# The Dawn of Pivotal Powers in Artificial Intelligence

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A universal force multiplier, artificial intelligence (AI) is likely to be among the elements to influence the geopolitical balance of power in a newly emerging global order. The United States and China have already placed the technology front and center among their national priorities.[29] But AI's evolution and governance is less likely than those of other technological breakthroughs to rest solely on the decisions of great powers.[30] Certain middle powers also seek to influence the rules.[31] They see AI as an opportunity to boost their economic, military, political, and socio-cultural competitiveness, and their prestige on the world stage.[32] Further, AI is a unique emerging technology that relies on a complex and diverse supply chain that middle powers can leverage geopolitically. As a result, a new category of pivotal powers in the international order is emerging, one that is investing in AI. India and Saudi Arabia are among the key cases. Ranked, respectively, 10th and 14th globally in terms of overall AI capacity (see graphic below), both countries are looking to AI to advance their strategic interests and their regional and global leadership positions.[33]

Global Ranking of AI Capacity
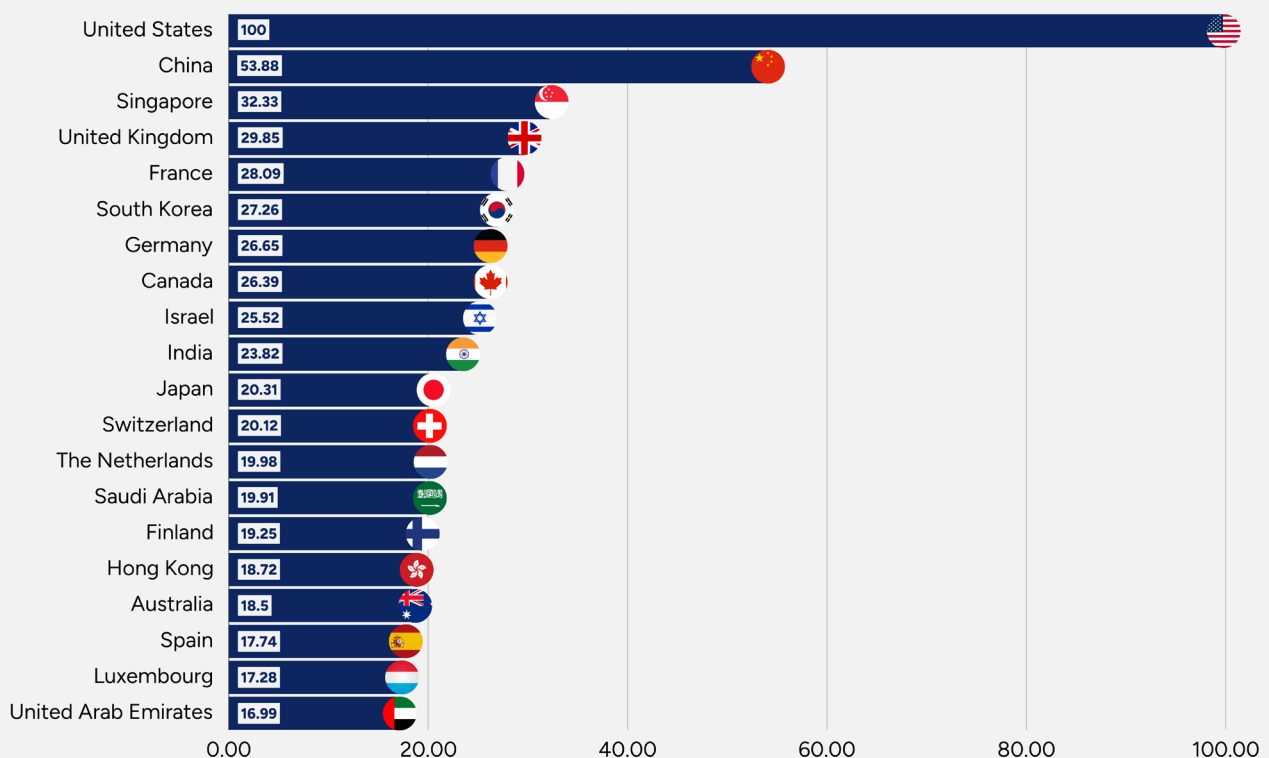
Geopolitical Opportunities on the AI Value Chain

Pivotal AI powers seek to raise their geo-economic and geopolitical power by leveraging comparative advantages along specific points on the AI value chain. The key building blocks required to develop and/or deploy large-scale AI power include:

- human capital: talent pool, research institutions

- data: large datasets, data privacy and security frameworks

- compute: technological infrastructure including high-performance graphic processing units, hardware accelerators, cloud computing platforms, and research and development facilities such as laboratories and innovation hubs

- energy: large-scale power levels required to sustain high-performance compute

- finance: access to public and private finance for startups, research, and large-scale initiatives

- regulation: policies, strategies, and laws that support innovation while addressing ethical/security concerns; intellectual property protection; roles in global regulatory forums

- connectivity: high-speed internet; supportive ecosystems for technology hubs, incubators, accelerators, and industry partnerships

- partnerships: international and public-private collaboration

- trust: ethical standards for responsible AI, public awareness, and knowledge of AI

Among AI's building blocks, computational infrastructure is increasingly key as the computing power needed to train AI frontier models roughly doubles every six months. Training and deploying large-scale AI models requires large data centers, and the countries that host them gain geopolitical advantage. Some governments have consequently adopted industrial policies aimed at securing sufficient supplies of AI compute for local industries and researchers, and at preventing technology leakage.[34]

Despite a broad global consensus on the need to ensure AI's responsible use, however, developing an enforceable framework for its governance is proving increasingly difficult. Middle powers outside the G7, wary of entrenched Western influence in this effort, have been seeking to influence AI governance debates.

India and Saudi Arabia illustrate the emergence of pivotal powers in the global AI landscape. Both are leveraging their assets—data and human capital in India's case; investment in AI infrastructure in Saudi Arabia's—to carve out critical roles in the new technology's development. Both are also striving to capitalize on the current geopolitical moment to

advance their AI interests, but their success here hinges on their ability to balance their position between the great powers competing for technological domination.

India's AI Bid for Equitable Global Governance

AI is an area in which India is leveraging its rapidly advancing technological capabilities to transform itself into a significant global power. In 2024, the country launched its "AI Mission" under the slogan "AI for All", underscoring its goal to leverage the technology for progress at home and in the developing world more broadly.[35] India has also emphasized the importance of "responsible AI", with a focus on openness, safety, trust, and accountability[36] to avoid becoming a testing ground for other states and for technology giants from which it demands greater accountability.[37] New Delhi seeks to play a pivotal role across the entire AI supply chain, spanning research, development implementation, and governance.

India's 2018 National Strategy for Artificial Intelligence (NSAI) has informed the country's AI Mission, which falls under the Ministry of Electronics and IT (MeitY).[38] MeitY received its first $1.25 billion allocation for the initiative in its 2024-2025 budget.[39] The funding aims to strengthen all aspects of the AI value chain, especially compute. Human talent and data, however, remain India's core strengths, and they are closely linked to the country's being the world's youngest and most populous nation.[40] India also boasts the highest AI skills penetration globally, and AI-skilled individuals in the country have grown 14-fold over the past seven years.[41] In addition, India's controversial but rapid digitization over the past two decades, driven by initiatives that include financial inclusion, biometric identity programs, and widespread mobile adoption, have generated vast amounts of data.[42] This has led India to introduce technical protocols for "data empowerment" and enacted a personal data protection law to allow publicly available data to be used for AI training.[43]

Political leaders have emphasized that the country's approach to AI will follow its approach to digital public infrastructure (DPI), which relies on government-backed application programming interfaces that third parties, including the private sector, can use to build software that connects with state services.[44] These leaders have also emphasized that "this kind of public-private partnership approach is neither there in the west nor in the east."[45] DPI was the focus of India's G20 presidency and has UN endorsement. It was also featured in a joint statement with United States.[46] New Delhi also aims to create a public platform for AI on which all relevant resources and information will be made available.[47]

Beyond its domestic aspirations, India seeks to be a "voice for the 'Global South'" in global AI governance.[48] As part of this effort, the country has participated in forums such as the Global Partnership on AI (GPAI) and the UN's multistakeholder Advisory Committee on AI. As 2024 GPAI chair, India successfully advocated for restructuring the group to ensure equal standing for members and non-members of the Organisation for Economic Co-operation and Development.[49] It also called during G7 outreach sessions that same year for an end to a monopoly on AI.[50]

Given the technological race that underpins US-China strategic competition, India's focus on AI is already yielding geopolitical benefits. The country is maintaining its long-standing commitment to strategic autonomy but is simultaneously strengthening its ties with the West. Emerging technology, especially AI, has been key to enhancing strategic partnerships with the United States, the United Kingdom, and the EU.[51] This indicates that gestures, such as India and China's recent agreement to ease border tensions, are unlikely to steer New Delhi away from its westward turn.

Despite India's bid for a global AI role, some rankings highlight a gap between its current and potential capabilities. The Oxford Insights Government AI Readiness Index 2023 ranked India 40th out of 193 countries, reflecting its strong talent and lagging infrastructure and innovation.[52.] Nonetheless, India's efforts to establish equitable AI global governance and its assets along the AI value chain secure its position as a pivotal AI power.

Saudi Arabia's AI Gold Rush

Using its privileged oil wealth strategically, Saudi Arabia has undertaken a massive generational transformation effort aimed at morphing its hydrocarbon rentier state profile into one of a technology power. Crown Prince Mohammed bin Salman's Agenda 2030 requires AI for fully two-thirds of the measures contemplated, and digital technologies form the cornerstone of the Agenda's diversification and modernization effort. A vast surge in investment in AI-related industries, research, talent, and infrastructure involve amounts that dwarf major Silicon Valley undertakings. The kingdom has become an El Dorado for technology investors.[53]

Saudi AI investment in recent years has been dazzling. In 2024, Riyadh created a $100 billion fund for investment in digital technologies. It is also in talks with Silicon Valley venture capital firms and other investors to invest an additional $40 billion. The country is today the largest digital market in the Middle East and North Africa.[54]

The Saudi Data & AI Authority (SDAIA) launched in 2020 the National Strategy for Data & AI to drive the national AI transformation and establish the kingdom as a global leader in the field.[55] SDAIA has legislative power and, since its establishment in 2019, has adopted 14 AI-related regulations and policies, including a personal data protection law, AI ethics principles, and guidelines for generative AI. The enormous speed and tight strategic outlook with which the country has developed its AI sector has earned it a respectable place in global AI rankings. Tortoise's 2024 AI Index, for example, ranks Saudi Arabia first for government strategy and 14th overall.[56] In global debates on AI governance, the country has supported the G20's endeavors to promote equitable AI governance and achieved greater representation for itself (a Saudi member was appointed in 2023 to the UN Secretary-General's High-Level Advisory Body on AI) although Riyadh has yet to have any meaningful impact on governance deliberations.

To build a robust domestic AI infrastructure, Saudi Arabia's strategy focuses on data center capacity, high-performance computing capabilities, and scalable cloud computing services. Five of Saudi Arabia's municipalities are among the world's top 100 smart cities.[57] The country's domestic cloud market grew by 30% between 2022 and 2023. By 2030, the government expects public spending on domestic cloud infrastructure to grow 23% annually

and investment in data centers to reach $15 billion. There is also an emphasis on human resources. Since 2018, the number of workers in Saudi Arabia with AI skills has doubled annually. Scientific publications on AI grew by 45% over the same period while AI-related patents jumped 50%. This has led, unsurprisingly, to high public awareness of AI. According to government data, 75% of Saudis are familiar with the general concept of AI and 64% are knowledgeable about AI use cases and apps.[58]

The Saudi spending party, however, risks glossing over concerns that AI may help consolidate authoritarian governance. The kingdom is a theocratic monarchy with a dire human rights record. Chinese surveillance systems are already widespread in public sphere, and digital rights organizations warn of the risks of boosting Saudi technological capacity.[59] While the gruesome killing of Saudi dissident Jamal al-Khashoggi, reportedly upon Crown Prince Mohammed's direct order, dampened investors' enthusiasm for a while, those concerns appear to have faded in the light of international enthusiasm about the Saudi AI bonanza.

Saudi Arabia employs its comparative advantages—money and energy—to establish itself as a leading player in AI. By shaping its future as an AI power while oil money is still flowing, the kingdom is investing in a future that substitutes a dying geopolitical asset with a nascent one. However, geopolitical considerations remain. Riyadh will need to continue its delicate act of balancing relations with the United States, its main security partner, with China, its main trading partner, and Russia, its main oil ally in the Organization of Petroleum Exporting Countries. So far, to Washington's chagrin, Riyadh has resisted technological alignment with the West, even if it has reportedly started to limit ties with Chinese technology firms.[60] As a result, the United States has restricted exports of AI chips to the Middle East. Washington remains concerned that the Persian Gulf's burgeoning technology hub could become a conduit for Beijing to obtain advanced chips and has, therefore, in addition to barring US producers from direct shipping to China, restricted import of AI chips to the Middle East. Saudi Arabia's ability to balance its desired neutrality among the great powers with its dependence on the United States for security is set to become untenable.

Transatlantic Policy

The cases of India and Saudi Arabia illustrate the emergence of pivotal powers in the global competition for technological primacy. To maximize the opportunities and mitigate the risks associated with this, transatlantic policy should consider the following:

Boost engagement on AI with a mindset of equity: While transatlantic states, corporations, and research institutions should deepen their engagement with pivotal powers on AI, they should do so mindful of these players' interests and concerns. Although power in AI now chiefly lies in EU, US, and Chinese hands, Washington and Brussels cannot strategically afford to dictate the rules for a global technological revolution that will shape the lives of generations. Rather than seeing southern technology powers as mere friendshoring opportunities, and talent and raw material reservoirs, the transatlantic partners should craft cooperation in AI as a partnership that considers each side's needs and assets.

Seize opportunities in value chain diversification and integration: Despite the careful balancing this requires, the transatlantic partners should work with pivotal powers in AI to diversify value chains and critical infrastructure for mutual benefit. In an emerging bipolar world, shorter and diverse value chains can help distribute risk and ease geopolitical pressures. Pivotal AI powers' emerging comparative advantages should be incorporated into EU and US industrial and foreign policies.

Seize opportunities from AI pivotal powers' aspirations to act as a voice for the "Global South": Concerns abound about the AI revolution's ability to widen the gap between industrialized and nonindustrialized countries, with the latter lacking the resources, expertise, and infrastructure to keep pace with emerging technologies. This poses a challenge for EU and US efforts to promote inclusive policies, but rising pivotal powers in technology with influence in the developing world could leverage their position to advocate for greater global inclusion and equity. These powers could also use their comparative advantages to develop scalable AI applications and services tailored for deployment in the developing world.[61]

Mitigate the risk of losing AI pivotal powers to China or Russia: Pivotal powers' frequent approach to cultivating multiple strategic partnerships is inherently transactional from a transatlantic perspective.[62] Given a global trend in de-risking, this strategy is likely to create friction, particularly with Washington. US policymakers are rightfully concerned about the risk of American technology leakage into China or Russia. The EU and the United States should coordinate on establishing outbound investment regimes that limit such leakage in countries that collaborate with Beijing or Moscow on technology.

Devise policies and mobilize funds to counter AI risks of enabling or entrenching authoritarianism: AI can boost domestic and international authoritarian practices. Digital rights groups are concerned about surveillance, biometric screening, and AI-powered disinformation and defamation, especially as AI pivotal powers are already mobilizing the technology to consolidate domestic power. The transatlantic partners should consider the views of civil society actors in any AI collaboration with pivotal powers.

Adopt a multi-stakeholder approach: The AI revolution is driven by non-state actors including corporations, trade associations, the technology community, and civil society. EU and US policy planning must involve all stakeholders if it is to have geopolitical clout.