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AI and India:
The Challenge of Minimising Risks and Maximising Benefits

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SYNOPSIS

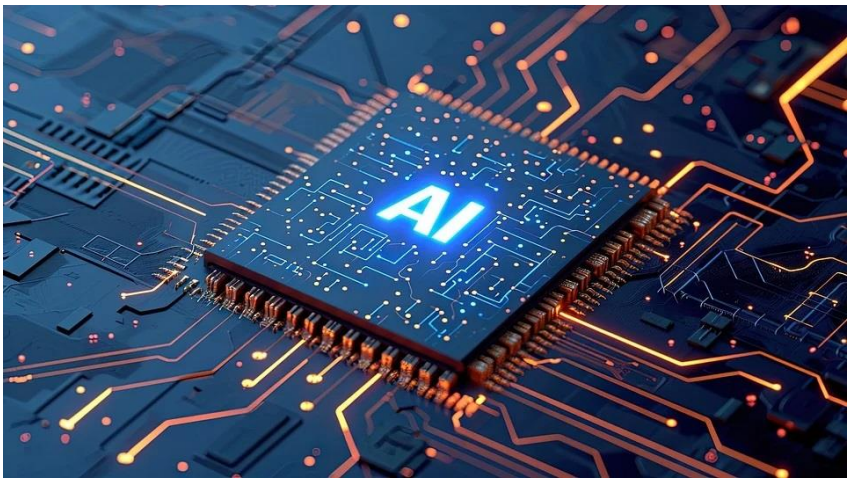
Emerging technologies, notably generative artificial intelligence (AI), are redefining international relations, reshaping geopolitical rivalries, and revolutionising the scope of intelligence. India, which boasts the highest AI skills penetration rates in the world and aspires to be a global front runner in AI skills, recognises the disruptive role of AI as well as its benefits. With AI surveillance technologies expanding internationally, New Delhi has every reason to be concerned, given its volatile neighbourhood.

COMMENTARY

Emerging technologies, from microchips and quantum computing to artificial intelligence (AI), have been transforming military power, redefining international relations, reshaping geopolitical rivalries, and revolutionising the scope of intelligence. These technologies have equally altered power structures and established the contemporary global order. The current technological advances – essentially involving the evolution and progress of AI from the traditional logic- and pattern-based variant to one known as generative AI, which simulates human intelligence and creativity – reveal both the dark undersides and the benefits of the power of technology.

AI tools are today setting new global rules for war and peace. As the Russia-Ukraine conflict continues to rage, the world has been witnessing AI being deployed through drones to collect intelligence, conduct surveillance, and carry out strikes. Facial recognition technology has been helping to identify soldiers, dead or alive, while differentiating civilians and refugees from soldiers, the former often being forced to flee the country during such catastrophes.

Despite being a new form of technology that has barely seen battlefield deployments before this conflict, AI has been playing a critical role in shaping the ongoing crisis. In fact, AI has proven to be a significant asset for both Russia and Ukraine as they fight each other. Understanding its evolving role in this conflict highlights AI's possible long-term implications for international security, strategic stability, and conflict dynamics. For a rising power like India, which is playing an increasingly active role in global and regional security dynamics, AI and its applications have major implications.



Emerging technologies, such as generative artificial intelligence (AI), is revolutionising the global landscape of international relations and the scope of intelligence. As a front runner in the AI field, India aspires to develop effective regulations compatible with international standards to address AI-related issues of cybersecurity, surveillance, and national security. *Image from Pixabay.*

The Dark Side of AI

OpenAI's ChatGPT, along with similar tools that are fast coming on stream, represents a powerful advancement in generative AI. It has ignited global fascination over its capabilities and potential for transforming the world of communication. However, such generative AI tools have their downsides as well.

In an era of advanced communication, AI surveillance tools, including spy balloons, are being actively deployed for tracking adversaries. More significantly, AI has been able to influence elections by disseminating fake texts, audio clips, and video recordings, exposing its disruptive capabilities. The prospects of generative AI being misused, abused, and leveraged during elections puts democracies like India in peril.

More than 60 countries have had, or will have, national elections in 2024, including major democracies like India, Mexico, and the United States. By crafting personalised and targeted phishing emails with speed and precision, tools like ChatGPT could provide opportunities for cybercriminals and foreign malign actors to interfere in the upcoming elections.

Further, with dark web AI tools easily available, instances of socially engineered deepfake attacks to manipulate and influence the public's emotions and trust are already on the rise. This trend, as well as the proliferation of such disruptive tools, has pushed leaders across countries and sectors to embark on collaborative initiatives for ensuring that "AI is ethically and responsibly developed, deployed and adopted".

AI's Potential and Risks for India

India boasts the highest AI skills penetration rates in the world and aspires to be a leader in AI skills. The Indian tech talent pool is three times more likely to possess AI skills than all G20 members and OECD countries, and the country ranks fifth in AI scientific publications, according to Stanford University's AI Index Report (2023). India is running AI projects related to sustainable farming practices, predicting atmospheric visibility, imagery analysis, drone-collision avoidance, and ship tracking, along with exploring the military uses of such technology.

However, India is also aware of AI-related risks and challenges. In December 2023, India hosted the annual Global Partnership for Artificial Intelligence (GPAI) Summit, emphasising inclusivity while discussing AI-related security issues and challenges.

The Indian government has been particularly concerned about AI's disruptive role. An alarming cybersecurity incident, in which the personal information of more than 815 million Indian citizens was put up for sale on the dark web last year, displayed the risks India runs from breach of cybersecurity. Security breaches like these require India to urgently augment its cybersecurity measures. According to the India Threat Landscape Report (2023) by the cybersecurity firm Cyfirma, India is the most targeted country globally, facing 13.7% of all cyberattacks. The use of AI to improve cybersecurity has thus become an important goal for India.

AI's role in surveillance and national security has been equally disconcerting. The realisation that AI-driven autonomous robots and AI-powered drones and spycraft can provide adversaries with powerful new weapons to confuse, evade, and eavesdrop has given rise to justified alarm in India. These risks require India to establish a specific framework for addressing the concerns, including perhaps establishing a dedicated ministry, along with a strong cybersecurity law.

Surveillance and National Security

The US Department of Defense had predicted in 2022 that AI would transform the character of war, and that failure to adopt and effectively integrate AI technology could endanger national security. With AI surveillance technologies expanding internationally, New Delhi has every reason to be concerned, given its volatile neighbourhood and strained relations with several of its neighbours. Developing and integrating AI in national defence systems is now becoming the cornerstone for an effective national security and defence policy.

Spy balloons, considered more effective than satellites, now pose a new form of threat to countries when it comes to surveillance. In February 2023, a Chinese spy balloon was first spotted crossing the US state of Alaska. Subsequently, the US air force shot it down over the Atlantic Ocean after the AI company Synthetaic's machine-learning algorithms identified the balloon's path, tracing it to a potential launch site in southern China.

What is of utmost concern for countries like India, which shares borders with difficult neighbours like China and Pakistan, is the proliferation of such seemingly innocuous

tools with capabilities of collecting real-time information and the potential for their being used for spying by agencies and actors with malicious intent.

Nevertheless, governments and technology advocates are highlighting the potential of AI to help secure international borders more efficiently. In recent times, US and EU authorities have integrated "smart border" AI capabilities into their operations, increasing their ability to patrol their borders better. AI-enabled smart borders can bring similar benefits for India's border security operations. Whether it is illegal migration from Bangladesh or Myanmar, cross-border terrorism from Pakistan, or China's military build-up at Pangong Tso in Ladakh, India can benefit from the use of AI for patrolling its international borders. India's leading space agency, ISRO, has plans to develop a new fleet of 50 surveillance satellites based on AI technology in the next five years. These would be critical for analysing and sorting captured images for beefing up India's border security.

Regulations and the Future

India's technological abilities and global ambitions contribute to its aspirations of being a successful competitor in the global AI race. Developing effective regulations compatible with international standards is important in this regard. Issues of privacy, cybersecurity, and ethical dangers that AI technologies bring with them will also be crucial considerations for India.

While a draft AI regulation framework is being developed to address risks, India's new privacy law, the Digital Personal Data Protection Act enacted in 2023, has been an important step in addressing some of the privacy concerns related to AI platforms. Other Indian agencies, including the Bureau of Indian Standards, are working on streamlining AI policies for the country.

Nevertheless, regulations across the AI spectrum still require greater innovation and clarity. Transparent guidelines on the responsible application of AI are essential for augmenting India's capabilities for minimising security threats from AI tools and maximising the virtuous contributions of such tools.

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