TRENDS IN SOUTHEAST ASIA

# FROM PAPER TO PRACTICE

## Utilizing the ASEAN Guide on Artificial Intelligence (AI) Governance and Ethics

Kristina Fong

ISEAS YUSOF ISHAK INSTITUTE

ISSUE 18 2024

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# FOREWORD

The economic, political, strategic and cultural dynamism in Southeast Asia has gained added relevance in recent years with the spectacular rise of giant economies in East and South Asia. This has drawn greater attention to the region and to the enhanced role it now plays in international relations and global economics.

The sustained effort made by Southeast Asian nations since 1967 towards a peaceful and gradual integration of their economies has had indubitable success, and perhaps as a consequence of this, most of these countries are undergoing deep political and social changes domestically and are constructing innovative solutions to meet new international challenges. Big Power tensions continue to be played out in the neighbourhood despite the tradition of neutrality exercised by the Association of Southeast Asian Nations (ASEAN).

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*THE EDITORS*

# From Paper to Practice: Utilizing the ASEAN Guide on Artificial Intelligence (AI) Governance and Ethics

By Kristina Fong

## EXECUTIVE SUMMARY


- The rapid development of Artificial Intelligence (AI) technologies has been nothing less of awe-inspiring. Policymakers are put in a bind as debates over how the deployment of these AI systems is to be managed—with good governance and ethical considerations in mind, and without stifling innovation.
- ASEAN's response has been the formulation of the ASEAN Guide on AI Governance and Ethics, or the ASEAN AI Guide. This Guide serves more as a "practical guide" for organizations involved in the development and deployment of AI for commercial and non-military or dual-use applications, as opposed to a policy playbook for governments. Though voluntary in application, it does have some positive attributes including laying out the groundwork for regionwide discussions around AI governance and ethics issues, promoting human involvement in AI system management and having an ecosystem approach to policy.
- For the implementation of the Guide to be effective, certain notable aspects should be taken into consideration. Firstly, the additional costs organizations will bear in putting into place the checks and balances premised by the guide should be reassessed, especially the disproportionate impact these will have on MSMEs. Additionally, labour availability for these suggested governance mechanisms may be lacking, with rising skills and human resource gaps in integral areas such as cybersecurity. Moreover, on a national level,

policymakers should be wary of potential disparities between institutional and regulatory maturity for AI system implementation relative to business readiness for implementation on the ground.

- For the ASEAN AI Guide to translate into actionable outcomes, some public policy areas warrant additional consideration. Firstly, some focus will need to be redirected to ex-post regulations, such as legal recourse for AI-generated Intellectual Property (IP) infringement. Furthermore, how new technologies and human capital can be leveraged to better manage potential ill-effects of AI system deployment should be given more focus, along with keeping tabs on psychological changes among different segments of society with greater AI system usage. Lastly, the ASEAN AI Guide should be used as a basis for greater regional engagement in this integral area.

# From Paper to Practice: Utilizing the ASEAN Guide on Artificial Intelligence (AI) Governance and Ethics

By Kristina Fong[1]

## INTRODUCTION

The ASEAN Guide on Artificial Intelligence (AI) Governance and Ethics[2] (ASEAN AI Guide) was endorsed at the Fourth ASEAN Digital Ministers Meeting (ADGMIN),[3] which concluded on 2 February 2024. Premised on the importance of nurturing a "trusted AI ecosystem", this Guide is based on seven guiding principles including transparency and simplicity, fairness and equity, security and safety, alongside other salient aspects.[4] The discussion on the need for suitable governance levers, or at the very least, for closer tabs on AI technologies, greatly accelerated with

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[1] Kristina Fong is an economist and public policy specialist. She is currently the Lead Researcher for Economic Affairs at the ASEAN Studies Centre in the ISEAS – Yusof Ishak Institute. Prior to this, she worked in the financial services industry, as well as in international organizations such as the World Bank. The author would like to express her sincere appreciation to Dr Maria Monica Wihardja and Dr Ming Tan for their invaluable feedback during the review process.

[2] ASEAN, "ASEAN Guide on AI Governance and Ethics", https://asean.org/wp-content/uploads/2024/02/ASEAN-Guide-on-AI-Governance-and-Ethics_beautified_201223_v2.pdf

[3] ASEAN, "Joint Media Statement of the 4th ASEAN Digital Ministers' Meeting and Related Meetings", https://asean.org/joint-media-statement-of-the-4th-asean-digital-ministers-meeting-and-related-meetings/

[4] More details can be found in Table 1.

the exponential growth of generative AI applications such as ChatGPT in 2023. Though these developments represent exciting technological breakthroughs, they also raise concerns over ethical and governance risks. Moreover, recognizing these risks and how to best mitigate them, is a matter of some urgency, given their rapid proliferation.

Some jurisdictions are attempting to implement heavy-handed legislation such as the European Union (EU) AI Act,[5] but compared to these, the ASEAN AI Guide is a notably more light-touch approach to managing the AI space that is more strategically apt for the region. With the absence of a central legislative body in ASEAN, and with the diversity in digital capabilities and regulatory capacities among ASEAN member states (AMS), a more ambitious endeavour would miss the mark. Moreover, it has been emphasized at its release that business innovation is being prioritized over other factors and thus a less heavy-handed approach would be a better fit.

The ASEAN AI Guide forms a part of the ASEAN Digital Masterplan 2025[6] (ADM2025) which is grounded in the establishment of "secure and transformative digital services, technologies and ecosystem". While the Guide may seek to align with international best practices and standards, it is meant to serve more as a "practical guide" for organizations who bear the onus over the responsible and ethical development and deployment of AI systems, rather than as a policy playbook for governments. As such, governments and regional bodies feature as secondary facilitative actors, with the Guide homing in on the primary stages of the value chain. Although the voluntary, light-touch approach employed by the Guide provides flexibility for stakeholders, this aspect could render it ineffective on the other extreme. With these initial considerations in mind, we examine aspects of the ASEAN AI Guide which hit the

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[5] European Parliament, "Artificial Intelligence Act: Deal on Comprehensive Rules for Trustworthy AI", https://www.europarl.europa.eu/news/en/press-room/20231206IPR15699/artificial-intelligence-act-deal-on-comprehensive-rules-for-trustworthy-ai

[6] ASEAN, "ASEAN Digital Masterplan 2025", https://asean.org/wp-content/uploads/2021/09/ASEAN-Digital-Masterplan-EDITED.pdf

mark, as well as areas that require more consideration, and suggest policy recommendations to help make it more well-rounded. Additional measures to heighten its use as a safeguard for stakeholders of AI technologies in its development and usage will also be discussed.

## BUILDING THE ASEAN AI GUIDE FROM THE GROUND UP

The formulation of the ASEAN AI Guide was carried out in a collaborative manner with perspectives sought from all the AMS, Dialogue Partners, as well as industry. Salient aspects from established AI governance frameworks and guidelines such as UNESCO's Recommendation on the Ethics of Artificial Intelligence[7] and the EU's Ethics Guidelines for Trustworthy AI[8] were also used as the foundation for the Guide's seven guiding principles. In fact, the ASEAN AI Guide is intended to be a living document meant to evolve with the latest regulations and AI technology developments, all the while incorporating ongoing inputs from key stakeholders.

The two main premises of the AI Guide are (1) to act as guidance for organizations wanting to design, develop and deploy traditional AI technologies for non-military and commercial uses, and (2) to foster the interoperability of AI frameworks across different ASEAN jurisdictions. For all intents and purposes, the ASEAN AI Guide does tick both these boxes. To achieve these aims, there are seven principles to guide the operational adjustments in organizations as they incorporate AI systems into their processes, taking into account all stakeholders along the AI lifecycle (Table 1).

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[7] UNESCO, "Recommendation on the Ethics of Artificial Intelligence", https://unesdoc.unesco.org/ark:/48223/pf0000381137

[8] European Commission, Directorate-General for Communications Networks, Content and Technology, "Ethics guidelines for trustworthy AI", https://data.europa.eu/doi/10.2759/346720

*Table 1: The Seven Guiding Principles of the AI Guide and Their Importance*

| Guiding Principles | Importance | Examples of Organisational Safeguards |
|---|---|---|
| **Transparency and Explainability** | To provide information on when an AI system is being used for decision-making, the type of data being used and its purpose. This is done to aid the explainability of the AI-generated decision. | * Notify users of AI use in a system and ensure users understand the basis of the decision-making output and potential biases that may occur. |
| | | * Ensure the AI system is robust in terms of the repeatability of the results, traceability of the decision-making process, audiability of the system in terms of information on data provenance and security, amongst other factors. |
| **Fairness and Equity** | Ensure the AI system does not perpetuate biases or discrimination in its decision-making results, to prevent adverse unjust impacts on its stakeholders. | * Human interventions to check the algorithms and outputs. To promptly rectify the system once evidence of a bias has been found. |
| | | * Careful evaluation and cleaning of training data inputed into the system. Data should be diverse and representative. |
| **Security and Safety** | Protect AI Systems against cyber-attacks through risk assessments to help identify potential risks and ways to mitigate them. Also ensuring that AI systems are safe to use. | * Human interventions to halt an AI system's function when there are clear risks to the activity. |
| | | * Risk assessment excercises to be carried out to identify the types of risks and the level of adverse impact to an organisation or other stakeholders if these were to materialise. This process can also help to determine how much human intervention would be needed in the running of the AI system. |
| | | * Vulnerability assessments and penetration testing to identify and mitigate cyber-attack risks which potentially have other adverse implications like confidential data leaks. |
| | | * Establishing a business continuity plan and disaster recovery plan. |

| | | |
|---|---|---|
| **Human-centricity** | Ensure AI systems are designed with human benefits in mind and to not cause harm to them. | * Developers should fully understand how users interact with the AI system which can be uncovered through AI system testing with a varied group of individuals to account for diversity in characteristics. Additionally, potential risks of the AI system being biased should be checked. |
| | | * The rapid proliferation of AI use should also incorporate some study on the impact on jobs and how workers who may be alleviated from some day-to-day tasks can be re-skilled or re-deployed to other higher value-added work. |
| **Privacy and Data Governance** | To incorporate proper mechanisms to facilitate more effective data privacy and protection as well as to protect the quality and integrity of the data. | * Ensure that the management of the data collected for the AI system adheres to data privacy and protection regulations. Additionally, organisations should be upfront about their data management practices. |
| | | * AI system developers and deployers to also adhere to organisation guidelines on the treatment of data and for these Standard Operating Procedures (SOP) to be reviewed periodically. |
| | | * Develop AI systems incorporating privacy by design. |
| | | * Invest in technological tools that can enhance privacy protection for key stakeholders. |
| **Accountability and Integrity** | To clearly establish human accountability for AI systems and their outputs. | * Develop a reporting structure for internal governance processes and ensure there is an element of human accountability for the AI system and its outputs at all stages of the lifecycle. Proper documentation to be kept on an up-to-date basis. |
| **Robustness and Reliability** | Ensure that AI systems are able to perform consistently, reliably, as well as maintain functionality when met with abnormal conditions eg unusual data inputs. | * Conduct rigourous testing of the AI system in order to yield robust results under various circumstances. |
| | | * Formalise the process of keeping proper documentation for a reliable paper trail on data sources, processing and lineage to effectively troubleshoot issues. |

*Source:* Adapted from the ASEAN Guide on AI Governance and Ethics and author's analysis.

## WHAT THE ASEAN AI GUIDE GETS RIGHT

Besides these guiding principles are other positive attributes that also strengthen the Guide.

### *(1) Laying the Groundwork*

In essence, this Guide acts as a base to build upon. While put forth as voluntary in adoption, it still plays an integral role in facilitating the regional discussion around AI governance—both for countries who have ventured into formulating their own guidance frameworks, and those who have yet to start (Table 2). This is of particular importance given the cross-border reach of AI technologies and hence, the need for a minimum common denominator when it comes to safeguards, as well as achieving greater interoperability of AI systems. Apart from this, the incorporation of emerging use cases and business models into the Guide also reinforces its usefulness in this dynamic setting. This provides space for AI governance approaches to grow alongside AI innovations and provides more opportunity for governance frameworks to be right-sized with respect to the regulatory, institutional and commercial landscape that they operate within.

A few main observations can be derived from Table 2. Firstly, not all countries have an AI governance policy in place nor have they indicated a discussion on this in related policy frameworks (Brunei and Lao PDR). Other countries have started the conversation with mentions of AI governance in AI or digital-related plans (Cambodia, Myanmar, the Philippines and Vietnam). The remaining AMS have taken concrete steps to carve out specific AI governance policies (Indonesia, Malaysia, Singapore and Thailand). Moreover, in this latter group, we also see a diversity of approaches, from voluntary guidelines for businesses only (Indonesia) and more broadly for organizations (Singapore), to some guidance for a wider group of stakeholders including users of the technologies (Malaysia), or even attempts to make rules more binding in the form of mandatory standards (Thailand). Despite these initiatives, the implementation, not to mention the enforcement, of all these national guidelines remains a key challenge.

*Table 2: The State of Affairs—Who Lies Ahead in Terms of AI Governance Frameworks?*

| AMS | AI Governance Policy | Form of Policy | Status Update | Alignment with ASEAN AI Guide |
|---|---|---|---|---|
| **Brunei** | n.a. | | | |
| **Cambodia** | No specific AI Governance Policy though the Digital Economy and Society Policy Framework (2021-2035) incorporates aims of building a data-driven governance system. | | | |
| **Indonesia** | Circular Letter of the Minister of Communications and Informatics (MOCI) No. 9 of 2023 concerning Artificial Intelligence Ethics. | Voluntary guidelines for organisations employing AI system technologies. | The Circular represents voluntary guidelines for the ethical use of AI systems in organisations and has already seen commitments to align operations to these guidelines from the likes of Multinational Corporations such as Microsoft. Issued in December 2023, it is seen to be a precursor to more binding regulations in the future. | **Yes** - in aspects such as data protection, data transparency and creating unbiased AI-driven outputs. |
| **Lao PDR** | n.a. | | | |
| **Malaysia** | National Guidelines on AI Governance and Ethics for Responsible AI (National Guidelines on AIGE) - Ministry of Science, Technology and Innovation (MOSTI). | Voluntary guidelines to establish responsible AI practices for main stakeholders - community, government and industry. | The first draft of these Guidelines has gone through a round of Public Consultation which ended in March 2024. Guidelines set to be released in 2024. Supporting this is the launch of the Malaysia Artificial Intelligence Nexus in May 2024 which presents an overarching policy for strengthening the AI ecosystem in the country. | **Yes** - in aspects such as institutionalising effective AI governance monitoring, promoting understanding of AI systems to users. |

*continued on next page*

*Table 2 — cont'd*

| AMS | AI Governance Policy | Form of Policy | Status Update | Alignment with ASEAN AI Guide |
|---|---|---|---|---|
| **Myanmar** | No specific AI Governance Policy though the Myanmar e-Governance Master Plan (2030) highlights the importance of new technologies such as AI in the current digital context. | | | |
| **Philippines** | No specific AI Governance Policy though the National Artificial Intellegence (AI) Strategy Roadmap (2021-2028) aims to build an AI ecosystem "conscience". Additionally, the Philippines has announced intentions to create a regulatory framework for the ASEAN AI Guide as one of their contributions as ASEAN Chair in 2026. | | | |
| **Singapore** | Model AI Governance Framework for Generative AI drafted by the AI Verify Foundation (AIVF) and Infocomm Media Development Authority (IMDA). | Suggested framework of nine key principles to support the establishment of a comprehensive and trusted AI ecosystem. | Released in January 2024, this expands on the existing Model AI Governance Framework 2020 with insights garnered from the Generative AI Evaluation Sandbox. | **Yes** - in aspects such as accountability in AI systems, data protection and quality, incident reporting and security. |
| **Thailand** | Draft Royal Decree on Business Operations that Use Artificial Intelligence System introduced by the Office of the National Digital Economy and Society Commission (ONDE). | This Draft Decree is designed as a set of mandatory standards to be applied on the development and use of AI systems. It is based on a risk-based approach akin to the structure applied by the European Commission's EU AI Act. | The Draft Decree was first introduced in October 2022 and the timeline for it to be enacted is unclear. | **Yes** - in aspects such as transparency in the use of AI systems and the adoption of risk control and management systems. |
| **Vietnam** | No specific AI Governance Policy though the National Strategy on R&D and Application of AI has stated aims of the development of a legal framework for AI governance. | | | |

*Source:* Various country sources and author's analysis.

Although these plans in their different shapes and forms bear some alignment to the ASEAN AI Guide, not all aspects are covered in their entirety. This may pose challenges to policymakers aiming to eventually promote greater interoperability in the region (and beyond) not only regarding the different ASEAN countries coming from different bases, but also about the approaches to the management of this area being heterogeneous.

### *(2) Human-Centrism*

A strong theme that underlines the Guide is that policymakers remain cognizant of the need for a "human touch". Human controls and reasoning incorporated in the development, testing and monitoring stages of AI technology deployment would provide some checks and balances, and having humans at the core of the ethical and governance aspects may help enhance the benefits and lessen the harms of AI. The Guide also closes the loop with its emphasis on developing the expertise required, as well as the skillsets needed to remain on top of technological developments and to adequately understand the way AI functions and evolves (especially in the case of generative AI capabilities). Moreover, the ASEAN AI Guide also encourages the incorporation of mechanisms in AI design and development, much like a circuit breaker, to enable humans to take over operations in instances where AI is seen to be generating harmful results. An example would be in the case of autonomous vehicles. Lastly, being human-centric is an important condition in assigning accountability when AI systems are deployed.

### *(3) Ecosystem Approach*

Cisco's AI Readiness Index[9] highlights six salient components of an AI ecosystem within a business:

(1) *Strategy*—the existence of a clear strategy for deploying AI-powered technologies.

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[9] Cisco, "Cisco AI Readiness Index", https://www.cisco.com/c/m/en_us/solutions/ai/readiness-index.html

(2) *Infrastructure*—having the infrastructure required to fully utilize the benefits of AI technologies, including computing power, cybersecurity capabilities and network performance.
(3) *Data*—the capability to protect and utilize data effectively, which includes the presence of data management systems.
(4) *Governance*—frameworks and standard operating procedures for ethical guidance in the development and use of AI technologies.
(5) *Talent*—the availability of the right talent to effectively develop, integrate and deploy AI systems and uses.
(6) *Culture*—a measure of how much AI is inculcated in a corporation in terms of importance, openness to use, as well as relative acceptance by all parts of the organization.

The ASEAN AI Guide's seven guiding principles highlighted in Table 1 express an ecosystem design. In this way, the Guide aims both to incorporate technical requirements as well as instil a culture wherein all stakeholders bear the responsibility of maximizing the benefits of the technology while minimizing its adverse impacts. While suggesting prerequisites for robust data management and transparency, security and reliability, the Guide also emphasizes the importance of establishing internal systems of risk management and testing, and communication with the whole organization to understand the workings of these technologies and the output that they yield. The ecosystem approach to governance also emphasizes the importance of a clear line of accountability, with the buck stopping at human intervention. Thus, important aspects required for the seamless working of AI systems seem to have been taken under consideration in this framework.

## SOME ADDITIONAL CONSIDERATIONS FOR THE IMPLEMENTATION OF THE ASEAN AI GUIDE

Despite the various positives in the ASEAN AI Guide, a discussion on some potential drawbacks is equally important.

### *(1) Everything Will Come at a Cost*

The incorporation of many of the core principles into organizational processes will require the setting up of technical, risk management and compliance teams. This could come at a notable additional cost. To note, the costs faced by developers and deployers are distinctive in terms of the scope of responsibility that they bear respectively—i.e., developers to deployers, and deployers to the end-users—and thus different tools and functions will need to be employed to mitigate risks.[10] Although still voluntary, organizations that incorporate these adjustments into their operations to safeguard their own operations and stakeholders from potential harm do have benefits to reap. Without these steps, the resultant costs could amount to something quite substantial, including reputational damage.[11] Moreover, carving out a name as a frontrunner in AI system safety could augur well for businesses competing internationally, providing them with a competitive edge.

However, this scenario could see a widening of the digital development gap between larger and smaller firms. It has been found that although compliance costs are generally higher for larger organizations in absolute value, when taken on a cost-per-capita basis, it is the smallest firms that take a larger hit.[12] This could be attributed to economies of scale where compliance tools can be used by a wider number of people in an organization or the ability of larger, more established firms to have in-house teams to provide risk mitigation and compliance functions as opposed to hiring external consultants, which smaller firms may need to do.

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[10] BSA – The Software Alliance, "AI Developers and Deployers: An Important Distinction", https://www.bsa.org/files/policy-filings/03162023aidevdep.pdf

[11] Okta Inc, "The State of Digital Trust", https://www.okta.com/sites/default/files/2021-02/Okta_The-State-of-Digital-Trust-21721.pdf

[12] Ponemon Institute LLC, "The True Cost of Compliance with Data Protection Regulations", https://static.fortra.com/globalscape/pdfs/guides/gs-true-cost-of-compliance-data-protection-regulations-gd.pdf

One industry that has borne the brunt of higher compliance and risk mitigation costs, due to a large part in technological innovations in its sector, is financial services. In the 2023 Cost of Compliance Report[13] by Thomson Reuters, one-third of firms surveyed cited that compliance teams would grow in the coming year with just over half of them (51 per cent) citing that the cost of senior compliance staff is expected to be slightly more and with 10 per cent of them citing that costs will be significantly more than in the current period. Moreover, 77 per cent of these respondents also said that the need for a growing team of compliance staff stems from a greater demand for staff with a specialist skillset. Although the costs of compliance can be hefty, the costs of adverse impacts of not having sufficient safeguards in place can become significantly high. Globally, firms have revealed that the most consequential data breaches in the past few years have amounted to costs of between US$500,000–US$999,000 (according to 16 per cent of respondents) and US$1 million–US$9 million (according to another 16 per cent of respondents).[14]

### *(2) Lack of Skilled Personnel to Carry This Through*

Not only will a sturdier framework for risk management incur additional cost for firms, but there may also be challenges to acquiring the required specialists to drive the initiatives. With additional safeguarding processes and checks and balances in day-to-day operations, organizations will have to pay particular attention to cybersecurity and to the data management capabilities of the existing workforce and new hires. In

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[13] Thomson Reuters Regulatory Intelligence, "2023 Cost of Compliance", https://legal.thomsonreuters.com/content/dam/ewp-m/documents/legal/en/pdf/reports/cost-of-compliance-report-final-web.pdf?form=thankyou&gatedContent=%252Fcontent%252Fewp-marketing-websites%252Flegal%252Fgl%252Fen%252Finsights%252Freports%252Fcost-of-compliance-2023

[14] PwC, "Digital Trust Insights 2023: The Southeast Asia Perspective", https://www.pwc.com/gx/en/consulting-services/pdfs/digital-trust-insights-2023-the-southeast-asian-perspective.pdf

ISACA's State of Privacy Survey 2024,[15] 55 per cent of respondents believe that the demand for privacy compliance roles is expected to increase in the coming year, whilst 62 per cent of them think that there would be an increase in technical compliance roles in the same period. Contrasting this with the ability to fill both these types of openings, results from the survey indicate that 41 per cent of open positions in both the compliance and technical privacy roles took more than three months to fill (with 3 per cent remaining unfilled). Thus, this segment of the labour market is relatively tight. Apart from data privacy and protection roles, cybersecurity capabilities are also very much sought after in this current landscape, complementing robust data management processes with proper safeguards. The ISC2 Cybersecurity Workforce Study 2023[16] estimates that the gap between demand and supply of cybersecurity professionals has continued to grow at 12.6 per cent over the previous year. This amounts to a gap of four million cybersecurity professionals globally, with the gap in the Asia Pacific region being at 2.7 million (accounting for 67.5 per cent of the overall gap).

### *(3) Institutional Readiness May Not Correlate with the Level of Business Readiness*

Government readiness or institutional and regulatory readiness to push forward AI governance policy may not always reflect the state of readiness of firms on the ground. Using the Government AI Readiness Index by Oxford Analytics[17] to assess the institutional and regulatory readiness of a country's ability to pursue AI governance policies[18] and

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[15] ISACA, "Privacy in Practice 2024", https://www.isaca.org/resources/reports/privacy-in-practice-2024-report

[16] ISC2, "ISC2 Cybersecurity Workforce Study 2023", https://media.isc2.org/-/media/Project/ISC2/Main/Media/documents/research/ISC2_Cybersecurity_Workforce_Study_2023.pdf?rev=28b46de71ce24e6ab7705f6e3da8637e

[17] Oxford Insights, "Government AI Readiness Index 2023", https://oxfordinsights.com/ai-readiness/ai-readiness-index/

[18] The Government AI Readiness Index by Oxford Analytics incorporates measures under three main pillars of government, the technology sector, as well as data and infrastructure.

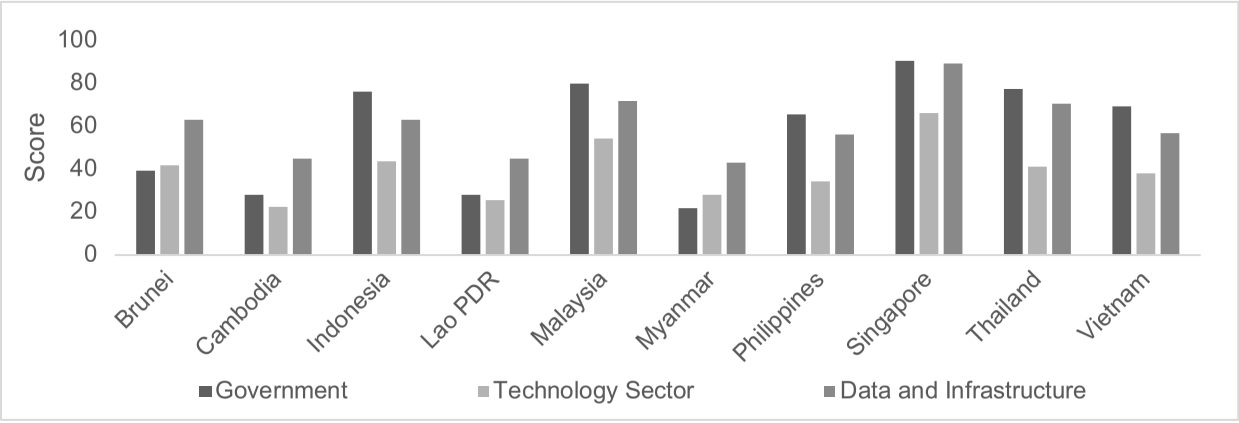
Cisco's AI Readiness Index as an indicator for organizations, there is some evidence of a disconnect between these two measures.

Regarding the level of government readiness, ecosystem set-up in terms of technology (e.g., innovation capacity) and required infrastructure (such as data availability), Singapore scores the highest in all three aspects amongst its Southeast Asian peers (Figure 1) and is notably ahead of South Korea, China and Japan. In collective scoring, Malaysia, Indonesia and Thailand trail Singapore.

Although the aspects of government, technology and infrastructure readiness can be thought to form the foundation of an AI governance ecosystem, the varied readiness of organizations in the respective countries paints a slightly different picture. In Cisco's review of the level of AI readiness of organizations[19] in terms of strategy alignment and leadership, the robustness of IT infrastructure, and data management processes, among other salient aspects, organizations are placed in four categories: pacesetters (fully prepared), chasers (moderately prepared), followers (limited preparedness) and laggards (unprepared). Figure 2 shows that Indonesia, Vietnam and Thailand fare best in terms of cumulative responses of pacesetters and chasers. This contrasts with the readiness levels on the government side, where Singapore and Malaysia are ahead. Thus, even if government institutional and regulatory foundations are in place, businesses may not be up to speed—or may be ahead in instances where they lead in level of preparedness. Thus, when translating the ASEAN AI Guide into practice, the relative balance of readiness needs to be assessed.

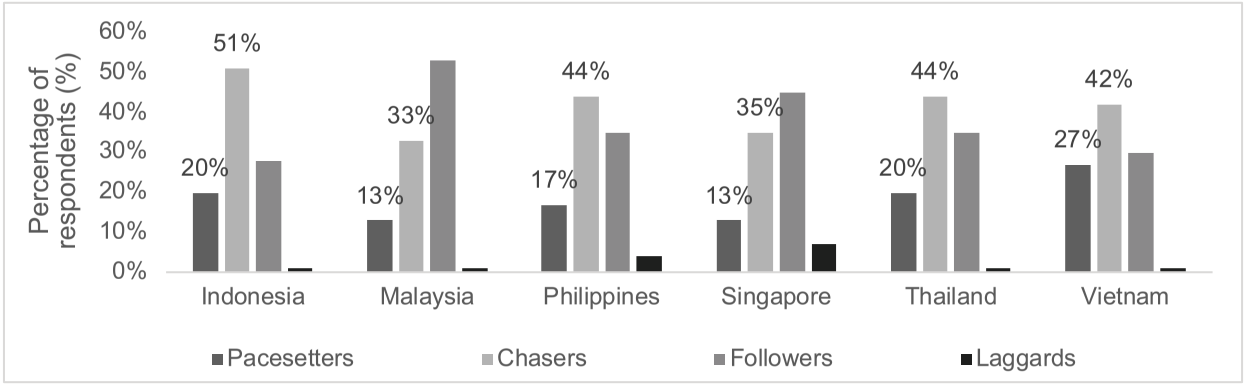
[19] The Cisco AI Readiness Index is derived from a double-blind survey of business leaders with responsibility for AI integration and deployment in organizations with 500 or more employees. It reflects the sentiments of the respondents with regard to their perception of their level of preparedness to face issues of AI system implementation rather than constituting a quantitative benchmarking exercise.

***Figure 1: Government AI Readiness Index, 2023***




*Source:* Oxford Analytics.

***Figure 2: Business AI Readiness Index, 2023***




*Source:* Cisco.

# PUBLIC POLICY FOCUS WARRANTS FURTHER DISCUSSION

*(1) Resteer Some Focus to Ex-post Regulations*

The ASEAN AI Guide is largely formulated from a preventative perspective, i.e., addressing areas for the safe development and use of AI systems. This serves an integral purpose in the AI development value chain, especially inculcating governance and ethics considerations from the start with a "responsibility-by-design" approach. That said, the impacts of AI utilization with malicious intent are already rife with cybercrimes and misinformation campaigns being more easily and effectively carried out with help from AI applications.[20] With this urgency to stem risks in the most expedient way, the drawing up of relevant ex-post regulations may be an option. In essence, this would provide a means of legal recourse for victims in these instances.

As such, the inclusion of provisions on AI-generated content in copyright laws or clauses could be a viable first step, and one which does not require the arduous and often lengthy process of drafting entirely new legislation. In the same vein, regulations that are facilitative of a well-functioning and secure digital landscape, such as those pertaining to electronic commerce, should be regularly updated to reflect the conditions of the current operating environment and be flexible enough to address future challenges.[21] Apart from having means of legal recourse when faced with adverse circumstances brought by AI systems, the ability of countries to monitor these issues and enforce these laws will also be of utmost importance. Thus, the strengthening of institutions—both regulatory and legal—as well as enhancing law enforcement capabilities

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[20] Nikkei Asia, "Generative AI Contributes to Increase in Cybercrimes", https://asia.nikkei.com/Spotlight/Datawatch/Generative-AI-contributes-to-increase-in-cybercrimes

[21] Tech For Good Institute, "Evolution of Tech Regulation in the Digital Economy", https://techforgoodinstitute.org/wp-content/uploads/2024/01/Evolution-of-Tech-Regulation-in-the-Digital-Economy-Full-Report.pdf

which is where the remit of cybercrimes falls under mostly—would be important steps to carry out in tandem.

That said, there are two main challenges that may present themselves. The first is that not all the AMS have the core regulations required to incorporate ex-post regulations into place[22] and hence, they are not yet an expedient path to legal recourse for some of these key adverse AI-generated outcomes. Secondly, the maturity and effectiveness of regulatory and legal institutions in the different AMS can be vastly different, with countries in the CLMV[23] grouping generally having less mature institutions and capacities (Figure 3).

In comparison, the AMS in the high-income bracket have an average percentile rank of 89.0 for Rule of Law and 90.9 for Regulatory Quality measures, whilst upper-middle-income AMS score 57.5 and 63.9 on average for these measures respectively. Thus, the viability of using ex-post regulations to stem unwanted impacts from AI development may be confined to more developed economies currently. For countries falling behind in these respects, there is an impetus to enhance regulations in these core areas as a starting point.

### *(2) Reassess the Potential Cost Burdens for Firms, especially MSMEs*

Firms that decide to incorporate changes to their operations as guided by the ASEAN AI Guide could potentially incur additional costs. As mentioned earlier, these additional costs would be easier for larger organizations to bear. As a result, there could be a further widening between large and small firms in terms of their relative competitiveness if larger firms are better able to harness AI technologies and provide safeguards for their stakeholders.

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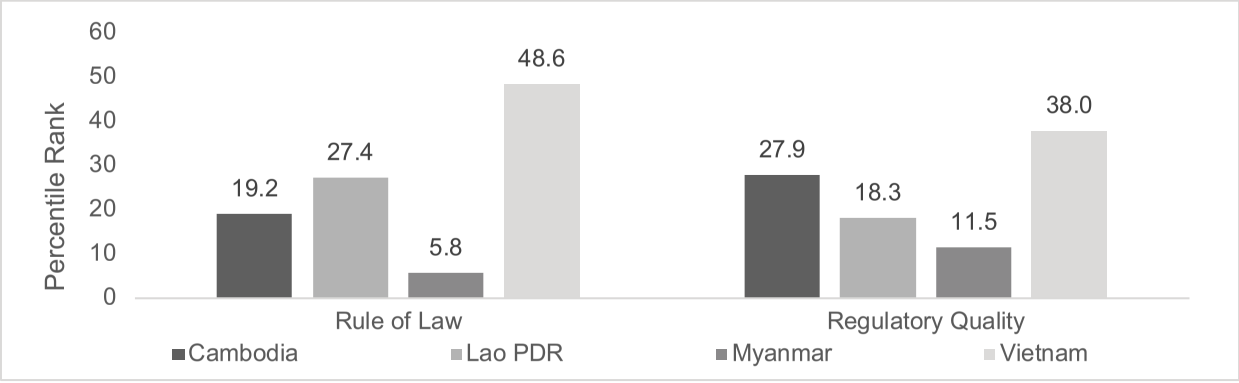
[22] Kristina Fong Siew Leng, "ASEAN's New Dilemma: Managing the Artificial Intelligence Space", *ISEAS Perspective*, no. 2023/65, 7 August 2023, https://www.iseas.edu.sg/articles-commentaries/iseas-perspective/2023-65-aseans-new-dilemma-managing-the-artificial-intelligence-by-kristina-fong-siew-leng/

[23] CLMV grouping represents the newest members of ASEAN—Cambodia, Lao PDR, Myanmar and Vietnam.

***Figure 3: Rule of Law and Regulatory Quality in the CLMV Grouping***




*Source:* World Bank (2021).

Although all the aspects covered by the Guide are important components in the overall ecosystem, having to address them in organizational processes all at once could be very challenging from an operational cost and human capital perspective. As such, the Thailand[24] and EU[25] approach of classifying risks in terms of relative harm could be a suitable way to stagger the implementation of these safeguards over time, and make additional costs more manageable. One approach to classifying these risks could be through measuring adverse effects from an ethics and governance standpoint, such as reputational harm from deepfakes.

Another approach to categorizing risks could be in terms of the amount of sensitive data the AI-related activity collects. Alternatively, guidelines can be more attuned to the difference in risk levels that different industries bear, i.e., with the implementation of the guidelines being more critical in industries that more heavily leverage this kind of technology such as the finance and healthcare sectors. This may require additional industry-specific regulations or standards to be formulated on top of general guidelines. These parameters can be taken into consideration when pursuing more binding policy prescriptions going ahead, i.e., knowing where to be more hard-handed for maximum impact of safeguards, whilst staying flexible in other aspects so as not to stifle innovation. Thus, there is a choice between an ex-ante precautionary approach or an ex-post impact approach to formulate the necessary risk profiles in the development and deployment of AI systems.

Besides adjustments to the ASEAN AI Guide itself, governments could also consider a recalibration of budget allocations to the development of AI capabilities by MSMEs, through time-limited tax breaks or matching grants for required training and human resource upskilling, in areas pinpointed by the guide. This would not only help

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[24] OneTrust, "Thailand: Update on Proposals for AI Regulations", https://www.dataguidance.com/opinion/thailand-update-proposals-ai-regulations

[25] European Commission, "AI Act", https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai

MSMEs build up technical capacities for more sustainable development of their business but also save costs in consultancy fees in the long run. Moreover, tools such as ASEAN Model Contractual Clauses[26] can help smaller enterprises build up knowledge in technical areas such as cross-border data transfers, and facilitate these activities by providing some standardized template for these processes to be carried out in a safe manner. As such, there may be scope to expand the range of ASEAN-wide applications to safeguard against adverse AI system impacts.[27]

### *(3) Evolving Technologies Call for New Approaches to Manage Them*

With the rapid development of deep tech applications, which incidentally also utilize AI technologies, some attention should be directed to them to counteract adverse impacts.[28] A case in point would be the development of technologies that are better able to weed out deepfakes, in order to stifle reputational damage to individuals, fake news, and cybercrimes, among others. The start-up sector can be encouraged to develop such products through public sector grants for entrepreneurship, public-private partnerships of co-funding mechanisms, or even large corporations driving this forward with corporate venture capital schemes.

The human capital element is just as important when addressing the risks posed by AI systems in a holistic manner. The ASEAN AI Guide emphasizes the importance of a well-trained workforce knowledgeable in the risks and ethical considerations of AI development and deployment,

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[26] ASEAN, "Joint Guide to ASEAN Model Contractual Clauses and EU Standard Contractual Clauses", https://asean.org/wp-content/uploads/2024/02/Joint-Guide-to-ASEAN-Model-Contractual-Clauses-and-EU-Standard-Contractual-Clauses.pdf

[27] Tech For Good Institute, "Enabling Safe and Inclusive Use of AI in Southeast Asia", https://techforgoodinstitute.org/blog/expert-opinion/enabling-safe-and-inclusive-use-of-ai-in-southeast-asia/

[28] IEEE, "AI for Cybersecurity and Cybercrime: How Artificial Intelligence Is Battling Itself", https://www.computer.org/publications/tech-news/trends/ai-fighting-ai

as well as being skilled in the implementation of safeguards and monitoring mechanisms. Beyond the first degree of personnel tasked with these responsibilities, such as developers, IT professionals and risk management practitioners, the Guide also notes the importance of instilling the culture of AI governance in all parts of the organization. Thus, it is important for organizations to develop a foundation of continuous learning and upgrading of skills in this area.

Moreover, given the dynamic nature of AI and hence, a lack of knowledge of the whole slew of threats that these systems pose to stakeholders, an additional focus on red teaming activities could be encouraged through government training grants or other incentives for businesses, such as time-bound double tax deductions for expenditure on courses that emphasize practical applications. The emphasis that governments put on this area and the wider cybersecurity profession may also help to reframe perceptions about the role these workers play in the organization and their relative importance to the organizational structure. Results from the ISC2 Cybersecurity Workforce Study 2023 show that cybersecurity teams are not immune to cutbacks in economically challenging times. In this survey, 47 per cent of respondents had experienced some form of belt-tightening measures in their organizations over the course of the past year, from layoffs and budget cuts to hiring freezes. Not all layoffs are created equal and an over-rationalization of cybersecurity staff can have organization-wide implications.

### *(4) Psychological Changes Should be Monitored as Ethical Considerations*

The ASEAN AI Guide provides guardrails for navigating governance and ethics aspects in the development and deployment of AI systems. Whilst governance objectives may be easier to articulate and implement in organizational processes, the element of ethics remains an area that is complex due to value judgements surrounding its definition. As such, while organizations may put in their best efforts to ascertain what is morally right or wrong and hence, develop AI systems without bias as far as possible, the development of these systems and how humans relate to them should be routinely monitored, and incorporated into a feedback

loop for developers to improve the AI systems in these respects. As AI application utilization becomes more widespread in all facets of daily life, from applying for bank loans, to interacting with service-oriented chatbots, and using generative AI tools for educational purposes, the monitoring of societal changes will be a focus area for policymakers. Some of these would involve the prevalence of subtle social engineering effects through dark patterns, as well as some loss in the ability for critical thinking due to a potential over-reliance on these tools and the trust that can be generated through the development of AI tools that are life-like and that can have the ability to empathize. These psychological changes in society may take a while to materialize but should be assessed in all parts of the demographic, as well as across all walks of life and backgrounds, to help recalibrate the focus of public policy safeguards and their level of stringency.

### *(5) Prioritize Areas for Regional Cooperation*

Although the ASEAN AI Guide has been drawn up as a regional initiative, the diverse range of regulatory and institutional capacities, as well as the relative status in AI policy developments across the region will make it extremely challenging for all AMS to move forward collectively in a significant way. However, the proposal to set up an ASEAN Working Group on AI Governance to oversee AI governance initiatives in the region is an important fundamental step to get closer to a more coordinated approach in this area. Ideally, the working group should have a set of first-level priorities to focus on which could be identified through a risk-based approach, i.e., AI-generated activities that could potentially pose the most harm to societies, as well as a timeline of milestones of what the working group could set out to achieve within the period.

This platform could help to facilitate more ASEAN-wide policy coordination as well as monitor or track the progress of AI governance readiness and progress amongst the AMS. Besides this, an officially established platform provides the foundation for AI policy discussions to foster the start of these in countries that are behind in this respect and conversely, for countries who have established some conversations in this field to share knowledge and experience regionally as well. It is also an

important platform for the AMS to get a better understanding from each other on where they stand from a cultural and societal perspective on the area of ethics and the challenges that different AMS may face. Although the benefits of having more regional discourse and collaboration are clear, there should also be an inherent understanding that countries may inevitably need to implement these guidelines in their own way in terms of what is prioritized and how binding they may be.

There are certain areas that may be of more urgency, such as in areas pertaining to cybersecurity incidents and in cross-border areas such as data transfers. The setting up of the Regional Computer Emergency Response Team, funded and hosted by Singapore, is an important first step to address cross-border cybersecurity threats.[29] Moreover, regional sandboxing activities could be established as one of the remits of the working group—to promote greater interoperability within safe confines without stifling innovation.

## THE ASEAN AI GUIDE IS JUST THE START OF AN EVOLVING DEVELOPMENT

The ASEAN AI Guide promotes "responsibility by design" in the form of organizational guidance without being overly prescriptive. It puts forth important areas to address for the safe development and use of AI systems, but is not overbearing in how firms achieve the means to an end, which is both practical and realistic: practical in the sense that it attempts to stem governance or ethical breaches from the starting point of AI development, and realistic in the way that it is flexible in the same respects, remaining cognizant of differences in country capacities as well as the organizations that operate within them.

The alternative of a more binding and specific top-down approach would run the risk of potentially not right-sizing safeguards on the

[29] Osmond Chia, "S'pore to Host and Fund Asean Emergency Response Team to Combat Regional Cyber Threats", *Straits Times*, 4 February 2024, https://www.straitstimes.com/tech/s-pore-to-host-and-fund-asean-emergency-response-team-to-combat-regional-cyber-threats

ground level due to issues of imperfect knowledge on the practical side of operations, as well as a lack of appreciation for the different capacities to adhere for different types of firms. Thus, a bottom-up approach to building up a national and even regionwide AI governance framework may be more apt given the concerns about unintended adverse impacts on innovation capacities if this delicate balance is not achieved.

That said, there are areas that may require a more heavy-handed approach, for example regarding crimes resulting from AI deployment. The authorities should not shy away from transforming these safeguards into formal legislation expediently. That said, AI technologies are getting smarter with every second with very real impacts on our everyday lives and the way humans think and interact with one another. As such, softer factors such as psychological impacts stemming from AI system usage should not be forgotten as an integral part of the public policy discussion.

The key qualification for the rapid development of AI systems is their significant contribution to productivity. The other question to ponder is, at what cost?

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