April 2025



Al Competition in Southeast Asia: Can Malaysia's ASEAN Chairmanship Make a Difference?

Elina Noor



In the final days of the Biden administration, the US Department of Commerce's Bureau of Industry and Security released a <u>Framework for Artificial Intelligence Diffusion</u> that split the world into three categories of recipients of US advanced AI technology: traditional allies and trusted partners, over 100 countries comprising most of the world, and countries of concern or those already under US arms embargos. This regulatory regime would ostensibly allow the United States to carry on exporting advanced AI models and the means to produce them to "<u>responsible</u>", global AI markets while restricting access to adversaries. Most of the member states of the Association of Southeast Asian Nations (ASEAN) would fall within the second tier of countries with much of the rest of the world. This would mean continued access to advanced US AI technology, including integrated circuits and model parameters, subject to a predetermined cap by Washington.

The AI diffusion framework is reinforced by a string of other <u>comparable US policies</u> that have sought to entrench US dominance through tech, sometimes with other government and <u>private sector partners</u> but always with an America First undertow. The framework is also only one piece of the larger, US-China tech competition tit-for-tat dynamic that could result in a tumultuous journey of digital transformation on which Southeast Asian countries have anchored much of their growth and developmental agendas. Washington's and Beijing's retaliatory measures against each other's tech <u>infrastructure</u>, <u>equipment</u>, services, <u>components</u>, <u>platforms</u>, <u>critical minerals</u>, and <u>companies</u> have unsurprisingly made their way across all forms of data-driven backbone technologies from submarine communication cables and 5G to now, AI.

Recalibrating for agency

Southeast Asian countries have largely managed to roll with the punches, seeking to leverage and capitalise on great power competition as much as they have tried to avert being collateral damage of it. When Washington passed the CHIPS and Science Act in 2022, Malaysia, which accounts for about 13 percent of global assembly, packaging, and testing of semiconductor chips, <u>positioned</u> itself as the preferred backend location for front-end expansion of water fabrication plants in the United States.

Malaysia also <u>benefited</u> from other economies' Plus One strategies (when businesses add or diversify their operations to other locations beyond a primary base) such as China's and Taiwan's as they sought to minimise their risk exposure to the US-China tech fallout.

Similarly, Vietnam, because of its geographical proximity to China and low labour costs, has drawn additional investment commitment from the likes of <u>Apple</u>, which has been in the country for over a decade, as well as from <u>Samsung</u>, which has been present in Vietnam for twice as long and is now the country's largest foreign direct investor.

Countries are also striking out on their own to buffer against geopolitical headwinds impacting their Al priorities. In its first round of <u>investments</u>, Indonesia's new, controversial sovereign wealth fund, Daya Anagata Nusantara (Danantara) Indonesia, will plunge USD20 billion into more than 20 projects involving, among others, Al development and metals processing to scale both the digital and green economies.

Malaysia recently entered into a 10-year, USD250 million <u>agreement</u> with SoftBank Group's Arm Holdings for the latter to provide chip design, technology licenses and know-how. This is a "radical" move, <u>according</u> to Malaysia's economy minister, Rafizi Ramli, by Putrajaya to propel the country's position up the semiconductor value chain from the back-end to the front-end, particularly in designing and producing Al chips. This decision also aligns with <u>Google's</u> and <u>Microsoft's</u> large investments in the data centre and cloud services sector in the <u>region</u>, which would be more efficiently serviced by the availability of advanced Al chips in Malaysia in the long run.

Despite these moves at diversification, the region risks unexpected shocks to its substantial, long-term investments by disruptions in the AI space, itself. The launch of DeepSeek's V3 large language model in January 2025 <u>challenged</u> assumptions about the level of computing resources and relatedly, costs required to deliver high performance AI capabilities. In Southeast Asia, this less-is-more model fundamentally calls into question the rationale for an ever-growing number of data centres to process increasingly large models, especially given these centres' <u>resource-intensive</u> demands and operations in a <u>climate vulnerable region</u>. In the face of DeepSeek-like disruptions, governments may still <u>remain</u> confident about their data centre investment strategies and cost comparative advantage that will enable AI developers to scale faster (even <u>using</u> DeepSeek's foundational model).

However, the larger question is whether this expansive strategy remains viable against both the climate realities of a warming region as well as the profoundly <u>extractive</u> nature of Al systems that depends on an insatiable supply of often scraped – arguably, <u>stolen</u> – data, invisible <u>labour</u>, and natural resources such as energy and water to power and cool data centres?

(Re)Imagining a people-centred, people-oriented AI

ASEAN could, in fact, consider a different approach to AI if it allows itself to strategize beyond the strictures of the global supply chain and obsession with growth figures. Malaysia's chairmanship theme of "Inclusivity and Sustainability" offers a timely opportunity to deliberate on the goals of AI optimisation in the regional context and to substantively and practicably reframe the raison d'être for AI deployment throughout the region.

A different approach by ASEAN stakeholders could start with boldly questioning the twin premises of inclusivity and sustainability. To be included assumes there is an existing framework or agenda, to begin with, for integration or assimilation to take place. What does that dominant structure look

like and what does the process of being folded into it require? Are both the structure and process necessarily positive and if not, what costs are implied? As African scholars, Angella Ndaka and Geci Karuri-Sebina, <u>ask</u>: "Whose technologies are being produced anyway?"

Similarly, with sustainability, what context should this be understood in – environmental, financial, operational? What happens if these interests are incongruent with each other, as is sometimes the case with AI, such as when the short-term goals of drawing data centre investments bump up against the longer-term <u>ecological</u> and <u>public health</u> impacts of such centres?

The global majority has many good practices on inclusivity and sustainability that ASEAN could benefit from in designing, developing and deploying AI. The Brazilian notion of "popular engineering" that focuses on <u>co-constructing</u> technical solutions with the supported group's knowledge, values, and worldviews is the applied principle of treating AI or any other technology as a <u>socio-technical</u> endeavour.

Similarly, the <u>Colombian example</u> of <u>participatory design</u> is insightful: a technical team that initially planned to automate a specific type of traditional embroidery – *calado* – eventually pivoted to allow the artisans to try new patterns on a tangible user interface before they embroidered on fabric. This reconfiguration occurred when the technical team realised, in working with the *caladora* embroiderers at the project design phase, that the artisans would be devalued and replaced by automation had the team followed the original plan.

Indigenous communities, despite being core environmental stewards, are marginalised everywhere including in Southeast Asia. As they look to participate more actively in the digital spaces that have been thrust unto them, they could draw inspiration from <u>indigenous data governance movements</u> advanced by the Māori, <u>native Hawaiians</u>, and <u>First Nation developers</u> in North America.

Just as African scholars are incorporating the relational ethos of <u>ubuntu</u> and Latin Americans, <u>buen vivir</u>, into discussions on AI development and governance, ASEAN, too could lean into its commitment to a people-centred, people-oriented approach in pursuing data-driven technologies. This should be the region's unique guiding principle for its AI policies and masterplans, and one that translates into the design, development, deployment, and retirement of AI systems in the region.

Technical solutions to address Southeast Asia's problems are useless without conceiving the social relations, constructs, and context for which they are built. The data that trains AI systems are, ultimately, accumulated reflections of social interactions and experiences. To return to Malaysia's "inclusivity and sustainability" theme, it is, therefore, the technical or technological solutions that should be folded into ASEAN's commitment to its people and community rather than shoehorning society into technological trends and developments. Malaysia should consider shepherding this people-centred, people-oriented approach to AI in its chairmanship year.

ABOUT THE AUTHOR

Elina Noor is a senior fellow in the Asia Program at Carnegie Endowment for International Peace where she focuses on developments in Southeast Asia, particularly the impact and implications of technology in reshaping power dynamics, governance, and nation-building in the region.

Cover image: Petronas Twin Towers in Kuala Lumpur, Malaysia. iStock.

Disclaimer: This essay is published as a part of APLN's <u>Asia Dialogue on China-US Relations</u>, supported by a grant from Carnegie Corporation of New York. The views represented herein are the author's own and do not necessarily reflect the views of affiliated institution(s), nor that of APLN, its staff, members, board, or funders.

