Leveraging Science Diplomacy for Inclusive AI Governance: Bridging the Global Divide

Sneha Sinha

Consultant, RIS



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The past two decades have witnessed an unprecedented growth in emerging technologies, with Artificial Intelligence (AI) at the forefront of this transformation. AI's potential to drive economic growth, enhance global competitiveness, and address societal challenges from healthcare and education to environmental sustainability has become increasingly evident. By 2030, AI is projected to contribute nearly <u>US\$19.9 trillion to the global economy</u>, representing roughly 3.5 percent of global GDP. Yet, despite these transformative possibilities, the benefits of AI remain unevenly distributed. *The Global Impact of AI: Mind the Gap* uses a multi-sector DSGE (dynamic general equilibrium) model to show that advanced economies could benefit much more from AI-driven growth than low-income countries, highlighting inequality in gains from AI. While nations in the Global North continue to consolidate technological advantages, countries in the Global South struggle with structural constraints, including limited infrastructure, a shortage of skilled talent, and underrepresentation in multilateral governance processes. This growing disparity highlights the urgent need for mechanisms that can promote equitable access, capacity building, and global cooperation in AI governance.

In this context, science diplomacy has emerged as a powerful tool. Traditionally AAAS and Royal Society (2010) has conceptualized three dimensions of science diplomacy namely, informing foreign policy through science, facilitating international scientific cooperation, and leveraging science to strengthen international relations. However, science diplomacy has evolved in response to new geopolitical and technological realities. This year, the American Association for the Advancement of Science (AAAS) and the Royal Society reframed science diplomacy along two interrelated dimensions which include science influencing diplomacy, where scientific knowledge informs policy-making and international negotiation, and diplomacy influencing science, in which foreign policy priorities and strategic engagement shape the direction, governance, and funding of scientific research. This shift reflects the complex interplay between science, technology, and

global power dynamics, including the increasing role of non-state actors and the dual-use nature of emerging technologies.

Complementing this perspective, the <u>European Union's 2025 Framework for Science Diplomacy</u> emphasises the strategic integration of science into foreign policy, aiming to advance both global public goods and Europe's geopolitical interests. The EU approach highlights the need for structured engagement, institutional capacity, and professional networks to ensure that science informs policy while balancing openness with strategic priorities. Together, these updated frameworks highlight a more nuanced understanding of science diplomacy, moving beyond soft-power cooperation to include strategic, forward-looking considerations that are essential in the era of AI and other disruptive technologies.

For the Global South, science diplomacy offers a pathway to overcome historical inequities in access, capacity, and influence. Countries across Africa, Latin America, Southeast Asia, and the Caribbean are increasingly adopting national AI strategies to harness innovation for economic growth, social development, and sustainable development goals. India, in particular, exemplifies how a Global South nation can actively shape the discourse on ethical and inclusive AI governance. The Impact Summit, for instance, articulates principles of human-centric development, ethical deployment, transparency, multi-stakeholder engagement, and equitable access. By operationalizing these principles at a national level and aligning them with international frameworks, India is demonstrating how national policy and global science diplomacy can mutually reinforce each other.

Science diplomacy and initiatives like the India AI Impact Summit can help Global South countries harmonise regulatory frameworks, participate effectively in multilateral discussions, and foster collaborative approaches to AI development. It not only enables access to advanced technologies but also enhances their role in shaping global norms around AI ethics, safety, and fairness, ensuring that technological benefits are distributed equitably. Furthermore, it can facilitate South–South cooperation, enabling nations to share best practices, build capacity collectively. Sneha Sinha writes.

The challenge, however, lies in translating these frameworks into tangible outcomes. The evolving nature of AI, growing geopolitical tensions, and competing national interests mean that science diplomacy must operate at multiple levels: between nations, across international organizations, and within multi-stakeholder forums. It requires flexibility, inclusivity, and a recognition that AI governance is not merely a technical issue but a deeply political and social one. In this light, science diplomacy serves as both a bridge and a tool for dialogue, one that can help ensure that emerging technologies like AI contribute to a sustainable, inclusive, and globally equitable future.