³ Robodebt and SyRI therefore demonstrate that the use of private contractors or technical systems does not remove state responsibility where the automated system forms part of public administration.

In the Indonesian DTKS system, the relevant problem should be understood as an administrative allocation and coordination problem rather than a legal impossibility of attribution. Under Indonesian constitutional and administrative law, responsibility should be allocated according to each institution's statutory function: the Ministry of Social Affairs bears responsibility for the design, management, and use of the welfare database; the Ministry of Home Affairs is relevant insofar as population and civil registration data support identity verification; and regional governments bear responsibility for local verification, validation, and implementation. The difficulty therefore does not arise because no responsible actor can be legally identified, but because fragmented implementation across central and regional authorities may weaken transparency, complaint handling, correction procedures, and effective remedies for affected individuals.

The third and most important difficulty concerns procedural accountability. General Comment No. 31 confirms that Article 2(3) requires remedies to be practical and effective, not merely formally available. Article 14(1), where applicable, also presupposes that a contested decision can be examined by a competent and independent body.¹⁴ Algorithmic governance may weaken these procedural conditions where affected individuals are not provided with a clear and individualized explanation of how a decision was reached, what criteria were applied, and how the outcome may be challenged.

The issue is not necessarily that the algorithm is mathematically unexplainable. Rather, the problem is that explanation, notice, contestation, and review are often not provided in a form that affected individuals can meaningfully use. In the Indonesian DTKS context, publicly reported concerns relate primarily to data validity, transparency, verification, and complaint-handling, rather than to a proven technical impossibility of explaining the

¹³ Bérénice Boutin, "State Responsibility in Relation to Military Applications of Artificial Intelligence," *Leiden Journal of International Law* 36, no. 1 (2023): 133–50, <https://doi.org/10.1017/S0922156522000607>.

¹⁴ Elena Abrusci and Richard Mackenzie-Gray Scott, "The Questionable Necessity of a New Human Right against Being Subject to Automated Decision-Making," *International Journal of Law and Information Technology* 31, no. 2 (2023): 114–43, <https://doi.org/10.1093/ijlit/eaad013>.

system itself.¹⁵ The problem is therefore better understood as a failure to provide explanation and remedial access, not as evidence that the system is inherently unexplainable.

These difficulties can be summarized as follows:

Dimension	ICCPR Framework	Algorithmic Governance Context	Doctrinal or Practical Difficulty	Legal Implication
Jurisdiction	Territorial and state-based obligation under Article 2(1)	Domestic systems are jurisdictionally clear; cross-border platform systems may be transnational	Jurisdictional complexity arises mainly in cross-border platform governance	Need to clarify how ICCPR obligations apply to transnational platform-based harms
Responsibility	State remains the primary duty-bearer; attribution doctrines remain applicable where systems are adopted or used by public authorities	Public authorities may rely on private vendors, automated systems, or technical infrastructures	Responsibility may be obscured or diluted, but not necessarily legally impossible to identify	States should not evade ICCPR obligations through outsourcing, automation, or technical complexity
Procedural accountability	Effective remedy under Article 2(3) and reviewable decision-making where applicable	Automated decisions may be difficult for affected individuals to understand or challenge	Lack of explanation, notice, contestation, and individualized review	Rights become difficult to enforce in practice without procedural safeguards
Institutional coordination	Public responsibility is allocated	Multi-layered governance involving	Fragmented implementation may weaken	Need for clearer allocation of

¹⁵ Sarjito and Djati, *Administrative Justice In Algorithm-Based Social Assistance Distribution Systems: A Study Of Digital Transparency In Public Services In Indonesia*.

through domestic constitutional and administrative law	central agencies, regional authorities, and technical systems	complaint- handling and correction mechanisms	administrative responsibility and remedial pathways
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Table 1. Doctrinal and Practical Difficulties in Applying the ICCPR to Certain Forms of Algorithmic Governance

The limitations identified in this section are therefore not absolute structural failures of the ICCPR. They are more accurately understood as doctrinal and practical difficulties in applying existing human rights obligations to algorithmic governance. Domestic algorithmic systems primarily raise problems of compliance, explanation, procedural fairness, and remedy. Cross-border platform governance raises additional jurisdictional difficulties because rights affecting outcomes may be produced through transnational digital infrastructures. These difficulties do not require abandoning the ICCPR. They require clearer doctrinal translation and operational standards capable of ensuring that existing ICCPR obligations remain effective in algorithmically mediated governance. This reconstruction is developed in the following section.

2. Operational Standards for a Digital Legal Order in Algorithmic Governance

The doctrinal and practical difficulties identified in the preceding section cannot be resolved merely by restating the general applicability of the ICCPR to algorithmic governance. The ICCPR remains normatively relevant, but its procedural guarantees require operational specification when public decisions are automated, opaque, data-driven, or mediated through hybrid public-private infrastructures. The Digital Legal Order proposed in this article is therefore not a separate legal system and does not replace the ICCPR. It is a proto-doctrinal and operational framework for translating existing ICCPR obligations into concrete standards applicable to algorithmic governance.

The need for this framework arises because doctrinal interpretation alone can identify that ICCPR rights are engaged, but it does not always specify the operational conditions required for those rights to be effective in algorithmic systems. Article 17 protects privacy, Article 19 protects freedom of expression, and Article 2(3) requires effective remedies. However, these provisions do not, by themselves, determine what level of explanation must be given for an automated decision, when notice must be provided, how affected individuals may challenge algorithmic outputs, or which public authority must bear responsibility where a system is designed, procured, implemented, and verified by different institutions.

Global Administrative Law (GAL), as developed by Kingsbury, Krisch, and Stewart, provides the analytical foundation for this operational framework. GAL is useful not because it creates a new hierarchy of binding rules, but because it offers a functional

vocabulary for analysing transparency, participation, review, and accountability beyond purely state-centric forms of administration. Its relevance has been discussed in relation to transnational regulatory settings such as WTO dispute settlement, the Basel Committee on Banking Supervision, and ICANN governance, where administrative power is exercised through institutions and arrangements that do not fit neatly within the classical domestic administrative law model.¹⁶

On this basis, the Digital Legal Order is structured around three operational doctrines: functional jurisdiction, shared responsibility, and algorithmic due process. Functional jurisdiction identifies the authority with effective regulatory capacity over a rights-affecting algorithmic system. Shared responsibility prevents states from avoiding accountability by outsourcing design, operation, or implementation to private vendors or technical infrastructures. Algorithmic due process specifies the minimum procedural safeguards required for automated decision-making: individualized explanation, meaningful contestation, and substantive human review.

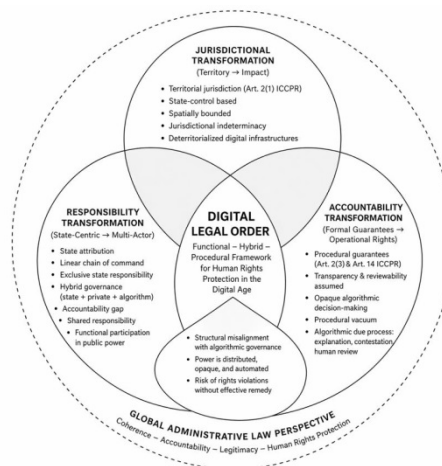


Figure 1. Transformation from State-Centric Legal Order to Digital Legal Order

The first operational doctrine concerns functional jurisdiction. In domestic algorithmic public administration, jurisdiction is generally clear. Robodebt, SyRI, DTKS, IKD, and SSCASN were deployed by domestic public authorities and affected individuals within the territory of the state concerned. The problem in these cases is not jurisdictional uncertainty, but whether the state complied with its existing obligations to provide transparency, justification, procedural fairness, and effective remedy.

Jurisdiction becomes more complex in platform-based and cross-border governance arrangements. The Myanmar/Meta case illustrates a narrower jurisdictional problem: serious rights-affecting outcomes may be produced by platform infrastructures designed, operated, and controlled outside the territory where the harm occurs. In such circumstances, Myanmar cannot coherently be treated as responsible for the design or

¹⁶ Benedict Kingsbury et al., "The Emergence of Global Administrative Law," *SSRN Electronic Journal*, ahead of print, 2005, <https://doi.org/10.2139/ssrn.692628>; Cassese, "Global Administrative Law."

operation of a US-based recommendation system that it did not control. Its ICCPR obligations remain limited to measures within its own jurisdiction and regulatory capacity.¹⁷

The relevance of functional jurisdiction is therefore not to create responsibility for states that lack control over the platform. Rather, it is to identify the state or authority with effective regulatory capacity over the relevant digital actor, infrastructure, or decision-making process. Under the current ICCPR framework, this may reveal a protection gap: the territorial state may experience the harm but lack effective regulatory control, while the state of platform incorporation or operation may not clearly owe ICCPR obligations to foreign users abroad. The Digital Legal Order responds to this gap prescriptively by proposing that states with effective regulatory capacity over platform infrastructures should impose due diligence, transparency, risk assessment, and remedial obligations on platforms whose algorithmic systems generate foreseeable rights-affecting consequences across borders.

Functional jurisdiction should therefore be understood as an operational standard rather than a claim that Article 2(1) ICCPR already imposes unlimited extraterritorial obligations.¹⁸ It applies most clearly where a state authorizes, licenses, procures, mandates, or delegates the use of an algorithmic system within its legal order. In such circumstances, the state's own regulatory authority over the system provides the basis for requiring transparency, contestability, human review, and effective remedy. In cross-border platform cases, functional jurisdiction operates as a prescriptive framework for identifying which state has the capacity to regulate the platform and what due diligence obligations should follow from that capacity.

The second operational doctrine concerns shared responsibility. This doctrine should not be framed as a failure of attribution in domestic algorithmic public administration. In Robodebt and SyRI, ordinary attribution doctrines were sufficient because the relevant systems were adopted, authorized, or used by public authorities, even where private contractors or technology providers were involved in their design or operation.¹⁹ These cases show that state responsibility can still function in hybrid algorithmic systems when the state deploys or mandates the system as part of public administration.²⁰

¹⁷ Matt Schissler, "Beyond Hate Speech and Misinformation: Facebook and the Rohingya Genocide in Myanmar," *Journal of Genocide Research* 27, no. 3 (2025): 445–70, <https://doi.org/10.1080/14623528.2024.2375122>.

¹⁸ Jessica Shurson, "Investigative Jurisdiction: The Evolving Limits of Extraterritoriality in Transnational Digital Investigations," *International and Comparative Law Quarterly* 74, no. 3 (2025): 675–705, <https://doi.org/10.1017/S0020589325100985>.

¹⁹ Chowdhury, "Technology Is Never Neutral."

²⁰ Bérénice Boutin, "State Responsibility in Relation to Military Applications of Artificial Intelligence," *Leiden Journal of International Law* 36, no. 1 (2023): 133–50, <https://doi.org/10.1017/S0922156522000607>.

The more precise problem is responsibility dilution. Public authorities may present algorithmic outputs as technical, vendor-driven, or automated processes in order to obscure the continuing role of the state in authorizing, relying on, or enforcing those outputs. The Digital Legal Order therefore requires that a responsible public authority be identified before deployment and remain legally accountable for the rights-affecting consequences of the system. A state should not be able to avoid ICCPR obligations by outsourcing design, maintenance, data processing, or technical implementation to private actors.

In Robodebt, this standard would have required the responsible department to remain accountable for the debt decisions generated through the automated income-averaging system, regardless of the involvement of contractors in technical implementation. In SyRI, it would have required the responsible public authority to justify the legality, necessity, proportionality, and reviewability of the welfare fraud detection system.²¹ In DTKS, shared responsibility would require clearer allocation of duties among the Ministry of Social Affairs, the Ministry of Home Affairs, and regional governments. The Ministry of Social Affairs would remain responsible for the design, management, and use of the welfare database; the Ministry of Home Affairs would be relevant insofar as population and civil registration data are used for identity verification; and regional governments would be responsible for local verification, validation, complaint-handling, and correction procedures.²²

Private actors do not become direct ICCPR duty-bearers merely because they provide technological infrastructure.²³ The ICCPR remains a treaty primarily binding states. However, private actors may bear responsibilities under regulatory regimes, contractual arrangements, procurement obligations, and soft-law frameworks such as the UN Guiding Principles on Business and Human Rights.²⁴ The contribution of shared responsibility is therefore to clarify that state duties and corporate responsibilities operate in a layered manner: states retain primary human rights obligations, while private actors involved in rights-affecting algorithmic governance should be required to comply with transparency,

²¹ Marvin Van Bekkum and Frederik Zuiderveen Borgesius, "Digital Welfare Fraud Detection and the Dutch SyRI Judgment," *European Journal of Social Security* 23, no. 4 (2021): 323–40, <https://doi.org/10.1177/13882627211031257>.

²² Onur Bakiner, "The Promises and Challenges of Addressing Artificial Intelligence with Human Rights," *Big Data & Society* 10, no. 2 (2023): 20539517231205476, <https://doi.org/10.1177/20539517231205476>.

²³ René Wolfstaller and Yingru Li, "Business and Human Rights Regulation After the UN Guiding Principles: Accountability, Governance, Effectiveness," *Human Rights Review* 23, no. 1 (2022): 1–17, <https://doi.org/10.1007/s12142-022-00656-2>.

²⁴ John Gerard Ruggie et al., "Ten Years After: From UN Guiding Principles to Multi-Fiduciary Obligations," *Business and Human Rights Journal* 6, no. 2 (2021): 179–97, <https://doi.org/10.1017/bhj.2021.8>; Peter Muchlinski, "The Impact of the UN Guiding Principles on Business Attitudes to Observing Human Rights," *Business and Human Rights Journal* 6, no. 2 (2021): 212–26, <https://doi.org/10.1017/bhj.2021.14>.

auditability, risk assessment, and cooperation duties imposed through domestic law or contractual governance.

The third operational doctrine is algorithmic due process. Algorithmic due process, as used in this article, refers to the minimum procedural safeguards required to make Articles 2(3) and 14 operational in automated decision-making. It does not rely on the GDPR or the EU AI Act as binding interpretive sources for the ICCPR.²⁵ Those instruments are used only as comparative regulatory references showing how legal systems have begun to operationalize safeguards against automated decision-making and high-risk AI deployment. The normative basis of algorithmic due process remains the ICCPR itself, particularly the requirements of effective remedy, reasoned review, procedural fairness, and the ability of affected individuals to challenge rights-affecting decisions.

Algorithmic due process requires three minimum safeguards. First, the responsible authority must provide an individualized explanation of the material data, criteria, thresholds, and reasoning pathway that shaped the decision. This does not require disclosure of source code in every case, but it does require disclosure sufficient for the affected individual to understand why the decision was made. Second, affected individuals must have a meaningful opportunity to contest the decision before it becomes final, including the right to submit contrary evidence and receive a reasoned response. Third, human review must be substantive rather than merely formal. The reviewing official must have authority to reconsider the automated output *de novo*, examine the underlying data and criteria, depart from the algorithmic result, and provide independent reasons for the final decision.

These standards show how the Digital Legal Order would have operated in the cases examined in this article. In Robodebt, the responsible authority would have been required to provide an individualized explanation of the debt calculation and an opportunity to contest the automated assessment before the debt became enforceable. In SyRI, the public authority would have been required to disclose sufficient information about risk indicators, data sources, and safeguards to allow meaningful assessment of legality, necessity, and proportionality.²⁶ In DTKS, affected individuals would have to be informed of the data or eligibility criteria causing exclusion, the authority responsible for correction, and the procedure and timeframe for review.

The Digital Legal Order should therefore be understood as a prescriptive harmonisation framework. It does not claim that the ICCPR, GAL, the UNGPs, GDPR, and the EU AI Act already form a single coherent body of binding law. Rather, it systematizes relevant elements from these regimes to clarify the operational standards necessary for rights-compliant algorithmic governance. General Comment No. 31 provides the ICCPR basis for

²⁵ Kingsbury et al., "The Emergence of Global Administrative Law."

²⁶ Sarjito and Djati, *Administrative Justice In Algorithm-Based Social Assistance Distribution Systems: A Study Of Digital Transparency In Public Services In Indonesia*.

effective remedies and jurisdictional responsibility; GAL supplies the functional analytical approach; the UNGPs help explain the relationship between state duties and corporate responsibilities; and instruments such as the GDPR and EU AI Act serve only as comparative references for automated decision-making safeguards and human oversight.²⁷

The substantive contribution of the Digital Legal Order lies in converting existing human rights commitments into operational standards: responsible authority designation, meaningful notice, individualized explanation, pre-final contestation, substantive human review, auditability, and reasoned remedy. Its implementability rests not on the creation of entirely new treaty obligations, but on the operationalization of existing ICCPR duties through clearer administrative and regulatory standards. This reconstruction represents a shift from asking only who formally holds power to examining how authority is exercised, who has effective regulatory capacity, and where rights-affecting consequences are produced in algorithmically mediated governance.²⁸

C. Conclusion

This article concludes that the ICCPR remains normatively capable of addressing algorithmic governance, but its application to automated, opaque, and hybrid public-private systems reveals significant operationalization gaps. By “operationalization gaps,” this article refers to situations in which existing ICCPR guarantees are formally applicable but lack sufficiently concrete procedural and institutional standards for implementation in algorithmic decision-making. The cases of Robodebt, SyRI, and Indonesia’s DTKS, IKD, and SSCASN systems show that the main problem is not the structural incapacity of the ICCPR, but the difficulty of ensuring explanation, contestation, responsibility allocation, and effective review in algorithmically mediated public decision-making. To address these gaps, this article proposes the Digital Legal Order as a proto-doctrinal and operational framework for translating existing ICCPR obligations into concrete standards. The framework consists of three interrelated doctrines: functional jurisdiction, which identifies the authority with effective regulatory capacity over rights-affecting algorithmic systems; shared responsibility, which clarifies that states remain accountable for systems they authorize, procure, deploy, or rely upon; and algorithmic due process, which operationalizes Articles 2(3) and 14 ICCPR through individualized explanation, meaningful contestation, and substantive human review. This framework does not replace the ICCPR or create a separate legal regime, but clarifies how its existing guarantees can remain effective in algorithmic governance. The contribution of this article lies in reframing the challenge from structural limitation to operationalization. It shows that international human rights law can respond to algorithmic governance, provided that its guarantees are translated into administrable standards of transparency,

²⁷ Lottie Lane, “Clarifying Human Rights Standards Through Artificial Intelligence Initiatives,” *International and Comparative Law Quarterly* 71, no. 4 (2022): 915–44, <https://doi.org/10.1017/S0020589322000380>.

²⁸ Bakiner, “The Promises and Challenges of Addressing Artificial Intelligence with Human Rights.”

accountability, auditability, explanation, contestation, and remedy. At the practical level, these findings support the need for clearer interpretive guidance on ICCPR obligations in algorithmic public administration and for the incorporation of minimum standards of algorithmic due process into domestic administrative and data protection frameworks.

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