

## THE AI RACE:

### COLLABORATION TO COUNTER CHINESE AGGRESSION

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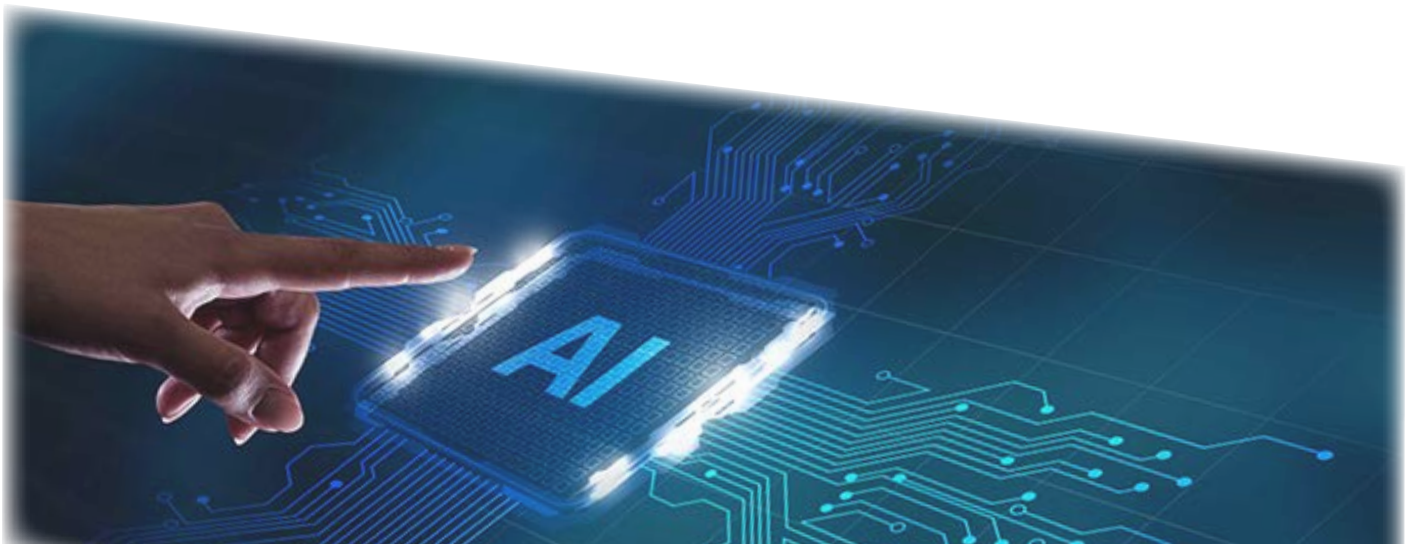


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*AI has the potential to replace humans as it can help overcome language barriers, improve governance, deliver better healthcare, and create art. However, AI also has the potential to be highly disruptive, causing ripples that can alter the existing democratic world order. Using AI for facial recognition and leading crackdowns on dissenting citizens are just two of its many negative uses. In the international arena, particularly during conflicts, AI can collect voice samples from militarily sensitive regions, and the data used for automated extra-territorial mass surveillance. While the U.S. and China are the leaders in AI so far, other states have also started realizing its importance. In this context, it is essential to underline India's AI experience. Democracies need to collaborate to ensure the current democratic world order does not get thwarted by revisionist powers using the malicious potency of AI.*

### Introduction

Greyzone warfare is an evolving facet of international relations whose ramifications are yet to be fully understood. In 2018, Sundar Pichai, Google's Chief Executive Officer (CEO), said that Artificial Intelligence (AI) is one of the most important things humanity is working on.<sup>1</sup> He said AI would impact the world more than some of the most important innovations in history. A year before, Elon Musk, the Tesla CEO and SpaceX founder, had suggested that emerging technology like AI poses an even

greater risk to the world than a nuclear war with North Korea.<sup>2</sup> His views echo those of theoretical physicist Stephen Hawking, who warned in 2014 that the full-scale development of AI could spell the end of the human race.<sup>3</sup>

Perhaps no other technology has attracted such divergent views on its fundamental nature and usage in recent times. Today, AI is deployed for noble causes like primary care for early detection of diabetes complications and improving disaster

resilience in agriculture. Moreover, thanks to AI, machines can now perform tasks that were expected to remain the human forte. For instance, OpenAI's Generative Pre-trained Transformer-3 (or GPT-3)—the most advanced language model ever—has proven capable of producing creative fiction and writing reflective business letters (with initial human input).<sup>4</sup> However, AI is also under increasing scrutiny worldwide for its usage in mass surveillance, disinformation campaigns, and ever-more sophisticated cyberattacks. This has now made the “ethics of AI” a much-debated topic.

As with most technologies, AI development too is led by global economic and military superpowers. The U.S. and China are much ahead of others in today's global AI race, albeit at loggerheads with each other. Amidst this, a third player is trying to catch up, India. In this context, it becomes pertinent to analyze how the global AI race is in full effect now and why India's claim to become the global AI leader is far from fiction. India's strengths and opportunities deem a closer look to understand why the AI superpowers cannot afford to ignore India.

## **The Global AI Race amidst the 'Tech War'**

China's top technological priority is AI, as stated in its five-year economic plan for 2021-26. By 2030, it wants to become the world's premier AI innovation center.<sup>5</sup> This was also underlined in the State Council development plan laid out in 2017, which aims at building a domestic AI industry worth \$150 billion. Indermit Gill, Chief Economist at the World Bank, opines that President Xi Jinping's approach can be summed up as ‘State capitalism is the People's Party plus AI’.<sup>6</sup>

In 2018, the Chinese state-run *Xinhua News Agency* introduced the first-ever AI news anchor.<sup>7</sup> But beyond benign efforts like successfully mimicking and recreating human vocals to render real singers obsolete, China is using AI for its military

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modernization while leveraging its vast market to attract the leading global technology imports.

In December 2021, China released a “Position Paper on Regulating Military Applications of AI”.<sup>8</sup> It argued that China looks at regulation, R&D, utilization of AI, and international cooperation based on its policies and practices and with reference to beneficial international experience. The paper reiterated that governments should encourage transnational, interdisciplinary, and cross-cultural exchange and cooperation to ensure that the benefits of AI are shared equally by all countries. It also underlined that China opposes building exclusive groups and maliciously obstructs other countries' technological development. Toward the end, the paper called on the international community to reach an international agreement on the issue of AI ethics through broad participation.

More recently, in November 2022, China followed this with a “Position Paper on the People's Republic of China on Strengthening Ethical Governance of AI”. It emphasizes that as the most representative disruptive technology, AI has brought uncertainty that may give rise to multiple global challenges and even fundamental ethical concerns, despite enormous potential benefits.<sup>9</sup> The paper calls for a people-centered approach and underlines China's commitment to building a community with a shared future in the AI domain.

But between these two papers, much has changed—globally, regionally, geopolitically, and technologically.

The U.S. feels that it is at an inflexion point.<sup>10</sup> Strategic thinkers in Washington argue that technology (like AI) is at the heart of the post-Cold-War world competition. Prominent voices like Eric Schmidt, the Chairman of the National Security Commission on Artificial Intelligence (NSCAI), argue that the U.S. national security and economic leadership depend on spending billions to bolster AI research, procuring smarter software, and building America’s tech talent pool.<sup>11</sup> He stresses that the U.S. is losing the AI supremacy battle against China and proposes massive government spending on AI as the “third offset” strategy for maintaining American tech, economic, and military dominance.

In its 2021 final report, the NSCAI asked the U.S. federal government to double the annual non-defense funding for AI R&D, deeming it vital for safeguarding individual liberty in light of China’s pioneering usage of AI as a tool of repression and surveillance.<sup>12</sup> Many among the U.S. strategic and decision-making circles point to China’s repression of its Uyghur minority community through AI-based surveillance tech as a significant expression of China’s ambitions through tech superiority.<sup>13</sup> Therefore, the Global AI race is now a competitive battle for global values.

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Taking note of the rising urgency, the Biden administration has taken several steps recently, which have given glimpses of the arrival of a tech war with some even seeing it as the onset of Cold War 2.0. In July 2022, the U.S. Congress passed the revised policy on AI and semiconductor exports (The CHIPS Act).<sup>14</sup> This policy placed a de facto ban on exports of cutting-edge semiconductor chips to China that powers AI computation. As China depends on U.S. semiconductor companies (especially Nvidia) for more than 95 percent of the advanced chips for AI, these steps by the U.S. are expected to not only thwart the rising Chinese prowess but potentially even demolish Chinese AI industries.

As this tech war strengthens, a third pole has emerged in the global AI race, whose potential to alter the dynamics in the shadows of the tech war needs comprehensive evaluation.

## **India as the AI Leader**

In the multilateral order of the 21<sup>st</sup> century, India’s role as an important player has only acquired more significance. According to a UK-based AI firm (Peak), India is now a more mature market regarding businesses’ readiness to adopt AI, leaving behind the early leader U.S.<sup>15</sup> The U.S.-based Brookings Institution places India among the top 10 countries regarding technological advancement and funding in AI.<sup>16</sup> India’s AI market is expected to grow annually by 20 percent over the next five years (the second-fastest rate, only behind China) and reach \$7.8 billion, adding around \$400-500 billion to the Indian GDP as an outcome.<sup>17</sup> India constitutes 16 percent of the world’s AI talent pool. It is widely expected to become a significant AI export destination, building upon its established status as a global software hub.

UAE’s Minister of State for AI (the first such minister in the world), Omar bin Sultan Al Olama recently remarked that India is not just the past and the present, but India is also the future.<sup>18</sup> He

highlighted India's progress in the tech domain and said that the future would have Indian fingerprints everywhere and for everyone.

For India, AI is expected to add \$1 trillion to its economy by 2035 and is seen as a force multiplier for reclaiming its status as a global leader in the long term. According to a 2020 report “Unlocking Value from Data and AI: The Indian Opportunity”, data and AI can address dual goals of economic and social value creation and recovery. The report underlines that AI can support social initiatives and equitable growth and could enhance talent and capabilities to position India as a global hub for data and AI services.<sup>19</sup>

The Indian government has taken several critical steps to propel India toward this goal in recent years. It has worked on laying the legal framework with the revamped IT Act 2000, the Telecommunication Bill 2022, and the recently released Digital Personal Data Protection Bill 2022.<sup>20</sup> India's premier tech institutions (like the Indian Institute of Technology or IITs) and technology giants like Wipro collaborate with global technology firms like Microsoft and IBM to establish AI research centers. The newly adopted education policy has introduced courses on AI for early exposure to students on the basic concepts of AI, and the national AI portal—a

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repository of all the AI-backed initiatives in India—is already in place.

In 2020, NITI Aayog, the apex public policy think-tank of the Indian government, released a paper titled “Establishing an AI-Specific Cloud Computing Infrastructure in India”. It highlighted the ambitious AIRAWAT project—an India-first cloud-computing infrastructure that provides AI-specific services. The same year, India organized the Responsible AI for Social Empowerment (RAISE), a global summit of AI experts to enhance India's roadmap and vision for AI.<sup>21</sup>

In July 2022, at the AI in Defence (AIDef) exhibition, the Indian Defence Minister inaugurated recently developed AI products.<sup>22</sup> And now, India aims to expose 3 million government officials to emerging technologies like AI, targeting effective governance and service delivery at the grassroots level.

India is also actively collaborating with international partners in this domain. For example, the U.S.-India Artificial Intelligence (USIAI) bilateral initiative concentrates on AI cooperation.<sup>23</sup> In addition, Australia is looking to sign a digital services pact as part of the Comprehensive Economic Partnership Agreement with India for increased convergence in domains like AI.<sup>24</sup> India's acceptance as a growing AI



leader was recently highlighted when it was elected as the council chair for the Global Partnership on Artificial Intelligence (GPAI) 2022-23, beating the likes of U.S. and Canada with more than two-thirds votes.<sup>25</sup> GPAI is a 25-nation international initiative to support responsible and human-centric development and use of AI, aimed at working to understand the challenges and opportunities around AI better.

Meanwhile, India is also gearing up to establish itself as a global semiconductor manufacturing hub.<sup>26</sup> The government has looked to attract foreign investors and technology through lucrative benefits for establishing production facilities in India. Many firms and investors from Japan, South Korea, and Taiwan are already looking to benefit from India's vast market, growing demand, and the idea of establishing alternative supply chains to reduce dependence on China. India's cost-optimal and abundant workforce, along with increasingly welcoming policy regime and infrastructural capacities are being seen as the biggest positive for realizing the next technological revolution in India. As highlighted earlier, an edge in semiconductor design and manufacturing capabilities will be a vital aspect of leadership in the AI domain. Conversely, an edge in AI capabilities will also help in design

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and cost optimization for semiconductor design and manufacturing processes. It is also estimated that the AI-led semiconductor market will grow immensely in the coming years.<sup>27</sup> Thus, making the two realms increasingly interlinked and essential.

## Conclusion

Strides made in the domain of AI will dictate how the future looks. However, AI can also be used for malicious purposes. China's usage of AI for surveillance is well known. Facial recognition systems drive China's social credit system, which is used to report on the 'trustworthiness' of individuals, corporations and governmental entities across China. Individuals and entities are then rewarded or punished for their behavior in their day-to-day lives. Punishments may include lowered internet speeds or bans on taking flights or trains. In 2022, it was reported that an AI company with links to China's security apparatus has been collecting voice data to enable mass surveillance in India.<sup>28</sup> In its report, New Kite Data Labs stated that SpeechOcean—a Beijing-based company with links to the People's Liberation Army (PLA) of China—has been collecting voice samples from militarily sensitive regions of India, including Jammu and Kashmir and Punjab.<sup>29</sup> Data collected could be used by the PLA and by the Chinese state for automated extra-territorial mass surveillance. This does not augur well for India, which has been locked in a conflict in Ladakh with the PLA since 2020 and has also recently pushed back against Chinese aggression in Tawang in December 2022.

With regards to the U.S., it is pertinent to point out that a lot of Chinese AI projects are focused on countering the U.S. military's joint warfighting concept using techniques like adaptive radar jamming and vulnerability fuzzing.<sup>30</sup> Several Chinese universities' defense textbooks even discuss using machine learning systems to counter specific U.S. drone swarm projects like Gremlins and Locust. In 2020, Michael Brown, the director of the Pentagon's Defense Innovation Unit, stated that

there are areas where China is ahead of the U.S. in AI, including facial recognition software, small drones, quantum communications, genetic data, telecommunications, cryptocurrency, etc.<sup>31</sup>

Given that China's aggression has increased manifold since the pandemic with its origins in China's Wuhan began in 2019, it is pertinent that a greater focus on AI is placed in other countries as well, especially those that have been at the receiving end of Chinese aggression. At the 20<sup>th</sup> Party Congress in 2022, Xi Jinping stated that China would continue with the integrated development of the PLA through mechanization, informatization and intelligentization. While presenting his work report, Xi mentioned the word "intelligent" [or *zhinenghua* 智能化] three times.<sup>32</sup> This concept of "intelligent" refers to using weapons systems based on artificial intelligence. This has become increasingly crucial for Beijing since the release of the 2019 National Defense White Paper. Clearly, China under Xi seeks to use AI for more military purposes. It is also pertinent to mention in this context that at the 19<sup>th</sup> Party Congress, Xi insisted that China would build a world-class army by the middle of this century. At the 20<sup>th</sup> Party Congress, he stated how China would win "regional wars". The term "regional wars" could mean wars with India, Taiwan, or both. This does not augur well for India, Taiwan, the U.S. or any democracy that does not benefit from a hegemonic country like China at the helm of international relations.

Thus, greater discussions between democracies like India, Taiwan, and the U.S. could lead to a common understanding of which arenas within AI should be looked at in greater detail to counter the future usage of Chinese AI that further its hegemonic aspirations. A more in-depth discussion within the auspices of the Quad could be a good start. Initiatives such as the USIAI are laudable but constant stocktaking of the progress made in the domain, along with tracking of newer challenges brought forth by revisionist powers, will be vital. As elucidated through myriad examples from today's

world, AI has all the potential to revoke the existing democratic world order, which will not augur well for any democratic country, be it the U.S. or India. Thus, a cognizance of how AI can be used in malicious ways to thwart democracy is needed so that democracies can then use experiences and intelligence-sharing to seek a way out to ensure the existing democratic world does not get erased by revisionist powers seeking hegemony.

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