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Governing The AI Boom and Bridging the Technology Governance Gap in Southeast Asia: Debating an AI Framework at the Subregional Level

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Abstract
Southeast Asia has become one of the most important sites of artificial intelligence expansion in the Global South. Its location beside East Asia's technology-production networks, its deepening integration with global cloud and semiconductor firms, and its rapidly growing data-centre markets have placed the region at the centre of the contemporary AI infrastructure boom. Yet the governance architecture meant to regulate this expansion remains fragmented, advisory, and weakly enforceable. ASEAN's 2024 Guide on AI Governance and Ethics provides useful principles, but it does not impose binding obligations, sanctions, or regional enforcement mechanisms. This paper examines the gap between Southeast Asia's accelerating AI adoption and its limited regulatory capacity. It argues that a full European Union-style AI Act is institutionally unrealistic for ASEAN because of the bloc's non-interference norm, uneven regulatory capacity, and political diversity. However, the absence of ASEAN-wide hard law does not imply regulatory paralysis. A sub-regional coalition of willing and capable states, especially Singapore, Malaysia, Indonesia, Thailand, and Vietnam, could establish enforceable minimum standards for high-risk AI systems, incident reporting, data-centre operators, and AI auditing. Vietnam's 2025 AI legislation provides an important regional proof of concept: Southeast Asian states can move beyond soft law where political will and administrative capacity converge. The paper concludes that Southeast Asia's AI governance future is unlikely to emerge from ASEAN consensus alone, but from layered, sub-regional, and operator-focused regulation that gradually creates a de facto regional floor.
Keyword: *Artificial Intelligence; AI governance; ASEAN; Southeast Asia; Digital Regulation; Algorithmic Accountability; Cyber Fraud; Surveillance; Vietnam AI law*

Introduction

Artificial intelligence has entered Southeast Asia through two sharply different doors. The first is developmental. In May 2024, Microsoft announced a US$2.2 billion investment in Malaysia over four years to expand cloud and AI infrastructure, build AI skills, and support the country's cybersecurity capacity (Microsoft Corporation, 2024). Similar announcements by major technology firms have positioned Malaysia, Singapore, Thailand, Indonesia, and Vietnam as increasingly important sites in the global AI infrastructure economy. For governments seeking higher productivity, digital industrialisation, and movement up global value chains, AI is no longer a distant technological promise. It is now part of the national development strategy.

The second door is coercive and criminal. Across parts of mainland Southeast Asia, cyber-fraud compounds have incorporated generative AI, deepfakes, automation, and data-harvesting tools into large-scale transnational criminal operations. The United Nations Office on Drugs and Crime (UNODC, 2024) describes the region's cyber-enabled fraud economy as increasingly industrialised and technologically sophisticated. These operations do not merely exploit weak law enforcement. They exploit the absence of binding technology governance.

This paper examines the widening gap between Southeast Asia's AI boom and the region's regulatory capacity. It asks a simple question: how can Southeast Asia govern AI when ASEAN's institutional design is built around consensus and non-interference rather than binding supranational regulation? The argument is not that ASEAN has done nothing. The 2024 *ASEAN Guide on AI Governance and Ethics* marks an important normative step by identifying principles such as transparency, fairness, security, privacy, human-centricity, and accountability (ASEAN Secretariat, 2024). The difficulty is that these principles remain advisory. They create guidance, not obligation.

The central argument of this paper is that Southeast Asia needs a governance model that fits its institutional reality. A direct transplant of the European Union's AI Act is unlikely to work in ASEAN because ASEAN lacks supranational legislative authority, centralized enforcement institutions, and a shared political-legal culture. Yet this does not mean the region must accept voluntary ethics as the ceiling of AI governance. A more viable path lies in a sub-regional coalition of capable and willing states. Singapore, Malaysia, Indonesia, Thailand, and Vietnam already possess national AI strategies or emerging regulatory capacity. Together, they could create a de facto regional floor through incident reporting, mutual recognition of AI audits, and operator-level obligations for high-risk AI systems and AI infrastructure providers.

Vietnam's 2025 AI law is central to this argument. It demonstrates that Southeast Asian states can move from soft-law principles to binding legal obligations. Its importance lies less in its precise legal design than in its political signal: AI governance in the region need not remain trapped in voluntary guidance.

AI Governance and the ASEAN Regulatory Gap

AI governance refers to the legal rules, institutional mechanisms, technical standards, and accountability processes that determine how AI systems are developed, deployed, monitored, and challenged. Early global debates focused heavily on ethical principles. Floridi and Cowls (2019), for example, identified a converging set of principles around beneficence, non-maleficence, autonomy, justice, and explicability. These principles later appeared in intergovernmental instruments. The OECD Recommendation on Artificial Intelligence, first adopted in 2019 and updated in 2024, emphasises trustworthy AI, respect for human rights, transparency, robustness, and accountability (OECD, 2024). UNESCO's 2021 Recommendation on the Ethics of Artificial Intelligence similarly frames AI governance around human dignity, human oversight, transparency, fairness, and redress (UNESCO, 2021).

The difficulty is not the absence of principles. The difficulty is enforcement. Principles become governance only when institutions can translate them into duties, audits, remedies, and sanctions. This is where ASEAN's AI framework remains thin.

The ASEAN Digital Masterplan 2025, published in 2021, was designed to guide the region's digital transformation, but it did not substantially anticipate the speed and scale of generative AI adoption (ASEAN Secretariat, 2021). ASEAN corrected course in 2024 with its *Guide on AI Governance and Ethics*, followed by an expanded guide on generative AI in 2025 (ASEAN Secretariat, 2024, 2025). These documents help align regional thinking, but they do not bind member states or private operators. They do not create a regional AI regulator. They do not give individuals the right to explanation or appeal. They do not impose sanctions on firms that deploy harmful AI systems.

This reflects ASEAN's institutional design. The "ASEAN Way" privileges consensus, sovereignty, and non-interference. Such norms have helped keep a diverse region at the same diplomatic table. They have also made binding regional regulation difficult, especially in areas touching domestic political control, public security, and state surveillance. AI governance touches all three.

The AI Boom and Its Risks

Southeast Asia's AI expansion is driven by infrastructure, investment, and market demand. Malaysia has emerged as a major data-centre destination, helped by land availability, energy capacity, and proximity to Singapore. Singapore remains the region's advanced digital governance hub. Thailand, Indonesia, and Vietnam are building national AI ecosystems linked to industrial policy, digital government, and foreign investment. National strategies reflect this shift. Singapore launched its National AI Strategy 2.0 in 2023 (Smart Nation and Digital Government Office, 2023). Malaysia's National AI Roadmap covers the 2021–2025 period (Malaysia Ministry of Science, Technology and Innovation, 2021). Indonesia's AI strategy runs to 2045, while Thailand's national AI strategy covers 2022–2027 (BAPPENAS, 2020; National Electronics and Computer Technology Center, 2022). The governance problem is that high-speed adoption has produced high-risk deployment. Three areas illustrate the gap.

AI-Enabled Cyber Fraud

Cyber-fraud networks in Southeast Asia have become more sophisticated through AI-enabled impersonation, automation, deepfake content, and data-driven targeting. UNODC (2024) warns that criminal groups in the region increasingly use advanced technologies to expand online fraud and money laundering. These operations often intersect with human trafficking. UN human rights experts reported in 2023 that at least 120,000 people in Myanmar and around 100,000 in Cambodia may have been forced into online scam operations (United Nations Human Rights, 2023). Franceschini, Li, Hu, and Bo (2024) further show that many workers in scam compounds are themselves victims of deception, coercion, and forced criminality.

This creates a dual governance problem. Victims of scams suffer financial and psychological harm, while trafficked workers are coerced into operating the systems that harm others. AI increases the scale and credibility of fraud by lowering language barriers, automating scripts, and generating convincing synthetic identities. ASEAN's advisory principles cannot address this without incident reporting, cross-border evidence-sharing, platform accountability, and due diligence obligations for high-risk AI service providers.

Algorithmic Decision-Making in Credit and Welfare

A second risk concerns algorithmic decision-making in finance and social welfare. Southeast Asia's large unbanked and underbanked populations make algorithmic credit scoring attractive. Fintech providers can use alternative data to expand access where traditional credit histories are absent. Yet alternative data also creates risks of proxy discrimination. Device type, location, online behavior, and social media patterns can become indirect measures of class, geography, ethnicity, or vulnerability.

The welfare field shows similar risks. Indonesia's social-assistance targeting has long relied on proxy-means testing. A major field experiment by Alatas, Banerjee, Hanna, Olken, and Tobias (2012) demonstrated both the administrative appeal and the targeting limitations of proxy-based systems. As governments incorporate more automated tools into eligibility decisions, the need for transparency, explanation, and appeal becomes stronger. Without legal safeguards, algorithmic systems can quietly reproduce social exclusion while appearing technically neutral.

The issue is not that AI in credit or welfare is inherently harmful. Used carefully, it can improve access and administrative efficiency. The danger is deployment without minimum accountability: no impact assessment, no explanation, no human review, and no right to contest consequential decisions.

Surveillance and Political Control

The third risk is AI-enabled surveillance. Facial recognition, biometric identification, internet monitoring, and predictive security tools are spreading across parts of the region. These systems are often justified in the language of public order, counterterrorism, or administrative efficiency. In weak rule-of-law environments, however, they can be redirected toward political control.

Myanmar is the most severe case. Human Rights Watch warned as early as 2021 that facial recognition systems in Myanmar posed serious rights risks after the military coup (Human Rights Watch, 2021). Later reporting by civil society organisations documented the junta's efforts to expand digital surveillance and censorship infrastructure, including through foreign technology suppliers (Justice for Myanmar, 2024, 2025). The problem is not merely technological import. It is the absence of enforceable rules on lawful use, data retention, independent oversight, and remedies for abuse. AI surveillance reveals the deepest weakness of voluntary governance. Governments that use AI for coercive control are unlikely to restrain themselves through advisory principles.

Why the EU AI Act Cannot Simply Be Transplanted

The European Union's AI Act is the most ambitious AI regulatory framework currently in force. It establishes a risk-based model, prohibits certain unacceptable uses, imposes obligations on high-risk systems, and creates enforcement mechanisms with substantial penalties (European Parliament and Council of the European Union, 2024). It is attractive because it treats AI governance as law rather than corporate ethics. However, ASEAN cannot simply replicate this model. Three reasons stand out.

First, ASEAN is not a supranational legal order. The EU can legislate across member states through binding regulations. ASEAN cannot. Its secretariat has no equivalent enforcement authority. Any ASEAN-wide AI law would require political agreement among states with sharply different regime types, administrative capacities, and approaches to digital control.

Second, regulatory capacity varies dramatically across the region. Singapore has sophisticated institutions such as AI Verify, a government-backed testing framework and toolkit for AI governance (Infocomm Media Development Authority, 2024). Malaysia, Thailand, Indonesia, and Vietnam have developing frameworks. Myanmar and Laos face much deeper institutional constraints. A single binding ASEAN framework would either be too demanding for weaker states or too weak to discipline advanced AI markets.

Third, member states do not share a single political theory of AI regulation. For Singapore, trusted AI supports investor confidence and global competitiveness. For Vietnam, AI governance is linked to digital sovereignty and state capacity. For Indonesia and Malaysia, AI is tied to economic transformation and public-service delivery. For authoritarian or conflict-affected states, AI tools may be viewed as instruments of control. These differences make EU-style harmonisation politically unrealistic.

This does not mean that Europe is irrelevant. The EU AI Act offers useful design lessons: risk classification, prohibited practices, high-risk obligations, conformity assessments, transparency requirements, and penalties. But Southeast Asia must adapt these tools to its own institutional terrain.

A Sub-Regional Coalition as a Practical Alternative

The most realistic path is a coalition of willing states. Singapore, Malaysia, Indonesia, Thailand, and Vietnam already represent the region's most significant AI governance and investment cluster. Their national strategies show sufficient policy convergence to support a limited, enforceable framework. Such a coalition would not replace ASEAN. It would work within ASEAN's political limits by creating voluntary hard commitments among states that choose to participate. The framework should begin primarily with three instruments.

A Joint AI Incident Registry

The coalition should establish a shared AI Incident Registry for cross-border harms such as deepfake fraud, AI-enabled scams, biometric misuse, discriminatory automated decisions, and major AI-related data breaches. The registry would not need a full treaty. It could begin through a memorandum of understanding among participating states, supported by a small technical secretariat. Its immediate priority should be AI-enabled fraud because the harm is cross-border, politically salient, and technically traceable.

The registry would create a regional evidence base. At present, Southeast Asian governments often respond to AI harms as isolated national problems. A registry would reveal patterns, repeat offenders, platform vulnerabilities, and technology providers linked to recurring harms.

Operator-Level Obligations

The coalition should impose minimum obligations on AI service providers, cloud operators, and data-centre firms operating across participating markets. These obligations should include algorithmic impact assessments for high-risk systems, incident reporting, documentation duties, cybersecurity safeguards, and cooperation with regulators.

This approach is politically feasible because it targets operators rather than sovereign governments. A multinational company seeking to provide AI services in coalition markets would comply with common rules as a condition of market access. ASEAN already has experience with cross-border digital-commerce commitments, including the ASEAN Agreement on Electronic Commerce (ASEAN, 2019). AI governance can build on this logic.

Mutual Recognition of AI Audits

The coalition should develop mutual recognition of AI audits and certification. Singapore's AI Verify provides a starting point. Malaysia's emerging AI governance institutions and Vietnam's 2025 law can add regulatory depth. Mutual recognition would allow a system certified in one participating jurisdiction to receive recognition in another, provided minimum standards are met.

This would avoid the need to create a supranational AI regulator. Instead, it would build a networked regulatory model: national authorities remain sovereign, but their audits and certifications become interoperable.

Vietnam's 2025 AI Law as Proof of Concept

Vietnam's December 2025 AI law is an important regional development because it challenges the assumption that Southeast Asia is limited to voluntary AI ethics. Official Vietnamese reporting described the law as the country's first comprehensive legal framework for AI, built around risk control, innovation, human oversight, and governance of AI applications (Government News of Viet Nam, 2025; VnEconomy, 2025).

The law should not be romanticised. Its enforcement capacity, rights implications, and practical implementation will require careful study. Yet its regional significance is clear. It provides a legal reference point for other Southeast Asian states and shows that binding AI governance is politically possible outside the EU model.

For a sub-regional coalition, Vietnam's law can function as a catalyst. It gives the region an internal example, not an imported template. This matters politically. ASEAN states are more likely to accept regulatory innovation when it emerges from within the region rather than as a European or American demand.

Challenges and Risks

Three lead objections deserve attention. Illustration-I offers a detailed and quick overview of potentials, risks, challenges, and prospects for the AI framework at the subregional level in Southeast Asia by comparing the entire debate as discussed above. The first is that regulation may deter investment. This risk is real if regulation is unclear, unstable, or politically arbitrary. However, serious long-term investors often prefer predictable rules to legal uncertainty. Clear AI governance can support trust, reduce reputational risk, and distinguish Southeast Asia from jurisdictions that compete only through regulatory weakness.

The second objection is geopolitical. Southeast Asia seeks to avoid choosing between the United States and China in technology governance. A coalition framework should therefore avoid ideological alignment. Operator-level obligations can apply equally to American, Chinese, European, and regional companies. The issue is not the nationality of the provider, but whether the provider meets minimum standards of transparency, safety, and accountability.

The third challenge is capacity. AI governance requires technical expertise that many regulators lack. This is why the framework should be phased. Singapore's AI Verify, regional universities, and multilateral support from organisations such as UNESCO can help build capacity over time. A Southeast Asian AI audit network, rather than ten separate national systems, would be more realistic.

Illustration-I

Comparing AI Governance Approaches in Southeast Asia

Dimension	ASEAN Soft-Law Instruments (2021–2025)	National AI Strategies (Selected ASEAN States)	Vietnam's AI Law (2025)
Legal Nature	• Guiding documents • ASEAN Digital Masterplan 2025 (2021) • ASEAN Guide on AI Governance and Ethics (2024) • Expanded Guide on Generative AI (2025)	• Policy frameworks / strategies • Examples: Singapore (2023), Malaysia (2021–2025), Indonesia (2020–2045), Thailand (2022–2027), Vietnam (2021–2030)	• National legislation • Law on Artificial Intelligence approved by the National Assembly in December 2025
Binding Force	• Non-binding • Based on consensus and voluntary adherence • No legal obligations on member states	• Not legally binding • Guide domestic policy and implementation • Vary in ambition and detail across states	• Legally binding • Creates enforceable obligations for organizations and individuals
Enforcement Mechanism	• No sanctions • No regional enforcement body • Implementation left to member states	• Implemented through national agencies • Limited enforcement tools • No cross-border enforcement	• Enforcement by designated national authorities • Administrative penalties and legal liabilities
Scope & Focus	• Broad principles: fairness, transparency, accountability, human-centricity, security, privacy, inclusiveness	• National priorities: innovation, skills, industry adoption, research, digital economy, governance readiness	• Risk-based approach • Data governance, transparency, human oversight, accountability, and innovation promotion
Key Strength	• Builds regional consensus • Creates shared ethical foundation • Encourages cooperation and dialogue	• Tailored to national context • Support innovation and capacity building • Drive domestic AI development	• First binding AI law in Southeast Asia • Sets legal precedent • Demonstrates political will
Key Limitation	• Non-binding and unenforceable • No redress or right of appeal • Weak response to high-risk AI harms	• Lack legal force • Limited accountability mechanisms • Uneven implementation capacity	• Early-stage implementation • Enforcement capacity still evolving • Needs periodic review and updates
Role in Regional AI Governance	• Norm-setting and coordination platform • First step in regional AI governance journey • Provides common language	• Drive national adoption and readiness • Build institutional and regulatory capacity • Create potential for future convergence	• Proof of concept for hard-law governance • Potential anchor for sub-regional cooperation and standards

Source: Synthesis by Authors with AI; Data used from this Paper

Conclusion

Southeast Asia is becoming a major AI region before it has become a major AI governance region. That sequencing is dangerous. The same infrastructure that can support productivity, financial inclusion, and public-service delivery can also enable fraud, discrimination, and surveillance. The technology is not self-governing. Without enforceable rules, the region risks becoming a site of regulatory arbitrage: attractive to investment, but weak in accountability.

ASEAN's AI Guide is valuable as a statement of principles, but principles are not enough. The EU AI Act offers useful lessons, but ASEAN cannot simply copy Europe's supranational model. The more plausible route is sub-regional: a coalition of willing and capable states that creates minimum enforceable standards through incident reporting, operator obligations, and mutual recognition of AI audits.

Vietnam's 2025 AI law shows that Southeast Asia can move beyond soft law. The next step is regionalising that momentum without waiting for full ASEAN consensus. The governance question is no longer whether AI will transform Southeast Asia. It already is. The question is whether Southeast Asian states will shape that transformation before private infrastructure, criminal networks, and coercive surveillance systems define the rules by default.

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