

Human Rights–Based AI Governance in Thailand: A Functional-Equivalence Approach Beyond the EU AI Act*

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Middle-income states like Thailand face a structural dilemma: EU-style AI regulation exceeds administrative capacity, while voluntary models fail to protect fundamental rights. Leveraging Thailand's 2025 BRICS Partner status, this study proposes a Thai-BRICS Hybrid Governance Model based on functional modularity. This approach avoids wholesale transplantation, instead selectively adapting regulatory mechanisms from BRICS nations to fit

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Thailand's specific legal and fiscal constraints. The model addresses five critical gaps: infrastructure dependency, algorithmic opacity, accountability deficits, institutional fragmentation, and labor displacement. The study's central thesis is that rights remain symbolic without developmental sovereignty, the material control over digital infrastructure. By prioritizing sovereign capacity, Thailand can ensure that algorithmic accountability is enforceable rather than aspirational. This framework reconciles human rights with developmental goals, avoiding the prohibitive compliance burdens seen in previous GDPR-inspired legislation and positioning infrastructure as a prerequisite for genuine rights protection.

Keywords

BRICS, Artificial Intelligence, Thailand, Digital Sovereignty, Functional Modularity, Human Rights, Legal Transplantation

I. Introduction: AI Governance at the Developmental Crossroads

On January 1, 2025, Thailand formally acceded to BRICS as a partner country, joining an economic bloc whose eleven full members represent over 45% of the global population and more than 35% of world GDP. Thailand's engagement with the bloc has since deepened: in December 2025, the Kingdom's Foreign Minister formally requested India's support for Thailand's full BRICS membership during bilateral meetings in New Delhi, ahead of India's assumption of the BRICS chairmanship in 2026. Thailand, Algeria, and Bolivia have been proposed for full membership, positioning Thailand as a potential bridge between ASEAN and BRICS multilateral frameworks.¹ This strategic repositioning coincides with Thailand's imminent enactment of comprehensive artificial intelligence (AI) legislation—two concurrent developments that frame a fundamental governance challenge confronting middle-income developmental states: how to regulate transformative technologies in ways that protect constitutional and

¹ Thailand received partner country status at the BRICS Summit in Kazan, Russia, on October 24, 2024, alongside twelve other nations; the status took effect on 1 January 2025. See OECD, BRICS Countries 2026, <https://www.brics2026.gov.in>. For Thailand's formal request for India's support for full BRICS membership, see Ministry of Foreign Affairs of Thailand, Foreign Minister Meets with Indian Foreign Minister (Dec. 2, 2025), <https://www.mfa.go.th/th/content/fm-india-th?cate=5d5bc4e15e39c306000683b>. See also Siddhant Sibbal, *Thailand seeks BRICS membership with India's support*, WION NEWS (Dec. 4, 2025), <https://www.wionews.com/world/thailand-seeks-brics-membership-with-india-s-support-176478857716>. India assumed the BRICS chairmanship from Brazil in December 2025 under the theme 'Building for Resilience, Innovation, Cooperation and Sustainability'. See Ministry of Foreign Affairs of Thailand, Thailand will join BRICS as Partner Country (Dec. 30, 2024), <https://mfa.go.th/en/content/thailand-brics-partner-country-2>

international human rights commitments while building domestic technological capacity under conditions of limited institutional and fiscal resources. Thailand's BRICS accession offers more than geopolitical hedging; it provides a chance to alternative governance models designed for this dual challenge. These models may prove more institutionally viable than wholesale adoption of frameworks designed for high-capacity post-industrial economies such as the EU.

This research investigates how a middle-income developmental state may construct an AI governance framework that effectively protects fundamental rights without adopting regulatory architectures designed for post-industrial economies possessing mature administrative capacity. The article proceeds in six parts. Following this Introduction, Part II situates AI governance within the intersecting imperatives of sovereignty and human rights. Part III theorizes legal irritation and strategic adaptation as the conceptual foundation for selective transplantation. Part IV examines governance gaps through the lens of fundamental rights and comparative BRICS mechanisms. Part V addresses alternative models and anticipates counterarguments. Part VI concludes.

This study employs a comparative legal desk study methodology resting on two complementary theoretical frameworks. Drawing on the functional method developed by Zweigert and Kötz, the authors have shifted analytical focus from formal statutory resemblance toward problem-solving capacity.² The functional approach holds that legal systems should be compared based on how they address equivalent social problems (*tertium comparationis*) rather than whether they employ identical doctrinal structures. The core proposition is that “the legal system of every society faces essentially the same problems, and solves these problems by quite different means though very often with similar results.”³ This enables meaningful comparison across jurisdictions with radically different political systems – China, India. Through this way, Thailand can be functionally compared if they address equivalent governance challenges, despite fundamental constitutional differences.

Yet, the functional method faces sustained criticism from scholars emphasizing the cultural embeddedness of law. Legrand argues that legal transplantation is impossible because law is inseparable from cultural meaning-systems.⁴ Frankenberg cautions against treating legal comparison as a politically

2 KONRAD ZWIEGERT & HEIN KÖTZ, AN INTRODUCTION TO COMPARATIVE LAW 32-47 (Tony Weir trans., 1998).

3 *Id.* at 34.

4 Pierre Legrand, *The Impossibility of 'Legal Transplants,'* 4(2) MAASTRICHT J. EUR. & COMPAR. L. 111-24 (1997), <https://doi.org/10.1177/1023263X9700400202>.

neutral exercise.⁵ This study acknowledges these limitations while maintaining that functional comparison remains defensible when analysis is problem-specific rather than system-general, when it assesses institutional prerequisites for mechanism operation, and when it is reflexive about where functional similarity masks operational differences.

II. The Artificial Intelligence System, Sovereignty, and Human Rights

A. Overview

Artificial intelligence systems increasingly mediate access to employment,⁶ credit,⁷ healthcare,⁸ education,⁹ and government services¹⁰—domains where automated decision-making directly engages fundamental rights. When employment algorithms reject candidates without explanation, credit systems deny loans through opaque calculations, or benefit allocation occurs via inscrutable processes, core due process and non-discrimination guarantees face erosion. International human rights law—specifically the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR), both ratified by Thailand—imposes positive obligations on states to protect these rights from interference by private actors.¹¹

5 Günter Frankenberg, *Critical Comparisons: Re-thinking Comparative Law*, in LEGAL THEORY AND THE LEGAL ACADEMY 411-56 (Maksymilian Mar ed., 2010).

6 Kistler v. Eightfold AI Inc., No. 3:23-cv-01234, (N.D. Cal. 2026). See also Erik Brynjolfsson et al., *Canaries in the Coal Mine? Six Facts about the Recent Employment Effects of Artificial Intelligence* 1-65 (Stanford Digital Economy Lab, Working Paper, 2025), https://digitaleconomy.stanford.edu/app/uploads/2025/11/CanariesintheCoalMine_Nov25.pdf;

7 Katja Langenbucher, *Responsible A.I.-based Credit Scoring—A Legal Framework*, 31(4) EUR. BUS. L. REV. 527-72 (2020), <https://kluwerlawonline.com/journalarticle/European+Business+Law+Review/31.4/EULR2020022>; Ahmed Mohsen, *How responsibly deploying AI credit scoring models can progress financial inclusion*, World Economic Forum (Oct. 1, 2025); <https://www.weforum.org/stories/2025/10/how-responsibly-deploying-ai-credit-scoring-models-can-progress-financial-inclusion>.

8 Sandeep Reddy et al., *A governance model for the application of AI in health care*, 27(3) J. AM. MED. INFO. ASS'N 491-7 (2020), <https://doi.org/10.1093/jamia/ocz192>.

9 Phillip Freiberg, *Implementing the emerging technology of AI in education, drawing on lessons learned from ICT in education*, in INTERNATIONAL CONFERENCE ON COMPUTER APPLICATIONS TECHNOLOGY PROC. 62-8 (2023)

10 João Reis et al., *Artificial Intelligence in Government Services: A Systematic Literature Review*, in KNOWLEDGE IN INFORMATION SYSTEMS AND TECHNOLOGIES 241-52 (Álvaro Rocha et al. eds., 2019).

11 International Covenant on Civil and Political Rights, adopted 16 December 1966, 999 U.N.T.S. 171 (entered into force 23 March 1976) [hereinafter ICCPR]; International Covenant on Economic, Social and Cultural Rights, adopted 16 December 1966, 993 U.N.T.S. 3 (entered into force 3 January 1976) [hereinafter ICESCR]; UN Human Rights Committee, General Comment No. 31, U.N. Doc. CCPR/C/21/Rev.1/Add.13 (2004), at ¶ 8, <https://www>.

These obligations cannot be fulfilled through passive non-interference; they require active construction of governance frameworks ensuring AI systems respect human dignity, and “Thailand [is] poised to be the first country in the Association of Southeast Asian Nations (ASEAN) to enact legislation to regulate AI.”¹²

Global AI strategies range from the US’s focus on voluntary corporate commitments to China’s top-down integration of technology into state policy, while the EU enforces a strictly risk-sensitive approach through its AI Act. Regional initiatives, such as the ASEAN Guide on AI Governance, reflect a growing global consensus on data protection, yet practical enforcement remains uneven across different jurisdictions. These fragmented frameworks present a significant challenge for middle-income states like Thailand, which must navigate competing international standards while managing limited domestic administrative capacity.¹³

But the middle-income states face a structural dilemma. The EU AI Act—widely regarded as the most comprehensive AI regulation globally—presumes institutional infrastructure that took decades to develop: accredited certification bodies, trained AI auditors, and sustained fiscal capacity for regulatory operations.¹⁴ Thailand, like other middle-income developmental states, lacks these prerequisites. Thailand’s experience with the Personal Data Protection Act¹⁵ (PDPA)—closely modeled on the EU’s General Data Protection Regulation (GDPR)—illustrates this tension: although it is normatively robust, implementation has revealed capacity gaps imposing disproportionate burdens on small and medium-sized enterprises while straining enforcement institutions.¹⁶

ohchr.org/en/instruments-mechanisms/instruments/international-covenant-civil-and-political-rights.

- 12 Stanati Netipatalachoochote & Ludovic Pailler, *Developing Artificial Intelligence Legislation in Thailand: Lessons from the European Union*, 5(1) J. HUM. RTS. CULTURE & LEGAL SYS. 1-32 (2025), <https://doi.org/10.53955/jhcls.v5i1.424>.
- 13 Maral Niazi, *How Do Current AI Regulations Shape the Global Governance Framework?* 2-4 (Centre for International Governance Innovation, Working Paper, 2025), https://www.cigionline.org/static/documents/DPH-paper-Maral_Niazi.pdf
- 14 EU, Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) [hereinafter EU AI Act], <https://eur-lex.europa.eu/eli/reg/2024/1689/oj>.
- 15 Theerachit Jitkarunawong, *Civil Liability under Data Protection Laws: A Comparative Study between Thailand’s Personal Data Protection Act and the EU’s General Data Protection Regulation* 24-36 (LL.M. Thesis, Thammasat University, 2019), https://ethesisarchive.library.tu.ac.th/thesis/2019/TU_2019_6101040100_12954_13040.pdf.
- 16 Graham Greenleaf & Arthit Suriyawongkul, *Thailand – Asia’s Strong New Data Protection Law*, 160 PRIVACY L. & BUS. INT’L REP. 1-7 (2019); Tilleke & Gibbins, *More Than a Warning: Eight Serious Fines Imposed in Thai Data Protection Cases* (Aug. 1, 2025) <https://www.tilleke.com/insights/more-than-a-warning-eight-serious-fines-imposed-in-thai-data-protection-cases>.

B. The Proposed Solution and Central Argument: The Thai-BRICS Hybrid Model

Thailand can resolve its regulatory dilemma through functional modularity: selectively adapting specific foreign mechanisms to fit local constitutional and fiscal constraints. The Thai-BRICS Hybrid Governance Model fills legislative gaps by synthesizing five mechanisms from BRICS jurisdictions to align with Thailand's specific administrative capacity. This study inverts the traditional legal sequence, asserting that developmental sovereignty (material control over infrastructure) is a mandatory prerequisite for human rights rather than a competing interest.

- The Core Argument: Without sovereign infrastructure, domestic rights remain unenforceable aspirations.
- The Risk: When AI systems operate on foreign hardware, in foreign languages, and under foreign jurisdictions, local legal guarantees lose their practical effect.

III. Legal Irritation and Strategic Adaptation

A. PDPA Implementation, Compliance, and Practice

Building on Teubner's theory of legal irritation, the authors conceptualize foreign legal transplants not as seamlessly integrated norms but as disruptive interventions that trigger endogenous reinterpretation within host systems.¹⁷ As Schuldt demonstrates in the Thai context, effective domestication depends on identifiable institutional drivers capable of translating external pressure into internal legal change—his analysis of corporate criminal liability in Thailand illustrates that decisive Supreme Court intervention was required to rearticulate the concept compatibly with domestic legal reasoning.¹⁸ For example, Thailand's Personal Data Protection Act (PDPA) (B.E. 2562: 2019), which became fully enforceable on June 1, 2022, represents the first comprehensive data protection framework in Southeast Asia closely modeled on the principles of the EU's GDPR. Although several jurisdictions enacted privacy laws earlier, the Thailand's PDPA

¹⁷ Gunther Teubner, *Legal Irritants: Good Faith in British Law or How Unifying Law Ends Up in New Divergencies*, 61(1) MOD. L. REV. 11-32 (1998).

¹⁸ Lasse Schuldt, *Driving Irritation: Thailand's Supreme Court and the English Roots of Corporate Criminal Liability*, 19(1) ASIAN J. COMPAR. L. 142-58 (2024).

is distinguished by its explicit structural and conceptual alignment with GDPR norms, including controller accountability, data subject rights, breach notification duties, and administrative enforcement.¹⁹

Such framework aims to establish a modern regulatory architecture intended to support digital economic growth while ensuring robust safeguards for personal data. And yet, within this legal context, recent enforcement actions by the Personal Data Protection Committee (PDPC) illustrate a transition from formal legislative adoption to substantive regulatory implementation. The administrative fines imposed across multiple Thai sectors—including government agencies, healthcare providers, and private companies—reflect not isolated technical failures but deeper organizational and governance deficiencies. Most violations arose from systemic weaknesses such as inadequate cybersecurity infrastructure, insufficient internal oversight, and ineffective supervision of third-party processors.²⁰

In several cases, organizations delegated operational responsibility without implementing corresponding accountability mechanisms, revealing structural gaps between formal compliance obligations and actual operational practices.²¹ These incidents also highlight persistent procedural and institutional shortcomings. Failures to conduct risk assessments, implement preventive safeguards, appoint responsible compliance personnel, or promptly report breaches demonstrate that data protection governance remains unevenly integrated into organizational management structures. Essentially, rather than reflecting unforeseeable external threats alone, many breaches resulted from predictable vulnerabilities created by Thailand's rapid digitalization without proportional investment in compliance capacity and security maturity.²²

- Enforcement Timeline: Although full enforcement was delayed, recent scholarship²³ indicates a period of intensified compliance through 2025,

19 Pateep Methakunavudhi, *A guideline for data protection legislation in Thailand*, 28(3) ACM SIGCAS COMPUT. & Soc'y 28-30 (1998).

20 Greenleaf & Suriyawongkul, *supra* note 16; Tilleke & Gibbins, *supra* note 16.

21 Nishimura & Asahi, Personal Data Protection Update—PDPC Issues First Administrative Penalty Under PDPA, Imposes 7M Baht Administrative Fines for Non-Compliance with Personal Data Protection Act, <https://www.nishimura.com/en/knowledge/publications/personal-data-protection-update>; Thanakit Ouanhlee, *Thailand's AI and data governance: a critical policy analysis of national strategy, ethical frameworks, and business sustainability implications*, 7(2) INT'L J. SCI. ACAD. RES. 310-8 (2026).

22 Tilleke & Gibbins, *supra* note 16.

23 Panchapawn Chatsuwon et al., *Personal data protection compliance assessment: A privacy policy scoring approach and empirical evidence from Thailand's SMEs*, 9(10) HELIYON e20648 (2023); Kattakamon Pislac-Ngam & Sureerut Inmor, *Understanding data privacy: How Bangkok workers perceive Thai personal data protection act regulations*,

with many organizations still in the adaptation phase.

- **SME Compliance Deficits:** Compliance remains critically low among SMEs. Research shows an average privacy-policy score of 6.2/100, with over 50% collecting data without notice. Existing notices typically satisfy only 39% of the 31 statutory criteria.²⁴
- **Organizational Hurdles:** Large entities face challenges mirroring the GDPR rollout, specifically regarding governance, process restructuring, and the administrative burden of documentation.²⁵

Taken together, the PDPA enforcement actions underscore a broader institutional transition: Thailand's data protection regime has moved beyond symbolic alignment with international standards toward active enforcement aimed at reshaping organizational behavior. The pattern of violations suggests that the principal challenge is no longer legislative adequacy but implementation capacity—specifically, the internalization of data protection as a continuous governance function rather than a formal legal requirement. Therefore, we should distinguish blind transplantation (uncritical replication of comprehensive foreign regimes) from strategic adaptation (selective reworking of foreign norms through domestic institutions). But the Thai-BRICS Hybrid Model proposed by this research operationalizes strategic adaptation, leveraging legal irritation rather than minimizing it.

B. Defining and Operationalizing “Functional Modularity”

The authors introduce functional modularity as its central analytical concept. Modularity means the structural property of a governance system, policy, program, or public service by which its component elements are designed as discrete, standardized, interoperable units that can be independently assembled, disassembled, scaled, recombined, or substituted – individually or in combination – in response to changing circumstances, without requiring the wholesale redesign or disruption of the system as a whole.²⁶ Functional modularity could therefore be defined as the selective adaptation of discrete, problem-specific

12(1) INST. ADVANCED SCI. EXTENSION 69-77 (2025); Hathairat Ketmaneechairat et al., *Towards a Management System Framework for the Integration of Personal Data Protection and Data Governance: A Case Study of Thai Laws and Practices*, 15(1) INT'L J. TECH. 219-29 (2024).

24 Chatsuwat et al., *id.*

25 Damrongsak Napat, *Exploring Thailand's PDPA Implementation Approaches and Exploring Thailand's PDPA Implementation Approaches and Challenges*, in ACIS PROC. 1-8 (2020), <https://aisel.aisnet.org/acis2020/76>.

26 Christopher Ansell et al., *Public administration and politics meet turbulence: The search for robust governance responses*, 101(1) PUB. ADMIN. 3-22 (2023).

regulatory mechanisms from foreign jurisdictions, preserving their governance function, and while reconfiguring their institutional form to fit the host legal system's constitutional structure, administrative capacity, and fiscal constraints.²⁷ It is distinguished from wholesale legal transplantation (adopting entire regulatory regimes) and indigenous development (designing mechanisms without foreign reference). Functional modularity occupies the middle ground: foreign mechanisms are decomposed into functional components, assessed for transferability, and reassembled within the host system's institutional architecture.

C. Coding Scheme for Functional Equivalence

This research's comparative analysis employs a structured qualitative coding scheme applied across all five BRICS jurisdictions. For each governance problem identified in Thailand's draft legislation, the analysis proceeds through the following four coding stages.

1. **Problem Identification:** each source document was coded for passages identifying governance challenges, classified under five categories (infrastructure dependency, algorithmic opacity, accountability deficits, institutional fragmentation, labor displacement).
2. **Mechanism Extraction:** specific legal or institutional mechanisms addressing each problem were identified and cataloged by type (registration requirement, statutory right, institutional coordination, infrastructure provision, social protection).
3. **Functional Categorization:** mechanisms were classified by primary governance function and assessed against three criteria—problem-solving capacity (implementation evidence, not merely statutory text), institutional form diversity (whether functionally equivalent mechanisms operate through divergent legal forms), and rights-functionality alignment (whether mechanisms advance fundamental rights while achieving governance objectives).
4. **Adaptability Assessment:** mechanisms were evaluated against five criteria for Thai transferability—constitutional compatibility, administrative capacity, fiscal feasibility, legal system coherence, and stakeholder acceptance. This coding generated a structured database enabling systematic comparison and facilitating identification of

²⁷ Andreas Baumgartner et al., *The shift towards increased autonomy in special jurisdictions: Legal and regulatory implications for governance, sovereignty, and the innovation economy*, 1(6) J. SPEC. JURISDICTIONS 26-32 (2025), <https://journalofspecialjurisdictions.com/index.php/jsj/article/view/71>.

functionally equivalent mechanisms across jurisdictions (Table 2).

D. Case Selection: Why BRICS Partner States?

The four stages above support selecting China, India, Brazil, Russia, and South Africa as comparators. (1) All five qualify as economies experiencing rapid technological transformation while facing institutional capacity constraints, distinguishing them from OECD high-capacity states.²⁸ (2) Each has pioneered distinct governance mechanisms later adopted or considered elsewhere.²⁹ (3) BRICS nations explicitly assert regulatory autonomy and South-South cooperation, creating space for alternative governance logic more applicable to Thailand’s context.³⁰ (4) Finally, Thailand’s January 2025 BRICS Partner Country accession makes BRICS governance models directly relevant for policy learning.³¹

E. Limitations

Seven limitations constrain generalizability. Analysis relies primarily on statutory texts, but implementation gaps cannot be fully captured through doctrinal analysis.³² Legal concepts often lack direct equivalents across languages, and terms carry semantic nuances potentially lost in English translation. AI regulation evolves rapidly; findings represent a snapshot as of late 2025. Documentary analysis cannot access informal politics and bureaucratic bargaining. What constitutes ‘transparency’ or ‘accountability’ may be understood differently across jurisdictions. Focusing on BRICS nations with relatively developed AI governance may overestimate regulatory capacity in developing countries generally. The framework prioritizes human rights protection and developmental capacity as evaluation criteria—jurisdictions prioritizing alternative values would reach different conclusions. These limitations require interpretive humility: recommendations should be understood as plausible institutional pathways requiring further refinement through stakeholder consultation and iterative adjustment.³³

28 World Bank, World Development Indicators, <https://databank.worldbank.org/source/world-development-indicators>.

29 Luca Belli, *How are BRICS countries building AI sovereignty? Introduction to Thematic Section*, 35 AFR. J. INFO. & COMM’N 1-4 (2025), <https://ajic.wits.ac.za/article/view/23192>.

30 *Id.*

31 BRICS Brasil, Nine nations announced as BRICS ‘partner countries’ (Jan. 17, 2025), <https://brics.br/en/news/nine-nations-announced-as-brics-partner-countries>.

32 Jean-Louis Halpérin, *Law in Books and Law in Action: The Problem of Legal Change*, 64 ME. L. REV. 48 (2012).

33 Anna Jobin et al., *The global landscape of AI ethics guidelines*, 1 NATURE MACH. INTEL. 389-99 (2019), <https://doi.org/10.1038/s42256-019-0088-2>; Stefan Larsson & Fredrik Heintz, *Transparency in artificial intelligence*,

IV. AI Governance and Fundamental Rights: Context and Literature

A. Three Categories of Rights Under Pressure

The proliferation of AI systems in high-stakes domains raises urgent questions about fundamental rights protection. Three categories face pressure.

1. Due process and fair trial rights (ICCPR Article 14)

Automated decision-making systems that determine access to opportunities challenge procedural fairness. The UN Human Rights Committee has clarified that Article 14 safeguards extend beyond formal judicial proceedings to administrative decisions affecting fundamental rights, requiring reasoned decisions and effective opportunities to challenge determinations.³⁴

2. Non-discrimination rights (ICCPR Article 26; ICESCR Article 2(2))

Machine learning systems trained on historical data systematically reproduce societal biases.³⁵ Unlike human discrimination, algorithmic bias operates opaquely and often enjoys legal insulation through trade secrecy protections.³⁶ With regard to Right to effective remedy (UDHR Article 8, ICCPR Article 2(3)),

9(2) INTERNET POL'Y REV. 3-5 (2020), <https://policyreview.info/concepts/transparency-artificial-intelligence>; Yi Li, *Generative Artificial Intelligence in the Global South: Navigating Economic Transformation, Inequality, and Governance Challenges*, 7(9) SCI. J. HUM. & SOC. SCI. 11-8 (2025), <https://doi.org/10.54691/e75x9281>; Yoonee Jeong, *Enhancing Policy and Regulatory Approaches to Strengthen Digital, Platform, and Data Economies 73-7* (ADB Sustainable Development Working Paper Series No. 91, 2023), <https://www.adb.org/sites/default/files/publication/935711/sdwp-091-digital-platform-data-economies.pdf>.

34 UN Human Rights Committee, General Comment No. 32, Art. 14, Right to Equality Before Courts and Tribunals and to Fair Trial, U.N. Doc. CCPR/C/GC/32 (2007) [hereinafter General Comment No. 32], at ¶ 8, <https://digitallibrary.un.org/record/606075?ln=en&v=pdf>. See also Tomasz Sroka, *Artificial intelligence and the right to a fair trial*, in ARTIFICIAL INTELLIGENCE AND INTERNATIONAL HUMAN RIGHTS LAW 250-77 (Michał Balcerzak & Julia Kapelańska-Pręgoska eds., 2024); Asif Iqbal, *Due process in the algorithmic age: safeguarding fair trial rights in ethical, constitutional, and global dimensions*, in FROM MENS REA TO MACHINE REA: REIMAGINING CRIMINAL CULPABILITY IN DIGITAL AGE 77 (Parvinder Kaur & Asif Iqbal eds., 2026).

35 Joy Buolamwini & Timnit Gebru, *Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification*, 81(1) PROC. MACH. LEARNING RES. 1-11 (2018); Cathy O'Neil, *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy* 130-5 (2016); Tetyana Krupiy & Martin Scheinin, *Disability Discrimination in the Digital Realm: How the ICRPD Applies to Artificial Intelligence Decision-Making Processes and Helps in Determining the State of International Human Rights Law*, 23(3) HUM. RTS. L. REV. ngad019 (2023); Michał Balcerzak, *Implications of the United Nations human rights standards for the development of artificial intelligence*, in ARTIFICIAL INTELLIGENCE AND INTERNATIONAL HUMAN RIGHTS LAW 6-24 (Michał Balcerzak & Julia Kapelańska-Pręgoska eds., 2024).

36 Solon Barocas & Andrew Selbst, *Big Data's Disparate Impact*, 104(3) CAL. L. REV. 671-732 (2016), <http://dx.doi.org/10.15779/Z38BG31>.

the multi-party nature of AI development obscures responsibility, while the opacity of complex models prevents affected individuals from demonstrating causation necessary for legal redress.³⁷

B. Thailand’s Five Governance Gaps

Thailand’s current legislative trajectory – comprising the Draft Royal Decree³⁸ on Business Operations Using AI Systems (ONDE) and the Draft Act on the Promotion and Support of AI Innovations (ETDA) – reflects unresolved tension between risk control and innovation promotion.³⁹ UNESCO (2025) report: *Thailand: Artificial intelligence readiness assessment* notes that “The PDPA ensures baseline data rights but does not grant individuals the right to object to automated decision-making – leaving those affected by AI systems with limited protections.”⁴⁰ A comparative analysis reveals five specific deficiencies, as summarized in Table 1.

Table 1: Thailand’s Five AI Governance Gaps and Their Human Rights Implications

Gap	Deficiency	Rights Impact
Infrastructure Dependency	70% reliance on foreign cloud; Thai language marginalised in global training datasets.	ICCPR Art. 19 (Information); linguistic rights under Art. 2(1).
Algorithmic Opacity	Draft Royal Decree relies on provider self-assessment; no state verification mechanism.	ICCPR Art. 2 (Positive obligations to protect rights).

37 Yavar Bathaee, *The Artificial Intelligence Black Box and the Failure of Intent and Causation*, 31(2) HARV. J. L. & TECH. 889-938 (2018); Maria O’Sullivan, *Artificial intelligence and the right to an effective remedy*, in ARTIFICIAL INTELLIGENCE AND INTERNATIONAL HUMAN RIGHTS LAW 196-213 (Michał Balcerzak & Julia Kapelańska-Pręgowska eds., 2024); Vadiya Alakbarzade, *Regulation of algorithmic discrimination in international law: structural assessment and effectiveness of individual legal remedies from a human rights perspective*, 3 N. CAUCASUS LEGAL VESTNIK [Северо-Кавказский юридический вестник] 88-98 (2025).

38 A Thai Royal Decree (Phra Ratcha Kritsadika) is a form of secondary legislation issued by the King under the authority of the Constitution or a specific enabling Act.

39 Baker McKenzie, *AI regulation in Thailand: Current state and future directions (2025)*, https://insightplus.bakermckenzie.com/bm/attachment_dw.action?attkey=FRbANEucS95NMLRN47z%2BeeOgEFCt8EGQJsWJiCH2WAWuU9AaVDeFgoKGhs9JqQ0R&nav=FRbANEucS95NMLRN47z%2BeeOgEFCt8EGQbuwypnpZjc4%3D&attdocparam=pB7HEsg%2FZ312Bk8OIuOIH1c%2BY4beLEAeKRcADT6Xro1%3D&fromContentView=1.

40 UNESCO, *Thailand: Artificial intelligence readiness assessment report (2025)*, at 12, <https://unesdoc.unesco.org/ark:/48223/pf0000386276>.

Gap	Deficiency	Rights Impact
Accountability Deficits	PDPA lacks algorithmic-specific rights; no statutory entitlement to explanation or human review.	ICCPR Art. 14 (Due process); Art. 2(3) (Effective remedy).
Institutional Fragmentation	ONDE, ETDA, and NCSA operate in silos with conflicting standards.	ICESCR (Positive state obligations).
Labor Displacement	National AI Strategy silent on displacement; no reskilling funding mechanism.	ICESCR Art. 6 (Right to work); Art. 9 (Social security).

Source: Compiled by the authors

These gaps are not merely technical deficiencies but constitute structural obstacles to the right of enforcement. Our analysis highlights a critical misalignment between Thailand’s departmental silos and the multi-dimensional nature of AI-driven risks, particularly regarding infrastructure dependency and algorithmic opacity. Unless the Draft Royal Decree and the Draft Act are reconciled to provide mandatory state verification and explicit algorithmic rights, the resulting regulatory environment will likely remain fragmented, undermining both legal certainty for innovators and the substantive rights of the public.

C. The Fragmentation of International AI Governance

Unlike earlier waves of digital regulation—where instruments such as the Budapest Convention on Cybercrime (2001) established multilateral frameworks—AI governance is developing through fragmented regionalism and competitive standard-setting. Three competing blocs define the landscape as follows.

1. The “Brussels Effect” (EU)

The EU AI Act positions European fundamental rights standards as universal through extraterritorial application—non-EU firms serving EU markets must comply regardless of location.⁴¹ This presumes conformity assessment ecosystems, market surveillance authorities, and sustained fiscal capacity for regulatory operations.⁴²

41 ANU BRADFORD, THE BRUSSELS EFFECT: HOW THE EUROPEAN UNION RULES THE WORLD 125-8 (2020).

42 Charlotte Siegmann & Markus Anderljung, The Brussels effect and artificial intelligence: How EU regulation will impact the global AI market, (preprint) ArXiv 24 & 26-32 (2022), <https://arxiv.org/pdf/2208.12645>.

2. The “Innovation Shield” (US)

The United States resists binding federal regulation, relying on sectoral guidance (NIST AI Risk Management Framework) and executive orders establishing voluntary standards.⁴³ This presumes sophisticated civil society litigation capacity and judicial capacity for common-law development.

3. The “Sovereignty Bloc” (BRICS+)

BRICS nations reject both European rights hegemony and American regulatory minimalism, framing AI governance as an exercise of digital sovereignty requiring state control over infrastructure and data.⁴⁴

This fragmentation creates a trilemma for middle-income states. Thailand cannot simultaneously achieve full regulatory alignment with the EU standards (capacity constraints); maintain unrestricted access to the US technology platforms (geopolitical risk); and build complete technological autarky (prohibitive costs). The functional modularity approach proposed here offers a fourth path: selective adaptation of mechanisms based on institutional compatibility rather than geopolitical alignment.

D. Why EU-Style Rights Frameworks Fail without Infrastructure?

Recent scholarship recognizes the importance of fundamental rights safeguards in Thailand’s AI legislation. Netipatalachoochote and Pailler correctly identify that Thailand’s draft laws lack mandatory Fundamental Rights Impact Assessments and deployer obligations for human oversight present in the EU AI Act.⁴⁵ However, their analysis encounters a critical implementation obstacle this study addresses: rights without infrastructure become unenforceable aspirations. Let us consider three concrete illustrations. A statutory right to algorithmic explanation means little if AI systems cannot generate comprehensible Thai-language explanations—Thai is excluded from most foundation models, with only approximately 130 of over 7,000 languages maintaining consistent internet

43 US Federal Register, Executive Order 14110 of October 30, 2023: Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence, <https://www.federalregister.gov/documents/2023/11/01/2023-24283/safe-secure-and-trustworthy-development-and-use-of-artificial-intelligence>.

44 Belli, *supra* note 29.

45 Netipatalachoochote & Pailler, *supra* note 12.

representation in machine-readable formats.⁴⁶

A right to human review proves hollow if regulatory authorities cannot compel foreign platforms operating on foreign servers to honor such rights. Detecting algorithmic discrimination requires regulatory visibility into training data composition, technical capacity for statistical audits, and domain expertise in bias detection—capacities resource-constrained authorities lack. The insight driving this study’s architecture is that developmental sovereignty—state control over computational resources, Thai-language datasets, and domestic AI capacity—functions as a ‘precondition’ for effective fundamental rights protection. This inverts the conventional sequencing: rather than adopting EU rights frameworks first and building capacity later, the hybrid model proposes building foundational infrastructure and establishing enforceable rights simultaneously, treating capacity and rights as mutually constitutive.⁴⁷

E. Functional Mechanisms from BRICS Partner States: A Comparative Analysis

This section examines five governance mechanisms from the BRICS jurisdictions. The analysis is structured through the Functional Equivalence Matrix (Table 2), which maps each governance gap to the BRICS mechanism addressing it and the Thai adaptation required.

Table 2: Functional Equivalence Matrix

Thailand Gap	BRICS Source	Mechanism	Core Function	Thai Adaptation Required
Infrastructure Dependency	India	Digital Public Infrastructure	Sovereign computational capacity	Integrate PDPA safeguards from inception; multi-stakeholder governance.

46 John Paillo et al., Measuring linguistic diversity on the Internet (2005), at 44-9, <https://unesdoc.unesco.org/ark:/48223/pf0000142186>.

47 Renata Pinto, *Digital sovereignty or digital colonialism?*, 15(27) SUR- INT’L J. HUM. RTS. 15-27 (2018); Luciano Floridi, *The Fight for Digital Sovereignty: What It Is, and Why It Matters, Especially for the EU*, 33(3) PHIL. & TECH. 369-78 (2020); Sheila Jasanoff, *Ordering Knowledge, Ordering Society*, in STATES OF KNOWLEDGE: THE CO-PRODUCTION OF SCIENCE AND THE SOCIAL ORDER 13-45 (Sheila Jasanoff ed., 2004).

Thailand Gap	BRICS Source	Mechanism	Core Function	Thai Adaptation Required
Algorithmic Opacity	China	Mandatory Algorithm Filing System	Regulatory visibility without code disclosure	Add public transparency tier; differentiated SME requirements.
Accountability Deficits	Brazil	Statutory Algorithmic Rights (PL 2338/2023)	Enforceable citizen protections	Implement via PDPA subordinate regulation; leverage existing PDPC.
Institutional Fragmentation	Russia	Centralized Strategic Coordination	Policy coherence across agencies	Multi-stakeholder Council with democratic accountability; judicial review.
Labor Displacement	South Africa	Developmental Labor Transition	Workforce protection	Legal ring-fencing; enforceable automation-impact obligations.

Source: Compiled by the authors

The comparative mapping suggests that while the BRICS jurisdictions offer robust templates for overcoming institutional fragmentation and infrastructure dependency, the Thai context demands a nuanced adaptation to avoid regulatory overreach. Consequently, the proposed adaptations prioritize a tiered transparency model and the utilization of existing bodies, such as the PDPC, to ensure that global best practices are harmonized with local administrative capacities.

1. India: Digital Public Infrastructure as Rights Enabler

India's approach treats essential digital infrastructure as a public good requiring direct state investment, analogous to highways or electrical grids.⁴⁸ Frischmann argues that certain facilities generate social value exceeding private returns and therefore warrant public provision.⁴⁹ India's Digital Public Infrastructure comprises three foundational layers: Aadhaar (biometric identity for 1.3 billion residents), UPI (Unified Payments Interface processing over 16 billion

48 Government of India, National Strategy for Artificial Intelligence (2018), at 24-41, <https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf>.

49 BRETT FRISCHMANN, INFRASTRUCTURE: THE SOCIAL VALUE OF SHARED RESOURCES 399-405 (2012).

transactions totaling USD 340 billion in December 2024 alone), and Account Aggregator (consent-based data portability).⁵⁰ The DPI model's rights-enabling function operates through three channels. First, sovereign hosting ensures data processing occurs within domestic legal jurisdiction, enabling privacy protections under domestic law rather than foreign legal orders. Second, open APIs lower barriers for domestic enterprises, promoting the right to participate in economic life (ICESCR Article 15). Third, localized infrastructure enables language-specific AI development, addressing linguistic marginalization that undermines information rights.⁵¹ Implementation reveals critical limitations: (1) centralized biometric data creates cyberattack targets and documented authentication failures have excluded vulnerable populations from welfare benefits;⁵² (2) digital literacy gaps risk deepening inequality;⁵³ and (3) India prioritized rapid scaling over comprehensive safeguards, requiring ex post regulatory retrofitting.

Thai adaptation must therefore integrate privacy protections from inception, building on existing institutional foundations including LANTA supercomputer, NDID, Government Data Exchange, and the OpenThaiGPT initiative.⁵⁴ In fact, as of 2023, the National Electronics and Computer Technology Center (NECTEC), in partnership with the Artificial Intelligence Entrepreneur Association of Thailand (AIEAT), the Artificial Intelligence Association of Thailand (AIAT), and the NSTDA⁵⁵ A Supercomputer Center (ThaiSC), has already launched the Open ThaiGPT project to develop an advanced Thai-language artificial intelligence system. The initiative focuses on creating a customizable, chat-based assistant capable of understanding and generating Thai with high accuracy, supporting

50 Unique Identification Authority of India, Annual Report 2023-24 (2024), <https://uidai.gov.in/en/media-resources/uidai-documents/annual-reports.html>; *UPI transactions touched record 16.73 billion in December 2024: NPCI data*, HINDUSTAN TIMES (Jan. 2, 2025), <https://www.hindustantimes.com/business/upi-transactions-touched-record-16-73-billion-in-december-2024-npci-data-101735832246362.html>.

51 Wes Damen, *Sounds Good, Doesn't Work: The GDPR Principle of Transparency and Data-Driven Welfare Fraud Detection*, in THE LIGHTHOUSE FUNCTION OF SOCIAL LAW 527-44 (Yves Jorens ed., 2023); Naomi Appelman et al., *Social Welfare, Risk Profiling and Fundamental Rights: The Case of SyRI in the Netherlands*, 12(4) JIPITEC 257 (2021).

52 Pam Dixon, *A Failure to "Do No Harm" — India's Aadhaar biometric ID program and its inability to protect privacy in relation to measures in Europe and the U.S.*, 7 HEALTH & TECH. 539-67 (2017).

53 Human Rights Watch, *No Internet Means No Work, No Pay, No Food: Internet Shutdowns Deny Access to Basic Rights in "Digital India"* (June 14, 2023), <https://www.hrw.org/report/2023/06/14/no-internet-means-no-work-no-pay-no-food/internet-shutdowns-deny-access-basic>.

54 Jessada Salathong et al., *Generative AI Usage in the Newsroom: Case Study of Thailand*, in FUTURE OF MEDIA IN ASIA: ARTIFICIAL INTELLIGENCE, DIGITAL TECHNOLOGY AND MEDIA PRACTICE 37-51 (Danilo Arao et al. eds., 2025).

55 OpenThaiGPT is an open-source Thai LLM (7/13/70B parameters) based on LLaMA v2, developed by NSTDA, NECTEC, AIAT and partners under the Apache 2.0 License. See National Science and Technology Development Agency, OpenThaiGPT, https://www.nstda.or.th/home/knowledge_post/openthaigpt.

applications across academic, industrial, and public sectors.⁵⁶

2. China: Algorithm Filing for Regulatory Visibility

China's Regulations on the Administration of Internet Information Service Algorithm Recommendations (2022), promulgated by the Cyberspace Administration of China, established a comprehensive governance framework for algorithmic recommendation systems.⁵⁷ The regulations require providers, particularly those with significant influence over public opinion or user behavior, to register key information with regulatory authorities and disclose core operational characteristics, including service scope, algorithm functions, and risk management measures. The framework emphasizes transparency, accountability, and user protection, requiring providers to inform users about algorithmic operations, offer mechanisms for user control, and ensure fairness in content delivery and commercial practices. In addition to filing and disclosure obligations, the regulations impose requirements for internal governance, security assessment, content oversight, and regulatory supervision. Collectively, these provisions aim to strengthen state oversight of algorithmic systems while balancing transparency with the protection of proprietary technologies and commercial interests.⁵⁸ Limitations include disproportionate compliance burden on SMEs, post-filing oversight gaps, and limited public transparency—civil society cannot access filed information for independent audits.

3. Brazil: Rights as Statutory Duty

Brazil's Draft Law No. 2338/2023 represents a comprehensive legislative effort to regulate AI through a structured, human-centered legal framework. Approved by the Federal Senate on December 10, 2024, and forwarded to the Chamber of Deputies on March 17, 2025, the bill establishes detailed provisions governing AI classification, supervision, liability, and individual rights.⁵⁹ The proposal

56 Sumeth Yuenyong et al., OpenThaiGPT 1.6 and R1: Thai-Centric Open Source and Reasoning Large Language Models, arXiv (2025), <https://arxiv.org/abs/2504.01789>; Program Management Unit for Competitiveness, PMUC gathers Thai AI researchers to spearhead the development of 'Open Thai GPT,' artificial intelligence for the benefit of the Thai people (Sept. 28, 2023), <https://pmuc.or.th/en/pmuc-gathers-thai-ai-researchers-to-spearhead-the-development-of-open-thai-gpt-artificial-intelligence-for-the-benefit-of-the-thai-people>.

57 Yoni Hao, Administrative Provisions on Algorithm Recommendation for Internet Information Services (Sept. 29, 2024), <https://appinchina.co/government-documents/administrative-provisions-on-algorithm-recommendation-for-internet-information-services>.

58 *Id.*

59 Federal Senate (Braz.), Bill No. 2338, of 2023, <https://www25.senado.leg.br/web/atividade/materias/-/materia/157233>.

(Draft Law No. 2338/2023) explicitly defines the rights of individuals and groups affected by AI systems (Articles 6–11), introduces a risk-based classification framework (Articles 12–14) and establishes civil liability for damages caused by AI (Articles 35–39). It further provides mechanisms for regulatory oversight, supervision, and inspection (Articles 45–54), while prohibiting the development and use of systems considered “excessively risky,” particularly those that exploit vulnerabilities or threaten fundamental rights (Article 13).

In addition, the bill includes protections for intellectual property, copyright, and personality rights, requiring AI systems to respect authors’ rights and ensuring remuneration for the use of protected content (Articles 62, 65 & 66). Collectively, these provisions aim to ensure ethical AI development; strengthen accountability; and protect fundamental rights within Brazil’s emerging AI governance framework.⁶⁰ Brazil’s model aligns exceptionally well with Thailand’s legal system: statutory rights codification fits Thai civil law tradition; enforcement through existing PDPC avoids creating parallel authority; and differentiated obligations reflect Thailand’s business structure with 99.5 % SMEs.⁶¹

4. Russia: Centralized Coordination

Russia’s National Strategy for the Development of Artificial Intelligence (Presidential Decree No. 490, 2019) establishes a centralized governance framework that assigns primary responsibility for AI development and regulation to federal state authorities, with overall coordination exercised by the Government of the Russian Federation.⁶² The Strategy provides that implementation will occur through the coordinated actions of federal executive bodies, regional authorities, scientific and educational institutions, state corporations, and private sector actors, operating under a unified national policy framework. It further designates government commissions and authorized coordinating entities to oversee implementation, monitor progress, and ensure alignment with national strategic objectives. This centralized institutional model promotes policy coherence, strategic consistency, and coordinated national deployment of AI technologies,

60 Library of Congress, Brazil: Senate Advances Discussions on Bill to Regulate AI Use (May 23, 2025), <https://www.loc.gov/item/global-legal-monitor/2025-05-23/brazil-senate-advances-discussions-on-bill-to-regulate-ai-use>.

61 Thailand Office of Small and Medium Enterprise Promotion, SME White Paper 2023 (2024) [hereinafter SME White Paper 2023], <https://en.sme.go.th/en/page.php?modulekey=437> (providing an overview of the situation, performance, and policy recommendations for SMEs in Thailand).

62 Office of the President of the Russian Federation, Decree of the President of the Russian Federation on the Development of Artificial Intelligence in the Russian Federation (Oct. 10, 2019), <https://cset.georgetown.edu/wp-content/uploads/Decree-of-the-President-of-the-Russian-Federation-on-the-Development-of-Artificial-Intelligence-in-the-Russian-Federation-.pdf>.

while concentrating regulatory authority and supervisory functions within state-controlled governance structures rather than independent regulatory bodies or decentralized oversight mechanisms.⁶³

Thai adaptation must extract the functional element (centralized coordination) while rejecting authoritarian implementation. This requires a statutory National AI Council with multi-stakeholder composition (including civil society representatives appointed by the National Human Rights Commission), rotating non-government chairs, transparent procedures with published minutes, and Administrative Court judicial review preventing arbitrary decisions—aligning with Constitution Article 77’s public participation mandate.⁶⁴

5. South Africa: Labor Transition as Rights Obligation

South Africa’s Presidential Commission on the Fourth Industrial Revolution and the National Digital and Future Skills Strategy conceptualize AI as a structural developmental challenge requiring coordinated workforce transition and systemic skills transformation.⁶⁵ Established and chaired by the President, the Commission was mandated to propose an overarching national strategy, institutional frameworks, and policy interventions to prepare the country for technological disruption and future labor market shifts. These initiatives emphasize comprehensive reskilling and upskilling programs, particularly for workers at risk of displacement due to automation, alongside long-term investment in human capital development, digital literacy, and lifelong learning systems aligned with emerging technological demands.⁶⁶

However, structural constraints limit effectiveness: high baseline unemployment, widespread automation risk affecting lower- and middle-skill workers, and fragmented or insufficiently coordinated skills initiatives undermine the pace and scale of workforce adaptation. Consequently, while South Africa’s institutional framework recognizes AI-driven labor disruption as a developmental priority and establishes mechanisms for coordinated response, implementation remains constrained by fiscal limitations, labor market structural

63 *Id.*

64 THAI. CONS. art. 77, [https://constitutionnet.org/sites/default/files/2017-05/CONSTITUTION+OF+THE+KINGDOM+OF+THAILAND+\(B.E.+2560+\(2017\)\).pdf](https://constitutionnet.org/sites/default/files/2017-05/CONSTITUTION+OF+THE+KINGDOM+OF+THAILAND+(B.E.+2560+(2017)).pdf).

65 Government of Republic of South Africa, Report of the Presidential Commission on the Fourth Industrial Revolution (2020), at 35-44, https://www.gov.za/sites/default/files/gcis_document/202010/43834gen591.pdf; Department of Communications and Digital Technologies (S. Afr.), National Digital and Future Skills Strategy (2020), at 9-22, https://www.gov.za/sites/default/files/gcis_document/202009/43730gen513.pdf.

66 *Id.*

weaknesses, and institutional fragmentation.⁶⁷ Implementation faces structural constraints: persistent budgetary pressures and high baseline unemployment reduce re-skilling effectiveness alone.⁶⁸ Thai adaptation must embed labor protection directly into AI governance law rather than relying on separate social programs, converting South Africa’s developmental aspiration into an enforceable obligation with sustainable financing.

V. The Thai-BRICS Hybrid Governance Model: A Rights-Enabling Framework

Table 3 illustrates a strategic synthesis of BRICS-derived governance tools tailored to address the unique socio-legal vulnerabilities of the Thai digital landscape. This structure provides a road map for transitioning from fragmented departmental silos toward a unified, rights-based institutional design that integrates sovereign capacity building with enforceable citizen protections.

Table 3: Thai-BRICS Hybrid Governance Model: Five Pillars, Mechanisms, and Rights Alignment

Pillar	Mechanism	BRICS Source	Primary Rights Protected	Treaty Basis
1	Thai AI Stack	India	Right to information; linguistic rights; privacy	ICCPR Arts. 2(1), 17, 19
2	AI Citizen’s Rights Decree	Brazil	Due process; effective remedy; non-discrimination	ICCPR Arts. 2(3), 14, 26; UDHR Art. 8
3	National AI Transparency Registry	China	State positive obligations; political participation	ICCPR Arts. 2, 25, 26
4	National AI Council	Russia	Coherent state obligations; participatory governance	ICESCR; Constitution Art. 77
5	AI Transition Fund	South Africa	Right to work; social security	ICESCR Arts. 6, 9

Source: Compiled by the authors

67 *Id.*

68 Statistics South Africa, Quarterly Labour Force Survey Q4 2024, <https://www.statssa.gov.za/publications/P0211/P02114thQuarter2024.pdf>.

A. Pillar 1: Thai AI Stack – Infrastructure as a Rights-Prerequisite

1. Human Rights Imperative

Thai-language marginalization in global AI training datasets constitutes a form of what scholars have termed algorithmic colonialism—the structural exclusion of non-dominant languages from AI systems that increasingly mediate access to information, services, and opportunities.⁶⁹ When AI systems cannot function in Thai, ICCPR Article 19 (right to information) is violated structurally rather than through any individual act of censorship. Article 2(1) prohibits discrimination on any ground, including language; systematic exclusion from AI-mediated services due to linguistic marginalization constitutes indirect discrimination. Article 17 (privacy) requires data processing under domestic legal jurisdiction—reliance on foreign cloud infrastructure subject to foreign legal orders undermines this protection.

2. Design

The Thai AI Stack establishes four components of state-funded, publicly accessible digital infrastructure: (1) sovereign cloud computing expanding LANTA supercomputer with AI-optimized hardware; (2) curated Thai-language datasets compiled under open domestic licenses; (3) pre-trained foundation models extending the OpenThaiGPT initiative for core NLP tasks; and (4) standardized APIs providing common AI functions through an “AI API Gateway” managed by ETDA with authenticated developer access via NDID.

Thailand possesses demonstrated institutional capacity for digital infrastructure deployment. The Pao Tang digital welfare application successfully distributed pandemic relief to over 33 million citizens, demonstrating state capacity for large-scale digital service delivery. The NDID system provides an established digital identity infrastructure. These precedents indicate that Pillar 1’s requirements, while ambitious, build on proven institutional foundations rather than requiring capabilities Thailand has not demonstrated.⁷⁰

69 NICK COULDREY & ULISES MEJIAS, *THE COSTS OF CONNECTION: HOW DATA IS COLONIZING HUMAN LIFE AND APPROPRIATING IT FOR CAPITALISM* 153-87 (2019).

70 Noppawan Photphisutthiphong, *Identifying participation in a government program: Empirical evidence from Thailand*, 28(2) CHIANG MAI U. J. ECON. 52-4 (2024).

B. Pillar 2: AI Citizen’s Rights Decree – Operationalizing Due Process

1. Human Rights Imperative

ICCPR Article 14 guarantees fair trial and due process; the UN Human Rights Committee has confirmed these extend to administrative decisions affecting fundamental rights.⁷¹ Article 2(3) requires states ensure effective remedies for rights violations. UDHR Article 8 guarantees the right to an effective remedy by competent national tribunals. When citizens cannot obtain explanations of automated decisions, contest outcomes, or request human review, these rights exist abstractly but lack statutory operationalization enabling enforcement.

2. Legal Form

The AI Citizen’s Rights Decree should be enacted as a subordinate regulation (Ministerial Regulation) under the existing PDPA, utilizing Section 91’s authorization for subordinate legislation. This legislative route enables implementation within 18–24 months—substantially faster than the 3–5 years required for primary legislation—while leveraging the PDPC’s existing enforcement infrastructure.⁷² The PDPA’s Section 91 broadly empowers the Personal Data Protection Committee to issue regulations necessary for implementing the Act’s provisions; given that automated decision-making inherently involves personal data processing, algorithmic rights fall squarely within this mandate.

3. Substantive Rights

Three statutory entitlements apply to high-impact automated decisions (employment, credit, insurance, housing, education, healthcare, government benefits, law enforcement).⁷³

71 General Comment No. 32, *supra* note 34, at ¶ 8.

72 Tilleke & Gibbins, First Set of Subordinate Regulations Enacted for Thailand’s PDPA (2022), <https://www.tilleke.com/insights/first-set-of-subordinate-regulations-enacted-for-thailands-pdpa>. See also Norton Rose Fulbright, Overview of Thailand Personal Data Protection Act B.E.2562 (2019), <https://www.nortonrosefulbright.com/en-th/knowledge/publications/e29d223d/overview-of-thailand-personal-data-protection-act-be2562-2019>. See OECD, REGULATORY REFORM IN THAILAND: REINFORCING AN EFFECTIVE REGULATORY ENVIRONMENT 7-74 (2025), https://www.oecd.org/content/dam/oecd/en/publications/reports/2025/04/regulatory-reform-in-thailand_489e6ae9/7892759c-en.pdf.

73 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation), arts. 13(2)(f), 14(2)(g), 15(1)(h), 22(3); EU AI Act art. 86; Projeto de Lei n° 2338, de 2023 [Bill of Law No. 2338/2023] (Braz.), arts. 6-11, <https://www25.senado.leg.br/web/atividade/materias/-/materia/157233>; European Law Institute, Guiding principles for automated decision-making in the EU (2022), <https://>

- **Right to Be Informed:** Data subjects must receive prior notice of automated processing, including general logic, data types processed, significance, and right to request human review – provided in clear Thai language through accessible channels.
- **Right to Human Review:** Data subjects possess the right to request review by qualified natural persons with authority to confirm, modify, or reverse decisions and provide written reasons. Review must be completed within 30 days (15 days for essential services). Reviewers must possess domain expertise, independence from system designers, and training on algorithmic bias. No fees may be charged.
- **Right to Algorithmic Explanation:** Data subjects possess the right to obtain principal data inputs influencing decisions, explanation of how inputs affected outcome, relative importance of factors, and counterfactual information where feasible. Explanations must be meaningful, comprehensible, in Thai language, and delivered within 15 days. Trade secrecy does not excuse human review obligations.

C. Pillar 3: National AI Transparency Registry – Regulatory Visibility

1. Human Rights Imperative

ICCPR Article 2 imposes positive obligations on states to protect rights from private interference – obligations unfulfillable without visibility into high-risk AI systems. Article 25 (political participation) requires informed civil society advocacy; a public registry supports this. Article 26 (non-discrimination) gains practical effect when researchers can identify systemic bias patterns across sectors.

2. Design

The National AI Transparency Registry would operate as a centralized database of high-impact AI systems, administered by ONDE with ETDA technical support. Registration is required within 60 days of deployment or prior to serving over 1,000 Thai users. Required disclosure (without proprietary code) covers system identification, functional description, risk self-assessment, data governance, human oversight mechanisms, and rights compliance information. Non-proprietary portions are published in a searchable public database; proprietary

elements are accessible only to regulators.⁷⁴

D. Pillar 4: National AI Council – Unified Strategic Coordination

1. Human Rights Imperative

Institutional fragmentation directly undermines ICESCR positive obligations by producing conflicting standards that create regulatory gaps. Article 77 of the Thai Constitution mandates participatory governance in policy-making. ICCPR Article 25 guarantees participation in public affairs. Currently, “only 0.5 percent of civil servants are technical staff, and public-sector digital training often excludes ethics or non-IT roles,” while “implementation remains fragmented, and institutional capacity for AI oversight is still nascent per UNESCO.”⁷⁵

2. Design

The National AI Council would be a statutory body with binding legal authority, established through parliamentary legislation. Composition: 15 members – Government (6: ONDE, ETDA, NCSA, PDPC, Ministry of Labor, Bank of Thailand), Academia/Technical Experts (5: appointed by National Research Council), Industry (2: appointed by Thai Chamber of Commerce), Civil Society (2: appointed by National Human Rights Commission). The chair rotates among non-government members on two-year terms.⁷⁶

3. Addressing the Authoritarian Risk

The Russian model’s authoritarian governance structure is incompatible with Thai constitutional democracy. Three safeguards prevent authoritarian drift: rotating non-government chairs ensure no permanent concentration of agenda-setting power; transparent procedures (public consultations, published minutes, annual reports to Parliament) maintain accountability; and the Administrative Court judicial review provides constitutional oversight.⁷⁷ Industry’s minority representation (2 of 15 members) is deliberately limited to prevent regulatory capture while maintaining technical engagement.

74 Provisions on the Administration of Algorithmic Recommendations for Internet Information Services [互联网信息服务算法推荐管理规定-第二十四条] art. 24; EU AI Act arts. 49, 71 & annex VIII.

75 UNESCO, *supra* note 40, at 12-3.

76 Belli, *supra* note 29; UN DESA, Thailand: Voluntary national review 2021, <https://sustainabledevelopment.un.org/memberstates/thailand>.

77 Belli, *supra* note 29. See also Lexology, Q&A: Judicial review in Thailand, <https://www.lexology.com/library/detail.aspx?g=00ad5766-f36c-45f6-979b-e5c8308968a6>; OECD, *supra* note 72, (2025).

E. Pillar 5: AI Transition Fund – Protecting Labor Rights

1. Human Rights Imperative

ICESCR Article 6 protects the right to work; Article 9 guarantees social security; Article 2(1) requires states take steps “to the maximum of available resources” toward progressive realization of these rights. AI-driven automation threatens manufacturing and service workers, where Thailand’s workforce concentrates. These obligations are unfulfilled without proactive transition support. Currently in Thailand “the expanding demand for AI capabilities reveals a critical skills gap, with an estimated shortage of 80,000 AI professionals,” while “Thai businesses ... spent only 47.5 million THB (USD 1.53 million) on training, research, planning, and development in 2022” per UNESCO report.⁷⁸

2. Design

The AI Transition Fund is financed by a 0.5% nominal levy on commercial automation software licenses and cloud-based AI services deployed in Thailand (excluding open-source software). Statutory ring-fencing prohibits reallocation to general revenue, requiring a three-fifths parliamentary supermajority to repurpose funds. The National AI Council allocates resources based on displacement risk assessments, re-skilling program effectiveness metrics, geographic equity, and demographic targeting (prioritizing workers over 45 and those with lower educational attainment).⁷⁹

F. System Integration and Implementation Sequencing

The five pillars operate as an integrated governance ecosystem (Figure 1). Three critical interdependencies structure implementation sequencing.

- **Infrastructure enables rights** (Pillar 1 → Pillar 2): Meaningful explanation rights and human review require Thai-language AI capacity. Without sovereign infrastructure, statutory rights become unenforceable—foreign platforms lack technical capacity to provide Thai-language explanations meeting Pillar 2 standards.⁸⁰
- **Transparency informs protection** (Pillar 3 → Pillars 2, 5): Registry data revealing which sectors deploy high-impact automation enables

⁷⁸ UNESCO, *supra* note 40, at 14.

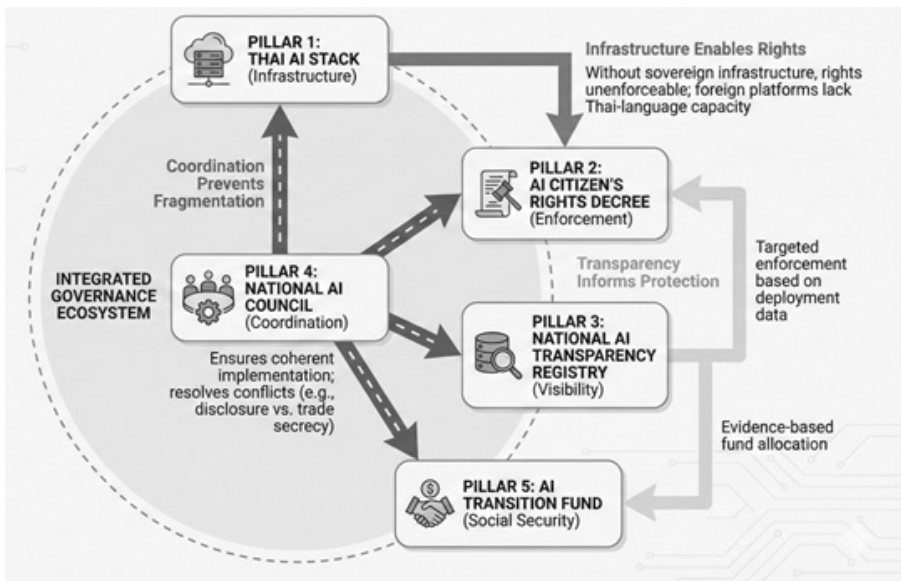
⁷⁹ Revenue methodology detailed in Appendix A.

⁸⁰ Floridi, *supra* note 47; Pinto, *supra* note 47; FRISCHMANN, *supra* note 49; UNESCO, *supra* note 40, at 13.

targeted Pillar 2 enforcement and evidence-based Pillar 5 fund allocation.⁸¹

- Coordination prevents fragmentation (Pillar 4 → All): The National AI Council ensures coherent implementation, resolving conflicts such as when Registry disclosure requirements conflict with trade secrecy claims.⁸²

Figure 1: The Five pillars' interdependency



Source: Compiled by the authors

G. Synthesis

Each alternative model possesses context-specific validity. None addresses, however, the specific challenge facing Thailand: reconciling fundamental rights protection with limited institutional capacity under developmental state conditions. The Thai-BRICS Hybrid Model uniquely responds to this

81 EU AI Act arts. 49, 71&72 (establishing a public database for high-risk AI systems as an informational prerequisite for post-market monitoring and targeted enforcement); Cyberspace Administration of China, Regulations on the Administration of Internet Information Service Algorithm Recommendations (2022), art. 24, <https://clairk.digitalpolicyalert.org/documents/china-regulations-on-the-management-of-algorithm-recommendation-for-internet-information-services/raw>.

82 Ansell et al., *supra* note 26; OECD, *supra* note 72 (recommending whole-of-government regulatory delivery and inter-agency coordination).

challenge by matching mechanisms to capacity while maintaining human rights commitments.⁸³

VI. Conclusion

This article explored how middle-income states like Thailand can regulate AI without the massive resources of the EU or the specific legal traditions of the US. While the EU's framework is fiscally prohibitive and the US's sectoral approach relies on high litigation capacity, the proposed Thai-BRICS Hybrid Governance Model offers a resource-efficient alternative using "functional modularity." This study provides significant theoretical insights, which are summarized below.

- **Functional Modularity:** A new comparative law methodology that allows states to adapt specific regulatory "modules" to their unique legal and institutional contexts.
- **Infrastructure Sovereignty:** The study argues that sovereignty and human rights are complementary. Rights remain aspirational if AI operates on foreign infrastructure; domestic control is the material prerequisite for enforcing those rights.
- **A New Framework:** It fills a gap in scholarship by focusing on developmental states rather than high-capacity OECD nations or authoritarian regimes.

The Thai-BRICS Hybrid Governance Model is designed for replicability among states with civil law traditions and fragmented bureaucracies (e.g., ASEAN and BRICS partners). It allows these nations to selectively implement governance pillars—such as multi-stakeholder oversight and judicial review—to address local risks like labor displacement and algorithmic bias.

The research notes that documentary analysis cannot predict real-world enforcement. Success depends on whether "infrastructure sovereignty" actually protects citizens or merely enables state surveillance. Future research must track whether this model improves a citizen's ability to contest harms and access culturally relevant AI. Ultimately, the model positions Thailand as a rule-maker

83 Tom Ginsburg, *Does Law Matter for Economic Development? Evidence from East Asia*, 34(3) L. & SOC'Y REV. 829-56 (2000); Alexander Wan et al., *The 2025 Foundation Model Transparency Index*, at 1-49, <https://crfm.stanford.edu/fmti/paper.pdf>; Gunther Teubner, *Legal Irritants: Good Faith in British Law or How Unifying Law Ends up in New Divergences*, 61(1) MOD. L. REV. 11-32 (1998); ZWIEGERT & KÖTZ, *supra* note 2.

rather than a rule-taker, charting a path between technological dependency and digital isolation through strategic investment and developmental sovereignty.

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