FINS-BULLETIN

राष्ट्र रक्षा बहुमुखी

FINS

Initiate interact influence

Forum For Integrated National Security

www.finsindia.org

Volume: 5 Issue-14 | Date: 15th Feb. 2025

Write to us at:
bulletin@finsindia.org

*OFFICE :**4, Belle View, Lakhamsi Nappu Road, Dadar (East), MUMBAI – 400014***
Phone 022 24127274, 98339 24371

Nippon India Mutual Fund

Wealth sets you free

Individuals may change, processes stay consistent.

Tried and tested processes are fundamental to an organisation's success as they clearly define how things are done. That's why it is imperative to choose an investment manager backed by strong processes, not just by competent individuals.

Strong processes and risk management help you achieve your goals steadily and sustainably.

An investor education and awareness initiative of Nippon India Mutual Fund

#EdgeOfKnowledge

Contact your Mutual Fund Distributor or Investment Advisor I Give us a missed call on 8000112244 I Visit mf.nipponindiaim.com/EdgeOfKnowledge

Helpful Information for Mutual Fund Investors: All Mutual Fund investors have to go through a one-time KYC (Know Your Customer) process. Investors should deal only with registered mutual funds, to be verified on SEBI website under 'Intermediaries/Market Infrastructure Institutions'. For redressal of your complaints, you may please visit www.scores.gov.in. For more info on KYC, change in various details and redressal of complaints, visit mf.nipponindiaim.com/InvestorEducation/what-to-know-when-investing

Mutual Fund investments are subject to market risks, read all scheme related documents carefully.

The Ram Mandir and After

By Subrata Mitra

The author is Emeritus Professor, Heidelberg University, is the co-editor of Re-use: the Art and Politics of Integration and Anxiety (Sage 2012)

It might be the best way forward for the country, especially when it has the world's largest cohort of the young, a generation whose hope and aspiration can outweigh its burdens of history.

The inauguration of a Hindu temple and consecration of a deity do not ordinarily make it to global headlines, nor do they set alarm bells ringing for many. That the Pran Pratishtha of Ram Lalla on January 22, 2024, did both stand to reason. The Ram temple in Ayodhya is not just a commonplace temple nor is Ram an ordinary member of the vast Hindu pantheon. It is the Ram Mandir built on the sacred ground whereas legend has it Lord Ram was born — and where the temple that marked the event was destroyed and a mosque built on the same sacred spot by Islamic invaders. The myth and history are entangled. The violence for repossession of the ground is documented, which has turned it into the predominant focus of Hindu-Muslim conflict in North India.

More than the eminent gathering and official ceremonies, it was the presence of Prime Minister Narendra Modi, not just as part of the distinguished crowd but as the mukhya yajman – the chief patron – appropriately attired as a Hindu devotee and supplicant, seeking the blessings of Lord Ram on behalf of the nation, that signalled the significance of the event. Modi's words "Dev se desh, Ram se rashtra" (from deity to country, from Ram to nation), the leitmotif of his inaugural address, are deceptive in their simplicity but are open to radically different interpretations.

Put in context of events leading up to consecration, many sensed in the inauguration of the Ram Mandir and the Hindu rituals the symbolisation of an ongoing transformation of India from a constitutional state to the creation of a "civilisational" state where the government sees itself not merely as a party to a social contract with its citizens, but as the guardian and promoter of a nation's culture and traditions. The speech, seen in juxtaposition of the installation of a Sengol – a traditional sceptre – in the new Parliament building, with images of Prime Minister Modi paying obeisance to Hindu priests and seeking their blessings for the Indian Republic, signalled something spectacularly novel.

The blending of Hindu symbolism and India's "Sovereign Socialist Secular Democratic Republic committed to Justice, Equality and Liberty for the people" gave the impression of the state moving towards a construction from which many, particularly those who subscribe to Abrahamic religions like Islam and Christianity, felt excluded.

In retrospect, the expected electoral bonanza for the BJP in the parliamentary election of 2024, resulting from the deliberate intertwining of Hindu symbols and those of the state, did not happen. The momentum of Hindu mobilisation that was supposed to deliver a resounding victory of over 400 seats to the BJP-led NDA did not materialise. In fact, the BJP candidate — with a string of victories in the past in the Faizabad constituency where the Ram Mandir is located — lost the election. What went wrong?

Speculation in the media sometimes does not take into account the logic of electoral choice. Once the desired objective has been secured, people tend to look out for the next best thing. After the demand for the temple was met, the grim reality of unemployment, apprehensions about the abrogation of reservation for Dalits, and promise of caste quotas appear to have swayed many voters in the North, cutting into the support base of the BJP. To put it bluntly, electorally, Ram could not be sold twice.

A critical perusal of developments in Indian politics during the year since the consecration of the Ram Mandir has some important lessons for observers of the Indian state. They need to stay focused on the significance of two events, demolition of the Babri mosque in 1992 and consecration of the statue of Ram Lalla in the Ram Mandir in 2023, built on the ground which many Hindus hold as sacred. Between the two iconic episodes hangs the tale of the moral foundation of the Indian Republic as we know it, and its long-term sustainability. To treat either event as terminal is infructuous. There is plenty of room to manoeuvre between defeatism resulting from the former and triumphalism and complacency of the latter, for citizens, policy makers and thinkers. In transitional societies, the passage from alien rule to independent statehood creates a pressing need to devise a collective identity that would bolster the state and bind the nation together. Protecting order, and simultaneously shaping collective identity, is the twin challenge that confronts leaders of post-colonial states during the phase of transition. The path towards an enduring solution is studded with potential dangers to the very survival of the state and social integration.

It is but natural that subjects turned citizens should long to see the symbols that they consider sacred in their private lives in the public sphere, and have them woven into public institutions. Ignoring the religiosity of the masses in the name of dharmnirapekshata – a wall of separation between religion and the state – can be just as hazardous as imposing any particular religion on society as a whole. The former can produce a legitimacy deficit, leading to a sense of thwarted agency and disastrous explosions of righteous anger; and the latter can keep the communal pot a-simmer, with the perpetual threat of tensions boiling over, as one can see from the breakup of Pakistan and the ethnic conflict in Sri Lanka.

Recognising the faith of the majority – howsoever diffuse and thinly shared – as primus inter pares, while giving full legitimacy and ensuring basic rights to other belief systems on the lines of European states, might be the best way forward for the country. Especially when it has the world's largest cohort of the young, an estimated 230 million below the age of 18, a generation whose hope and aspiration can outweigh its burdens of history. What stand the government, therefore, takes on the Places of Worship Act 1991 — will be instructive and telling. Is every structure open to contestation or after the Ram Mandir, is there a need to take a deep breath, a step back? How will this square with sabka saath and sabka vishwas? These questions are not just one party's. For, to reflect on how the nation can manage this transition in an orderly and democratic manner, without the bloodshed of the English Civil War or the Spanish Reconquista, is a worthwhile challenge for all who are committed to human dignity and respect for the sense of the sacred that lies at the core of all belief systems, at the very heart of our republic.

Read complete article on website indianexpress.com

India's Diplomatic Future: Strengthening the MEA to Compete with Global Powers

By Dr. Santhosh Mathew

The author is Associate Professor at Centre for South Asian Studies, School of International Studies & Social Sciences, Pondicherry Central University

India, the world's most populous nation and the largest democracy, is emerging as a pivotal force in global affairs. As a leader of the Global South, India's growing economic might, strategic autonomy, and commitment to peace have earned it a central role in international diplomacy. Yet, despite these achievements, India's Ministry of External Affairs (MEA)—which plays a critical role in shaping and executing its foreign policy—remains under-resourced. With only about 850 diplomats, the MEA is woefully inadequate to handle the complex and diverse challenges that India faces on the global stage. For India to fulfil its potential as a global leader, it is essential to strengthen its diplomatic infrastructure by expanding the MEA to at least 5,000 personnel, matching the scale of India's ambitions and its position as a major international power.

The scale of India's ambition on the world stage demands a corresponding strengthening of its foreign policy machinery. As the world's largest democracy and second-largest economy, India's diplomatic requirements have evolved significantly. From engaging in trade negotiations to navigating the intricacies of global security, the MEA is at the heart of India's international engagements. India's foreign policy has always been defined by strategic autonomy and a commitment to peace, underpinned by the Nehruvian tradition of non-alignment. Figures like Jawaharlal Nehru and V.K. Krishna Menon were instrumental in crafting India's independent foreign policy, promoting the values of non-violence and peace while simultaneously asserting India's interests. Their vision of a non-aligned India that could act as a bridge between competing superpowers remains foundational to Indian diplomacy. But as the global landscape shifts, it is time to ensure that India's foreign policy is both deeply rooted in its historical values and equipped to handle modern complexities.

For India to maintain and expand its role in international affairs, its foreign policy apparatus needs an overhaul. The MEA is crucial not only for safeguarding India's interests but also for crafting a vision that can influence global politics. With a global population exceeding 1.4 billion, a burgeoning economy, and leadership roles in various international forums, India must modernize its diplomatic infrastructure. While the U.S., China, and Russia deploy thousands of foreign policy experts to manage their global influence, India has only a fraction of that number. The need for a diplomatic corps that can shape global discussions and provide the intellectual and strategic depth required in an increasingly complex international environment has never been more urgent.

Expanding the MEA to 5,000 personnel is not just a matter of numbers; it is about creating a foreign policy apparatus that can think strategically across multiple domains. India's diplomacy must address a wide range of issues, from trade to defense, environmental sustainability to digital diplomacy, and global security to humanitarian aid. The expansion of the MEA must include experts in all these areas. Just as former U.S. Secretary of State Henry Kissinger reshaped American diplomacy during the Cold War with his strategic brilliance, India needs diplomats who can think long-term and craft policies that reflect India's evolving role in world affairs. India's current diplomatic corps, while skilled, lacks the bandwidth to address such a wide array of issues effectively.

India's foreign policy is not only about reacting to global events but about anticipating the future. For India to successfully compete with the U.S., Russia, and China, it must develop a diplomatic team that can anticipate global shifts, build alliances, and position the country to leverage emerging opportunities.

This requires not just an increase in numbers but also an investment in strategic thinking and specialized knowledge. The MEA must build expertise in fields like cybersecurity, space diplomacy, global trade, climate change negotiations, and defense strategy. India needs diplomats who can engage with governments, businesses, think tanks, and civil society to shape global decisions in its favour. A well-staffed and specialized MEA will enable India to better engage with key global issues and forge deeper relationships with important regional and global powers. Just as the United States has long relied on figures like Robert McNamara and John Foster Dulles—whose expertise in defense and foreign policy shaped the course of American diplomacy—India must produce diplomats of equal Caliber. These are diplomats who understand the nuances of global security, international law, multilateral organizations, and global trade. India must foster a generation of diplomats who possess the same vision and courage as V.K. Krishna Menon, who was instrumental in pushing for India's independence in international politics and advocating for the country's voice in the United Nations during the 1950s. It is these visionary diplomats who can translate India's strategic autonomy into active leadership.

The necessity for expanding the MEA is not just about having more diplomats; it is about building a diplomatic workforce that reflects India's evolving global priorities. The MEA needs experts in climate change, energy security, trade relations, technology diplomacy, and conflict resolution. By doing so, India can ensure that its foreign policy is proactive, deeply informed, and forward-thinking. India's position as a global leader in the fight against climate change, its role in multilateral organizations such as the United Nations, and its growing partnerships with global and regional powers all depend on the strength of its diplomatic team. As India seeks to position itself as a global power, it must be prepared to take on more responsibilities and influence decisions that will shape the future of the international system.

India's expanded diplomatic corps should also prioritize engagement with think tanks, academic institutions, and the media. The academic and research community has a critical role to play in shaping India's foreign policy by providing the intellectual foundation for strategic decisions. The MEA must collaborate with think tanks and universities—both in India and abroad—to ensure that foreign policy decisions are informed by the latest research and analysis. Think tanks can provide critical insight into emerging global trends, from shifting geopolitical dynamics to new economic policies. By drawing on the expertise of these institutions, India can ensure that its foreign policy remains agile and adaptable. Moreover, public diplomacy has become an increasingly important tool for global influence. India's foreign policy cannot only be about government-to-government negotiations. It must also be about shaping global perceptions and building relationships with international publics. Media professionals are critical to this process, and the MEA must work closely with them to communicate India's vision and policies effectively to global audiences. India's soft power—its culture, values, and democratic ideals—should be leveraged to ensure that India's voice is heard and respected worldwide.

India's ambition to become a global power is well within reach, but it requires a diplomatic corps that can navigate the complexities of the modern world. The MEA must evolve to meet the growing demands of global leadership. By expanding the MEA to 5,000 diplomats, India will not only ensure that it is prepared to face the challenges of the future, but it will also ensure that the country's voice is heard in every corner of the world. India's historical commitment to non-alignment and peace must remain a guiding principle, but its foreign policy must also be shaped by new thinking and innovation to maintain its global standing. Only with a larger, more specialized, and visionary diplomatic team will India be able to fully realize its potential as a global leader in the 21st century.

Trump's "Landgrab" Threats Destabilising the World

By Vappala Balachandran

The author is Former Special Secretary, Cabinet Secretariat.

In such circumstances, what would happen if Trump, after assuming office as the US president, orders the Pituffik Space Base Command (Thule Air Base) to take control of Greenland?

The new year has not begun too well for America. Devastating fires have burnt down 20,000 acres and 5,000 structures in Greater Los Angeles' Palisades area, homes of the "rich and famous".

On January 10, Donald Trump became the "first US President sentenced as a felon" in history. Los Angeles Times said that Judge Juan Merchan, who "could have sentenced the 78-year-old Republican to up to four years in prison", imposed a sentence which "assured that Trump will become the first person convicted of a felony to assume the presidency".

However, these two developments would pale into insignificance when compared to the damage Trump has caused to the global balance of power, particularly on the America- Europe strategic concord, by his "land grab" statements on Canada, Greenland and Panama Canal, besides the renaming the Gulf of Mexico as "the Gulf of America".

On January 7 he exhibited depredatory behaviour by refusing to rule out use of force to acquire Panama Canal and Greenland, although the latter is a territory of NATO member Denmark. He is thus in the process of puncturing the 1941 "Atlantic Charter" which is the basis of North Atlantic Treaty Organisation (NATO). Trump forgets that the US airbase in Greenland and the relinquishing of American control over Panama Canal are based on legal treaties.

No book describes the difficulties leading to the emergence of the 1941 US-UK strategic accord better than "Franklin and Winston" (2003) by Jon Meacham, former managing editor of "Newsweek". British Prime Minister Winston Churchill and US President Franklin Roosevelt had to overcome stiff domestic opposition against this alignment. Between 1939 and 1945 they met 113 days together in ships or land and exchanged nearly 2000 letters.

Churchill had to fight politically not only with established politicians like Marquess of Lothian, who advocated "entente" with Hitler, but also hardcore Nazi organisations like the "Right Club" founded by Scottish Conservative MP Archibald Ramsay, and its affiliates like the secret "Imperial Fascist League", "Nordic League", "White Knights of Britain". Simultaneously he had also to struggle with the pre-War British "Left" that had other aims.

Similarly, Roosevelt had to face objections from "isolationists" like Wendell Willkie and Charles Lindbergh, "hero of the 1927 non-stop New York-Paris flight" who were advocating alliance with Hitler. Lindbergh's "America Fist Committee" had opposed American involvement in Europe till the 7 December 1941 Pearl Harbor attack by Japan.

Yet Churchill and Roosevelt could succeed in drawing up the "Atlantic Charter" (14 August 1941) based on the "Declaration of St. James Palace" (12 June 1941) that also ultimately led to the "Declaration by United Nations" by 47 national governments from 1 January 1942 and which became the basis of our present United Nations (UN).

The Atlantic Charter envisaged the aims of both United States and United Kingdom for the postwar world on the principles of "no territorial aggrandizement" and that "no territorial changes made against the wishes of the people, which meant the principle of "self-determination".

Similarly, NATO charter is principally formed “to safeguard the Allies’ freedom and security by political and military means”. Article 5 lays down that “an armed attack against one or more of them in Europe or North America shall be considered an attack against them”.

If “such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defence recognised by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked”.

The response to this attack could be taken “individually and in concert with the other Parties including the use of armed force, to restore and maintain the security of the North Atlantic area”.

In such circumstances what would happen if Trump, after assuming office as US president, orders the Pituffik Space Base Command (Thule Air Base) to take over charge of Greenland? Would Denmark appeal to its European NATO partners to defend its country?

Article first published in Lokmat Times Nagpur Main on 12th Jan. 2025

India, US and the Atomic Second Wind

By C Raja Mohan

The writer is a contributing editor on international affairs for The Indian Express

The enduring convergence of objective interests between Delhi and Washington and the long record of political commitment for deeper cooperation in advanced technologies does not mean it will automatically continue under Trump. Sustaining India-US high-tech cooperation demands continuing efforts.

The US National Security Advisor Jake Sullivan's visit to India — the last of his foreign visits as the top official of President Joe Biden's security establishment — highlights three important features of the bilateral relationship. First is the expansive commitment of the Biden Administration — including the special contribution of Sullivan and his team at the White House — to take the relationship with India to a higher level and the determination to prevent unanticipated crises from derailing the India-US strategic partnership.

Second, is the special effort by the Biden Administration to deepen advanced technology cooperation between the two nations. The Biden Administration has gone beyond the phase of government-to-government engagement on tech issues and launched a new era of techno-industrial collaboration in sectors like AI, semiconductors, space, and biotechnology that are set to dominate the global economy this decade and beyond. This has involved drawing in industry, start-ups and research communities from both sides.

The policy instrument for this has been the initiative on Critical and Emerging Technologies (iCET) that was unveiled by Sullivan and the Indian National Security Adviser, Ajit Doval, in January 2023. The iCET has involved massive and detailed negotiations on a range of complicated issues and several difficult bureaucracies in Delhi and Washington. It will endure as an important legacy of the Biden years for India-US relations.

The iCET is at the very heart of Biden's larger strategy. It seeks to rearrange the global economy by derisking from the massive dependence on China that emerged over the last four decades, build new technology partnerships with allies and partners, and create a structure of regional balance of power in the Indo-Pacific that will limit the Chinese dominance in Asia and its waters.

Technology has been at the heart of modern India's imagination of America since the late 19th century. It became the central focus of independent India's engagement with the US. America played a key role in the early development of India's nuclear and space programmes. It was a critical factor in modernising India's agriculture and contributed to the development of scientific and technological education.

If the early decades of independence saw expansive bilateral cooperation in technology, the 1970s saw the collapse of that cooperation, thanks to the new non-proliferation laws that came into force in the United States and new global norms on preventing the spread of nuclear weapons.

By remaining a non-nuclear power in the 1960s, Delhi made itself a target of the expansive sanctions that were unleashed by the US and the advanced industrial powers, including the Soviet Union in the name of non-proliferation. (Legend has it that US President John F Kennedy had offered to help India build nuclear weapons in the early 1960s, but Prime Minister Jawaharlal Nehru declined the offer.)

Despite the non-proliferation challenge, Prime Ministers Indira Gandhi and Rajiv Gandhi sought to find some common technological ground with the US during the 1980s. But the 1990s saw a strengthening of the non-proliferation controls against India.

Atal Bihari Vajpayee's nuclear tests of May 1998 provided a new basis for India-US engagement and a big push to resolve the nuclear and related technological disputes.

The breakthrough came with the India-US civil nuclear initiative that was negotiated between President George W Bush and Prime Minister Manmohan Singh during 2005-08. In Washington, Barack Obama and Donald Trump have continued to clear the ground for deeper technological cooperation. Biden and Prime Minister Narendra Modi have taken it to a whole new level with the iCET.

Despite much progress, there have been lingering issues preventing the full realisation of the benefits of the excellent progress in tech cooperation over the last two decades. In Delhi, Sullivan announced on Monday that several existing restrictions on civilian space cooperation with India are being lifted. He also cited continuing work in the Biden Administration to remove key atomic energy centres in India from the US blacklist to facilitate bilateral civilian nuclear energy cooperation. (President Biden and the executive branch can make policy decisions right up to January 19, and they are being made every day).

India too has work to do — especially in modifying the provisions of The Civil Liability for Nuclear Damage Act, 2010 that have prevented US and Indian companies from investing in the nuclear energy sector. It's indeed a pity that nearly 20 years after the nuclear deal was unveiled, there have been no deals to build nuclear power plants with international suppliers other than Russia.

Policymakers in Delhi and Washington know that nuclear energy is back in the reckoning, thanks to an entirely unexpected source of demand — the AI industry. Data centres for AI require massive amounts of clean energy, and most companies in the field are turning to nuclear energy. As atomic power, long moribund, gets a second wind, it is in India's interest to create the regulatory environment for its accelerated development.

Biden leaves behind a solid foundation for the incoming administration of Trump and the government of Modi to build an enduring edifice of techno-industrial collaboration driven by shared geoeconomic and geopolitical considerations.

Will this expansive framework endure under Trump? There are several reasons to be optimistic. It might be worth noting that reclaiming US technological leadership and rebooting advanced manufacturing are goals that Trump shares with Biden. America's contestation with China — both economic and technological — is likely to endure. This, in turn, demands deeper cooperation with trusted partners like India. Delhi's interest in boosting its advanced technology sectors remains a high priority for the Modi government.

The enduring convergence of objective interests between Delhi and Washington and the long record of political commitment in both capitals for deeper cooperation in advanced technologies does not mean it will automatically continue under Trump. Sustaining India-US high-tech cooperation demands continuing diplomatic and political efforts.

Sullivan's consultations with the Indian leadership this week, external affairs minister S Jaishankar's visit to Washington last week, and his meeting with the incoming national security advisor Michael Waltz are part of the ongoing effort to facilitate a smooth transition on advanced technological cooperation between the two countries.

Trump, however, might bring a different approach to advanced technology development in America. Delhi must be prepared to deal with the consequences. That discussion must wait until this column returns next week.

Read complete article on website indianexpress.com

After DeepSeek: For India, Time for the AI Leap

By B Ravindran And Krishnan Narayanan

Ravindran is Professor and Head of the Wadhwani School of Data Science and AI, IIT Madras. Narayanan is co-founder and president of Itihaasa Research and Digital

Unveiling of Chinese company's AI tool is an opportunity to work on low-cost innovation. India has the talent and resolve – it must act now

DeepSeek, a Chinese startup, recently released its AI model (R1) designed for advanced reasoning tasks. It has raised a virtual storm worldwide. The AI models, which have been open-sourced, are supposed to have been built using just 2,000 Nvidia H800 GPUs, matching the performance of leading systems like OpenAI's ChatGPT 4.0, but at a fraction of the cost (just $ 6 million for its final training). These numbers (of AI infrastructure and costs of model development) are an order of magnitude better than leading frontier AI models.

Some have hailed DeepSeek's emergence as "AI's Sputnik moment", while others have expressed scepticism about the origins and actual costs of its rapid advancement. The stock markets are in a tizzy. Startups/researchers worldwide have begun testing, even locally installing, and trying to replicate the results of DeepSeek's models. The dust is settling. One thing is clear: This moment can catalyse new AI developments in the world. But what does it mean for India?

Chinese engineers looking to develop foundation models/LLMs faced significant challenges in acquiring large quantities and the latest versions of Nvidia's GPUs. Given these constraints, they cleverly combined several known AI engineering techniques, while making some unique contributions as well, to radically improve efficiencies and lower costs of AI-model training and inferencing.

For instance, DeepSeek claims that it uniquely leveraged "reinforcement learning" techniques to create an AI model with advanced reasoning behaviours like self-verification and complex chains of thought, autonomously. It uses a "mixture of experts" technique to assign different parts of a training task to specialised units or "experts" within the model, ensuring that only the most relevant sections are used at any given time. To make the system even more efficient, DeepSeek uses other optimisation techniques to quickly find and process information without using much memory and also predict two words at a time instead of one. All these AI engineering methods make the system faster and more resource-efficient while still handling complex problems. The lower cost encourages more startups to use DeepSeek in their real-world applications.

Several questions arise with respect to DeepSeek's implications for India. Why didn't we create this here? Is there an opportunity to create newer models in the future? Will our developers use models like this and benefit from them?

Let us start with the implications for developing AI applications first. The most significant aspects of DeepSeek models are their cost-effectiveness and open access. These models achieve performance that matches existing models, like GPT-4, but at a fraction of the cost. The API access is roughly one-tenth to one-twentieth the price of global AI models. This price reduction is a game changer for the Indian AI industry. It means that high-quality language models become much more accessible and affordable for a wide range of applications and users.

DeepSeek is open source, which is very important, as it allows users to download the models and run them on their own hardware if they have the capacity. We are already seeing others create local installations of DeepSeek models — even without GPUs. This means Indian startups don't need to rely on servers located in China and can create their own version of the DeepSeek service, much like Perplexity has already done.

Second is the issue of AI research. India has a strong AI talent pool, but it's mostly focused on building applications on top of existing AI systems. While India can use existing LLMs very well for this purpose, we need to focus on fundamental research in order to create our own cutting-edge AI foundation models. There is a strong need for increased AI research funding and a shift in our approach to AI development. To start with, we expect that multiple efforts will be undertaken in India (in universities and companies) where existing models of DeepSeek/Meta's Llama will be installed locally and fine-tuned with India-specific or domain-specific data. Remember, DeepSeek did not happen overnight — it involved the efforts of hundreds of researchers/engineers in under two years.

The lower costs of training and inference mean that researchers can perform many more experiments. Andrej Karpathy, one of the engineers involved with DeepSeek, has suggested establishing a global "RL-gym" to create a wide range of RL environments to understand how LLMs think and make decisions. This may spur research towards developing AGI. At the same time, let us not forget that there are several other areas of AI to research — predictive AI and physical AI, for example.

There are only a few efforts in India to create our own LLMs. We must use the DeepSeek moment to catalyse multiple and competing mission-mode projects to develop our own foundation models. Besides the government, private sector companies and philanthropists can also fund some of these AI grand challenges. The IndiaAI Mission's GPU cluster will come in handy for these projects.

Multi-disciplinary teams should be put in place. The projects require expertise in AI frameworks like PyTorch, advanced attention mechanisms, efficient model training techniques and reinforcement learning. Engineers need skills in optimising AI performance using low-precision computing and specialised processing methods. Teams should also have hardware expertise in GPU acceleration, distributed computing and high-speed networking.

India has the talent. It has the resolve. The time for collective AI action is now.

Read complete article on website indianexpress.com

India is Proud of:

Darpan Irani

He went blind at 3 — Now He's Checkmating Sighted Opponents & Winning Gold Medals for India

The philosophy that has driven Darpan Inani's life is simple. "Chess and life are about vision, not visibility," says the 30-year-old, who won two gold medals — individual and team — at the Para Asian Games in China in October 2023.

Darpan had defeated sighted players at the Creon Open International Chess Tournament in France in 2018. This made him the only, and first-ever, visually impaired chess player from India to secure the top position in a sighted tournament at the international level! In fact, he says, 80 to 90% of his chess career has involved playing against sighted opponents.

An only child, Darpan was born in Udaipur, Rajasthan. When he was six months old, his family moved to Gujarat, where his father wanted to set up his own business, and he has been based in Vadodara ever since. When he was just three years old, tragedy struck. He was afflicted with Stevens-Johnson Syndrome, a rare, life-threatening condition, and lost his eyesight completely.

By the time he was eight, he had undergone 50 surgeries.

When doctors gave up hope, Darpan's parents decided to focus on his education. His father, who runs a jewellery business, and his mother, a homemaker, wanted him to study in a mainstream school. Many schools refused admission, but his father kept trying.

Finally, Darpan was admitted to Baroda High School in Class 3. Until then, he had been homeschooled. "It was a life-changing experience to study in a mainstream school.

An exceptionally bright student, he never needed tuition classes. He would either top his class or secure second rank.

But what truly distinguished Darpan was his inspiring learning method. He never used Braille to read, write, or take exams. "I stayed mainstream, enabled by technology. The school authorities would scan question papers, and I would answer them using a talking software called JAWS," he shares.

JAWS (Job Access with Speech) is a computer screen reader programme that allows blind and visually impaired users to read the screen with a text-to-speech output.

He with his father visited the Blind Welfare Association in Vadodara, where he discovered a specially designed chessboard for the visually impaired. He says "I was attracted to chess because it's the only sport where you can compete with sighted players. While chess became a central part of his life, Darpan also focused on his academics.

He joined a BCom programme at the Maharaja Sayajirao University of Baroda and simultaneously studied for the CA (Chartered Accountant) exams.

In 2015, he appeared for CAT and was admitted to IIM Lucknow. “My parents weren’t willing to send me to Lucknow to be on my own for two years. I was just 21. Also, the studies at IIM would have been intensely hectic, and I wouldn’t have been able to pursue chess. Moreover, I was already a CA,” Darpan explains.

Currently, he is self-employed and almost as passionate about studying the equity markets as he is about chess. His work hours are from 9 am to 4 pm, and he operates from an office in his home.

Darpan won two medals for the country at the Para Asian Games in 2023.

Since then, Darpan’s journey has been dotted with achievements. His current FIDE (World Chess Federation) Elo rating stands at 1939, but he once reached a peak rating of 2135 — the highest ever achieved by a visually impaired player from India.

However, Darpan’s resilience doesn’t allow him to give in to such challenges. He has won the U13, U15, and U17 sighted state chess tournaments and represented Gujarat at the national level several times. His achievements have earned him the Rashtriya Swayamsiddh Samman award by Jindal Steel & Power Ltd in the sports category, along with the Yuva Ratna award from the All-India Marwari Yuva Manch.

Despite these accolades, Darpan acknowledges the struggles behind the victories. “Initially, I found it difficult to deal with losing a chess game. I was used to performing well academically. However, I now realise that sports and academics are pretty different. Sports are unpredictable. Now, I learn from my defeats.”

He also shares that chess has unique mental demands. “In a chess game, it is mandatory to write down your moves. When my opponent announces his move, the picture changes dynamically in my head with each move. I get to know the positioning of pieces and the possible manoeuvres. If needed, I can touch the board in case I can’t recall the picture in my mind,” explains Darpan.

“If you play well for four hours and falter in the last half hour, all is lost. You lose the entire game. It is a challenge to concentrate for so long, and exhaustion kicks in,” he admits.

Darpan has delivered several talks, including a much-appreciated TEDxYouth talk in Lucknow. He usually discusses his challenges and how he overcame them, emphasising the mindset people should adopt: “Resilience is vital, whatever challenges come your way,” he insists. In his TEDx talk, he said, “‘I can’ is more important than IQ!”

For Darpan, both life and chess follow the same rule: it’s not about what you see, but how you think — and how boldly you make your next move.