

The rapid evolution of artificial intelligence (AI) offers a unique chance in our technological journey to meld diverse cultures, ideas, and knowledge into a unified canvas of innovation. With AI poised to inject an astonishing \$15.7 trillion into the global economy. Its role extends beyond mere economic growth to a pivotal force of societal transformation. This immense potential has rightly captured the focus of policymakers worldwide, as we witness a multitude of national laws, multilateral guidance, and global summits to ensure effective regulatory oversight.

However, the pace of AI innovation will surpass the speed at which new regulations can be developed. While the creation of regulatory frameworks is indispensable, it is not sufficient on its own to navigate the rapid advancements and complex dynamics of the AI sector. A broader, more inclusive approach to governance is essential that transcends conventional regulatory strategies. This approach demands the cultivation of an AI ecosystem rooted in openness and transparency, a fertile ground where deliberation, diversity and even dissent are not just welcomed but are incentivised pathways towards achieving consensus on ethical and responsible AI training, development, and deployment. The global AI community should actively support and promote the open-source movement. By fostering a dynamic open-source ecosystem that welcomes auditing, adaptation, and use, we can create a transparent foundation that significantly benefits technological advancement. There are learnings from India's unique model of Digital Public Infrastructure (DPI) which is open source, open API's and globally inter-operable.

Firstly, it acts as a great equalizer in the marketplace by democratizing access to AI technologies. It guards against the monopolization of the field, ensuring that the future of AI is not shaped by the interests of a select few corporations or countries. Over 93% of developers worldwide adapt and integrate open-source code into their projects highlights its considerable value. An open ecosystem minimizes the time and resources necessary for the creation of new applications, democratizing access to tools across a wider spectrum of developers. A 2024 study from Harvard Business School reveals that the open-source ecosystem considerably lowers software costs for organizations, reducing expenses by up to 3.5 times. Additionally, this research sheds light on the economic impact of the open-source ecosystem, estimating its supply-side value at \$4.15 billion, while its demand-side value is significantly higher, reaching approximately \$8.8 trillion.

Secondly, a vibrant open-source AI ecosystem can foster a interdisciplinary strategy in AI research, development, and implementation, essential for harnessing its full potential and building public confidence. This incorporation of varied perspectives will allow AI to tackle real-world issues faced by communities, bringing concrete advantages on a global scale. Furthermore, an interdisciplinary method will ensure a discourse of ethical, environmental, and social elements throughout the AI lifecycle, from ideation to deployment mitigating many of the contemporary concerns.

Thirdly, for AI to genuinely benefit and represent every segment of society, it must reflect the full diversity of human experience. Achieving such representation demands widespread community involvement in the AI development process, from design through to deployment. This level of broad engagement is beyond the reach of exclusive, proprietary models. Instead, it calls for a thriving open-source ecosystem that actively fosters diversity and inclusivity, ensuring AI technologies are shaped by a multitude of perspectives and experiences.

Fourthly, to combat bias and discrimination in AI, promoting transparency in algorithms—specifically their model weights, training and inference codes, and the datasets they're built on—is crucial. For instance, Stanford's 2022 AI Index Report underscored that while large language models have become increasingly sophisticated, they also tend to replicate and amplify biases and toxicity from their training data, reinforcing societal prejudices and power imbalances. The open-source ecosystem can be instrumental in this regard, offering a collaborative space for rigorous examination and enhancement, ensuring AI evolves as a force for equity, fairness and alignment with societal values.

Fifthly, openness plays a crucial role in bolstering the safety of AI. It adheres to the principles of auditability and accountability, ensuring AI's reliability is rigorously maintained. Allowing for external scrutiny enhances the credibility and trustworthiness of AI models. An open-source ecosystem can ensure a much-needed dialogue on audit practices, safety protocols, and verification methods, enriching the entire AI landscape.

Finally, open-source AI ecosystem can significantly enhance regulatory processes by providing a wealth of insight and real-time data. Its inherent transparency enables ongoing monitoring and evaluation of AI technologies, ensuring that regulators remain informed about the latest developments and challenges. This can create a dynamic feedback loop, allowing regulations to evolve alongside AI advancements, ensuring they remain relevant and effective.

This week, Prime Minister Narendra Modi green-lit the IndiaAI mission, setting aside a budget of Rs.10,371.92 crore to transform the country's AI landscape. With objectives of democratizing computing access, enhancing data quality, nurturing homegrown AI expertise, drawing top-tier AI professionals, fostering industry partnerships, offering financial support to startups, focusing on socially beneficial AI projects, and promoting ethical AI practices,' the mission's blueprint resonates deeply with the open-source philosophy. This strategic alignment will substantially boost India's journey towards becoming an AI powerhouse.

As AI capabilities advance, it will increasingly be intertwined with diverse societal frameworks and functions. Given the swift pace of AI deployment and commercialization, it's crucial for global stakeholders in AI development to commit to ethical practices that uphold accountability, explainability, fairness, and transparency. Embracing the open-source ecosystem in AI is pivotal to this endeavour. It will ensure a future where technology is developed with a foundation of humane values, ensuring the benefits from AI are shared widely and equitably.

- *The author is G20 Sherpa for India and Ex-CEO, Niti Aayog. Views Expressed are personal.*