ASSOCIATION OF INDIAN UNIVERSITIES

AIU INFORMATION RESOURCE CENTRE IN HIGHER EDUCATION

PRESS CLIPPINGS IN EDUCATION

01-30 November, 2025

CONTENT

20.	तकनीकी विकास पर ध्यान दे निजी क्षेत्र	एनके सिंह	Dainik Jagran	27.	07 November 2025
21.	Cut by a thousand degrees	Anushi Tiwary and Dayakar Peddi	Economics Times	28.	08 November 2025
22.	PU governance reset that's been withdrawn	Nitin Jain	Tribune	29.	08 November 2025
23.	Meghnad Saha	Paromita Sen	Telegraph	30.	09 November 2025
24.	How should law schools change attendance norms?	G S Bajpai	Hindu	31.	10 November 2025
25.	Reviving Nalanda's legacy in modern education	B K Jha	Pioneer	32.	10 November 2025
26.	Why access to knowledge is crucial for innovation	Rahul Menon	Hindu	33.	11 November 2025
27.	What happens when public knowledge is created on private infrastructure?	Vasudevan Mukunth	Hindu	34.	11 November 2025
28.	With fewer doctors becoming specialists, a crisis looms	Sivabalan Elangovan	Indian Express	35.	11 November 2025
29.	What govt's AI guidelines mean for tech regulation	Soumyarendra Barik	Indian Express	36.	11 November 2025
30.	The soul of a university lies in its creative spirit	Biju Dharmapalan	Statesman	37.	11 November 2025
31.	International curricula: A gateway to global success	Rima Singh	Statesman	38.	11 November 2025
32.	Shaping tomorrow's educators today	Krishnasish Dasgupta	Statesman	39.	11 November 2025
33.	Blueprint for liberal arts education in the AI age	Somak Raychaudhury	Hindustan Times	40.	12 November 2025
34.	The Ostrich effect cripples classroom progress	Sakshi Sethi	Pioneer	41.	12 November 2025
35.	The Institute for Defence Studies and Analyses at 60: The making of strategic thought	Uttam Kumar Sinha	Pioneer	42.	12 November 2025
36.	Sustainable future through knowledge and innovation	Satendra Singh	Pioneer	43.	12 November 2025
37.	The limits of international branch campuses	Philip G Altbach & Eldho Mathews	Hindu	44.	13 November 2025
38.	Forced to choose	Saikat Majumdar	Telegraph	45.	13 November 2025
39.	HP's joblessness	Editorial	Tribune	46.	13 November 2025

40.	Democracy vs control: The Tug of War in PU	Ronki Ram	Tribune	47.	13 November 2025
41.	As shutdown ends, Trump U-turn on H-1B, edu visas?	Editorial	Asian Age	48.	14 November 2025
42.	Giving children right to be heard	Namrata Gogoi	Assam tribune	49.	14 November 2025
43.	Teach kids gender empathy in schools	Editorial	Economics times	50.	14 November 2025
44.	Trump rethinks H1B visa stance	Editorial	Hindustan times	51.	14 November 2025
45.	Academic autonomy under siege	Dinesh C Sharma	Tribune	52.	14 November 2025
46.	Early interventions	Azeez Gupta and others	Tribune	53.	14 November 2025
47.	अमेरिका की मजबूरी	Editorial	Nav Bharat Times	54.	14 November 2025
48.	The world in a single nest: How India's education is embracing Tagore's global vision	Prem Kumar Kalra & J K Verma	Pioneer	55.	15 November 2025
49.	The geometry of belonging	Shelley Walia	Telegraph	56.	15 November 2025
50.	Why student elections remain banned	Sanjeev Singh Bariana	Tribune	57.	15 November 2025
51.	Trump's policy somersaults	Editorial	Hindustan Times	58.	17 November 2025
52.	Arfa Sayeda Zehra, an elegant teacher, a fearless critic	Saif Mahmood	Indian Express	59.	17 November 2025
53.	Why Manindra Agrawal	Amitabh Sinha	Indian Express	60.	17 November 2025
54.	The uplift that wasn't	Rajeev Narayan	Millennium Post	61.	17 November 2025
55.	The need for a decisive shift toward inclusive development	Bhuvnesh Yadav	Pioneer	62.	17 November 2025
56.	Technological empowerment of Women: The way forward for climate resilience	Reema Pant	Pioneer	63.	17 November 2025
57.	Heritage must not replace rigour in Mathematics	Arghya Bandyopadhyay	Deccan Herald	64.	18 November 2025
58.	Is AI from Class III a leap forward or one too soon?	R Ramanujan	Indian Express	65.	18 November 2025
59.	The silent stress of Gen Z	Derick H Lindquist	Millennium Post	66.	18 November 2025

60.	Rethinking growth in a new era	John Felix Raj & Sovik Mukherjee	Millennium Post	67.	18 November 2025
61.	Where Gandhian values still live	G Palanithurai	Millennium Post	68.	18 November 2025
62.	Why Harvard's in a spot, and how it can get out	Vidyapati Gautam	Times of India	69.	18 November 2025
63.	यह मामला केवल अटेंडेंस का नहीं	शान्तेष कुमार सिंह	Nav Bharat Times	70.	18 November 2025
64.	बच्चों की भावनाओं को समझें टीचर	श्रद्धा वशिष्ठ	Nav Bharat Times	71.	18 November 2025
65.	Ideas that travel: India's deep science moment	Gurucharan Gollerkeri	Deccan Herald	72.	19 November 2025
66.	Why engage with M(Other) tongues?	Shruti Jain	Millennium Post	73.	19 November 2025
67.	Switching Jobs: Where's the line between strategic & premature?	Abhijit Bhaduri	Times of India	74.	19 November 2025
68.	Storage for the AI era	Akhil George & Sujit John	Times of India	75.	19 November 2025
69.	New model for learning	Anil Swarup	Millennium Post	76.	19 November 2025
70.	Intellectual Arrogance: The new professional weakness	Sanku Bose	Millennium Post	77.	20 November 2025
71.	Let kids embrace AI at their own pace	Avijit Pathak	Tribune	78.	20 November 2025
72.	IITG invention	Editorial	Assam tribune	79.	21 November 2025
73.	Individuals. Ideas. Institutions.	Shishir Priyadarshi	Millennium Post	80.	21 November 2025
74.	Arduous trek to a teaching job in the US	Grace Kao	Statesman	81.	21 November 2025
75.	Punjab must defend its stake in PU	Navreet Kaur	Tribune	82.	21 November 2025
76.	Let academics, not agitation, lead the way	Himanshu Atal	Tribune	83.	21 November 2025
77.	A student's death, a society in the dock	Editorial	Indian Express	84.	22 November 2025
78.	Global degrees, local campuses	K D P Rao	Millennium Post	85.	22 November 2025
79.	Youth in distress	Shutapa Paul	Millennium Post	86.	22 November 2025

80.	The battle for Indianness in education	Vinayshil Gautam	Pioneer	87.	22 November 2025
81.	Shaping India's next generation of innovators	Meenal Majumder	Pioneer	88.	22 November 2025
82.	3 states, 3 tragedies	Editorial	Tribune	89.	22 November 2025
83.	स्टूडेंट्स का दर्द	Editorial	Nav Bharat Times	90.	22 November 2025
84.	Paint like nobody's watching	Vandana Kalra	Indian Express	91.	23 November 2025
85.	Design for the future	Soma Basu	Hindu	92.	24 November 2025
86.	Scientific nationalism: Reuniting science, culture, and conscience	A Ashvathaman	Pioneer	93.	24 November 2025
87.	America's got needs talent	Lubna Kably	Economics times	94.	25 November 2025
88.	Missing lessons in our classrooms	O P Singh	Millennium Post	95.	25 November 2025
89.	Why life skills should be essential in today's education	Ritu Jawa	Pioneer	96.	25 November 2025
90.	American dream	Alan Blinder	Telegraph	97.	25 November 2025
91.	Publish or perish: Making sense of India's research fraud epidemic	Pushkar	Hindu	98.	26 November 2025
92.	Rethinking academic globalisation	Akhil Bhardwaj	Millennium post	99.	26 November 2025
93.	Teachers carry the weight of constant decisions	Sakshi Sethi	Pioneer	100.	26 November 2025
94.	Finding dignity in an unkind world	Lim Woong	Statesman	101.	26 November 2025
95.	If you learn and lead, support systems around you will grow	Amita Mirajkar	Times of India	102.	26 November 2025
96.	The people's scientist	Yash Pal	Tribune	103.	26 November 2025
97.	Breakfast at school needs a national rollout	Editorial	Deccan Herald	104.	27 November 2025
98.	Bringing back Indian-origin faculty will need changes in policy, culture	Somak Raychaudhury	Tribune	105.	27 November 2025
99.	Rebuilding childhood with dignity	Anil Swarup	Millennium post	106.	27 November 2025
100.	A personal journey of nurturing talent	Debapriya Mukherjee	Statesman	107.	27 November 2025

101.	Student politics needs a class on caution	Editorial	Deccan Herald	108.	28 November 2025
102.	Building reading cultures beyond technology	Sharoon Sunny	Deccan Herald	109.	28 November 2025
103.	Is Macaulay to blame for the colonial mindset or is he a convenient straw man in politics?	Vinay Sahasrabuddhe and others	Indian Express	110.	28 November 2025
104.	Inclusive education and learning environment	Sailen Das	Assam Tribune	111.	29 November 2025
105.	When education kills curiosity	Anamika Dasgupta	Pioneer	112.	29 November 2025
106.	Choose quality over quantity	Biju Dharmapalan	Telegraph	113.	29 November 2025
107.	What they don't teach you in B-Schools	Partha Sinha	Times of India	114.	29 November 2025
108.	The hollowing out of the vocation of teaching	Navneet Sharma and Sushant Kishore	Tribune	115.	29 November 2025
109.	Schools that care	Shelja Sen	Indian Express	116.	30 November 2025
110.	Shall we read?	Sonal Gupta	Indian Express	117.	30 November 2025
111.	Physicist & father of Bengali Sci-fi	Mahesh Sharma	Tribune	118.	30 November 2025

Census needs teachers, but schools even more

India's population census will finally be held in 2027 — six years too late. The mammoth exercise will require an army of temporary staff — officers, enumerators, supervisors. Once again, the government's go-to workforce will be schoolteachers.

Under Section 27 of the Right to Education Act, 2009, teachers can be deployed for "non-academic" purposes, but only for elections, census, and disaster relief. The law was meant to be narrow. In practice, it has become a catch-all excuse to saddle teachers with administrative chores. The result is that teachers (overworked and, often, underpaid) are being forced to do the State's paperwork at the expense of their students' right to learn.

In *Manyar Husina v. Election Commission* (2024), a parent complained that election duties were disrupting her child's education because teachers were absent. The Bombay High Court merely rescheduled polling to holidays. That solved the attendance issue, but only on paper. The judgment ignored what should have been obvious: When teachers spend their holidays as booth officers, they return to school exhausted, and unprepared. Education suffers not just when teachers are absent, but also when they are overburdened.

This neglect is not new. In *Election Commission v. St Mary's School* (2007), the Supreme Court held that teachers could be allocated non-academic work only on non-teaching days. But the Court left key questions unanswered: What is "non-academic"? What if it affects teaching? And what if the exception becomes the rule?

The situation worsened after the Supreme Court's decision in *Executive Engineer v. Mahesh* (2022), where it ruled that "relating to non-academic work" must be given a wide interpretation. The floodgates opened to force any activity remotely connected to elections, census, or disaster relief upon teachers. The fallout has been immediate. In *Nirbhay Singh v. State of Uttar Pradesh* (2022), the Court upheld the practice of assigning teachers electoral roll revisions.

Anshul Dalmia

States have exploited this interpretation. In Andhra Pradesh, teachers have been deployed as personal assistants. In Assam, they were sent to update the National Register of Citizens. In effect, teachers have been lawfully made to abandon classrooms.

The cost of this mismanagement is not abstract. During the 2021 Uttar Pradesh panchayat elections, more than 1,600 teachers reportedly died from Covid-19. Teachers' associations have repeatedly protested non-teaching burdens, warning that they are unable to complete syllabi or maintain teaching quality. The toll is especially harsh on children in government schools, often from the poorest households. When teachers are missing or burnt out, learning stops. Each census, election, or verification drive may last only weeks, but its after-effects linger for years — in unfinished courses, poor results, and lost futures.

Teachers are meant to teach, not administer State's logistical operations. The right to education is not a symbolic promise; it is a constitutional guarantee. But that guarantee collapses when the same people responsible for fulfilling it are overworked and diverted. The lesson is simple but urgent. Every hour a teacher spends collecting data or manning a polling booth is an hour stolen from a child's education. Teachers are not census clerks or election staff — they are the backbone of the right to education. Counting citizens means little if we stop teaching them first.

Anshul Dalmia is with the Vidhi Centre for Legal Policy. The views expressed are personal.

Bias in the classroom

Teachers' expectations can shape a child's confidence as much as grades. Evidence from Bihar shows how subtle perceptions reinforce social inequality

RITWIK BANERJEE, SATARUPA MITRA, SOHAM SAHOO AND ASHMITA GUPTA

C R Sasikumar

AS BIHAR, WHERE caste often shapes political narratives, heads into another election, it is worth asking how deeply these divisions impact lives. Our research at the intersection of psychology and economic development suggests that the fault lines of social fracture extend to the classroom, reinforcing the very hierarchies that education is meant to dismantle.

Over the past two decades, Bihar's education spending has increased tenfold to nearly Rs 50,000 crore, resulting in a dramatic expansion of schools and teaching staff. Yet, deep social gaps in learning outcomes persist. Data from the Caste-Based Survey 2022-23 show that only 14 per cent of individuals from the general category have completed Class 12, compared with 9.5 per cent among OBCs and just 6.6 per cent among SCs and STs. The gap widens sharply at higher levels of education, where historically disadvantaged groups remain starkly underrepresented.

The persistence of these disparities reflects a complex interplay of factors — structural disadvantages, economic constraints, and variations in school quality. Yet one often-overlooked dimension lies within the classroom itself: How teachers form expectations about student ability. Think of a setting where you are a teacher and you have a student, who you (mistakenly) believe has lower learning levels. How would your interaction with her be? How often would you engage with her?

Our study, 'Caste Identity and Teachers' Biased Expectations: Evidence from Bihar', undertaken jointly by the Asian Development Research Institute (ADRI) and the Indian Institute of Management Bangalore (IIMB), examines these questions through a systematic empirical analysis. The study collects data from a representative sample of public schools in four districts: Vaishali, Sheikhpura, Purbi Champaran, and Jamui. A rich set of information was collected from 229 teachers and 1,088 students of Grades VI to VIII, from about 105 schools. The students were asked to take standardised tests in Hindi, English, and Mathematics. Independently, their respective teachers were then asked to categorise each student as belonging to the "top," "middle," or "bottom" of the class in each subject. Comparing these subjective assessments with students' actual test scores allowed us to construct a measure of "evaluation bias" — the gap between perceived and demonstrated ability.

We compared how the evaluation bias varied between general category and backward-caste students (OBCs, SCs, and STs) when they were taught by the same teacher. This approach enabled us to estimate whether forward-caste teachers systematically exhibited greater evaluation bias and, therefore, had lower expectations for students from backward castes. Indeed, backward-caste students were systematically rated lower by forward-caste teachers, after accounting for classroom characteristics and grading tendencies. This approach accounts for student, school and village characteristics, and therefore, isolates the "extra disadvantage" that arises when teacher and student caste identities interact.

The results reveal a clear pattern of evaluation bias. Forward-caste teachers rate backward-caste students 0.22-0.43 ranks lower than their actual test-based performance warrants. This translates into a 17-27 percentage point higher probability that a backward-caste student is underestimated compared to a similarly performing peer from the general category. The effect is strongest for students from SC and ST communities. Importantly, there is no evidence that these students perform worse in objective tests, indicating that the bias stems from perception, not performance.

Teacher expectations influence how students see themselves — their confidence, motivation, and willingness to aim higher. When children from marginalised communities are consistently underrated, they internalise these low expectations, which may result in lower effort in the long run, shaping their educational choices, aspirations and life trajectories.

Differential teacher expectations may lead to teachers interacting with students from different communities in varying ways. An upper-caste teacher who believes a backward-caste student has lower learning levels compared to upper-caste students may not invest in the former, once again leading to divergent educational outcomes between students of different castes. Those of us in the profession of teaching are often asked to guard against "teaching to the top of the class". Our research suggests that the precursor to this belief about who belongs at the top of the class may be systematically biased.

In a state like Bihar, where education remains the most visible ladder of mobility, these belief-driven barriers take on enormous significance. They remind us that reforms in infrastructure, curriculum, or testing cannot substitute for reforms in perception.

While our findings offer rare quantitative evidence on caste-linked bias in teacher expectations, expanding the dataset could reveal a far richer and more nuanced picture. A larger, state-wide study, spanning more districts, rural-urban contexts, and both private and government schools, would help uncover how these biases vary across different institutional settings. Following students over time would reveal whether these perceptual gaps persist as they move through grades, and how such biases shape their confidence, academic performance, and long-term outcomes. In short, expanding the data would shift Bihar from merely diagnosing a challenge to designing effective solutions. It would help identify where interventions can have the greatest impact and position the state at the forefront of evidence-based education reform.

Differential teacher expectations may lead to teachers interacting with students from different communities in varying ways. An upper-caste teacher who believes a backward-caste student has lower learning levels compared to upper-caste students may not invest in the former, once again leading to divergent educational outcomes between students of different castes. Those of us in the profession of teaching are often asked to guard against 'teaching to the top of the class'. Our research suggests that the precursor to this belief about who belongs at the top of the class may be systematically biased.

The evidence points to an urgent need for systemic change. Tackling caste-linked perception gaps will require both mindset shifts and institutional reforms. Caste-sensitisation and implicit bias training for teachers can make unconscious patterns of expectation visible and correctable. Data-driven feedback loops, where teachers periodically compare their subjective assessments with students' actual performance, can recalibrate beliefs. Promoting greater diversity in teacher recruitment, so that it reflects Bihar's social composition, can help reduce systemic blind spots and foster empathy. Finally, institutional monitoring of grading fairness can promote accountability and ensure equitable assessment practices.

Our analysis does not suggest that teachers consciously discriminate. It highlights how deeply entrenched social hierarchies can shape belief formation, even within professional contexts guided by meritocratic ideals.

Bihar's progress in expanding access to education is undeniable, but the next phase of reform must focus on equity in learning quality. Understanding how biases shape expectations can help policymakers move beyond physical infrastructure and enrolment toward the subtler but equally critical goal of cognitive equity, which is fairness in how ability is perceived, nurtured, and rewarded.

For Bihar, and indeed for India, the promise of education will only be fulfilled when classrooms become spaces where every child is judged by performance, not perception. No matter which government comes to power, the broader educational policy must acknowledge the debilitating roles of not only the material ramifications of prejudice in the classroom, but also the psychological frictions that enable such prejudicial behaviour to emerge in the first place.

Banerjee is associate professor of economics at IIM Bangalore. Mitra is an assistant professor at IIM Indore. Sahoo is associate professor and chairperson of public policy at IIM Bangalore. Gupta is a research intern and member secretary at Asian Development Research Institute

BLASÉ CAPITAL

VISA AMNESIA

The fate of H-1B visa holders, their dependents, and those who seek such visas hangs in a delicate balance over the past several weeks. The US has announced sudden changes, backtracked, issued clarifications, and imposed more dramatic changes. The rules change every few days, or every week. No Indian, who is in the US, including those with green cards and citizenships, is safe. People are so scared that no one wants to voice anything untoward against America, even in advertently, on emails or WhatsApp messages. They do not want to talk about the state of America, or their fears, during phone calls, even if they are encrypted ones. No one is taking chances. Those who have H-1Bs feel that they may be cancelled, and they will be asked to go home. Those who expect it, keep quiet, and silently wait for the visa axe to fall on their heads. It is all disquiet on the western front.

Two new twists and turns have turned the lives of Indian-Americans topsy-turvy. Now, dependents of H-1B visa holders, who got a different visa to stay in the US, and whose visas were automatically extended, if the principal H-1B holder retained his or her visa, will need to apply afresh. The dependents will need to file new applications, and their visa status will be vetted by the administration. According to the bureaucrats, the idea is to curb and reduce illegal immigrants, who may be staying or overstaying on visas that they do not deserve. In the past, there were concerns about the status of dependents. Many felt that they did not deserve to be in the US, as they too gobble up local jobs. Some of the dependents are highly educated, and get high paying work. Thus, their numbers needed to be reduced and curtailed.

Similar seems to be the destiny of Indian students in the US. Among the foreign students, they comprise more than a quarter. Most aspire for American jobs after they finish their post-graduate or PhDs. They want to remain in the US to earn enough to pay the education loans, or have sufficient bank balances that will allow them to pursue self-employment, semi-independent, or start a start-up. Indeed, students gradually grow into American internships, with the knowledge and confidence that they will be absorbed in the job if they do not founder. Their H-1B visa is almost confirmed. Not any longer. Even such students, who try again as a different visa, will need to apply fresh after they graduate, and they wish to get the H-1B. Nothing is automatic. After worries and anxieties that they face to reach America, grapple with fellowships and bank loans, visualise lovely days-a-week to keep up with assignments, and land up lucrative potential jobs, they will not be able to heave a sigh of relief. Yet another visa encounter will await them, adding to the stress levels.

All this is on top of the $1,00,000 fee for new H-1B visas. There was collective relief when the US administration clarified that the new huge fee will be on new visas, and not on those that are extended. Thus, those in the US, who had to just extend the visa, or transfer it if they changed jobs, stayed unaffected. In some senses, this was a boon for them. Since the Indian employees needed to pay the high fee for a new company while out from India, experts believed that there would be a churn among those who were already in the US. The demand for them will go up, and they will be able to negotiate better. Thus, they could land the most lucrative and attractive jobs. This was especially true for those with some years of experience in the US, as senior positions would open for them.

There is another possibility. With the changes, and more in the offing, especially those related to the ban on the existing lottery system for H-1B, and a new salary-based system, Indian employers and employees are confused. This will give rise to middlemen, who will pitch themselves as visa lawyers, immigration experts, and capable recruiters, and advise employers and employees alike. The middlemen will find legal and semi-legal shortcuts to make the H-1B visa path slightly easier, and clearly smoother. For example, there is an ongoing concern, both in America and India, that H-1B visa applications are handled by external recruiters who game the system. This trend can accelerate faster, and result in more illegalities and irregularities. Instead of cleaning up the system, as the American policy-makers want, it will make it rotten. Corruption will increase, as will cases of cheating aspiring visa applicants.

More importantly, there is another possibility. Some of the brightest students, and more qualified professionals will be fed up by the constant changes, and increasing and ever-changing rules. They may decide, as is being urged by Indian experts and policy-makers, to head back home, and try their luck in their native land. Thus, the US will lose the best foreigners, and be saddled with a larger number of average and below-par professionals, who will take up American jobs. For Americans, the result may be the opposite of what they envisage. Mid-level positions will remain crowded, and crowd them out. The most talented, whether Americans, Indians, or Chinese will invariably find a way out. Average Americans will be stuck. Cont'd

Tomorrow is today

Youth mirror what they see. If leaders model discipline and dignity, young citizens will follow with purpose. Before asking them to build the nation, we must show them how – through character, not charisma; through listening, not lecturing; and by proving that respect is earned through conduct, not status. India's youth are not inherently flawed. They are simply adrift in a system that has failed to guide them

India's youth are often hailed as the nation's greatest asset – brimming with energy, ambition, and promise. But behind this hopeful narrative lies a stark truth: only a fraction are meaningfully contributing to national progress. The rest remain emotionally adrift, professionally underutilized, and socially undisciplined. Our much-celebrated demographic dividend risks becoming a demographic liability unless we confront this reality with urgency and resolve.

The symptoms are most visible in urban India, but rural regions are not untouched – thanks to the instant reach of electronic media and digital platforms. Aggression, impatience, and civic indiscipline have become routine. Reckless driving – on expressways, city roads, and even on the wrong lane – along with foul language, queue-jumping, and public confrontations reflect a deeper malaise. Helmets are ignored, traffic rules flouted, and civility eroded. It is not uncommon to hear abusive language in public spaces, revealing a disturbing collapse of basic politeness and respect.

This behavioural drift is not confined to the uneducated or economically marginalized. It has seeped into the psyche of even the well-off and well-schooled. The rise of nuclear families, helicopter parenting, and instant digital gratification has shaped a generation emotionally unprepared for adversity. Shielded from discomfort and fast-tracked to rewards, many adolescents now lack the resilience to face failure, rejection, or uncertainty. When pressure mounts, escape often feels easier than endurance – manifesting in aggression, addiction, or apathy.

Emotional volatility, sleeplessness, and even suicidal ideation are no longer rare – they are warning signs of a deeper disconnect. Based on NCRB data for 2022, 11 per cent of all suicides in India were committed by people under the age of 30 – a staggering 20,000 young lives lost in a single year.

Substance abuse among adolescents is rising alarmingly. In December 2022, the Centre informed the Supreme Court that more than 1.5 crore children aged 10-17 were addicted to substances – alcohol, cannabis, and opioids being the most common.

Simultaneously, the digital space, especially platforms like YouTube, has become a breeding ground for vulgarity, perversion, and foul language. Despite community guidelines, algorithmic incentives and cultural shifts allow such content to thrive, shaping impressionable minds in troubling ways.

Even basic courtesies, like greeting elders, now require parental prompting, a disturbing shift in cultural values. A common driving courtesy, such as dipping headlights to avoid glare, has disappeared. Instead, LED lights are kept on full beam, blinding oncoming drivers. Pressure horns, illegal and prohibited, are used with impunity. Double-decker buses blaze through traffic with flashing lights, intimidating sensible drivers, especially women. The rule of law appears absent, and the long arm of enforcement rarely reaches these offenders.

Educational institutions are struggling to manage and inculcate civic values. While data on expulsions for indiscipline is scarce, anecdotal evidence suggests a growing inability to enforce behavioural norms. Schools, stripped of authority, are unable to instil discipline. Parents, often indulgent or absent, fail to set boundaries. Psychiatric analysis has replaced moral guidance, and emotional entitlement has replaced resilience.

Meanwhile, India's employment crisis deepens. Despite a growing working age population, the employment rate has stagnated. According to estimates from Santosh Mehrotra and Jajati Parida's forthcoming book "India Out of Work", only about 330 million of the 615 million work force were engaged in non-farm sector jobs in 2023-2024.

Nearly 240 million remain tied to agriculture, much of it unpaid family labour. Another 28 million educated youth are actively seeking jobs, while 100 million – mostly women – have exited the job market, discouraged by limited opportunities or systemic barriers. The rest are still in education, but many will emerge unemployable due to a mismatch between academic training and industry needs.

The structural reversals in manufacturing and the lockdown of the Lewisian transition, which saw trained surplus rural labour moving into higher productivity industrial jobs, have compounded the crisis. In India's context, this transition has faltered. Instead of absorbing rural workers into formal manufacturing, we have seen stagnation in industrial production and a surge in informal, low-wage urban employment. Many youth, especially in towns and city outskirts, remain stuck in agriculture or drift into unregulated sectors like gig work, street vending, or idle urban roaming – none of which offer long-term stability, skill development, or dignity.

Despite campaigns like "Make in India," manufacturing's share in employment and GDP has declined. To match China's productivity levels, India must urgently address the behavioural drift among youth. Roaming aimlessly, wasting time, and resisting discipline are not just personal failings, they are national setbacks. It is well-nigh impossible to expect youth with such a mindset to perform professionally in any activity, office, or industry. Their work culture too reflects the same casual, arrogant, and shortcut-driven attitude – with negligible care for quality, accountability, or performance.

S S SAXENA

The writer is a retired Air Commodore, VSM, of the Indian Air Force

We rarely speak of the 80 crore citizens dependent on free ration, the growing unemployment, the downward trend in exports, the slide of the rupee, or the lack of affordable healthcare and education. Instead, we celebrate "India Shining" and "Viksit Bharat" while ignoring the realities of overcrowded cities, unaffordable schooling, and a very large number of youth population remaining unfit to meet the challenges of a competitive world.

India's leaders must lead by example. Austerity, punctuality, and integrity must be lived – not just preached. When public figures glamorize aggression or indulge in theatrical bravado and unsocial language, they normalize incivility. Loudness is mistaken for leadership, and restraint for weakness.

Youth mirror what they see. If leaders model discipline and dignity, young citizens will follow with purpose. Before asking them to build the nation, we must show them how – through character, not charisma; through listening, not lecturing; and by proving that respect is earned through conduct, not status.

India's youth are not inherently flawed. They are simply adrift in a system that has failed to guide them. The solution is not punishment, but reform. Not nostalgia, but renewal. We must reconnect our urban youth to their roots, their communities, and their conscience. We must offer them not just jobs, but meaning. Not just education, but values. Not just freedom, but responsibility. But reform must come with resolve. It must be executed with fairness, but also firmness. Democratic freedom cannot be a shield for indiscipline, nor can every wrong be excused in the name of youthful exuberance. Accountability must walk hand in hand with empathy.

Recent glaring examples are the gruesome killing and injuries caused by rash driving under the influence of alcohol in Prayagraj, followed by a similar case in Delhi. It is time the leadership, bureaucracy, and police shun the "all is well" posture, stop publicity slogans, face reality, and take conscious, stern action to instil discipline, civic responsibility, and respect for law across all layers of society. This must begin with visible, consistent enforcement, not selective crackdowns or token gestures. The message must be clear: indiscipline is not freedom, and public spaces are not arenas for reckless self-expression.

We must move beyond slogans and symbolism. Real transformation demands institutional reform, leadership by example, and a national ethos of accountability. The youth must be guided, not indulged. They must be trained, not merely taught. They must be inspired, not distracted. And above all, they must be reminded that nation-building is not a spectator sport. It is a disciplined, collective pursuit.

India stands at a historic juncture. The demographic dividend that began around 2013 will begin to taper by 2046. That leaves us with just two decades to harness this energy, channel it into productivity, and elevate our national standing. Disciplining a massive youth population requires stern actions, committed leadership, and extensive common training based on a uniform syllabus and language. Further delay in addressing these critical areas will squander golden opportunities to enrich the nation and elevate the quality of life for all citizens.

Let us not wait for another tragedy, another missed chance, or another hollow celebration. Let us begin the hard work of disciplining the nation, dignifying our youth, and directing our future, before the crossroads become a dead end. As Martin Luther King Jr. aptly said, "We are now faced with the fact, my friends, that tomorrow is today. We are confronted with the fierce urgency of now."

STATESMAN (P-8), 01 NOVEMBER 2025

Overseas study demand surges in smaller cities, driven by AI, Data Science

RITWIK MUKHERJEE
Kolkata, 31 October

Various courses linked to Artificial Intelligence, Data Science and Analytics have seen significant growth among Indian students planning to study abroad, growing five times since 2021 and doubling in the past year. Demand for MSc Management courses has also doubled year-on-year, underscoring a shift towards programmes that combine technical depth with global business exposure.

Significantly, experts are of the view that we are seeing a strong shift toward AI, Data Science, and Machine Learning courses not just because they're popular, but because students clearly see where the world is headed.

If a recent research paper by the transnational study abroad platform-Leap is to be believed, what also appears to be very significant is the fact that overall interest in study abroad among Indian students has also hit a record high, with new data fshowing a 4.5-fold rise in demand from Tier-1 and Tier-2 cities over the past two years. The eastern region of India now accounts for 7 per cent of total study-abroad interest, the highest share recorded so far, reflecting growing awareness and participation beyond traditional education hubs.

Different undergraduate programmes registered 1.5X growth year-on-year, while PhD interest doubled compared with 2024, led largely by students targeting Germany and the EU for research opportunities.

The Q3 2025 data points to a marked shift in destination preferences. Germany and Ireland have recorded the fastest growth this year, while UAE and New Zealand saw a three-fold rise in student demand between Q1 and Q2 2025, suggesting that students are expanding their choices beyond traditional destinations. For example, Ireland's visa approvals based on student-reported and partner-verified outcomes have tripled over two years, consolidating its position among Europe's leading destinations for Indian students. Such growing interest in these subjects, experts feel, are not without reasons. These are the skills shaping the next generation of jobs. Across more than a million interactions on our platform, students are asking smarter questions about how to align their education with real career outcomes. AI is helping us make those links visible, giving every learner a clearer, more personalised roadmap to succeed globally.

Interestingly, the Bureau of Immigration (BoI) data shows that a little over 7.6 lakh Indian students pursued higher studies abroad in 2024, slightly down from 8.95 lakh in 2023. Despite this minor dip, the numbers highlight a steady demand for international education. Official statistics show that in 2020, over 2.6 lakh Indian students went abroad. This number rose to 4.45 lakh in 2021, followed by a sharp increase to 7.52 lakh in 2022. The upward trend peaked in 2023 when nearly 8.95 lakh students pursued studies overseas. In comparison, 2024 saw 7.6 lakh students moving abroad, marking a slight reduction from the previous year but still much higher than pre-2022 levels. This consistent increase indicates a strong demand for overseas education among Indian youth despite fluctuations.

Between funds and ideology

PM SHRI

Kerala signed up for the Union government's flagship school education scheme after three years of resistance only to pause the agreement amid strong opposition from a coalition partner of the ruling Left Democratic Front

R.K. Roshni

Kerala made headlines recently when it became a signatory to the Union government's flagship PM SHRI (Prime Minister's Schools for Rising India) scheme after three years of holding out, only to press the pause button after the Communist Party of India (CPI) that is a coalition partner in the Communist Party of India (Marxist)-led Left Democratic Front (LDF) government in the State refused to go along with the decision alleging a lack of consensus.

The scheme was announced by Prime Minister Narendra Modi on National Teachers' Day in 2022.

On September 7, 2022, the Union Cabinet approved the Centrally sponsored scheme, which seeks to develop over 14,500 existing schools, including Kendriya Vidyalayas (KVs) and Jawahar Navodaya Vidyalayas (JNVs), across the country as model institutions that showcase the National Education Policy (NEP) 2020.

The PM SHRI schools are envisioned to meet the "demands of the 21st century," notes the scheme's 'Framework on school transformation'. With upgraded infrastructure and innovative pedagogy and technology, the schools are meant to create "well-rounded individuals equipped with key 21st century skills". According to the Union Ministry of Education, the objective of PM SHRI is to ready schools in which "every student feels welcomed and cared for, where a safe and stimulating learning environment exists, where a wide range of learning experiences are offered, and where good physical infrastructure and resources conducive to learning are available to all students."

The scheme is designed to benefit more than 18 lakh students directly. Mentoring of schools in the vicinity of PM SHRI schools is expected to benefit many more students. The total outlay of the project is ₹27,360 crore (Central share of ₹18,128 crore and State/UT share of ₹9,232 crore in 60:40 pattern), spread over a period of five years till March 2027. The Union government will provide 90% of the funding for northeastern and Himalayan States and the UT of Jammu and Kashmir, and 100% for UTs that do not have legislature. According to the PM SHRI dashboard, 13,070 schools have been selected for the scheme nationwide. Of them, 1,533 are KVs and JNVs.

Only existing elementary and secondary/senior secondary schools managed by the Union/State/UT/local self-governments and having Unified District Information System for Education Plus (UDISE+) code are selected for the scheme.

The selection is done in three stages. First, States or UTs sign a memorandum of understanding (MoU) with the Union government agreeing to implement the provisions of NEP 2020 in "entirety". Then, schools that meet the minimum benchmark (on the basis of UDISE+ data) are shortlisted.

In the third stage, the shortlisted schools compete to fulfil certain criteria based on the challenge formula. Their claims are verified by States or UTs through physical inspection and a list of schools is recommended to the Union Ministry of Education. A maximum of two schools – one elementary and one secondary/senior secondary – are selected from every block or urban local body. An expert committee recommends the final list of schools selected for PM SHRI in each State or UT.

The MoU for the PM SHRI scheme clearly states that PM SHRI has to be prefixed to name of selected schools. "No change shall be undertaken thereafter, by the States/UTs/KVS/NVS for these schools, as these schools are to be developed as PM SHRI Schools for providing quality education," it says.

Key features

Pedagogy in PM SHRI schools will be more experiential, holistic, integrated, learner-centred, and flexible, according to the guiding framework. The curriculum can follow the National Curriculum Framework/State Curriculum Framework developed in accordance with the new curricular and pedagogical structure of the NEP.

The schools will use mother tongue/local or regional language for teaching and learning, particularly in the early years.

Student registry to track enrolment and learning progress; STEAM (science, technology, engineering, arts and mathematics) education; sports and arts for every student; ICT facility, smart classrooms and digital libraries, science labs, and vocational labs; and early childhood care and education; competency-based learning and improvement in learning outcomes of each student are some of the significant aspects of PM SHRI schools.

A 'School Quality Assessment Framework' that measures the performance of these schools is another key component. The assessment framework will produce comprehensive reports to aid improvement in educational standards. "Traditions and practices and Indian knowledge systems" are part of curriculum in these schools. The framework, it is mentioned, is not prescriptive but suggestive in nature.

Row over PM SHRI

Though PM SHRI was launched in 2022, States such as Delhi, West Bengal, Bihar, Odisha, Tamil Nadu, and Kerala refused to come on board for reasons ranging from political opposition to the NEP and objection to adding the PM SHRI prefix to schools' name to prioritising their own projects.

Punjab signed the MoU in 2022 but withdrew from it a year later. As in the case of Kerala, withholding of funds under another Centrally sponsored education scheme Samagra Shiksha by the Union government saw the Punjab government ultimately reconsider the decision in 2024. Other States too gradually gave in, with lack of critical funding threatening to derail education schemes.

Apart from Kerala, West Bengal and Tamil Nadu (all three States ruled by Opposition parties) remain the only States yet to sign up for the scheme. West Bengal's contention pertains to funding and branding. It asks why the scheme should be named PM SHRI if States have to bear 40% of the cost and have to take over the schools after five years. As far as Tamil Nadu is concerned, the point of conflict is the three-language formula of the NEP. This translates to 'imposition of Hindi' for the ruling government. Tamil Nadu has chosen to seek legal redress for release of nearly ₹2,200 crore from the Union government.

Kerala, too, opposed PM SHRI on the grounds it showcases the NEP which, it says, is being imposed by the Union government as part of a Rashtriya Swayamsevak Sangh (RSS) agenda that will lead to 'communalisation of education' and promote unscientific thinking. The State had once agreed to implement the PM SHRI scheme in 2024, but refrained from signing the MoU.

More than a year later, a decision to throw in the towel was made after the Union government insisted on signing the pact as a precondition for release of pending Samagra Shiksha funds (to the tune of ₹1,158.13 crore).

Kerala tried to defend the move saying there will be no compromise on its educational policy and values. The government's attempts to walk the tightrope of prioritising the State's needs while staying true to the ideological opposition to the NEP though ran into a wall of CPI objections, leading to the freeze on the implementation of the scheme. A cabinet subcommittee, which has been formed to scrutinise the MoU, will now take a call on the issue.

THE GIST

- Apart from Kerala, West Bengal and Tamil Nadu (all three States ruled by Opposition parties) remain the only States yet to sign up for the scheme
- West Bengal's contention pertains to funding and branding. It asks why name the scheme PM SHRI if States have to bear 40% of the cost and have to take over the schools after five years
- Tamil Nadu's point of conflict is the three-language formula of the NEP
- Kerala opposed PM SHRI on the grounds it showcases the NEP which, it says, is being imposed by the Union government as part of an RSS agenda

100 YEARS OF PUNJAB SCHOOL OF MATHEMATICS

The centenary is not merely a celebration of formulas or theorems, but of the human spirit that animates them

SURINDER PAL SINGH KAINTH
& ARJUN KUMAR GREWAL

IT is a rare confluence of centenaries: the birth centenary of Prof Ram Prakash Bambah (September 20, 1925 – May 30, 2015) coincides with the 100th year of the Punjab School of Mathematics, whose origin dates back to its mentor Prof Sarvadaman Chowla's first research paper from Punjab in 1925. The passing of Prof Bambah this year adds a solemn note to the occasion.

As we look back, it is important to recognise how Punjab carved out a lasting place for itself in the national and global landscape of mathematics. The continuity of this tradition was documented by Purabi Mukherjee in her 2010 Springer publication 'Research Schools on Number Theory in India'. This book placed the Punjab School of Mathematics firmly on the global map — second only in renown to Srinivasa Ramanujan's South Indian School of Mathematics.

After Ramanujan's untimely death in 1920, his legacy was carried forward in Madras by Dr Anand Rau, his Cambridge contemporary under GH Hardy. In Punjab, the torchbearer was Sarvadaman Chowla (Servi). His father, Bhai Gopal Singh Chawla, was amongst the first set of Indians touched at government colleges facilitated to proceed abroad under a scheme introduced after the Indian Universities Act of 1904. Servi was born in England in 1907.

Punjab University, Chandigarh, continues to function under a variant of the same 1904 universities' legislation.

In 1925, as a BA student at Government College, Lahore, Servi Chowla began solving problems posed by Ramanujan. By the time he completed his MA in 1928, he had 16 papers to his credit, and between 1925 and 1931, he cracked 34 problems in all.

His father, Bhai Gopal Singh, who became a professor at Government College, Lahore, in 1910, accompanied him to Cambridge in 1925, but tragically passed away there due to pneumonia. Servi Chowla completed his PhD in just two years, at the age of 22, under the guidance of JE Littlewood at Trinity College, Cambridge.

At Cambridge, Chowla shared a house with the young Subrahmanyan Chandrasekhar (also Chandra, nephew of Nobel laureate CV Raman, who had been at Lahore. The two remained in lifelong correspondence. Chandra was guided by RH Fowler, who also mentored Homi Bhabha and DS Kothari. The Lahore-born Chandra went on to win the 1983 Nobel Prize in Physics, but only after his two Nobel laureate students: Tsung-Dao Lee and Chen-Ning Yang. Incidentally CV Raman had included both Servi Chowla and Chandra among the 63 founding members of the Indian Academy of Sciences in 1934.

Chowla's first teaching job was at St Stephen's College, Delhi, in 1931, where he married Hansani Majumdar, sister of Sucheta Kriplani — later Independent India's first woman Chief Minister. His career then took him to Banaras Hindu University and Andhra University, the latter's Vice Chancellor was Sarvepalli Radhakrishnan, the future President of India.

At BHU, Chowla met the budding French mathematician André Weil, who had accepted the Chair at Aligarh Muslim University for two years. Andre later became one of the most influential mathematicians of the 20th century, co-founded the legendary Bourbaki group, and reshaped 20th-century mathematics.

Enthroned by his mentor JE Littlewood as the most promising Indian mathematician since Ramanujan, Chowla joined Government College, Lahore, as professor in 1936. He was also inducted into the Indian Education Service (IES). At Willan, his postgraduate teaching had already lit a spark in the young CR Rao (CSIR), later hailed as a "living legend" by the American Statistical Association and a recipient of the Padma Vibhushan.

The teacher (Servi) and student CRR went on to collaborate on several research papers in the 1940s. In 2023, the centurion CRR (1920-2023) was awarded the International Prize in Statistics, an honour often described as the Nobel Prize of Statistics.

At Lahore, Chowla's first research student was Raja Chand Aulack, who had topped MA in Mathematics in 1934. Aulack published extensively in number theory with and without Chowla, before moving to astrophysics and statistical physics. In 1949, he joined the Physics Department at Delhi University and soon earned a doctorate in physics.

Servi Chowla's younger brother, Inder, who also worked with him on number theory at Lahore, had completed his PhD at Cambridge under H Hoffenstein in 1942, but his brilliant career was tragically cut short by his untimely death the following year.

Chowla mentored a remarkable galaxy of students and collaborators at Lahore — Hansraj Gupta, Abdul Majid Khan, Daljit Singh, HK Talwar, BP Bambah, JC Luthra, Mahendra Raj, PC Kohli, and Abdus Salam, among others. Hansraj, who studied under Servi's father as an MA student from 1923-24, used to visit Servi too. Bambah set a record with a perfect 900/900 in the MA in Mathematics examination in 1945. Abdus Salam won the Nobel Prize in Physics in 1979.

PC Kohli and BP Bambah were later awarded the Padma Bhushan; the latter served as Vice Chancellor of Panjab University from 1986 to 1991 and remained a trustee of The Tribune Trust. Kohli went on to become co-founder and director (TCS). Raj Kumar Talwar served as chairman of the State Bank of India. Jagdish Luthra became Deputy Governor of the Reserve Bank of India.

Mahendra Raj emerged as one of India's most celebrated structural engineers, collaborating with Le Corbusier on the planning of Chandigarh and designing iconic buildings such as Mumbai's Indira Kiran, the Hall of Nations at Pragati Maidan in Delhi, and the Salar Jung Museum in Hyderabad.

At Lahore, Chowla dispensed one of Ramanujan's conjectures using Hansraj Gupta's partition tables. As a schoolboy, Hansraj had devised a 100-year calendar that won a medal at the British Empire Exhibition. He earned the first PhD ever awarded by Punjab University (then in Lahore) in 1936. Gupta had immaculate, typewriter-like handwriting, which won him the rare permission to submit his thesis handwritten.

After World War II, Chowla helped Bambah secure a temporary post at Government College, Hoshiarpur, where Hansraj was the head. With no place to stay, Bambah was taken in by Hansraj, who shared his home for three months. Bambah was called to Delhi by DS Kothari to fill the position vacated by PC Aulack. He received unrelated support from both Kothari and Aulack, and on their recommendation, applied for the 1951 Exhibition Scholarship, under which he earned his PhD from the University of Cambridge in 1953. In 1951, he joined the University of Delhi as a Research Fellow, and was later appointed as a Reader at Panjab University, Hoshiarpur, in 1962.

With stints at the Institute for Advanced Study, Princeton (1953-1954), and the University of Notre Dame (1957-1958), Bambah returned to help establish a dynamic Department of Mathematics at Panjab University, Chandigarh, working closely with Hansraj Gupta. Their friendship laid the foundations of the consolidation of the Punjab School of Mathematics in Independent India.

Bambah's partnership with Hansraj was extraordinary in an academic world often fraught with ego. Along with TP Srinivasan and Lothar, they elevated the Department of Mathematics and helped it earn the UGC Centre of Advanced Study (CAS) status. In 1960, the Government of India established the National Board for Higher Mathematics (NBHM), and this Centre for Advanced Study was chosen as its first regional centre.

Meanwhile, in July 1947, Chowla left Lahore with his family, aided by his wife's sister. Armed with glowing recommendations from Hardy, Davenport, Mordell, and Littlewood — who had hailed him as "the most promising Indian mathematician Cambridge has had since the war" — he applied for posts in India. Yet, despite such praise, Independent India had no place for the Lahore prodigy.

After Independence, faculty positions were scarce — when a single professor doubling as head, Delhi University had no mathematics department and many talented academicians slipped away. India lost not only the would-be Nobel laureate Har Gobind Khorana, but also Sarvadaman Chowla, who had completed less than half his academic journey by then. Had he joined Punjab University alongside Bambah in the 1950s, the region's scholarly history might have unfolded very differently.

In 1948, Chowla left for Princeton's Institute for Advanced Study. Regulations in the US for foreigners left the family in financial strain. They had arrived in the US in the middle of a harsh winter — Solberg remembered his wife Hansani braving the snow in thin sandals, surviving on the kindness of strangers. Through it all, Chowla's mathematics gave them strength and purpose.

In the US, Chowla was rubbing shoulders with giants like Siegel, Selberg, Erdös, and Turan. He built a dazzling career — 356 papers with 69 collaborators, 26 PhD students (including his daughter Pramila), and theorems that carry his name: the Chowla-Selberg formula, the Brauer-Ryser-Chowla theorem, the Mian-Chowla sequence. His collected works, published in 2006 by the University of Montreal, trace a journey that began in Lahore's classrooms and ended on the world mathematics stage.

To celebrate the legacy of Prof Chowla, Punjab University instituted the Annual Sarvadaman Chawla Memorial Lecture. The first lecture, delivered 10 years ago by Fields Medallist Prof Manjul Bhargava on the occasion of the 80th birth anniversary of Prof BP Bambah, continues to inspire budding scholars.

The Punjab School of Mathematics shaped leaders across disciplines — Abdus Salam, PC Kohli, Raj Kumar Talwar, Mahendra Raj — and within mathematics, PU faculty like SK Trehan, IBS Passi, SR Malik, and TH Shorey earned the Shanti Swarup Bhatnagar Prize. Five PU mathematicians served as presidents of the Indian Mathematical Society. The School thus influenced science, technology, banking, and engineering as much as pure mathematics.

The centenary of the Punjab School is not merely a celebration of formulas or theorems, but of the human spirit that animates them — a century of mentorship, perseverance, collaboration, and curiosity passed from one generation to the next. A hundred years of intellect, inspiration, and enduring legacy.

— Kainth is chairperson of the Department of Mathematics, Panjab University, Chandigarh. Grewal served as the PU Vice Chancellor

Prof Sarvadaman Chowla (seated, centre) with students and colleagues at Government College, Lahore (early 1940s).

Prof Sarvadaman Chowla (1907-1995)

Prof Hansraj Gupta (1902-1988)

Prof BP Bambah (1925-2015)

DECCAN HERALD (P-13), 03 NOVEMBER 2025

From chalk to chaos: Stress management for teachers

QUARRATUL AIN IFRAH

What if stress is not about the head and worrying, as commonly understood? The word 'stress' has been receiving a lot of attention with the rise of new work ethics, and the simultaneous increase in psychological studies, but the mere popularity of the word has done little to manage its effects. The way we understand stress needs to be completely redefined.

We cannot help but agree that teaching as a profession is highly stressful. The teacher is required to do high amounts of work in short periods, blur the lines between work and personal life, and perform constant "emotional labour". He/she must appear calm and encouraging before the student, suppressing their own emotions at all times.

AI and technology have created a sudden generation gap between teachers and students, leaving little time for teachers to catch up and creating a very overloaded, confused work environment. Therefore, they must understand stress as a concept and the strategies of managing it.

In the simplest terms, stress is the imbalance between the demands placed on an individual and his/her ability to handle them. Any task beyond an individual's resources is deemed stressful, and the resources can be physical, mental, or material.

The cause of stress can hence be defined not only by the difficult event or situation, but also by the personal interpretation of that event, which determines whether it is perceived as difficult or easy.

The personality traits of the individual, whether he is a perfectionist or a procrastinator, His genetic or hereditary characteristics and also the social pressure placed on the individual in his/her family or work setting, to perform a given task in a given time with high proficiency, all lead to the experience of stress.

Many consequences

The part that makes stress intolerable and disables the person from doing any other task is, of course, its aroused state. The human body is designed for survival, and anything that threatens it is a source of stress. It does not differentiate between the sight of a tiger and an important work deadline, so any stressful event pushes the body into a fight-or-flight state, characterised by a high heart rate and BP, tense muscles, digestive issues, or sleep disturbances.

The aroused state uses up all of the body's energy sources, so if the body is under stress for a long time, it eventually shuts down. The individual faces chronic fatigue, and at one point, the mental processes dysfunction as well. Concentration, memory, mood swings and feelings of frustration arise. The person may then depend on the use of substances like excess coffee, drugs, tobacco or alcohol to cope. He begins to avoid more responsibilities, becoming helpless and overwhelmed, which in turn increases future stress. The cycle continues.

But what if there were no exams? No pressure at all? The result would not be productive or healthy either, because a limited amount of stress is required at every stage to enable growth and learning. However, when this limit is crossed unreasonably and the individual is expected to perform beyond their abilities, the stress becomes harmful. Harmful to the extent of death.

What can we do differently?

So if unchecked stress is that fatal, it is not only necessary but immediately vital to understand how to manage it. We may begin by understanding that stress is not a disease or an enemy; it is simply our body's call for balance —a signal of overheating. If we listen to the call, the situation is easily faced.

Stress management may require different methods, depending on the extent and nature of the stress, such as direct problem-solving if the stressor is addressable, or emotion-focused management to change our negative emotions if the event is out of our control. Cognitive reframing also allows the person to shift their outlook to a more positive one, so that the same event is perceived as a challenge or opportunity rather than a threat, thereby reducing stress.

Some instant techniques like deep breathing/box breathing, grounding exercises (5-4-3-2-1), or brain dumping can help to provide immediate relief in the middle of a stressful situation by calming the body and reminding it that you are still in control. If the stressor or event is likely to be long-term, lasting years, it requires a complete change in lifestyle and mindset to adapt.

Solutions in the long run

This may include seeking relief through spirituality—a belief and faith that allows the person to think beyond their material situation and be patient. Regular physical exercise, a healthy diet, and a sleep schedule prepare the body for future stress and reduce its effects. At the same time, activities such as hobbies, reading, emotional expression, and social interaction may strengthen the mind and its ability to cope with stress.

Time management is important for stress prevention, as more than half of the pressure stems from a lack of time. If important tasks are performed before they become urgent, the likelihood of stress is eliminated. Long-term lifestyle changes help reduce stress.

Stress is inevitable, and for teachers who carry the weight of so many futures, acknowledging stress is not weakness; it is wisdom. So let us strive not only to eliminate stress, but also to recognise and respond to it as it requires.

(The author is based in Kalaburagi)

13

HINDUSTAN TIMES (P-12), 03 NOVEMBER 2025

India's reforms moment in science and technology

The global landscape is undergoing a profound transformation. Geopolitical alliances are being redrawn, economic borders are tightening and tariffs, technologies, and entire supply chains are being weaponised with impunity. In this new world order, national sovereignty has become synonymous with technological sovereignty.

The Narendra Modi government's response to this changing landscape has been pragmatic and ambitious. Over the past decade, it has laid the foundation for a modern innovation economy — expanding its digital public infrastructure (DPI), opening strategic sectors such as defence and space to private enterprise, and nurturing the world's third-largest startup ecosystem. Now, the Prime Minister has decided to tackle the chronic underinvestment in research and development (R&D).

In 2024, India's total R&D expenditure stood at about $18 billion, less than one-twentieth of China's $450 billion, and even below Israel's $25 billion. To achieve leadership in strategic and critical technologies, India must target at least $200 billion by 2035, roughly 3% of our projected GDP. This will require a significant increase in government funding and a greater commitment from industry, which today contributes to only a third of the country's R&D spend, the opposite of the global trend. The challenge is considerable but not insurmountable.

Saurabh Srivastava

India has a strong scientific and institutional base. Our IITs and IISc Bengaluru now produce more postgraduate scholars than undergraduates. The scale and quality of R&D at these institutions have also markedly improved. The following examples illustrate this trend: IIT Madras has created the world's most detailed 3D images of the human foetal brain at a resolution 10 times sharper and at a tenth of the global cost; IIT Kanpur has developed an artificial heart projected to cost one-seventh the price of the current market leader; IIT Bombay has pioneered CAR-T cell therapy for cancer, slashing treatment costs for Indian patients by up to 90%; And, IISc Bangalore has created a brain-inspired analog computing platform with 16,500 conductance states in a single molecular film, revolutionising AI computing.

This surge in innovation has been matched by the government's policy actions. The new framework for the ease of doing research has removed layers of approvals and given scientists greater autonomy. These reforms have been compared to the 1991 economic liberalisation moment. The creation of Anusandhan National Research Foundation (ANRF), modelled in part on the US's NSF, is set to reshape India's research landscape. With a projected ₹50,000 crore budget over five years, it will fund basic and applied research across universities, colleges, research institutions, and R&D labs with industry collaboration at its core.

If the ANRF is about capacity building, the new ₹1-lakh-crore Research, Development and Innovation (RDI) Fund aims to catalyse private-sector R&D investment in strategic and emerging technologies. It will offer long-term, low-cost financing, including equity and hybrid instruments, to corporates, start-ups, and FROs developing breakthrough technologies in fields such as semiconductors, quantum computing, space, biotech, energy, and more.

Crucially, the fund will be managed by professionals, not the government, with investment decisions made by independent committees of experts from finance, industry, and technology. In design and intent, it presents a historic opportunity for government and industry to work together and innovate across sectors. The department of science and technology's extensive consultations with all stakeholders augurs well for an efficient execution. The Fund has the potential to transform India's deep-tech ecosystem and provide the country the strategic autonomy it needs in a world where China is trying to develop and enforce a new set of global trading norms.

There are historical parallels worth remembering. Not many of us realise that the US was not the global leader in technology and innovation at the end of World War II. Its transformation began with *SCIENCE: The Endless Frontier*, a 1945 report commissioned by President Roosevelt and authored by Vannevar Bush, which led to the creation of the US's National Science Foundation (NSF) and other agencies. It argued that to combat disease, ensure national security, raise living standards and create new industries and jobs, the government must create scientific infrastructure, develop talent, and incentivise the private sector to invest in R&D. This vision powered America's post-war dominance. For India to achieve PM Modi's vision of a Viksit Bharat by 2047, innovation and technological excellence must become a national mission.

The government, at the highest level, has played its strongest hand yet. Now, others too must rise to the occasion. All arms of government must recognise that this is a critical national bet, which demands urgency, conviction, and courage. Occasional mistakes are inevitable in breakthrough research. They should be treated as learning, not lapses. If implementation becomes risk-averse, the opportunity will slip away.

Countries around the world have found ways to give domestic technologies preferential access to their markets, allowing their companies to hone their products to perfection before taking on the world. Unless we do the same, many of our potential future global winners may be stillborn and our path-breaking initiatives may underachieve their potential.

In global innovation ecosystems, from the US to China, Japan, and South Korea, the most valuable companies are built on intellectual property and human capital. In contrast, India's industry has historically underinvested in proprietary innovation. They have the financial and organisational muscle to take cutting-edge research from lab to market. They must invest more in R&D, collaborate with academia, acquire or fund promising start-ups, and place more faith in Indian science. Our start-ups are already showing the way.

India's digital public infrastructure has already shown how visionary public policy, executed at scale, can transform governance. The RDI Fund has the potential to do the same for innovation. If government, industry, and academia pull together, the RDI Fund could be the start of a new innings.

Saurabh Srivastava is co-founder and former chairman, Nasscom. The views expressed are personal

MILLENNIUM POST (P-8), 03 NOVEMBER 2025

The silent burnout behind passionate teaching today

SAKSHI SETHI

2ND OPINION

THE PIONEER

Once upon a time, passion was the holy grail of teaching. "Love your subject," they said. "Pour your heart into it," they urged. And so, teachers did. They adored their subjects, lived and breathed them — until that very love began to suffocate their creativity, flexibility, and sometimes, their sanity. Today, as education races through the digital age, one can't help but wonder: has our obsession with passion begun to strangle the art of great teaching itself? Picture the archetypal passionate teacher — eyes gleaming, voice quivering with enthusiasm, overflowing with facts and faith that their subject is the centre of the intellectual universe. A noble image, yes, until that passion turns classrooms into pulpits and lessons into sermons. Across schools and universities, lectures often sound less like invitations to learn and more like love letters to Shakespeare, calculus, or the cell structure.

Meanwhile, students sit politely — half intrigued, half lost — wondering why they must care so deeply about the mitochondria when their own lives feel like a battery running low. Here lies the irony: passion, once the spark that ignited curiosity, can easily become a wildfire that consumes it. The more tightly a teacher clings to their beloved subject, the less space remains for humour, empathy, or adaptability — the very qualities that make education human. What emerges are echo chambers where teachers speak at students instead of with them, and classrooms lose their air of discovery.

The problem deepens because our education systems often reward this tunnel-visioned passion. Institutions celebrate the expert — the specialist who knows every detail, quotes every theorist, and grades with precision. They are promoted, praised, and crowned "Subject Head."

Yet, in this worship of expertise, we forget to give them time to breathe, explore, or play. A literature teacher may never code; a physics teacher may never discuss ethics; an economics teacher may never trace the poetic rhythm in trade cycles. Passion, in its most noble form, becomes a gilded cage — trapping educators within the narrow walls of their discipline. Then comes the emotional cost. Passion, when stretched too far, becomes exhaustion in disguise. Teachers pour themselves into lesson plans, grading, and endless professional development until there's nothing left to pour. Burnout arrives dressed as dedication. What they often need is not another seminar on pedagogy, but a quiet evening, a laugh, and the permission to not care for a while. Passion without pause isn't commitment —it's slow martyrdom.

The Pioneer
SINCE 1865

Yet all is not lost. Passion can be redeemed — through balance, curiosity, and humility. Teaching isn't about displaying how much one knows; it's about inspiring how much students want to know. A passionate teacher becomes extraordinary when they step off the pedestal and explore new terrains. Imagine a maths teacher weaving poetry into symmetry or a biology teacher linking genetics with ethics. The goal isn't to dilute expertise but to humanise it — to remind students that knowledge thrives when it crosses boundaries. The finest educators don't worship their subjects; they dance with them — leaving room for laughter and discovery.

The writer is an educator and a counsellor

NAV BHARAT TIMES (P-10), 03 NOVEMBER 2025

देश की प्रगति में क्या है NEP की भूमिका

दिनेश प्रसाद सकलानी

भारत ने विश्व को गीता का कर्मयोग, वेद व उपनिषदों की प्रज्ञा जैसी महान दार्शनिक अवधारणाएं और जीवन उपयोगी विचार दिए हैं, जो विश्व कल्याण के लिए आवश्यक हैं। गुरुकुलों, विद्यापीठों में दी जाने वाली शिक्षा का ध्येय था-मनुष्य का सर्वांगीण विकास। शिक्षा सर्वसुलभ थी और आत्मनिर्भर एवं स्वस्थ समाज की आधारशिला भी।

हर गांव में पाठशाला | आचार्य धर्मपाल अपनी प्रसिद्ध कृति 'The Beautifull Tree: Indian education in the 18th century' में लिखते हैं कि तब भारत के लगभग हर गांव में पाठशालाएं थीं और वहां गणित, व्याकरण, दर्शन, खगोल, साहित्य तथा धर्मशास्त्रों की उच्च स्तरीय शिक्षा दी जाती थी।

मैकाले की साजिश | लॉर्ड मैकाले की वर्ष 1835 की शिक्षा नीति ने भारतीय शिक्षा की जड़ों को काटने का प्रयत्न किया। उद्देश्य था भारत में ऐसी पीढ़ी तैयार की जाए जो रक्त और रंग से भारतीय हो परंतु रुचि, विचार और भाषा में अंग्रेज हो। परिणाम सबके सामने है। स्वतंत्रता के बाद शिक्षा नीति को प्रासंगिक बनाने का प्रयास तो हुआ लेकिन जिस क्रांतिकारी परिवर्तन की अपेक्षा थी, वह पूर्ण नहीं हो पाया।

राष्ट्रीय शिक्षा नीति 2020 | वर्ष 2014 में प्रधानमंत्री नरेंद्र मोदी ने देश की बागडोर संभाली तो स्पष्ट किया कि विकसित भारत की परिकल्पना तभी साकार होगी जब भारत का युवा संस्कारित, सक्षम, वैज्ञानिक दृष्टियुक्त और वैश्विक प्रतिस्पर्धा में अग्रणी होगा। उन्होंने देशवासियों के समक्ष 2047 तक विकसित भारत का लक्ष्य रखा है।

पंचकोशीय दृष्टिकोण | राष्ट्रीय शिक्षा नीति 2020 ने शिक्षा को केवल ज्ञानार्जन का साधन न मानकर जीवन की विद्या के रूप में प्रतिष्ठित किया है। इसमें पंचकोशीय दृष्टिकोण को मूल आधार माना गया है - अन्नमय कोश द्वारा शारीरिक स्वास्थ्य, प्राणमय कोश द्वारा ऊर्जा और जीवन शक्ति, मनोमय कोश द्वारा मानसिक संतुलन, विज्ञानमय कोश द्वारा तर्कशीलता और आनंदमय

कॉमनरूम

AI Image

कोश द्वारा आत्मिक सुख। इन सभी स्तरों का संतुलित विकास वास्तविक अर्थों में विद्या कहलाती है।

गांवों का अर्थशास्त्र | इस संदर्भ में महात्मा गांधी और ठाकुरदास बंग के मध्य का संवाद ध्यान में आता है। ठाकुरदास बंग गांधी जी के आश्रम सेवाग्राम के पास ही रहते थे। वह अर्थशास्त्र पढ़ने अमेरिका जाना चाहते थे। प्रवेश और छात्रवृत्ति की भी व्यवस्था हो गई थी। प्रस्थान से पहले वह आशीर्वाद लेने सेवाग्राम में गांधीजी के पास पहुंचे। उन्हें अपना इरादा बताया और उनसे इजाजत मांगी। गांधीजी ने सिर उठाकर बस इतना कहा, 'अर्थशास्त्र पढ़ना है तो अमेरिका मत जाओ, भारत के गांवों में जाओ।' यह सुनकर ठाकुरदास बंग ने विदेश जाने का विचार त्याग गांवों में रहकर किसानों का जीवन समझने तथा राष्ट्र सेवा करने का संकल्प लिया।

संतुलन पर जोर | राष्ट्रीय शिक्षा नीति 2020 और राष्ट्रीय पाठ्यचर्या 2023 के आधार पर निर्मित नई पाठ्यपुस्तकों में राष्ट्रप्रेम, राष्ट्रीय गौरव, ज्ञान और विज्ञान आदि का संतुलित समावेशन किया गया है। इससे विद्यार्थी केवल परीक्षा पास करने वाले ही नहीं, अपितु जीवनोपयोगी ज्ञान अर्जित करने वाले बनेंगे।

सामर्थ्य की पहचान | NCERT की पुस्तकों का जब भारत के 30 करोड़ विद्यार्थी अध्ययन करेंगे तो यह अध्ययन मात्र पठन नहीं होगा, अपितु राष्ट्रसेवा, भारतीय ज्ञान परंपरा, आत्मगौरव, 'स्व' के बोध का भी भाव ग्रहण होगा। यह आत्मबोध ही राष्ट्रबोध का बीज है। यही वह प्रक्रिया है, जिससे विकसित भारत का निर्माण होगा, एक ऐसे भारत का जो आत्मनिर्भर भी होगा और विश्व के लिए पथ प्रदर्शक भी।

(लेखक NCERT के निदेशक हैं)

CACHE

Rethinking scientific publishing in the age of AI

Commercial data sharing agreements mean researchers' intellectual property is being monetised twice: first through subscriptions, then through AI partnerships, while they continue to be denied control of their work

Moumita Koley

In India, as in many parts of the world, public money is the main funder of scientific research. Governments invest heavily in laboratories, equipment, and salaries for researchers. Yet the results of this publicly funded research are usually published in journals owned by just a handful of commercial publishers. These publishers don't pay the authors or the peer reviewers who evaluate the work. Both contribute their time and expertise for free. However, the publishers then charge high subscription fees for access to these journals, effectively making the public pay twice: once to fund the research and a second time to read it.

Democratising research

Against this backdrop, the Budapest Open Access Declaration in 2002 set out a list of bold principles. The declaration challenged the deeply entrenched practices of the scholarly publishing industry, which had long excluded vast sections of the global research community from accessing knowledge using expensive paywalls. The declaration came as the open access movement started questioning why, in a digital age in which printing and postage no longer dictated costs, access to knowledge remained behind expensive subscription paywalls. The declaration ignited a movement that promised to democratise access to scientific knowledge, ensuring research funded by the public would also be available to the public.

More than 20 years later, this vision of equity and inclusivity in knowledge sharing remains largely unfulfilled. Adapting to the winds of change, commercial publishers now promote open access, but again at a very high cost. Instead of subscription barriers, researchers now face towering Article Processing Charges (APCs), often ranging from $2,000 to $10,000 per paper. Many institutions in the Global South, and even in wealthier nations, continue to be priced out of both publishing and accessing research.

In India, the government has attempted to address this inequity through the 'One Nation One Subscription' (ONOS) initiative: starting from 2025, ONOS has provided access to journals from 30 major international publishers to all researchers in publicly funded institutions. While the cost of this nationwide deal is substantial, especially given that over half of the global research literature is already available through open-access routes, as seen from the scholarly database Web of Science, the intent behind ONOS remains commendable. It represents a step toward broadening access beyond elite institutions.

Yet it also compels us to ask deeper questions. Should we continue paying these large sums to foreign publishers to access knowledge that our own researchers produce, again with public money? Shouldn't that knowledge at the least be freely accessible to every citizen, empowering them with the scientific temper needed in an era rife with misinformation? Perhaps most importantly: where is the spirit of an *Atmanirbhar Bharat* in this enterprise?

GETTY IMAGES

Ultimately, while the ONOS initiative may carry significant promise, it still leaves many foundational questions unresolved.

As we mark International Open Access Week, which is an annual global campaign to promote open access, the year's theme, 'Open Access Week 2025: Who Owns Our Knowledge?', prompts deeper reflection. In India, where publicly funded research drives much of science and social innovation, the assumption that the scholarly output belongs solely to commercial entities that host them merits scrutiny.

Knowledge and ownership

Copyright transfer in academic publishing is a practice where authors formally transfer the copyright ownership of a scholarly work to the publisher. This practice began to take shape after copyright laws such as the U.S. Copyright Act 1976, granted authors exclusive rights to their original works, thus motivating publishers to acquire and hold copyrights to control the distribution of work in journals and for any subsequent commercial use. Historically, this transfer was viewed as essential for publishers to manage permissions, reproduction, and dissemination. This was especially so in the subscription-based models, where publishers monetise articles by requiring readers to subscribe to the journals they publish. Over time, such copyright transfer agreements became standard, necessitating authors to relinquish their exclusive rights on their work if they wanted to publish it in scholarly journals.

The landscape today is more varied. While with traditional subscription-based journals, publishers follow the requirement of complete copyright transfer, the rise of open-access publishing has changed the dynamics. Fully open-access journals generally allow authors to retain copyright but apply licences, such as the Creative Commons Attribution (CC-BY) which permits free and broad reuse with attribution to the original creator.

But most authors sign copyright transfers due to the pressure to publish within the prevailing academic culture. This practice is evidently not conducive to serving the interests of research dissemination and reuse or the authors themselves. Recent initiatives like 'Plan S' advocate for authors retaining copyright to promote wider accessibility and scholarly communication without unnecessary restrictions.

Authors are also encouraged to carefully review copyright transfer agreements to understand retained rights and publishing conditions.

Creative commons licences

Authors can publish their papers using various Creative Commons (CC) licences to clearly define how others may reuse their work. Three licences in particular are notable:

(i) CC-BY (Attribution) allows a person to share the work and reuse or even adapt it, even for commercial purposes, as long as the original author is credited; (ii) CC BY-NC ('Attribution-NonCommercial') allows reuse but not for commercial purposes; and (iii) CC BY-NC-ND ('Attribution-NonCommercial-NoDerivatives'), the most restrictive, allows reuse but forbids both commercial use and adaptation. Publishers often promote the use of the CC BY-NC-ND licence, but in practice, however, this licence limits knowledge reuse by prohibiting translation, remixing or text mining – all actions vital for educational and technological innovation.

Retaining copyright

When authors transfer copyright to publishers as part of publication agreements, they often lose legal control over how their work is accessed, reused or shared. Large publishers like Elsevier, Wiley, and Springer typically require copyrights to be transferred for subscription-model journals, giving the publisher exclusive rights to distribute and profit from the content. As a result, authors face legal dilemmas over archiving their own articles on institutional repositories or sharing them publicly, ultimately limiting their visibility. On the other hand, authors who retain copyright (or the ability to share their work under an open licence) are empowered to share, adapt, and reuse their own scholarship without institutional or commercial restrictions.

Commercial publishers like Elsevier, Wiley, Springer, and Taylor & Francis and society publishers like the American Chemical Society use restrictive licences in their subscription models, granting publishers legal exclusivity to monetise access.

From 2024 or so, major publishers have also been selling scholarly content to Big Tech companies to train their artificial intelligence (AI) models, often without authors' explicit consent. Taylor & Francis's deal with Microsoft alone is $10 million. The global AI datasets licensing market has been valued at nearly $486 million in 2025.

Such commercial data sharing agreements mean researchers' intellectual property is being monetised twice: first through subscriptions, then through AI partnerships – while they continue to not be compensated and be denied control over their own work.

What authors can do

Authors have three courses of action in front of them.

First, they should self-archive preprint versions of their papers and accepted manuscripts in preprint and institutional repositories. Second, they should request additions to publishing contracts with journals before they submit their papers, in order to retain some rights (they can use the SPARC Author Addendum template, for instance). Third, they should advocate for institutions to develop rights-retention policies that allow them to automatically openly licence the institutions' scholarly output.

For future submissions, authors may also prefer using the CC-BY licence or institutional open access routes that ensure their papers are available for the public to access for free and to prevent unauthorised commercial exploitation.

In the spirit of Open Access Week, the question 'who owns our knowledge?' is not just a theme: it's a call to reclaim intellectual sovereignty.

The future of equitable scholarship depends on authors, not corporations, owning and sharing the knowledge that shapes society.

Moumita Koley is a senior research analyst at the Indian Institute of Science, Bengaluru.

MILLENNIUM POST (P-15), 06 NOVEMBER 2025

Learning for Life: The Habit That Keeps You Relevant

DR SANKU BOSE

Not too long ago, education was seen as a phase — something we finished before work began. A degree was the gateway, and once you had it, your career seemed set. That world no longer exists. The pace of change today is relentless. The shelf life of most skills is shorter than ever, often less than four years. What you master in 2025 might be obsolete by 2029. Every profession, from teaching to law, from healthcare to design, is being reshaped and upended by new tools, new expectations, and new ways of thinking.

Nowhere is this transformation more urgent and relevant than in India. We are a nation standing at the crossroads of extraordinary opportunity and immense responsibility. With one of the youngest populations on earth, India's promise lies not just in its demographic advantage but in how effectively we turn that youth into a continuously learning, constantly evolving workforce. The dream of "Viksit Bharat 2047" will rest as much on our learning culture as on our infrastructure or economy.

Lifelong learning is no longer an academic ideal. It is a survival strategy in the AI era. Machines can now write code, design graphics, analyze data, and even generate music. But what they cannot do is think critically, empathize deeply, or act ethically. To remain relevant, human beings must master what AI cannot — creativity, judgment, emotional intelligence, and moral courage — all of which require continuous learning and reinvention. In this sense, the AI revolution does not diminish humanity; it demands that we become more human.

India has several reasons to embrace lifelong learning as a national mission. First, digital disruption is creating entirely new kinds of work even as it eliminates old ones. The World Economic Forum (WEF) estimates that 40 percent of core skills will change within five years. Every career — from doctors using AI diagnostics to farmers leveraging drones — will demand new literacy. If India can upskill its youth and mid-career professionals for the jobs that don't yet exist, it can lead the global digital economy rather than chase it.

Second, our demographic advantage could easily turn into a liability if our talent pipeline stagnates. Having a young population is not a guarantee of progress; having an adaptable one is. Continuous education — from technical reskilling to emotional resilience — will determine whether India's demographic dividend becomes a driving force or a missed opportunity.

Third, our cultural heritage already gives us a philosophical head start. The Indian knowledge tradition never saw learning as time-bound. In the Gurukul system, education was not a transaction but a lifelong journey of self-realization. The world is now circling back to what India always knew: education is not a phase of life, but the essence of it.

Lifelong learning also extends beyond employability. It is the foundation of emotional strength and social harmony. In a time when our youth face the twin pressures of competition and digital overload, continuous learning builds not just smarter individuals but stronger minds. It encourages reflection, empathy, and ethical awareness — qualities that make us not just job-ready but life-ready.

This philosophy is now finding institutional expression at Sister Nivedita University (SNU), through the launch of our School for Lifelong Learning on January 1, 2026. Inspired by the vision of Sister Nivedita and Swami Vivekananda, the school aims to awaken human potential through knowledge, compassion, and service. It represents a modern reimagining of their timeless mission — to educate not merely for livelihood but for life itself. Learners of all ages — from school students to professionals and senior citizens — will find pathways to grow intellectually, emotionally, and spiritually. Programs will cover future skills such as AI and data literacy, digital safety, financial intelligence, green technologies, and entrepreneurship. But equally important, they will nurture emotional and spiritual intelligence — mindfulness, resilience, ethical leadership, and a service mindset rooted in Indian knowledge systems.

LIFELONG LEARNING ALSO EXTENDS BEYOND EMPLOYABILITY. IT IS THE FOUNDATION OF EMOTIONAL STRENGTH AND SOCIAL HARMONY

Ultimately, lifelong learning cannot just be an educational policy; it is a social movement. Parents must encourage curiosity over marks. Youth must embrace learning as a habit, not a hurdle. Industry must partner with academia to ensure that upskilling keeps pace with innovation. Society as a whole must see education as a shared responsibility — because the classroom of the future is everywhere, and the students are all of us.

The nations that thrive will not be those with the best technology alone, but those with the most adaptable minds. The world shall belong to those who keep learning — not because they must, but because they want to.

As Swami Vivekananda said more than a century ago, "We want that education by which character is formed, strength of mind is increased, intellect is expanded..." Those poignant words, once spoken for a young nation finding its feet, now speak just as clearly to a generation finding its own future!

The author is the Vice-Chancellor of Sister Nivedita University and Group CEO, Techno India Group. A visionary leader, he is shaping future-ready institutions and inspiring students to lead with purpose

MILLENNIUM POST (P-15), 06 NOVEMBER 2025

CAN TEACHING AI FROM CLASS 3 CHANGE HOW INDIA LEARNS?

CBSE's move to introduce AI from Class 3 is a strong signal that education is moving from rote learning to skill-based learning, which is essential for India's digital future

ANINDITA ACHARYA

With Artificial Intelligence (AI) already transforming every industry, it's time to wake up before this game-changing technology takes over our jobs. And if you're still someone who says, "AI is the future," here's the truth, it's not the future anymore. It's already here, reshaping and rewriting your future right now. AI is the present. And if you don't learn how to work with it, it might just make sure you don't have a place in tomorrow's workforce. No, this isn't a warning. It's reality. A new NITI Aayog report warns that as AI expands its footprint, India's tech sector could see nearly two million jobs disappear by 2031. But it's not all bad news. The same technology is also set to create around four million new roles over the next five years. That's the silver lining and it's why AI literacy programmes are more crucial than ever if we want a future that's both stable and sustainable. In a landmark announcement recently, the Department of School Education & Literacy (DoSE&L), Ministry of Education, has reaffirmed its commitment to advancing AI and Computational Thinking (CT) as essential components of future-ready education. The department has decided to support institutions such as CBSE, NCERT, KVS, and NVS, along with states and UTs, in designing a meaningful and inclusive curriculum under the broad ambit of the National Curriculum Framework for School Education (NCF SE) 2023 through a consultative process. This initiative marks a nascent yet significant step towards the ethical use of AI to solve complex challenges.

BENEFITS OF TEACHING AI AT THE SCHOOL LEVEL

- Early awareness
- Future readiness
- Critical thinking
- Creativity boost
- Ethical understanding
- Bridges learning gaps
- Improves digital literacy
- Encourages collaboration
- Builds confidence

FOR CLASS 9, THE COUNT OF CBSE-AFFILIATED SCHOOLS TEACHING AI HAS SURGED FROM JUST 235 SCHOOLS IN 2019–20 TO 4,543 IN 2024–25, AN INCREDIBLE JUMP OF OVER 1,800%

Now, it's interesting to note how CBSE has been introducing AI in schools gradually. Like in 2019-2020, AI was introduced in Class 9 as an optional skill subject. Later, in 2020-2021, AI was introduced as a skill subject, subsequently extended to Class 12.

Akshat Agarwal, co-founder of Nature Nurture, a curriculum design organisation, which creates learning ecosystems for K-12 schools, believes the introduction of AI from Class 3 onwards marks a major shift in India's education vision. It aligns perfectly with NEP 2020, which focuses on developing future-ready learners equipped with critical thinking and problem-solving skills. "Early exposure to AI will not only help students understand technology but also encourage creativity, ethics, and analytical thinking from a young age. In the long term, this move will strengthen India's education economy by creating demand for new learning tools, digital content, and teacher training programmes. Globally, AI-related jobs are projected to grow by 40% by 2030, and India's early push in schools can give its students a head start. It's a strong signal that education is moving from rote learning to skill-based learning, which is essential for the country's digital future," he said.

During the stakeholder consultation recently of DoSE&L, Sanjay Kumar, Secretary, DoSeL, emphasised that education in AI should be treated as a basic universal skill linked to The World Around Us (TWAU). He noted that the curriculum must be broad-based, inclusive, and aligned with NCF SE 2023, adding that every child's distinct potential is our priority. "Our job as policymakers is to define the minimum threshold and re-evaluate it based on the changing needs," he added.

In July 2025, data presented in the Rajya Sabha revealed a sharp rise in the number of CBSE-affiliated schools teaching AI. For Class 9, the count has surged from just 235 schools in 2019–20 to 4,543 in 2024–25, an incredible jump of over 1,800%. For Class 11, the number grew from 80 schools in 2020–21 to 944 this year, marking a rise of more than 1,000%. Now that's a truly encouraging sign. According to Anurag Gupta, co-founder of STEMROBO Technologies, the introduction of AI from Class 3 is a big and exciting change for India's schools. It will take learning beyond books and help children start thinking creatively, solving problems, and understanding how technology actually works. "As AI becomes an important part of every career, starting early will help students grow up confident with new technologies instead of being afraid of them", he added. But there's also a challenge that the industry is taking seriously. Many parts of India's education system still lack the infrastructure and teacher training needed for in-depth AI learning.

"Many schools, especially in Tier-2 and Tier-3 cities, still lack adequate computer labs, internet connectivity, and trained teachers. To close this gap, the focus must shift to capacity building and accessibility. There should be a phased rollout, starting with pilot programs that help teachers get comfortable with AI concepts through simple, activity-based training. Government–private collaborations can help develop low-cost AI learning tools and shared digital infrastructure. Additionally, introducing micro-training modules for teachers can make digital skills more practical and scalable, especially given that India has over 1 crore educators to train," said Agarwal.

Meanwhile, Kumar highlighted that teacher training and learning-teaching materials, including NISHTHA's teacher training modules and video-based learning resources, will form the backbone of curriculum implementation. Collaboration between NCERT and CBSE through a Coordination Committee under NCF SE will ensure seamless integration, structuring, and quality assurance. Shri Kumar emphasised that it is good to have cross-national and cross-international Boards analysis and have an international perspective, but it needs to be specific to our needs.

The Centre has put on hold the overhaul of Panjab University, first reported by *The Tribune*, but the debate rages on

The genesis of reforms

ARUN GROVER
FORMER VC, PANJAB UNIVERSITY

A 15-MEMBER National Assessment and Accreditation Council (NAAC) committee that reviewed Panjab University (PU) in March 2015 had stressed the need for urgent reforms in the university's governance structure, particularly the procedure for appointing deans of faculties.

The committee noted that the governance framework, as laid down in the Panjab University Act (1947) and its statutes, had remained largely unchanged since Independence and needed revision to reflect present-day academic and administrative realities.

The PU Act (1947) was modelled on the Indian Universities Act (1904), which created a Senate comprising the Chancellor, Vice-Chancellor, ex-officio Fellows and ordinary Fellows — elected by registered graduates and university faculties, or nominated by the Chancellor.

When this system was framed, PU had no departments or teaching staff. Fellows were assigned to multiple faculties across disciplines to manage academic work. Since each Senator typically had expertise in only one area, about 75 per cent of members in any faculty lacked specialised knowledge of that field.

To address this, the concept of 'Added members' was introduced. Any two Senate members could nominate a college teacher or professional as an Added member in their faculty. Later, professors and heads of university departments were included as ex-officio members in their faculties.

By 1961, when the university moved to its present Chandigarh campus, there were 58 professors and heads of department as ex-officio members compared to 338 Senate members and 152 Added members across 11 faculties. By 2015, the number of ex-officio members had increased to 220, while Senate members and Added members stood at 356 and 183, respectively. The faculty constituency, which elected six Senators, soon became a convenient route for politically savvy individuals to retain their positions by manipulating faculty combinations and constituting Added members.

Faculty associations repeatedly highlighted these imbalances before the NAAC committee. Acting on their feedback, the President of the Panjab University Teachers Association (PUTA), then a nominated Senator, submitted proposals on governance reforms on October 8, 2015.

Based on the Syndicate's recommendations, a 16-member Governance Reforms Committee (GRC) was set up on November 29, 2015, headed by a former chief justice of a high court. The GRC was tasked with exploring reforms through three sub-committees focusing on amendments to the PU Act, changes in statutes and regulations, and improvements through administrative delegation.

While the Senate elections for 2016-20 were held pending the GRC's report, PUTA continued to press for action. In September 2016, it wrote to the Union Home Minister seeking regulations to restrict multiple faculty choices and limit voting rights of Added members in elections of Deans and Senators. Around the same time, the Punjab and Haryana High Court took up a suo motu public interest litigation (PIL) on governance and financial concerns at PU. The VC was directed to file an affidavit detailing corrective measures.

The sub-committees submitted their reports in June 2018, which were reviewed by the GRC and circulated among Syndicate and Senate members.

The recommendations were also submitted to the high court. In December 2018, the Chancellor's emissary visited Chandigarh for consultations before the 2019-24 Senate elections. However, the pandemic disrupted the process.

In February 2021, the Chancellor constituted another panel, chaired by the Central University of Panjab VC, including representatives from the UGC, MHRD, Panjab Government and UT Administration. The report was not made public or placed before the Senate.

Despite repeated efforts, neither the 2016-20 nor the 2020-24 Senate acted upon the GRC's 2018 recommendations. The Senate's term ended on October 31, 2024, and elections for 2024-28 were withheld by the Chancellor, reportedly because certain issues related to the previous election remained sub judice.

At present, the Senate comprises only the Chancellor and VC as members, with the Registrar as non-member Secretary. They appear to have finally taken cognisance of the report lying in the Chancellor's office since 2021. A recent Gazette notification has aligned PU's governance structure with that of other affiliating universities in Punjab.

The long-awaited reform is expected to ease the functioning of the VC office, improve accountability, streamline decision-making and end conflict between executive authority and vested interests — marking a significant course correction for one of India's oldest and most prestigious universities.

DISAPPROVAL | Former Punjab CM Charanjit Singh Channi with student protesters, PU

The Tribune

TWO VIEWS

Autonomy Vs Control at Panjab University

> The future of higher education will be measured by the courage of its institutions to remain free.

> The long-awaited reform is a significant course correction for one of India's oldest and most prestigious universities.

A blow to autonomy

SHELLEY WALIA
FORMER PROFESSOR, PU

FOR over a century, Panjab University has stood as a beacon of higher learning. Its Senate and Syndicate, established under the PU Act of 1947, embodied a model of collegial governance that safeguarded both autonomy and accountability. That legacy now faces a challenge.

The Gazette notification redefining the constitution of the Senate and Syndicate marks a break from the university's model of self-governance. The official rationale is that these bodies had become arenas of factionalism and patronage, where elections were driven less by vision than influence.

Reform was deemed essential. Yet, what has emerged is less reform than reconfiguration — one that risks converting an autonomous institution into a bureaucratic extension of the state.

The reconstituted Senate has a smaller membership and an altered composition. While a measure of election remains, a large proportion of members will be nominated by the Chancellor or drawn ex-officio from government or administrative offices. This shift from representation to nomination weakens the democratic principle.

The introduction of political representatives and civil servants tilts the scales toward hierarchy rather than deliberation. Professors, associate professors and principals, who are the main electorate, operate under the VC's authority. Structural dependence constrains their freedom to dissent. It is difficult to challenge authority when authority determines one's professional future.

The Syndicate, the university's executive body, similarly reflects bureaucratic dominance. Chaired by the VC, it includes government secretaries and directors alongside others nominated by the VC on the basis of seniority. In principle, seniority rewards experience; in practice, it often rewards compliance. The result is a concentration of authority that blurs the line between administrative streamlining and academic control.

The question underlying this crisis is fundamental: what is a university meant to be? Traditionally, it is a self-governing community of scholars devoted to reasoned dialogue and the pursuit of truth — not an arm of the state nor a corporation. The new structure shifts the balance from autonomy toward control.

For all its imperfections, the earlier system matured PU through Partition, political transitions and social change. It allowed a balance between state oversight and institutional independence. Under that framework, the PU built its reputation as a leading centre of learning, producing scholars who embodied both intellectual rigour and public responsibility. To abandon that legacy now would be to erase one of the last bastions of academic self-rule in the country.

Much will now depend on the VC's temperament and the Chancellor's commitment. If they approach their offices with respect for dialogue, the new structure might still function constructively. But if they yield to bureaucratic expediency, the democratic character will erode swiftly.

The Ministry of Higher Education's directive raises constitutional questions. What appears a routine administrative measure is, in truth, an encroachment on university autonomy and a troubling instance of centralisation. The Chancellor's powers under the 1947 Act are largely ceremonial; direct intervention in internal governance stretches constitutional propriety to its limits.

Panjab University is not a central institution but a creation of the Punjab Vidhan Sabha under the Panjab University Act of 1947. Any change to its governance requires the legislature's consent. By unilaterally altering its structure through ministerial notification, the Centre not only bypasses that requirement but also undermines India's federal character.

Equally damaging is the destruction of the graduates' constituency, a bridge between academia and civil society that allowed ordinary citizens and alumni to shape PU's moral direction. The new Senate may prove efficient in form but hollow in spirit.

The issue is not about preserving the conditions under which thought can remain free. When universities are governed by fiat rather than consensus, scholarship becomes servitude and intellectual freedom is the most casualty.

If the Centre unilaterally redefines a state university's governance, it sets a precedent that threatens every public university. The future of higher education will be measured by the courage of its institutions to remain free.

ASSAM TRIBUNE (P-4), 07 NOVEMBER 2025

Universities must lead Assam's journey

NAVA BARO

Assam's universities must foster innovation and entrepreneurship to transform the State into a thriving, knowledge-driven economy.

To transform Assam into a hub of innovation, the journey must start within its educational institutions. Universities, colleges, and technical institutions serve as natural incubators for new ideas, creativity, and entrepreneurial spirit. These establishments are not simply venues for students to earn degrees; they are dynamic environments where young individuals learn to question, envision, and influence the future. However, for an extended period, the emphasis in our campuses has been predominantly on academics centred around examinations, placements, and rote memorisation, which has left minimal space for innovation, experimentation, or entrepreneurial pursuits. If Assam aspires to secure its position in the knowledge-driven economy of the future, this paradigm must shift. The campuses need to transform into focal points of innovation.

Global powerhouses like Google and Facebook, or Indian success stories such as Flipkart and Ola, show that the foundations of these enterprises were laid in classrooms and dormitories where curiosity was nurtured, risks were embraced, and interdisciplinary collaboration was encouraged. Innovation thrives where young minds are empowered to utilise their knowledge, experiment with their ideas, and receive the necessary support to actualise those ideas. Assam has the potential to mirror such achievements if it shifts its educational environments towards innovation-centric learning.

The initial phase of this journey involves re-evaluating the curriculum. Although academic rigour holds significance, education should also enhance problem-solving skills, design thinking, and the innovative application of knowledge. Courses ought to motivate students to engage in projects that tackle real-world issues in sectors such as agriculture, healthcare, logistics, and environmental sustainability. Familiarity with entrepreneurship case studies, design labs, and industry projects can add a practical aspect to academic learning. A degree should represent not just the gathering of theoretical knowledge but also the capability to utilise that knowledge in impactful ways.

Equally crucial is the establishment of incubation facilities on campuses. An idea, no matter how potent, frequently struggles to progress without essential infrastructure, guidance, and resources. Incubation centres can offer shared workspaces, laboratories, seed funding, and access to seasoned mentors capable of assisting students in transforming their ideas into prototypes and ultimately viable businesses.

Mentoring support from seasoned entrepreneurs, alumni, investors, and professionals can offer invaluable insights to students to validate their ideas with potential users and formulate business strategies. Hackathons provide students with short, intense periods of collaborative problem-solving, where they collaborate to develop prototypes for real-world challenges. Additionally, founders' clubs, startup boot camps, and innovation fellowships on campuses can bolster entrepreneurial confidence and establish a support system for young innovators.

Certainly, there are obstacles to contend with. Educational systems often have a rigid structure that leaves little opportunity for flexibility or collaboration across disciplines. The availability of funding for incubation centres and laboratories is limited in most institutions. Networks for mentorship are not well-developed, as Assam lacks a significant number of successful entrepreneurs to support the emerging generation. Cultural attitudes that emphasise stable government or corporate jobs rather than embracing entrepreneurial risks further exacerbate the issue.

Addressing these challenges necessitates a collaborative effort among government entities, universities, industry stakeholders, and civil society. The role of the government will be pivotal. Policies that provide innovation grants to universities, tax or procurement incentives for startups emerging from campuses, and structured startup networks that connect student entrepreneurs to markets and investors can all accelerate this transition. Importantly, educational regulations must evolve to allow for entrepreneurship credits, interdisciplinary courses, and flexible project-based learning. If innovation is recognised as a valid and integral part of education, students will feel encouraged to explore it.

Innovation includes both cultural aspects and the frameworks of policies and infrastructure. Educational institutions should create an environment that encourages experimentation, sees failure as a valuable opportunity for learning, and appreciates creativity alongside academic efforts. Instructors should recognise and celebrate ingenuity and problem-solving, while students need to feel motivated by their peers who are launching startup initiatives.

We should equip a generation with the mindset and capabilities necessary to address Assam's most urgent challenges, ranging from agricultural efficiency and rural healthcare to sustainable industries and digital inclusion. It is about establishing enterprises that generate employment, attract investment, and integrate Assam into the global economy. It is about developing a sense of ownership among the youth, enabling them to perceive themselves not just as students navigating through an educational system, but as innovators who are actively shaping the future of the State and the nation.

If the universities and technical institutions in Assam embrace this challenge, the upcoming decade may experience a surge of innovation, reshaping the State's economy and society. The classrooms of today have the potential to serve as the launchpads for the enterprises of tomorrow. The youth of Assam, equipped with education that stimulates innovation, could rise as the leaders, problem-solvers, and entrepreneurs who will pen the next chapter in Assam's development narrative. The path to establishing Assam as a centre of innovation must commence now, and it must initiate within our campuses.

The Indian EXPRESS

~ FOUNDED BY ~
RAMNATH GOENKA
IN 1932

BECAUSE THE TRUTH
INVOLVES US ALL

JNU's tradition of debate is in the dock

SINCE ITS INCEPTION, JNU's reputation as an institution of academic excellence has owed much to a vibrant culture of debate involving the university's students, faculty and administration. This argumentative ethos, nurtured by internal mechanisms that encouraged the resolution of disputes through dialogue, has not only been a catalyst for JNU's consistently creditable performance in the national rankings for higher institutions, but is also one of the major reasons for a large number of JNU students going on to become prominent faces in political parties of all hues. Today, however, the university is at a crossroads. An investigation by this newspaper into the growing number of court cases the university is involved in sheds light on the fraying relationship between the administration, faculty and students. The institution has featured in over 600 Delhi High Court cases during the tenure of the current vice chancellor, Santishree Dhulipudi Pandit, and her two predecessors.

That a large number of these cases pertain to protests and free speech-related issues is disquieting. It suggests that a space where students and faculty were once encouraged and empowered to ask questions and raise doubts is under siege, let down by those whose responsibility it was to nurture it. In several cases, the HC has called out the JNU administration for procedural lapses. It decided in favour of students in at least 19 of the 38 cases that were adjudicated during the tenure of the current VC. Litigation had peaked under her predecessor, M Jagadesh Kumar (2016-2022), when the university was involved in 118 cases — 92 of them filed by students. The court offered them relief in 40 cases, citing violation of the principles of natural justice in at least 15.

Litigation may have been more muted under the current VC, but the administration has persisted with its sledgehammer approach. The Students' Discipline and Conduct Rules, which came into effect in 2023, list expulsion from hostels, rustication from the university and penalties up to Rs 20,000 — way more than the average fee of its postgraduate courses — as punishment for any protest within a 100 m radius of an academic or administrative building on campus or even around faculty residences. One of the lawsuits pertains to a Rs 6,000 fine imposed on a student for writing graffiti on the university's walls — a longstanding JNU tradition. In 2023, JNU adopted the motto *"Tamaso Ma Jyotirgamaya"* (from darkness unto light). This paper's investigation shows that the university administrators have much to do to enable JNU's students to live up to this credo of knowledge without fear.

STATESMAN (P-6), 07 NOVEMBER 2025

Visa Squeeze

Canada's steep rise in study permit rejections for Indian applicants marks a turning point in what was once a dependable educational partnership. With nearly three out of every four Indian applications now being refused, the numbers alone tell a story of growing caution in Ottawa's immigration policy.

The stated reason is fraud prevention. Canadian authorities uncovered widespread misuse of falsified admission letters, many originating from India, and have since strengthened verification processes and financial scrutiny. On the face of it, the government's position is defensible.

No country can afford to compromise the integrity of its education or immigration systems. But the magnitude of the rejection spike, and the resulting drop in Indian enrolments, points to deeper unease within Canada about the reliability of its overseas student intake.

For decades, Indian students have been the largest foreign cohort on Canadian campuses, bringing academic talent and significant tuition revenue. Their presence enriched institutions and helped shape a shared reputation for excellence and openness. That equation is now shifting. Even though there is no clear evidence that genuine applicants are being rejected in large numbers, the overall tenor has changed, from welcoming scrutiny to wary filtering.

The larger context is domestic politics. Canada's temporary migration numbers have surged, straining housing, healthcare, and public sentiment. Student visas – once a symbol of openness – are now a flashpoint in a debate about capacity and control. By reducing approvals, Ottawa is signalling that immigration must align with infrastructure realities. The shift is not anti-India but anti-overstretch: a correction driven by internal pressures that happen to intersect with the external issue of fraudulent documentation.

The result is not discrimination but a recalibration of trust, driven by administrative necessity and political pressure. Canada's visa officers appear determined to err on the side of caution, even at the cost of slower admissions and declining diversity. For Indian applicants, the new reality means meeting higher proof-of-funds requirements and navigating a more sceptical verification system.

The danger lies less in bias than in bureaucracy, where efficiency replaces empathy and individual merit is lost in procedural caution. The repercussions are already visible. Prestigious universities report steep falls in Indian enrolment, altering the cultural composition of classrooms that once reflected Canada's global outreach. The broader message, whether intended or not, is that Canada is turning inward, prioritising control over expansion in its international education strategy.

Yet, this moment also invites introspection in India. The rise of fraudulent intermediaries has eroded confidence in the credibility of student applications. Unless India strengthens oversight of foreign education agents and tightens its own verification processes, deserving students will continue to be shadowed by the misconduct of a few.

In the long run, Canada's caution may protect its system but strain its image. And for India, the lesson is equally clear: credibility abroad begins with accountability at home.

DAINIK JAGRAN (P-10), 07 NOVEMBER 2025

फर्जी विश्वविद्यालय

इससे संतुष्ट नहीं हुआ जा सकता कि शिक्षा मंत्रालय फर्जी विश्वविद्यालयों के विरुद्ध कार्रवाई करने के लिए राज्यों के मुख्य सचिवों को पत्र लिखने जा रहा है। आश्चर्य नहीं कि इस पत्राचार के बाद भी फर्जी शिक्षा संस्थान बंद न हों। इसकी आशंका इसलिए है, क्योंकि अतीत में इस तरह की पहल की जा चुकी है, लेकिन सभी फर्जी शिक्षा संस्थानों पर ताला नहीं लगाया जा सका। विश्वविद्यालय अनुदान आयोग यानी यूजीसी हर वर्ष फर्जी विश्वविद्यालयों की सूची जारी करता है, ताकि छात्र उनमें प्रवेश लेने और अपना समय व धन बर्बाद करने से बचें। इसके बाद भी वे चलते रहते हैं। इसका मतलब है कि छात्र उनमें प्रवेश लेते हैं। यूजीसी फर्जी विश्वविद्यालयों की सूची जारी करने के साथ ही यह भी बताता है कि इन शिक्षा संस्थानों की ओर से दी जाने वाली डिग्री किसी काम की नहीं होती, लेकिन उनका अस्तित्व बना ही रहता है। कई फर्जी विश्वविद्यालय ऐसे हैं, जिनके खिलाफ एफआइआर भी दर्ज की जा चुकी है, लेकिन उन्हें इसलिए बंद नहीं किया जा सका, क्योंकि कुछ ने अदालतों की शरण ले ली तो कुछ ने किसी अन्य आधार पर अपने को वैध ठहराने की चेष्टा की। स्पष्ट है कि शिक्षा संस्थानों के संचालन संबंधी नियम-कानूनों में कुछ ऐसे छिद्र हैं, जिनका लाभ फर्जी विश्वविद्यालयों को चलाने वाले उठा रहे हैं।

फर्जी विश्वविद्यालयों का संचालित होते रहना केवल छात्रों के साथ खिलवाड़ ही नहीं, बल्कि शिक्षा संस्थानों को संचालित करने वाली व्यवस्था का उपहास भी है। यह व्यवस्था कितनी दीन-हीन है, इसका पता इससे चलता है कि देश में जो 22 फर्जी विश्वविद्यालय चल रहे हैं, उनमें से 10 देश की राजधानी दिल्ली यानी संसद, सुप्रीम कोर्ट, शिक्षा मंत्रालय और यूजीसी की नाक के नीचे चल रहे हैं। क्या यह एक मजाक नहीं? कुछ फर्जी विश्वविद्यालय तकनीक, प्रबंधन और कानून की भी डिग्रियां बांटते हैं। किसी को यह जानने की कोशिश करनी चाहिए कि आखिर इन फर्जी विश्वविद्यालयों से कथित तौर पर डिग्री हासिल करने वाले छात्र करते क्या हैं? कहीं ऐसा तो नहीं कि वे अपनी अमान्य डिग्रियों का कहीं पर इस्तेमाल करने में समर्थ हो जाते हों? यह सहज ही समझा जा सकता है कि फर्जी विश्वविद्यालय चोरी-छिपे नहीं, बल्कि खुलेआम सार्वजनिक स्थानों में चल रहे होते हैं। आखिर एक अवैध समानांतर व्यवस्था के सामने विधि का शासन इतना असहाय कैसे हो सकता है? प्रश्न यह भी है कि नियम-कानूनों को कठोर करके इन फर्जी विश्वविद्यालयों को एक झटके में बंद क्यों नहीं किया जा सकता या फिर उन पर ऐसी कोई शर्त क्यों नहीं थोपी जा सकती कि वे यूजीसी के नियमों का पालन करने के लिए बाध्य हों, ताकि छात्रों के भविष्य से खिलवाड़ न होने पाए? 07/11

DAINIK JAGRAN (P-10), 07 NOVEMBER 2025

तकनीकी विकास पर ध्यान दे निजी क्षेत्र

केंद्र सरकार देश के निजी क्षेत्र से लगातार कह रही है कि वह अपने लाभ का कुछ प्रतिशत शोध एवं विकास यानी आरएंडडी में लगाए। हाल में प्रधानमंत्री की आर्थिक सलाहकार परिषद के प्रमुख ने भी कहा कि निजी क्षेत्र पैसे को 'नकद' के रूप में रखने की जगह निवेश करे तो देश की जीडीपी सात प्रतिशत तक जा सकेगी। भारत में शोध एवं विकास जैसे तात्कालिक लाभ न देने वाले उपक्रमों को सरकार के भरोसे छोड़ने का निजी क्षेत्र का रिकार्ड रहा है। हालांकि शोध एवं विकास के लाभ लेने में वे सबसे आगे रहते हैं। अमेरिका जैसे संपन्न देशों में निजी क्षेत्र आरएंडडी के लिए सरकार का इंतजार नहीं करता। गूगल, एनवीडिया या माइक्रोसाफ्ट अधिकांश नवाचार अपने बूते करते हैं। क्वांटम कंप्यूटिंग में गूगल का 'विलो' इसका ताजा उदाहरण है।

तकनीकी नवाचार मानव का स्वभाव है। चूंकि यह जीवन और उसके उपादानों को सहज और सस्ता करता है, लिहाजा इसे अंगीकार करना अपरिहार्य होता है। बैलगाड़ी, साइकिल, मोटर-चालित वाहन, वायुयान-इनमें से किसी के प्रयोग को रोकना समाज को निश्चित ही अवनति की ओर ले जाता है। कंप्यूटर और इंटरनेट तकनीकी का नया दौर है-एआइ, लेकिन यह दौर यहीं नहीं ठहरा है। अगला चरण क्वांटम कंप्यूटिंग का है। यह भी वर्चुअल फेज से निकल कर वास्तविक और व्यावहारिक प्रयोग में आने लगा है। नए क्वांटम कंप्यूटर दुनिया के सबसे तेज सुपर कंप्यूटर के मुकाबले लाखों गुना तेजी से गणना करने जा रहे हैं। चिकित्सा, शिक्षा के साथ कोविड जैसी महामारी में वैक्सीन तैयार करने और कैंसर की कोशिकाओं का त्वरित विश्लेषण कर सटीक निदान बताने में ही नहीं, बल्कि युद्ध में भी इस नई टेक्नोलाजी की अप्रतिम भूमिका होगी।

आज दुनिया के विकसित देशों में होड़ इस बात की नहीं है कि कौन ज्यादा सक्षम ग्राफिक प्रोसेसिंग यूनिट (जीपीयू) बनाएगा या ज्यादा एआइ यूनिट्स स्थापित करेगा। अब यह दौड़ क्वांटम कंप्यूटिंग में क्षमता विकसित करने की हो गई है। जो देश सबसे ज्यादा क्यूबिट्स वाले

एनके सिंह

भारत के तकनीक में पिछड़ने का एक कारण निजी क्षेत्र का शोध एवं विकास के लिए सरकार पर आश्रित रहना है

RDI
Research Development & Innovation

प्रौद्योगिकी से जुड़े एक कार्यक्रम में पीएम मोदी ● फाइल

क्वांटम कंप्यूटर बना सकेगा, वही विजयी होगा-बौद्धिक ही नहीं, आर्थिक और सामरिक रूप से भी। फिलहाल इस दौड़ में अमेरिका का गूगल अपने सुपर कंप्यूटर विलो और चीन अपने जूचोंगझी-3 के साथ खड़े हैं। यूरोप एक जमाने में वैज्ञानिक शोध में सबसे आगे रहा था, लेकिन अब इसमें पिछड़ता जा रहा है। भारत भी इस दौड़ में पीछे है। रेस में बना रहना है तो अमेरिका और चीन का मुकाबला करने के लिए उसे अपनी पूरी शक्ति लगानी होगी। 2021 में 76,000 करोड़ रुपये (85 करोड़ डालर) के परिव्यय के साथ केंद्र सरकार ने नेशनल सेमीकंडक्टर मिशन शुरू किया, जबकि क्वांटम कंप्यूटिंग में प्रमुख देशों के प्रयास देखते हुए 2024 में नेशनल क्वांटम मिशन के लिए अगले सात साल के लिए मात्र 70 करोड़ डालर का फंड रखा। दोष सरकार का नहीं है। विलो अमेरिकी सरकार ने नहीं बनाया है, न ही उसने कोई फंड दिया है। गूगल शोध में अपने व्यय से यह कमाल करके आज दुनिया का नेतृत्व कर रहा है। पिछले एक साल में एनवीडिया का राजस्व दोगुना हुआ है। यह संभव इसलिए हुआ है कि इन निजी कंपनियों ने शोध में जम कर पैसा लगाया। इसके उलट भारत में आजादी के बाद से ही निजी क्षेत्र ने अपने को निरीह और क्षमता-विहीन माना और शोध एवं विकास या ढांचागत विकास के लिए सरकार पर आश्रित रहने लगा। इस कारण भी देश तकनीकी नवाचार के मामले में पिछड़ गया। भारत में शोध पर कुल खर्च इसकी जीडीपी का मात्र 0.6 प्रतिशत है, जबकि चीन का लगभग 2.68 प्रतिशत। ध्यान रहे कि चीन की जीडीपी भारत की लगभग पांच गुना है। यानी शोध राशि में अंतर 20 गुना है। दुर्भाग्यवश भारत में निजी क्षेत्र का योगदान मात्र 37 प्रतिशत है।

वित्त मंत्रालय की एक हालिया रिपोर्ट के अनुसार देश में एआइ और मशीन-लर्निंग तकनीकी जानने वालों की नौकरियां 61 प्रतिशत बढ़ी हैं। एमेजोन ने दुनिया भर में 22 हजार कर्मियों को निकालने की प्रक्रिया शुरू की है, जिसमें भारत के 1000 कर्मी हैं। वर्ल्ड बैंक की रिपोर्ट कहती है कि दक्षिण एशिया के देशों में एआइ की वजह से उद्योगों में नौकरियां 20 प्रतिशत कम हुई हैं। साथ ही एआइ-संबंधित स्किल वालों का वेतन 30 प्रतिशत बढ़ा है। हालांकि कुछ विशेषज्ञों का मानना है कि एआइ का यह प्रभाव अस्थायी है, जिसमें नई तकनीकी से कुछ नकारात्मक असर दिखाई देते हैं, लेकिन दीर्घकाल में इससे काम की रफ्तार बढ़ेगी और सुविधाओं का असाधारण विस्तार होगा, जैसा कि 1980-90 के दशक में कंप्यूटर के प्रयोग के बाद के भारत में देखा गया। अन्य उद्योगों या सेवाओं के अलावा एआइ का प्रयोग व्यापक रूप से कृषि में होने की संभावना अधिक है। जरूरत इसकी है कि देश के युवाओं को एआइ सक्षम बनाया जाए। इसके लिए त्रिस्तरीय प्राविधिक शिक्षा में आइटी ट्रेनिंग से लेकर आइआइटी रिसर्च तक पूरी शक्ति एआइ के ज्ञान को उपलब्ध कराने में लगाना होगा। चूंकि एआइ और क्वांटम कंप्यूटिंग का प्रयोग सबसे ज्यादा साफ्टवेयर उद्योगों, मैन्यूफैक्चरिंग, कृषि और निर्माण में होने जा रहा है, इसलिए निजी क्षेत्र को अपने लाभ का निश्चित अंश इससे संबंधित शोध में लगाने के लिए बाध्य करना जरूरी है।

(लेखक वरिष्ठ पत्रकार हैं)
response@jagran.com

Why educational credentials in Bihar continue to fail to build much-required real human capital

Cut By a Thousand Degrees

Anushi Tiwary & Dayakar Peddi

Barely hanging on

Bihar, which conducted the first phase of elections on Thursday, stands as a paradox in the landscape of human capital formation. Here, an education system designed for mobility produces stasis: a generation armed with degrees, yet, bereft of core competencies required for a modern economy. This is not a story of mere neglect, but of a complex system where rational individual choices aggregate into a collective trap.

BIHAR 2025

Education can serve two primary economic functions: it can enhance productivity (skill-building), or it can certify inherent traits (signalling). In Bihar, the system has become optimised for the latter. The curriculum, and the vast coaching industry it supports, prizes rote memorisation and exam-specific tricks.

These are narrow skills that are rational investments for individuals competing for a limited pool of bureaucratic jobs. They are highly effective for passing standardised tests, but offer diminishing returns in a dynamic labour market.

Cost of this trade-off is catastrophic. Aser 2024 finds that only 28% of Class 3 students in Bihar can read a Class 2 text, well below the national average of 36%. Only 32% can perform subtraction, compared to 41% nationally. Even by Class 5, fewer than half can read a Class 2 text.

A child who cannot read or subtract with fluency by 8 is on a trajectory of academic exclusion. UDISE+ 2023-24 data show how steep those drop-offs are. Only 31.5% of students move from upper primary to secondary school, less than half the national average of 83%. When the marginal benefit of education is so low, the opportunity cost of a child's labour or a family's limited funds becomes prohibitive. Schooling, in this calculus, is a depreciating asset.

Even for those who persist, school infrastructure and staffing remain deeply inadequate. Despite a recruitment drive for 26,000 new teachers in 2025, over 2.5 lakh positions are vacant. The pupil-teacher ratio at the secondary level stands at 30:1, almost double the national average. Only 19.6% of schools have computers and fewer than 18.5 % have internet connectivity.

These shortages make meaningful digital or experiential learning impossible. They limit exposure to the kinds of cognitive skills demanded in labour markets. Consequently, the state has spawned a parallel, private education economy. Recent data show:

- 53% of Bihari households spend on private coaching.
- Annual coaching expense per student of ₹6,161 is higher than the ₹5,907 spent on schooling itself. Mostly concentrated in Patna, Gaya and Muzaffarpur, coaching schools act as de facto substitutes for failed public schooling. Also, it has led to poorer households sacrificing essentials like nutrition to purchase a sliver of hope in a saturated market, thereby deepening inequality while chasing a mirage of opportunity.

With organised private sector anaemic, frenzied competition for a few government jobs reinforces demand for narrow, exam-oriented skills coaching centres sell

This brings us to the core distortion: labour market. With organised private sector anaemic, the state remains the employer of first and last resort. The result is a frenzied competition for a small number of government jobs. This, in turn, reinforces the demand for narrow, exam-oriented skills the coaching centres sell. A self-reinforcing loop: weak schools create a demand for coaching, which prepares youth for state jobs, the pursuit of which validates the initial lack of broad skills.

Into this vacuum flows migration. A 2020 International Institute for Population Sciences study revealed more than 50% households are exposed to migration. The average remittance by a migrant is ₹26,020. These remittances provide a critical lifeline, sustaining rural consumption and insulating households from the worst of the local economy's failures. Yet, this safety net also neuters the impetus for reform.

When migrant incomes can compensate for institutional failure, the political cost of that failure remains manageable. This is a textbook case of a low-equilibrium trap: weak institutions yield low returns to learning; low returns induce rational under-investment; and that under-investment perpetuates weak institutions. It also reflects a deeper political logic of dependency.

Breaking this equilibrium requires a multi-pronged effort:

- Shift the metric of success from enrolment and infrastructure to learning outcomes. The state must commit to measurable goals — say, 80% of all Class 3 children will achieve grade-appropriate literacy and numeracy by 2030. This data must be public, granular and published district by district.
- Teacher recruitment must move beyond headcount announcements to professionalisation. Filling vacancies without training, mentoring and accountability expands payrolls. A professional teacher cadre, tied to regular performance evaluations and community oversight, is indispensable.
- The premium of state jobs can only decline when private employment becomes credible. Linking education to apprenticeships and incentivising small firms to hire locally through wage subsidies. Education grants to districts and blocks should depend not on infra built but on measured improvements in reading and arithmetic scores.
- Rather than treating migration as a symptom of failure, integrate it into a development strategy. Could a small fraction of remittances, matched by public funds, be channelled into local skill-development funds or community-school trusts?

Could a small fraction of remittances, matched by public funds, be channelled into local skill-development funds or community-school trusts?

This pre-election rallies, as always, revolved around employment guarantees, welfare schemes and caste arithmetic. Yet, the real question went unasked: will any government agree to be judged by how much its children learn, not by how many jobs it promises?

Tiwary is doctoral candidate, and Peddi is assistant professor, Agro Economic Research Centre, Gokhale Institute of Politics and Economics, Pune

TRIBUNE, (P-14), 08 NOVEMBER 2025

PU governance reset that's been withdrawn

Nitasa Jain

THE Centre's decision to roll back the sweeping overhaul of the governing bodies of Panjab University, Chandigarh — the Senate and the Syndicate — follows a strong political backlash over the controversial move in Punjab. Within academic circles, though, opinion remains divided on the restructuring of the varsity's governance model. On November 4, the Centre had put on hold and not withdrawn its October 30 notification on the new rules of engagement, prompting students and Opposition parties to intensify their agitation. The November 7 order effectively nullifies all the changes. But what were these changes, why were these effected, and why the fierce criticism?

TRIBUNE PHOTO

The Centre may have rolled back the overhaul of the Senate and Syndicate of Panjab University, but it has ignited a debate on administrative reforms, academic autonomy, and Punjab's rights

THE ISSUE AT HAND

The October 30 notification invoked Section 72 of the Punjab Reorganisation Act, 1966, to amend the Panjab University Act, 1947. It substituted Section 13 (on Ordinary Fellows) and omitted Section 14 (on Senate elections).

The Senate — once a 91-member body of elected and nominated representatives — was trimmed to 31, including 24 Ordinary Fellows: two eminent alumni, eight elected teachers, four principals, six college lecturers, and two nominees of the Punjab Assembly Speaker. The two remaining members were to be nominated by the Chancellor. It was to have seven ex-officio members: the Punjab Chief Minister, Education Minister, Chandigarh MP, and senior officials from Punjab and the UT Administration.

The Syndicate — PU's 'executive government' — was restructured to comprise the Vice Chancellor as chairperson, the Union Higher Education Secretary, DPI (Colleges) of Punjab and UT, one Senate member nominated by the Chancellor, and 10 other members nominated by the Vice Chancellor from among deans, professors, associate professors, and college principals.

LAWS TO TAKE NOTE OF

Panjab University traces its roots to Lahore (1882) and was re-established in Independent India through the Panjab University Act, 1947, enacted by the Punjab Legislative Assembly. In 1969, Section 72 of the Reorganisation Act declared PU as an "inter-state body corporate", empowering the Centre to issue directions "for removing difficulties" in its functioning. Since then, all changes to the PU Act have been notified under this provision.

The October 30 move drew upon the recommendations of a high-powered panel constituted in 2020 by the then Vice-President and PU Chancellor, M Venkaiah Naidu. It included the VCs of PU, GNDU in Amritsar, and Central University, Bathinda, besides representatives of Punjab and Chandigarh. The report, submitted in 2022, called for reducing political interference, limiting the size of governing bodies, and strengthening teacher representation.

POLITICAL FLASHPOINT

Punjab Chief Minister Bhagwant Mann called the Centre's move "dictatorial and unconstitutional", accusing it of "attacking Punjab's rights and heritage". The AAP government also announced plans to challenge the notification legally and in the Vidhan Sabha. Chandigarh's Congress MP Manish Tewari met the Vice-President, also the PU Chancellor, seeking a relook.

Former Union minister Pawan Kumar Bansal and several Akali leaders echoed the objections, arguing that the Punjab University Act, 1947, is a state law and cannot be amended by an executive order. Under mounting pressure, the Centre's reaction on November 4 calmed tempers but did not settle the core question: whether Delhi can alter PU's constitutional structure through a transitional clause nearly six decades after reorganisation?

ROLE OF SENATE AND SYNDICATE

The Senate is PU's supreme governing body — the equivalent of a parliament of academics. It oversees finance, policy and long-term development. The Syndicate functions as its executive arm, implementing decisions, supervising administration, and managing appointments, promotions, and affiliations.

Historically, the Senate included elected teachers, principals, alumni, and representatives from the Graduate Constituency — an electorate of PU degree-holders. The Syndicate was partly elected by the Senate, giving the university a rare blend of democratic representation and academic oversight. Over time, these elections became fiercely political. Critics alleged that governance had turned into a proxy battleground for influence and patronage.

CONTENTIOUS GRADUATE CONSTITUENCY

The Graduate Constituency — where thousands of alumni voted to elect Senators — was once a proud symbol of participatory governance. However, charges of malpractices, inflated voter lists, and excessive expenditure led to demands for reform. VCs complained that election cycles overshadowed academics, diverting energy and funds.

The 2020 committee concluded that the constituency had outlived its purpose. Its abolition, formalised in the now withdrawn October 30 notification, was intended to "professionalise" governance.

NOT JUST ABOUT THE CAMPUS

For Punjab's parties, the Centre's move revived anxieties over Chandigarh's status and the dilution of Punjab's voice in joint institutions. Opposition leaders likened it to the 2020 farm laws, framing it as another "anti-Punjab" act. For the BJP, the reform was a long overdue clean-up. Longtime Senator Satya Pal Jain, who served on the reforms panel, said the changes were "constitutionally sound, legally valid, and in the best academic interest of PU".

LEGAL, CONSTITUTIONAL DEBATE

At the heart of the standoff lies Section 72 of the Punjab Reorganisation Act, 1966. Supporters argue the clause allows the Centre to issue directions modifying existing state laws governing reorganisation-affected institutions. Critics counter that Section 72 was a transitional provision, meant only for short-term administrative continuity in 1966 — not for rewriting a state statute in 2025.

ARGUMENTS FOR AND AGAINST

Supporters — including former VCs RN Pathak and Arun Grover, and former PUTA president Promila Pathak — argue that the overhaul will bring efficiency and end politicking. They describe it as a "teacher-centric" model aligned with the National Education Policy (NEP 2020).

Opponents — students, AAP, Congress, SAD, and farmer unions — call it "de-democratisation". They warn it replaces representative decision-making with bureaucratic control and erodes Punjab's share in governance.

Even as the Centre has rolled back its order, the debate is likely to continue on competing visions — academic autonomy versus administrative order; state rights versus Central authority; reform versus overreach.

TELEGRAPH (P-13), 09 NOVEMBER 2025

INSIGHT

MEGHNAD SAHA

Astrophysicist, nominated for the Nobel multiple times, inventor, editor of a science journal, driving force behind the formation of several scientific societies... But this new production plays up his negotiations with caste politics and an unbudging system. **Paromita Sen** reports

The Bengali play *Meghnad* — staged by theatre group Ashoknagar Natyaanan — has been written by Sudipta Bhawmick, who is an IIT Kharagpur alum and an artificial intelligence and machine learning expert based in the US.

He tells **The Telegraph**, "A few years ago, I came across Abha Sur's book *Dispersed Radiance*. In it, she discusses the effect of caste politics on Meghnad Saha's life and work, which I thought would be an interesting premise for a play. I started researching Professor Saha's life and work, but it kind of died down."

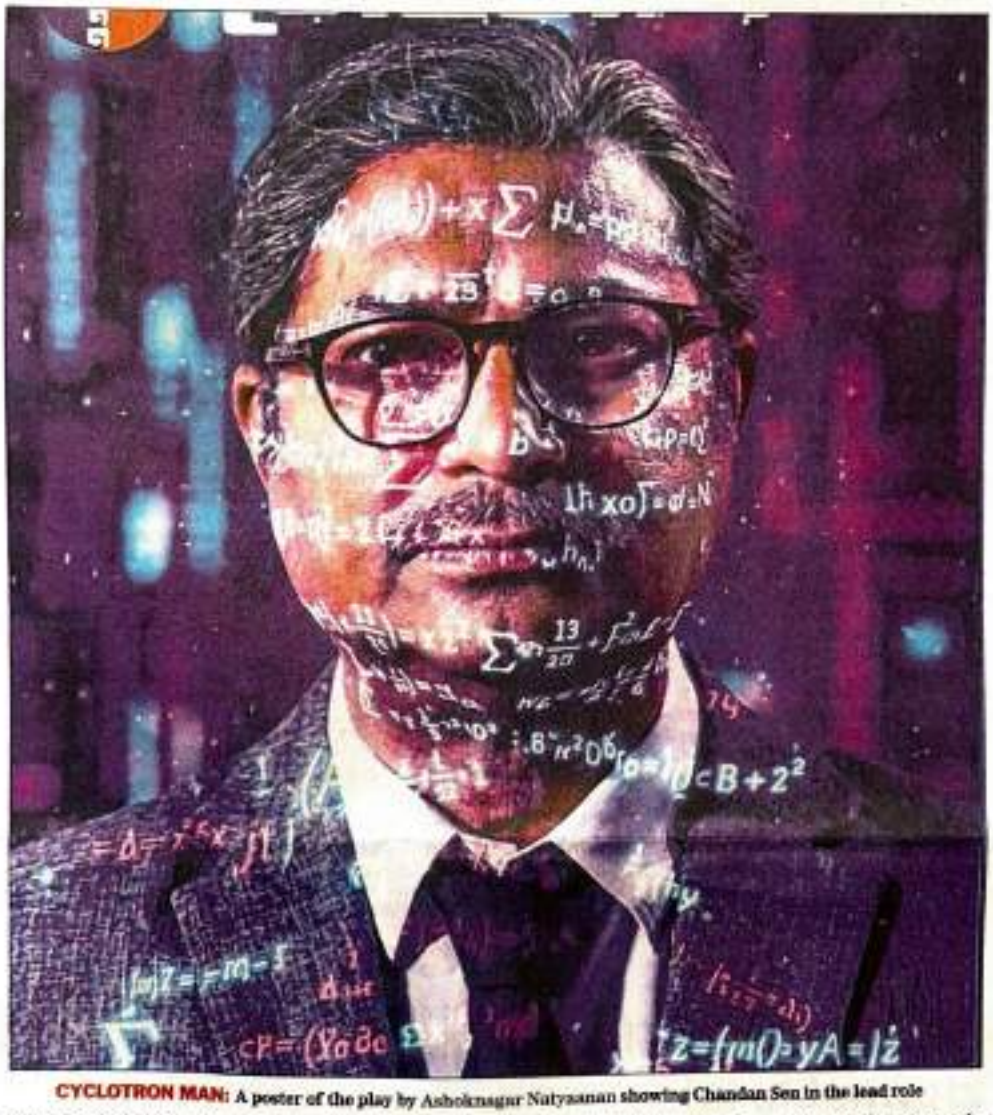
Saha was an astrophysicist who built the first cyclotron in India and translated Einstein's original papers into English along with friend and fellow scientist Satyendra Nath Bose. He is also the only scientist of his stature to be elected to the Lok Sabha and he was instrumental in setting up the iconic Planning Commission.

Possibly around the same time when Bhawmick was reading Sur's book, here in Calcutta, television actor and theatre artiste Chandan Sen was thinking of a play on Saha. Sen had been called to audition for a role in a web series about Homi Bhabha. It was of Bhabha's nemesis, a Bengali Muslim scientist. The character was clearly modelled on Meghnad Saha. Says Sen, "They showed him in a negative light. I wanted to correct that."

When Bhawmick and Sen met at an *adda* session in Calcutta, dots joined and things flew into place. Says Bhawmick, "Chandan expressed his interest in doing a play on Meghnad Saha and requested me to write it."

Bhawmick, who had written "science plays" before this, took two years. Sen talks about how he consulted multiple scientists. "The idea was to portray Saha the man, the thinker who wanted to use science to improve the lot of common people, the humanist who thought nuclear science should be used for the welfare of the people."

Satyaki Bhattacharya, who is a senior professor at the Saha Institute of Nuclear Physics, was one of those scientists who helped shape the play. The play brochure has on it his quote: "Meghnad Saha was among those geniuses inspired by rational thinking who fought to build a modern India. ...Considering the times we live in, it has become necessary to get reacquainted with Meghnad Saha the man."



CYCLOTRON MAN: A poster of the play by Ashoknagar Natyaanan showing Chandan Sen in the lead role

Opening scene of *Meghnad*. The Institute of Nuclear Physics in Calcutta. Period: 1953-54. Prime Minister Jawaharlal Nehru is supposed to visit the lab that day but the cyclotron is malfunctioning. Cyclotron is the name for a class of devices used to "accelerate charged atomic or subatomic particles in a constant magnetic field".

When his juniors worry that the mechanic won't get there in time, Saha reminds them that they know enough to do the job themselves. "Or are you ashamed of getting your hands greasy? Do you think such work is below your dignity?" he roars.

"This separation of the thinkers and the doers, the brain and the hand, this caste system is the reason that science has not progressed in our country," Saha laments.

Chandan Sen has directed the play in which he also plays the older Saha, while Rwitobroto Mukherjee plays Saha's younger self. Shantilal Mukherjee plays Nehru and Rajatsubhra Bhattacharya plays Homi Bhabha.

By way of prepping for this role, Sen read up on Saha and met with some of his children. He speaks of *Pitri Tarpan*, the book written by Saha's third daughter, Chitra. This exploration, he says, has distilled his understanding of the scientist.

The whole process has unearthed details about the man, long forgotten by newer generations. For instance, in the play brochure, physicist and professor Gautam Gangopadhyay makes a reference to the story of Saha changing his own first name.

At birth, he had been named Meghnath, meaning, the god Indra. But he changed it to Meghnad, defeater of Indra and hero of Michael Madhusudan Dutt's *Meghnadbadh Kabya*, ahead of his school-leaving exam. Gangopadhyay writes, "It was his first loud protest against the caste system." In Bhawmick's play, S.N. Bose narrates this story to Acharya Prafulla Chandra Roy.

Meghnad is not a linear play. It is a selection of events from Saha's life that illustrate the juggernaut of caste in every sphere.

This curation has met with criticism — the play was staged for the first time this year in September at the Academy of Fine Arts. The second and third shows, on October 31 and November 8, were also held there. At the second staging, a member of the audience pointed out that Saha's contribution to river planning was missing, another grumbled that it made no mention of Saha's ionisation equation.

Astrophysicist Sandip Kumar Chakrabarti of the Indian Centre for Space Physics in Calcutta says, "Not only can the Saha ionisation equation measure the temperature of stars, it was also important for understanding the origin of cosmic microwave background." Sen too laments they could not accommodate the story of Saha's planned scientific calendar. But his point is that the curation of events, the emphasis on caste and coteries, was necessary. "It is a biopic with a purpose, and that is to show that science must be accessible to all. We, in India, talk about racism but India is the birthplace of exclusionism," says Mukherjee.

Bhawmick points out how Saha was ignored both by the international community as well as the Indian scientific and governmental organisations.

The play, which is framed by Nehru's visit, ends with a rather charged interaction between the scientist and the first Prime Minister. Saha excitedly accuses Nehru of misusing science and Nehru makes his own calm defence. But the disagreement does not translate into a disconnect, at least not for Nehru. He hails the rather disillusioned and embittered Saha as a "live cyclotron" propelling his students towards a better society.

And as he leaves the stage he tells Saha, "Don't stop criticising me."

Some things have certainly changed.

Tel 9/11/25

How should law schools change attendance norms?

What did the Delhi High Court's judgment in the Sushant Rohilla case stipulate?

G. S. Bajpai

The story so far:

The Delhi High Court's judgment in *In Re: Suicide Committed by Sushant Rohilla*, 2025 examines how universities should exercise disciplinary authority within the constitutional framework of fairness and reason. The case arose from the 2016 suicide of a law student barred from writing exams due to attendance shortage. The Court converted the incident into a public-interest inquiry on whether attendance policies align with fairness and proportionality. Delivered amid growing concern for student welfare, the judgment underscores that academic autonomy must operate within constitutional discipline.

What was the core issue before HC?

The Court clarified that the case was not concerned with attendance per se but its enforcement. Many universities debarred students once attendance fell below the limit, without warning, counselling or discussion. Such mechanical application violated procedural fairness and constitutional standards.

The judgment draws from Article 14's doctrine of non-arbitrariness and procedural fairness. Universities exercising disciplinary powers are public authorities subject to constitutional accountability; their decisions must be reasoned, proportionate and just. Fairness here is not merely procedural but a constitutional value linked to Article 21's protection of dignity and mental well-being. It safeguards due process and students' welfare as part of the constitutional promise of life with dignity.

Did HC invalidate attendance rules?

The Court upheld attendance norms but objected to rigid enforcement. It affirmed the Bar Council of India's (BCI) authority under Rule 12 of the Legal Education Rules 2008 to require 70% attendance, relaxable to 65% in exceptional cases, but called the framework "extremely strict" and urged reconsideration in light of the National Education Policy (NEP), 2020 and UGC Regulations, 2003, both stressing flexibility and learner-centred education. Attendance, when enforced mechanically, can become an exclusionary barrier. The rule remained valid, but its uncompromising application was held disproportionate. The Court viewed debarment as an extreme step with grave academic consequences.

What must universities now follow?

Post judgment, certain procedural steps must be observed before any denial of examination on attendance grounds such as weekly attendance updates through portals or notice boards and monthly shortage notices to students and guardians for early intervention; counselling, and opportunities to address shortfalls through extra classes, home assignments or recognised academic activities such as legal-aid work; recording medical or mental-health issues or hardship; and notice and opportunity for representation. Fairness requires prior notice and a real chance to respond before any final decision. If, despite these remedial efforts, a student still fails to meet the required attendance, they may be debarred.

What are the implications?

The implications are institutional, cultural and pedagogical. Universities must foster supportive environments, integrate counselling and establish Grievance Redressal Committees with student representation. Debarment can no longer be informal or automatic, they must be reasoned and open to representation. Experiential learning through moots, internships, research or legal-aid work must count toward engagement. Attendance should encourage participation, not policing. Moreover, the BCI must revisit Rule 12 in light of NEP 2020. No law school may impose stricter norms than those prescribed.

The *Sushant Rohilla* judgment marks a milestone in aligning higher-education governance with constitutional values.

The author is Vice Chancellor, National Law University. Inputs from Vibhuti Sharma. Views are personal.

THE GIST

- The Court clarified that the case was not concerned with attendance per se but its enforcement.
- Universities exercising disciplinary powers are public authorities subject to constitutional accountability; their decisions must be reasoned, proportionate and just.
- Universities must foster supportive environments, integrate counselling and establish Grievance Redressal Committees with student representation.

PIONEER (P-08), 10 NOVEMBER 2025

Reviving Nalanda's legacy in modern education

BK JHA

2ND OPINION

THE PIONEER

The roots of monastic education in India trace back to ancient religious and philosophical traditions, particularly within Buddhism. From the 5th century BCE, Buddhist monasteries, or viharas, emerged as structured centres of learning. Initially seasonal retreats for meditation and study of the Buddha's teachings, they evolved into permanent institutions offering systematic education in scriptures, ethics, logic, and philosophy.

Renowned centres such as Nalanda, Vikramasila, and Takshashila became magnets for scholars across Asia, embodying a holistic educational model that emphasised discipline, moral development, and intellectual inquiry. This legacy safeguarded Buddhist philosophy and established early models of lifelong, value-based education still relevant to modern pedagogy.

Nalanda represents the most sophisticated expression of this system. While earlier monasteries focused largely on spiritual development, Nalanda Mahavihara (5th–12th century CE) evolved into a vast, organised university with residential facilities and a structured curriculum. It integrated Buddhist philosophy with secular knowledge — teaching grammar, medicine, astronomy, mathematics, and the arts. Its multidisciplinary and inclusive approach encouraged debates, lectures, and commentaries, attracting students from China, Korea, Tibet, and Southeast Asia. More than a spiritual centre, Nalanda embodied the union of faith and reason, viewing education as a pursuit of universal enlightenment rather than sectarian learning.

In this spirit, the National Institute of Open Schooling (NIOS), in partnership with the Indian Himalayan Council of Nalanda Buddhist Tradition (IHCNBT), has launched a pioneering initiative to modernise and formally recognise monastic education across India. Traditionally conducted in Bhoti, this education preserves a rich repository of Buddhist knowledge and Indian literary heritage. The works of scholars like Nagarjuna, Vasubandhu, and Dharmakirti — alongside Sanskrit classics such as Meghaduta, Kavyadarsa, Amarkosha, and Ramayana — testify to its intellectual depth.

Covering Elementary, Secondary, and Senior Secondary levels, the programme bridges traditional wisdom with modern educational frameworks. Rajeev Kumar Singh, Director (Academics) at NIOS, calls it "a bridge between ancient wisdom and modern opportunity," stressing that the goal is not to secularise Buddhism but to empower learners and ensure their knowledge receives equal respect while engaging meaningfully in modern society.

The IHCNBT, representing Buddhist communities across Ladakh, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh, Jammu & Kashmir, and North Bengal, plays a crucial role in institutionalising this effort. For Maling Gombu, its General Secretary, the initiative is both educational and patriotic — strengthening the Indian identity of monastic institutions and ensuring monasteries remain vibrant centres of learning rooted in Indian civilisation.

Today, about 132 monasteries across the Himalayas have been accredited by NIOS, enrolling nearly 10,000 learners. This historic integration of monastic education into the national framework is not merely an administrative reform — it is a cultural renaissance. The Bodh Darshan initiative dignifies centuries-old Himalayan learning, reaffirming India's position as the spiritual and intellectual cradle of Buddhist thought.

The writer is a Senior Journalist who writes on socio-economic affairs

Why access to knowledge is crucial for innovation

How will restricting free flow of information hamper innovation and growth in economies?

Rahul Menon

The current Nobel Prize in Economics has been given to three economists – Joel Mokyr, Philippe Aghion, and Peter Howitt – who have studied the role of technological change and creative destruction in economic growth. While the work of the latter two would be more readily recognisable to the modern economist, Mokyr adopts a historical lens to study the relationship between knowledge, ideas and economic growth.

What was Mokyr's model?

Mokyr's model makes a distinction between two kinds of knowledge: propositional and prescriptive. The former is knowledge about scientific phenomena and principles, while the latter concerns knowledge about techniques. Economic growth occurs with an increase in both kinds of knowledge, where societies possess not just scientific or theoretical knowledge, but also the knowledge of techniques to put them into use. What is important to understand is that it is not enough for society to merely possess knowledge; what matters is that a majority of members are able to access this knowledge, and that social norms promote the sharing of knowledge and free exchange of ideas. Technological progress is not merely an economic process, but a social and cultural outcome regulating the spread and sharing of knowledge amongst society.

Mokyr tells us the importance not just of generating new ideas, but of sharing and communicating these ideas. Free markets do not automatically guarantee growth, and state intervention does not ensure negative growth prospects. Instead, anything that restricts the free flow of information directly hampers innovation and growth. In that respect, one can point to certain social institutions in India that have hampered growth – such as caste – while being aware of the potentially negative effects of job polarisation and automation in restricting the spread of knowledge amongst theorists and practitioners.

Does the caste system stop growth?

The social institution of caste in India has ensured that knowledge was the preserve of an elite minority, with violence being used to restrict access. Following Independence, policy proposals such as reservations have been introduced to rectify this balance. However, access to high quality education still remains out of reach for many, while the slow retreat of the public sector ensures quality education once again remains the preserve of the elite.

Mokyr's work shows us the dangers of not ensuring universal access to quality knowledge. What matters is not just the extent of knowledge accumulated by a society, but whether enough individuals have access to it in order to use it to tinker, experiment, and devise new techniques to introduce economic innovations. The existence of knowledge but with no meaningful access to it is as good as a society that possesses no knowledge at all. The extreme fragmentation of caste implies that not only is education restricted, but rigid conventions that ensure communities do not meaningfully interact further restricts innovations.

In this regard, one can see the importance of breaking down caste barriers, and improving educational access as well as ensuring quality education for all. This is of relevance given the slow retreat of the state in education and the rise in private universities. Much of the population may be unable to access quality education owing to high fees and lack of reservations in private universities.

What about automation?

Current labour markets have been thrown into disarray and profound uncertainty with the introduction of automation driven by AI.

The threat of job displacement is serious, but there is another, deeper question: what happens to the sharing of practical knowledge about capital and techniques when fewer individuals have access to it? Automation brings with it the problem of job polarisation, where much of routine work is performed by machines and/or AI, with humans in either highly skilled tasks or performing service occupations, such as in restaurants. This could potentially reduce the share of workforce who actually have knowledge of modern techniques. The transmission of knowledge about techniques of production requires long periods of familiarising oneself with the methods of operation, through personal contact, training and hands-on experience. Automation can have significant productivity effects, and might even prove to raise growth over time. But what happens to the sharing of knowledge of techniques if much of the labour force does not even have access to these new techniques?

If inaccessible education and restrictive social institutions keep propositional knowledge restricted, and job polarisation and automation ensure prescriptive knowledge is cut to reach, economy-wide innovation is bound to suffer. The transformation of knowledge into innovations and growth depends on the cultural and social norms determining the costs of access to knowledge. Democratisation of education, far from being inimical to economic efficiency, is actually an important condition to ensure faster growth.

Rahul Menon is associate professor at O.P. Jindal Global University.

HINDU (P-9), 11 NOVEMBER 2025

GETTY IMAGES

What happens when public knowledge is created on private infrastructure?

Recent advancements in AI are raising concerns about the corporate monopolisation of knowledge and the urgent need for equitable access to research, prompting discussions on the future of innovation and collaboration

Vasudevan Mukunth

Over the past year, a considerable amount of recognition for Machine Learning (ML) has gone to researchers working in or alongside large technology firms, even as recent advances in Artificial Intelligence (AI) have been financed and built on corporate infrastructure.

In 2024, the Nobel Foundation awarded the physics prize to John Hopfield and Geoffrey Hinton for contributions that enabled learning with artificial neural networks, and the chemistry prize to Demis Hassabis and John Jumper for protein structure prediction (alongside David Baker's computational design). Mr. Hassabis and Mr. Jumper were employed at Google DeepMind at the time of the award; Mr. Hinton had spent a decade at Google before departing in 2023. These affiliations don't erase the laureates' academic histories but they do indicate where prize-level research is now being performed.

This change rests on material conditions as well as ideas. State-of-the-art models depend on large computing clusters, curated data, and engineering teams. Google's programme to develop Tensor-Processing Units (TPU) for its data centres shows how fixed capital can become a scientific input rather than only an information technology cost. Microsoft's multiyear financing and Azure supercomputers for OpenAI reflect the same political economy from a different angle.

Case for public access

Any research with public provenance should return to the public domain. In this context, public money has supported early theoretical work, academic posts, fellowships, shared datasets, publishing infrastructure, and often the researchers themselves. In parallel, the points at which the value became excludable lay increasingly downstream: with respect to computing resources (shortened as compute), this includes rights to data and code, the ability to deploy models at scale, and decisions to release or withhold weights. This helps explain why recent Nobel laureates have been situated in corporate laboratories and why frontier systems are predominantly trained on private cloud systems.

In the 20th century, firms such as Bell Labs and IBM hosted prize-winning basic research. However, much of the knowledge then moved through reproducible publications and open benchmarks. Today, reproducing the work of Mr. Jumper, for example, can require large compute budgets and specialised operations expertise. As a result the concern isn't only that corporations receive prizes but that the path from a public insight to a working system is infrastructure and contracts controlled by a few firms.

The involvement of public funds should thus create concrete obligations at points where technology becomes enclosed for private control. If an academic laboratory accepts a public grant, the deliverables should include the artefacts that make the work usable, including the training code, evaluation suites, and weights in the AI models to be released under open licences. If a public agency buys cloud credits or commissions model development, procurement should require that the benchmarks and improvements flow back to the commons rather than become locked into a vendor.

Remove bottlenecks

The argument isn't that corporate laboratories can't do fundamental science; they clearly can. The claim is that public policy should reduce the structural advantages of private control. Consider the release of Google DeepMind's AlphaFold 2, which, together with its code and public access to predictions, allowed researchers beyond the originating lab to run the system on (reasonably) standard hardware, retrieve large numbers of precomputed structures, and integrate their results into routine workflows. All this work was supported by public institutions that were willing to host and maintain the resources.

Where the corporate stack is indispensable, such as when training frontier models (with billions or trillions of parameters), claims about 'responsible release' often ironically translate to a closed release. Instead, a more consistent position should be to link risk management to a structured model of openness – perhaps one that includes staged releases, access to weights, open penetration testing tools, and a clear separation between safety rationales and business models – rather than allow private entities to resort to blanket secrecy in the name of safety.

The same logic applies to compute: that is, if computing resources become a scientific bottleneck, they should be treated as a public utility. National and regional compute commons should allocate resources for free or at-cost to academic groups, nonprofits, and small firms, and qualify them on open deliverables and safety practices. The ultimate goal is to restore the ability of public institutions to reproduce, test, and extend leading ML work without having to seek corporate permission. Without such a commons, however, publicly funded ideas will continue to be turned into working systems on private clouds and returned to the public as expensive information products.

Indeed, while it's tempting to treat the entities employing the laureates and funding pipelines as separate issues, one symbolic and the other structural, they're connected by the computing resources. The fact that the Nobel laureates worked at Google DeepMind reflects where teams with ML scientists, domain experts, data, and compute now operate. Likewise, the fact that the most visible systems of the past two years were trained on Microsoft Azure under a financing agreement explains who could attempt such training. Both facts reflect underlying resource concentrations.

Beyond industry vs academia

Public agencies' response should be direct – by, say, tying funding to openness in grants and procurement and requiring detailed funding disclosures and compute-cost accounting in research papers. Where full openness would create unacceptable risks, agencies can use equity or royalties to fund compute and data commons that support the wider ecosystem. For corporate laboratories, on the other hand, their credibility should rest on measurable contributions to the commons.

Journalists and the publics should also move beyond an 'industry versus academia' framing.

The relevant questions are who sets the research agenda, who controls infrastructure, who can reproduce results, and who benefits from deploying the resulting AI models. Interpreting the 2024 Nobel Prizes as industry victories alone would miss the point that the knowledge base is cumulative and relies on public inputs, while the capacity to operationalise that knowledge is clustered. Articulating this pattern allows us to recognise scientific merit while demanding reforms that ensure public inputs produce public returns – in code, data, weights, benchmarks, and access to compute.

To be sure, the central conclusion isn't resentment about corporate salaries but responding to the fact that breakthroughs are increasingly occurring at the intersection of public knowledge and private infrastructure. The policy programme should be to reunite the layers where public and private enterprises diverge – artefacts, datasets, and compute – and to bake this expectation into contracts and norms that govern research.

In these conditions, future awards can be celebrated with corresponding public benefit because the outputs that make the science usable will be returned to the public.

INDIAN EXPRESS (P-10), 11 NOVEMBER 2025

With fewer doctors becoming specialists, a crisis looms

SIVABALAN ELANGOVAN

AS POSTGRADUATE COUNSELLING for NEET begins, I am repeatedly approached by young medical graduates with the same question: "Which specialty should I choose?". I've noticed a change in their preferences. They no longer ask which branch saves the most lives or offers the greatest career growth. Instead, they ask: "Which course gives me less work, fewer litigations, and a peaceful life?"

Decades ago, most MBBS graduates were from modest backgrounds and their motivation was to build a career, serve society, and grow professionally. Today, many are from relatively secure circumstances. Their priorities are peace of mind and work-life balance. This change did not occur suddenly.

In 2019, India introduced the Competency-Based Medical Education (CBME) curriculum to produce more skilled, patient-ready doctors. The intention was noble; the impact mixed. CBME made learning structured but increasingly mechanical. Students tick boxes in logbooks, complete checklists and meet competencies, undergo frequent assessments and heavy documentation but lose the freedom to explore. The goal shifts from learning medicine to clearing exams. With overwhelming content, cognitive fatigue sets in. Curiosity fades.

Meanwhile, India's health system has shifted. The rise of corporate hospitals has reduced opportunities for independent practice. Earlier, a young specialist could open a clinic, build trust and grow. Today, that path is narrow. Corporate hospitals offer minimal room for individuality or entrepreneurship. Doctors feel like employees, not professionals shaping their careers. Ambition dulls.

Mental health weighs heavily on specialty choices. Suicide rates among doctors are higher than in the general population. Juniors watch seniors exhausted after 36-hour duties. They see strained families. The message they internalise is simple: Do not take on too much. Do not go into branches that demand your whole life. So when it comes to super-specialties, many step back. Why spend years in training for more duty hours, more risk, and little reward? Super-specialty courses like DM and MCh are demand years of hard work and commitment. But when completed, the pay does not match the effort.

A surgical gastroenterologist or cardiothoracic surgeon may perform challenging life-saving surgery every day. Yet, in the government system, their salary equals that of a doctor in primary health care. There is no recognition for the extra years, the higher skill, the constant stress.

In a recent super-specialty counselling in Tamil Nadu, more than half the seats went vacant. Government doctors in particular were reluctant. Government hospitals face a growing shortage of specialists. The poor, who rely on public hospitals, will suffer most. This is a silent public health crisis.

It is easy to accuse young doctors of lacking ambition, but that is simplistic. They are not seeking luxury; they are seeking sanity. Their reluctance is not weakness but a rational response to the system that offers little reward for sacrifice.

The old guard says, "We worked harder. We faced worse. Why not you?" But the context is different. The earlier generations saw hope. They opened clinics, built hospitals, and rose on their own terms. That path is closed. The corporate model has taken it away. Now, the choice is between being a cog in a machine or fighting burnout in the government system. If India wants strong super-specialists in the public sector, the system must reform. Acknowledge their service through higher pay scales, allowances, or faster promotions. Their workload must be regulated through clear duty hours, adequate support staff, and reduced administrative burden. The government should also provide support for career development.

Without these changes, the pipeline of super-specialists will keep drying up in government hospitals. The crisis will not stay silent. The price will be paid not only by doctors, but by millions of patients.

If India wants strong super-specialists in the public sector, the system must reform. Acknowledge their service through higher pay scales, allowances, or faster promotions. Their workload must be regulated

The writer is, professor and head, Sri Lalithambigai Medical College Hospital, Chennai

• POLICY

What govt's AI guidelines mean for tech regulation

The recent guidelines suggest risk management within the existing framework of laws under the guiding principle of 'Do No Harm'

Soumyarendra Barik
New Delhi, November 10

THE MINISTRY of Electronics and Information Technology (MeitY) has unveiled governance guidelines for Artificial Intelligence (AI), which could serve as a blueprint for how India regulates the technology, balancing innovation with accountability and growth with safety.

The government had earlier signalled that it may not tighten the regulatory noose on AI just yet, as it believes the technology could help flourish an innovation economy in the country. As such, the guidelines recommend an India-specific risk assessment framework, a national AI incident database, and the use of voluntary frameworks and techno-legal measures, such as embedding privacy or fairness rules directly into system design.

The guidelines do, however, flag the need to carry out effective "content authentication", as synthetically generated images, videos and audio flood the Internet. Here, the government has already proposed legal amendments to a key legislation, which would require companies like YouTube and Instagram to add visible labels to AI-generated content.

The launch of the guidelines comes ahead of the India-AI Impact Summit 2026, which will be the first-ever global AI summit hosted in the Global South.

Prof Ajay Kumar Sood, Principal Scientific Adviser to the Government of India, said at the launch, "The guiding principle that defines the spirit of the framework is... 'Do No Harm'. We focus on creating sandboxes for innovation and on ensuring risk mitigation within a flexible, adaptive system."

What the guidelines say

The report's key recommendations are organised around six pillars infrastructure, capacity building, policy & regulation, risk mitigation, accountability, and institutions.

INFRASTRUCTURE: The report calls for expanding access to data and compute resources, including subsidised graphics processing units (GPUs) and India-specific datasets through platforms like AIKosh. It urges integration of AI with Digital Public Infrastructure (DPI) such as Aadhaar and Unified Payments Interface (UPI). It also urges the government to incentivise private investment and adoption by MSMEs, with tax rebates and AI-linked loans.

REGULATION: India's approach will be agile and sector-specific, applying existing laws (like the IT Act and the Digital Personal Data Protection Act) while plugging gaps through targeted amendments. The report rules out an immediate need for a standalone AI law, but calls for updates on classification, liability, and copyright, including consideration of a "text and data mining" exception. It also urges frameworks for content authentication to counter deepfakes and for international cooperation on AI standards.

S Krishnan, Secretary, MeitY, said at the launch, "Our focus remains on using existing legislation wherever possible. At the heart of it all is human centricity, ensuring AI serves humanity and benefits people's lives while addressing potential harms."

RISK MITIGATION: As stated earlier, the report proposes an India-specific risk assessment framework to reflect local realities, along with the use of voluntary frameworks and techno-legal measures.

ACCOUNTABILITY: A graded liability regime is proposed, with responsibility tied to function and risk level. Organisations must adopt grievance redressal systems, transparency reporting, and self-certification mechanisms.

INSTITUTIONS: The framework envisions a whole-of-government approach, led by an AI Governance Group (AIGG), supported by a Technology & Policy Expert Committee (TPEC), and technically backed by the AI Safety Institute (AISI).

CAPACITY BUILDING: The guidelines emphasise AI literacy and training for citizens, public servants, and law enforcement. They recommend scaling up existing skilling programs to bridge gaps in smaller cities and enhance technical capacity across government institutions.

How guidelines were prepared

The guidelines were drafted by a high-level committee consisting of policy experts under the chairmanship of Prof. Balaraman Ravindran, IIT Madras.

According to Abhishek Singh, Additional Secretary, MeitY, and CEO India AI, "The committee went through extensive deliberations and prepared a draft report, which was opened for public consultation. The inputs received is a clear sign of strong engagement across sectors. As AI continues to evolve rapidly, a second committee was formed to review these inputs and refine the final guidelines."

Red flags over officials' use of AI

Even as the government looks to encourage AI with little regulatory burden, there are internal red flags over data privacy and inference risks, especially when such systems are being used by key government officials.

What happens when a government officer uploads an internal note to an AI chatbot for a quick summary? When a police department asks an AI assistant to optimise CCTVs across a city? Or when a policymaker uses a conversational model to draft an inter-ministerial brief? Can the AI system analyse such prompts at scale, identify the user, infer their role, draw patterns across queries and predict strategic intent?

These questions are being debated in sections of the Union government, *The Indian Express* had earlier reported, amid growing concern about the rapid proliferation of generative AI (GenAI) platforms in India, especially those run by foreign firms, often bundled as free services with telecom subscriptions.

Two broad areas are under discussion. First, whether queries made by top functionaries — bureaucrats, policy advisers, scientists, corporate leaders and influential academics — could be mapped to identify priorities, timelines, or weaknesses.

Second, whether anonymised mass usage data from millions of Indian users could help global firms. One issue, sources said, is whether to "protect" official systems from foreign AI services.

Proposed AI content labelling

As per the draft amendments to the IT Rules, released last month, social media platforms would have to get users to declare whether the uploaded content is synthetically generated; deploy "reasonable and appropriate technical measures", including automated tools or other suitable mechanisms, to verify the accuracy of such declaration; and, where such declaration or technical verification confirms that the content is synthetically generated, ensure that this information is clearly and prominently displayed with an appropriate label or notice.

If they fail to comply, the platforms may lose the legal immunity they enjoy from third-party content, meaning that the responsibility of such platforms shall extend to taking reasonable and proportionate technical measures to verify the correctness of user declarations and to ensure that no synthetically generated information is published without such declaration or label.

• THE ACTION PLAN

GETTY IMAGES

EMPOWER THE India AI mission, ministries, sectoral regulators and state governments to increase AI adoption, through initiatives on infrastructure development and increasing access to data and computing resources

ADOPT A graded liability system based on the function performed, level of risk, and whether due diligence was observed

INTEGRATE AI with Digital Public Infrastructure (DPI) to promote scalability, interoperability and inclusivity

CONDUCT SAFETY testing and evaluations

INCREASE DATA availability, sharing, and usability for AI development and adoption with robust data portability standards and data governance frameworks

ENCOURAGE THE use of locally relevant datasets to support the creation of culturally representative models

Key Points

While there is a belief that AI should have little regulatory burden, there are concerns about data privacy and inference risks.

•

There is no consensus on what should be done when AI systems are used by government officials.

STATESMAN (P-11), 11 NOVEMBER 2025

The soul of a university lies in its creative spirit

BIJU DHARMAPALAN

Universities have always been viewed as sanctuaries of knowledge, guardians of intellectual heritage, and catalysts of social advancement. However, underlying these functions is a profound obligation — universities are fundamentally creative institutions. They are not simply stores of information or vocational training centres, but dynamic environments where creativity is fostered, curiosity is appreciated, and novel opportunities emerge. Creativity is not a supplementary aspect of the university ethos; it is its fundamental core. In its absence, colleges fear transforming into sterile credentialing factories, yielding graduates who may possess skills yet lack genuine education.

Transcending knowledge dissemination

The prevailing view of universities frequently centres on their function in disseminating knowledge. Students enrol to gain knowledge from faculty, develop subject-specific proficiency, and graduate with degrees that assure employment opportunities. This role is essential, yet inadequate. In an era where knowledge is readily accessible through online repositories and artificial intelligence tools, institutions must provide more than mere information dissemination.

That 'something' is creativity — the capacity to enquire, to link concepts across borders, and to reconceptualise problems and their resolutions. Creativity transmutes raw knowledge into invention, art, critical thought, and societal transformation. An institution that confines itself to rote memorisation or mechanical skill acquisition undermines its fundamental mission. Creativity empowers students and researchers to not only comprehend the world but also to envision and transform it.

The university as a creative ecosystem

Creativity in universities must not be confused with the stereotype of artistic expression alone. Although music, literature, and painting are indispensable creative endeavours, creativity is equally critical in the sciences, engineering, law, management, and medicine. Creativity is embodied in the dimensions of a biologist who is developing a novel experiment, a lawyer who is reforming an argument, and an engineer who is envisioning sustainable cities.

Universities should function as ecosystems that foster the development of creativity. This entails the promotion of intellectual risk-taking, the cultivation of interdisciplinary dialogue, and the provision of the opportunity to fail without fear of repercussion. Unconventional thinking that defied the boundaries of established disciplines was the source of some of the greatest breakthroughs in human history, including the theory of evolution, the structure of DNA, and the principles of quantum mechanics. Universities must actively foster this ethos by resisting the bureaucratic pressures that frequently stifle it.

Creativity as a form of resistance to standardisation

A significant danger to innovation in contemporary colleges is the culture of uniformity. As worldwide rankings, accrediting systems, and performance measures proliferate, colleges are under mounting pressure to adhere to quantifiable outputs — research publications, patents, employment statistics, or student grades. Although accountability is crucial, an overemphasis on quantitative metrics threatens to transform universities into mechanical entities rather than vibrant intellectual communities.

Creativity opposes this uniformity. It flourishes on diversity, unpredictability, and the quest for enquiries that may not provide immediate commercially viable responses. A poet crafting complex metaphors, a physicist contemplating theoretical oddities, or a sociologist interacting with marginalised communities — these endeavours may not conform to conventional measures, yet they enhance the academic ethos and, by extension, society as a whole. Safeguarding innovation is tantamount to preserving the essence of the university.

Historical role of creativity in universities

History illustrates that innovation has consistently been fundamental to academic endeavour. The medieval universities of Bologna, Paris, and Oxford served as hubs of religious orthodoxy and venues for scholarly debate, argumentation, and sometimes defiance of authority. The Renaissance university emerged as a hub of humanist innovation, promoting progress in science, art, and philosophy. The Humboldtian concept of the contemporary research university in 19th-century Germany explicitly integrated teaching and research, highlighting the innovative quest for knowledge.

In India, historical institutions such as Nalanda and Takshashila exemplified inventiveness through the integration of philosophy, medicine, mathematics, and astronomy centuries ago. Their collapse acts as a cautionary tale: the loss of creativity results in diminished vitality for colleges. Modern colleges must thus reconnect with this tradition, not merely to commemorate their history but also to ensure their future.

Innovation and the professional sphere

Sceptics can contend that, in the current economy, students emphasise employability rather than creative discovery. Families mostly spend in higher education to attain secure employment. This utilitarian perspective neglects a crucial reality: in the swiftly evolving labour market of the 21st century, creativity is the most sought-after ability.

Automation, artificial intelligence, and globalisation are rendering conventional skills obsolete. The distinctly human attributes are the capacity for divergent thinking, innovation, empathy, and the creation of meaning. The World Economic Forum continually identifies creativity, problem-solving, and critical thinking as key abilities for the future workforce. Employers increasingly prioritise graduates who demonstrate adaptability, interdisciplinary collaboration, and innovative problem-solving approaches. Consequently, universities that prioritise innovation achieve their academic objectives and prepare students for enduring employability.

Instructional methods for fostering creativity

How can universities cultivate creativity if it is fundamental to their ethos? The solution is in education, curriculum, and institutional culture.

1. **Interdisciplinary learning:** Creativity frequently emerges at the confluence of various fields. Universities must dismantle silos and permit students to enrol in interdisciplinary courses, fostering the exchange of ideas. A computer science student studying philosophy, or a psychology student investigating music, can yield unforeseen discoveries.

2. **Inquiry-based pedagogy:** Instruction should prioritise questioning, discovery, and experimentation above rote memorisation. Assignments must compel pupils to find innovative answers instead of merely reiterating current ones.

3. **Promoting risk and failure:** Creativity flourishes when children are unencumbered by the fear of failure. Universities ought to transition from punishing grading systems to evaluative approaches that incentivise inventiveness, critical thinking, and perseverance.

4. **Spaces for expression:** Universities ought to establish both physical and intellectual environments that enable students and staff to engage in exploration beyond the classroom — such as innovation laboratories, art studios, discussion forums, theatrical groups, and maker spaces.

5. **Mentorship and collaboration:** Faculty should function not as gatekeepers of knowledge, but as mentors who advise, motivate, and collaborate with students. Collaborative projects and peer learning foster creative confidence.

Creativity as a civic obligation

Creativity at colleges encompasses personal satisfaction, economic benefit, and civic aspects. Universities are integral to society, and their innovative outputs — whether new ideas, technology, or cultural narratives — influence the common future. An innovative university can assist in tackling urgent issues such as climate change, social injustice, public health, and ethical dilemmas in technology.

Furthermore, institutions must foster innovative citizens, rather than merely proficient employees. A creative mindset cultivates empathy, receptiveness, and critical involvement in democratic processes. In an era of societal polarisation and rampant misinformation, institutions must cultivate individuals capable of envisioning inclusive futures and challenging reductive narratives. Consequently, creativity is an ethical and civic obligation.

Challenges and tensions

Of course, that's easier to say than to achieve when it comes to encouraging creativity in colleges. Faculty members often have a lot of classes to teach, not enough money, and rules that make it hard for them to try new things. Students, on the other hand, face societal pressure to choose 'safe' job options, which doesn't provide much room for taking innovative risks.

There is also a conflict between institutional rules and intellectual independence. Universities need to find a middle ground between making sure that students are responsible and doing things right, and giving them the freedom to learn in new ways. Too much red tape or political meddling can stifle creativity, while too much freedom without responsibility can lead to mediocrity. So, the spirit of innovation needs to be protected and negotiated all the time.

Conclusion: Reclaiming the creative university

Amidst the myriad challenges confronting higher education — market exigencies, technological upheavals, and governmental oversight — the inclination to diminish universities to more utilitarian institutions is compelling. However, such an action would deprive them of their fundamental nature. Creativity is not a luxury that colleges can afford to forfeit; it is their essence.

To rekindle interest in universities as transformative venues, society must reaffirm creativity as their fundamental character. Governments should finance inquiry-based research. Administrators must safeguard realms of liberty. Faculty must mentor creatively. Students should venture to investigate beyond the curriculum.

The value of a university is determined not solely by the degrees it confers but by the ideas it cultivates, the creativity it fosters, and the opportunities it presents for humanity. A university devoid of innovation resembles a body lacking a soul. To sustain the pursuit of knowledge, creativity must maintain its vital essence.

THE WRITER IS THE DEAN - ACADEMIC AFFAIRS, GARDEN CITY UNIVERSITY, BANGALORE AND AN ADJUNCT FACULTY AT THE NATIONAL INSTITUTE OF ADVANCED STUDIES, BANGALORE

STATESMAN (P-11), 11 NOVEMBER 2025

International curricula: A gateway to global success

BIMA SINGH

As we see the global economy rapidly evolving, especially due to cross-border collaboration, education systems too must prepare students for a future that will have an interconnected world. While traditional academic pedagogies relied on rote learning, international curricula such as IB nurture the thinking and analytical capabilities of students, making them future-ready. These skill sets serve as a preparation for global competencies, and this approach prepares students for the evolving expectations of parents, while opening up opportunities to be successful in higher education and in careers throughout the globe.

Nurturing thinkers, not memorisers

The education system has shifted its focus to the holistic development of students with an emphasis on inquiry-based learning. Teamwork, critical thinking, and investigation are the key skills required by students. While it enhances the way students approach problem-solving, the IB curriculum makes higher education across the globe within reach as their acceptance to top colleges increases.

The IB curriculum is unique. It is a concept-driven, inquiry-led methodology that transcends conventional content-heavy education. It equips students to take control of their own learning by fostering a strong culture of independent thought, academic writing, and research. The IB curriculum has various ways to impart knowledge. The Extended Essay (EE), Creativity-Activity-Service (CAS), and Theory of Knowledge (TOK) are central to the IB curriculum that fosters a global perspective and interdisciplinary thinking. While the students prepare rigorously for academic achievement, the unique assessment practices help take another stride towards a global future.

Teaching beyond boundaries

NEP 2020 has been emphasising skills, enquiry-based learning, and a comprehensive approach to education. This makes IB curricula more relevant than ever. Interestingly, there are more takers for the IB curriculum not just in metro cities but in Tier 2 and Tier 3 cities as well. While it is still in its nascent stage, and there are multiple issues such as increased expenses, demand for qualified teachers, and a change in the mindset of parents and students, the IB curriculum is becoming more popular.

A solid foundation needs to be established to achieve a long-term vision, and it must be backed by government policies and leadership that can steer the education paradigm in the right direction.

Guiding students towards global readiness

For students to understand how international curricula can open the doors for more global opportunities, the schools need to evolve from being a mere counselling cell to a college guidance programme with a structured four-year framework, starting from Class nine.

We must ensure that our students follow a guided path towards university readiness starting in Grade nine. That is the time when students need to identify their strengths and opportunities. For this workshop, psychometric testing, and interest surveys can be included. University fairs and alumni panels enable students to gain exposure as they engage one-to-one with people who have already walked on the path that the young aspirants are moving towards.

To make the most of the opportunities that they have, students must establish their expertise in academic writing, and their course choices must reflect their aptitude and attitude.

Creating global exposure and opportunity

Students can visit Global University Fairs, where they can interact with various universities and explore career prospects, and there is a lot more that can be done. Students can be provided with direct international involvement through summer schools, virtual masterclasses, and cooperative academic projects, thereby strengthening the ties. Additionally, creating exchange and immersion programmes that will enhance cultural awareness and global learning is a must.

Parents who are aspiring to enrol their children in IB schools should view the academic course as a journey that will enable their child to become resilient and adaptable and be able to compete globally. To be able to get global opportunities and truly succeed in life, one must lay the foundation now and prepare future learners to ace what they set their heart to.

THE WRITER IS HEAD OF SCHOOL, DPS INTERNATIONAL

STATESMAN (P-11), 11 NOVEMBER 2025

Shaping tomorrow's educators today...

KRISHNASISH DASGUPTA

It is no secret that the world of education and its various domains are pretty fathomless, to say the least. Gamification, as a concept of sorts in education, is not something fairly new. The many game-based elements that teachers often use in the classrooms are an intriguing one indeed, and the purpose remains equally interesting as well.

It is rather simple- to enhance student-engagement and overall integrate and incorporate those learnt techniques into the entire learning process. For effective learning, gamification in classrooms often is a thing that promotes natural excitement among the students.

The Department of Education of Sitaram Mahato Memorial College, Purulia, and Baneswar Sarathibala Mahavidyalaya jointly presented a very insightful event recently. The entire event was held in collaboration with Boithoki, an academic forum spearheaded by professor and educator Ujjwal Mahato as part of their fortnightly online educational lecture-series.

A free-for-all lecture was presented online via Google Meet. Samrat Bisai, professor at Ramakrishna Mission Brahmananda College of Education, Rahara, was the primary speaker and academic analyst who spoke on 'Gamification in classroom: Navigating within and beyond'. Professor Bisai felt that students all across are very much used to the traditional method of learning involving lectures, classrooms, teachers, and finally the students. It is a somewhat sardonic reality that in the traditional method, students actually turn out to be 'silent listeners.'

It is in this context, 'gamification' always helps as it tends to make the curriculum attractive and paves the way for interactive, meaningful learning in the classroom.

Another RKMBCE professor, Manoranjan Pal, opined, "See, gamification in an educational setting can always leave a profound impact. Many classrooms in the country are multilingual. Hence, when you use a concept like gamification, it actually helps in the overall diversity of these classrooms."

Despite all kinds of challenges, gamification as a concept can invariably make learning both exciting as well as meaningful. For a country like India, often dubbed as a 'Linguistic Mosaic', linguistic diversity realistically poses some sort of threat as well as an opportunity for India's unity.

Blueprint for liberal arts education in the AI age

India must embrace an interdisciplinary approach. This trains the mind to connect disparate domains. As AI masters single domains, it is the human who will remain uniquely capable of seeing the whole

The liberal arts curriculum is where ethical imagination is forged. It trains students to ask sharper, more meaningful questions. SHUTTERSTOCK

Somak Raychaudhury

We stand at an inflection point in human history. Artificial Intelligence (AI) has moved from the realm of speculation to omnipresence — impacting significantly how we work and learn. Algorithms today compose music, design software, diagnose diseases, and mimic human reasoning. What began as a search for efficiency has become a new way of seeing and shaping the world.

As machines increasingly acquire the capacity to process, analyse, and even "think", the critical question before educators is not how to outpace technology, but how to prepare humanity to live wisely with it. If easily available AI applications can effortlessly assimilate existing knowledge from an ocean of resources, what then remains the purpose of institutional education?

The emergence of AI challenges every assumption about work and learning. For centuries, education focused on accumulating and transmitting information — on teaching students what to know. But in an era when information is abundant and often machine-generated, that approach has lost its primacy. The era of rote knowledge accumulation — of swallowing as much information as possible — is gradually coming to an end.

Therefore, with the advent of AI, the crisis we face is not a shortfall of information, but a deficiency of judgment. When a large language model (LLM) can produce an articulate analysis a few thousand words long in a matter of seconds, the human advantage lies not in replicating that skill, but in interrogating it — in asking whether the reasoning holds, whether the evidence is sound, and whether the conclusion is intuitively reasonable.

If LLMs can efficiently compile answers, the educator's objective should be to teach students how to effectively frame and ask questions. This, and the ability to discern the signal from the noise — is the essence of critical thinking.

Hence, judgment and conscious decision making have become the new essential literacy of the AI era. Critical thinking involves the ability to intelligently frame questions, to identify meaning amid noise, and to recognise where human responsibility must intervene. Our graduates need to be equipped to conduct a forensic examination of information, to evaluate the provenance of sources, and to detect systemic bias in algorithms and in the fundamental assumptions underpinning AI-generated conclusions.

As judgement and critical thinking become valuable skill sets for the AI future, this is precisely where a liberal arts education reclaims its central importance — as the essential, future-proofing curriculum for the age of intelligent machines. A true liberal arts education is a pedagogical architecture built on interdisciplinarity, spanning the humanities, social sciences, and the physical sciences. It allows the engineering student to study Immanuel Kant, the history major to learn astronomy, and the computer scientist to engage with ethics.

If you think of what Nalanda taught in the seventh-eighth centuries or even what Issac Newton was trained at in Cambridge in the 17th century, there were no hard barriers between subjects. Everybody had to learn some basic subjects — astronomy, law, literature, religion, and mathematics. Specialised subject categories in university curricula were essentially created much more recently, in the mid-19th century, when the purpose was to train people for certain specialised jobs.

In the AI age, we no longer need educational institutions that continue to teach in silos. Education must instead embrace an interdisciplinary approach, where ideas and insights flow freely across fields. Such an approach achieves two vital outcomes.

Firstly, this kind of education trains the mind to connect disparate domains. As AI masters single domains (a specific code base, subject domain or financial model), it is the human who remains uniquely capable of seeing the whole, of synthesising inputs from technology and society, from people and markets to form holistic and innovative strategies. This is the difference between data processing and wisdom.

Second, it cultivates the capacity for "first principles thinking" — the ability to break down complex problems into fundamental concepts. When AI changes the tools, a liberal arts education ensures the human understands the bedrock principles that govern science, human nature, and political economy, ensuring they can adapt to any new technological paradigm.

By integrating these diverse ways of thinking, the liberal arts and interdisciplinary model nurtures learners who are technically proficient and intellectually balanced individuals, with deep knowledge, critical understanding, and sound judgment. This model of education is quite common amongst global universities but is still at a nascent stage in India. As geopolitical dynamics shift, many Indian students are exploring opportunities for world class education in India. They will increasingly seek Indian universities that offer this interdisciplinary model of learning, which is both globally relevant and AI-ready.

Across Indian universities, students are increasingly using AI tools for their coursework, research, and creative projects. This rapid adoption reflects both the promise and peril of AI in education. While it can significantly enhance productivity and learning, it also raises pressing questions about authenticity, bias, and intellectual integrity. As students learn to use AI, they must also learn to think about AI — to understand its limitations, its ethical boundaries, and the human values that must guide its use. Without this grounding, we risk nurturing technical competence without moral consciousness.

The liberal arts curriculum — with its grounding in philosophy, history, and in scientific and quantitative thinking — is where ethical imagination is forged. It trains students to ask sharper, more meaningful questions rather than merely memorising answers. For instance, instead of simply learning how an algorithm works, a liberal arts-trained student might ask: "Whose data is being used to train this algorithm, and what biases might it carry?" This kind of education teaches humility. It teaches the complexity of human motivation, and it teaches that great power demands great responsibility. It does not just train future employees, it trains citizens and ethical leaders who will deploy AI responsibly.

Somak Raychaudhury is vice-chancellor and professor of physics, Ashoka University. The views expressed are personal

PIONEER (P-08), 12 NOVEMBER 2025

The Ostrich Effect cripples classroom progress

SAKSHI SETHI

2ND OPINION

THE PIONEER

In classrooms across the country-urban or rural, elite or modest — there exists a peculiar breed of educators who have perfected the art of selective blindness. These are the practitioners of what might be called the Ostrich Effect: the time — honoured skill of ignoring inconvenient truths while claiming to see everything else with hawk-like precision. They can catch a whispered secret from the last bench with uncanny accuracy, yet fail to notice that half the class has mentally checked out. They spot a passing chit instantly but seem blissfully unaware that their lesson plan, crafted in the pre-smartphone era, now holds the relevance of a typewriter at a coding boot camp.

The Ostrich Effect isn't just a teaching quirk — it's a full-blown lifestyle choice. For some, every issue in the classroom is blamed on a supposed "decline in student discipline." When test results disappoint, the stars are at fault-Mercury's retrograde, Jupiter's misalignment, or, of course, the mythical "loss of moral values." Anything but the possibility that their own approach might need an update. Why explore creative methods or technology-enhanced learning when one can cling to the comforting familiarity of dictation drills and the age-old threat of "I'll call your parents"? The phenomenon shines brightest during classroom observations. Where reflective educators see feedback as a ladder for growth, the ostrich-style teacher perceives it as a personal attack. Suggest a more student-led activity, and the reaction is pure drama: "But this is how I've always taught!" they protest, mistaking longevity for excellence. It's the educational equivalent of bragging about 25 years of driving experience while routinely ignoring traffic lights. Experience, after all, means little without evolution.

Parent-teacher meetings provide yet another stage for this performance. These sessions-ideally moments for collaboration-often turn into exercises in intellectual gymnastics. Faced with poor test scores or unfinished work, some teachers twist and turn until blame lands squarely on the parents. "Your child lacks discipline at home," they declare, conveniently forgetting their own ungraded assignments or absence of meaningful feedback. The student sits there silently, still unsure about integers, hoping someone notices. But that would mean lifting one's head out of the sand, and we can't have that, can we? Even professional development workshops-those rare chances to refresh and reimagine teaching-are treated by some with theatrical disinterest. Arms crossed, faces blank, they endure new ideas as if attending a lecture on the history of paperclips. Student engagement strategies? Emotional intelligence? Digital tools? Surely, they must be fads. After all, if chalk-and-talk worked forty years ago, why change now?

Yet, beneath the stubbornness lies something human: comfort. Familiar methods feel safe. Reflection feels risky. Acknowledging blind spots takes humility and humility is rarely comfortable. But education cannot thrive in comfort zones. Today's learners think, question, and process information differently. They need classrooms that evolve as quickly as the world around them.

If teaching is truly about preparing students for the future, then teachers must model adaptability, curiosity, and courage. The classroom is not a museum of traditions but a living ecosystem. It needs gardeners, not ostriches-educators who nurture growth, tend to changing needs, and take responsibility for what they cultivate. And, unlike ostriches, gardeners keep their heads up.

The writer is an educator and counsellor

PIONEER (P-09), 12 NOVEMBER 2025

The Institute for Defence Studies and Analyses at 60: The making of strategic thought

UTTAM KUMAR SINHA

When India faced its defining strategic crisis in the early 1960s, it was compelled to rethink what security truly meant. The 1962 War with China exposed not only military shortfalls but also an absence of intellectual preparedness. The young republic, still discovering the grammar of power, realised that ideas could be as critical to defence as armies or arsenals. From that period of national introspection emerged an institution that would shape India's strategic imagination - the Institute for Defence Studies and Analyses, now the Manohar Parrikar IDSA. Its establishment in 1965 marked India's decision to think systematically about power in a turbulent world.

The Institute's origins lie in a series of encounters abroad. In May 1964, Defence Minister YB Chavan and Defence Secretary PVR Rao travelled to Washington, DC, seeking ideas to modernise India's defence planning. There, they encountered the RAND Corporation — an institution that applied mathematical precision to questions of war and strategy. RAND's systems-analysis methods, championed by Robert McNamara's "whiz kid" Alain Enthoven, demonstrated how data and models could inform complex military decisions. Soon after, Enthoven was invited to New Delhi, where he proposed that India should establish its own RAND. Almost simultaneously, Alastair Buchan, the founding director of London's Institute for Strategic Studies (now IISS), arrived with a very different idea. Buchan viewed strategy as conversation — an exercise in context, interpretation, and policy dialogue rather than equations. Between these two approaches, India chose the latter. Lacking the resources for RAND's computational rigour but drawn to the British tradition of policy debate, it adopted the IISS model. That decision gave the Institute its defining temperament — conceptually rich and intellectually vibrant, yet marked by a persistent absence of quantitative rigour that continues to shape its analyses even today.

The mid-1960s were a charged moment in Indian politics. With Nehru gone and Lal Bahadur Shastri navigating post-war anxieties, national confidence required renewal. The 1965 War with Pakistan revived military morale but also exposed the need for coherent strategic planning. It was in this environment — uncertain yet purposeful — that the idea of an autonomous research body took form: one that could advise, critique, and think alongside the state while remaining independent of it.

On November 11, 1965, IDSA was formally registered as a society, with Major General Som Dutt — fresh from a fellowship at the IISS and formerly Commandant of the Defence Services Staff College, Wellington — as its first Director. During his London tenure, he authored two notable Adelphi Papers: The Defence of India's Northern Borders and India and the Bomb. In the latter, written soon after China's detonation of three atomic devices in 1966, he argued that India might one day need its own nuclear capability to maintain Asia's strategic balance.

Within three years, the Institute launched its first publication — the IDSA Journal. In his foreword, Home Minister YB Chavan captured the spirit of a changing era: "In this nuclear age, traditional principles of military operations begin to be in doubt... previous tenets of national security have to be re-examined and fresh ones evolved." It was a declaration of intellectual independence - questioning, analytical, and unafraid. The inaugural issue featured PVR Rao's essay on "National Defence Policy and the Higher Direction of War" and Lieutenant General GG Bewoor's study on "High Altitude Mountain Warfare," laying the groundwork for India's emerging defence discourse. Bewoor would later become the Army's eighth Chief of Staff.

Under K Subrahmanyam, IDSA began to forge a distinct intellectual identity within India's strategic community. A civil servant, Subrahmanyam returned in 1968 after a stint at the London School of Economics and a study tour of US institutions — joining first as Director (Programme) and soon after as Director.

At a time when open debate on national security was rare, he transformed IDSA into a forum of rigorous inquiry, insisting that it hold no official line but embrace diverse viewpoints. He often remarked that the Institute's true strength lay in its ability to sustain disagreement with dignity.

That ethos was tested almost immediately. In 1968, as the world's major powers - the United States, Soviet Union, and United Kingdom — advanced the draft of the Nuclear Non-Proliferation Treaty (NPT), India faced a critical policy dilemma. At IDSA, the debate was both intense and illuminating. Some argued that accession to the NPT would compromise India's sovereignty and erode its strategic autonomy, while others viewed participation as a constructive step towards reinforcing global norms of nuclear restraint. The Institute, true to its founding ethos, refrained from adopting an institutional position, allowing individual scholars to articulate their analyses independently. This pluralism of thought not only enriched the discourse but also underscored IDSA's enduring commitment to intellectual freedom and analytical integrity.

Among those who advanced this legacy were PR Chari and Jasjit Singh, who deepened IDSA's analytical influence through their scholarship and policy engagement. Later, K Santhanam brought a markedly different sensibility to the Institute. A nuclear scientist by training, Santy, as he was fondly known, had been part of the quartet that orchestrated India's 1998 nuclear tests alongside R Chidambaram, Anil Kakodkar, and APJ Abdul Kalam. When he took over as Director from 2001 to 2004, he infused into IDSA a scientist's discipline — rooted in modelling, systems thinking, and quantitative analysis — dimensions the Institute had long underplayed. If Subrahmanyam, the civil servant-scholar, had endowed IDSA with conceptual depth and a culture of debate, Santy sought to complement it with empirical precision. Both exemplified a shared conviction that India's strategic thought must remain informed, autonomous, and unswayed by political expediency.

This intellectual autonomy yielded a substantial corpus of scholarship. In 1977, Strategic Analysis was launched as a monthly journal, later transitioning into a peer-reviewed quarterly in 2002 and, in partnership with Routledge, into a bi-monthly publication in 2007. Over the decades, it has become a principal forum for India's security discourse, publishing influential analyses on nuclear policy, regional strategy, intelligence reform, and military modernisation.

Sixty years on, the Institute's founding purpose endures. Yet, despite its considerable contributions, IDSA has been slower to integrate quantitative and interdisciplinary methodologies into its research framework. This methodological gap continues to constrain the infusion of empirical rigour and analytical precision into India's strategic studies — a limitation that future scholarship must consciously address.

Sustainable future through knowledge and innovation

The future will be shaped not just by what we know, but by how we choose to use that knowledge. Science gives us the tools; wisdom determines their purpose. When guided by ethics and inclusivity, science becomes a bridge between human aspiration and planetary well-being

FIRST Column

SATENDRA SINGH

Science has always been the light that guides humankind through the darkness of the unknown. It is far more than a collection of data, laboratories, and formulae — it is a mindset, a way of looking at the world with curiosity, logic, and creativity. As the world celebrated "World Science Day for Peace and Development" on November 10, 2025, under the theme "The Role of Science in Sustainable Societies," we are reminded that science shapes not just our technologies but our destiny — a destiny rooted in peace, equity, and sustainability.

Science as the Foundation of Human Advancement

From the moment humans discovered fire to the decoding of the human genome, the story of civilisation has been powered by science. It has been the engine behind every leap in understanding and innovation, but at its core, science is not merely about invention — it is about improving lives and ensuring that progress does not rob future generations of their right to thrive.

The United Nations' Sustainable Development Goals (SDGs) provide a blueprint for global well-being, from eradicating poverty to ensuring clean energy and combating climate change. Every one of these 17 goals depends on science. Whether it is increasing agricultural productivity through biotechnology, designing vaccines that save millions, or creating cleaner energy systems, science provides the evidence-based tools needed to turn vision into reality. A truly sustainable society is one that listens to scientific insight and applies it wisely — growing food without degrading the soil, building cities without choking the air, and meeting human needs without harming the planet.

Science as the Key to a Sustainable World

Science allows humanity to understand how the Earth's systems — air, water, forests, and biodiversity-interconnect. It gives us the means to predict weather, conserve resources, and prepare for natural disasters.

India stands as a powerful example. The Indian Space Research Organisation (ISRO) has launched satellites that monitor monsoons, cyclones, and forest fires, while the India Meteorological Department (IMD) has significantly improved forecasting accuracy-saving countless lives.

Agricultural science, too, has evolved through innovations like climate-resilient crops and efficient irrigation systems. Initiatives like NICRA (National Innovations in Climate Resilient Agriculture) by ICAR are helping millions of farmers adapt to extreme climate changes and secure food for future generations. Renewable energy offers another shining example. India's transformation from a fossil-fuel-dependent economy to a renewable energy leader-through solar, wind, and green hydrogen-demonstrates how science and policy can together turn environmental challenges into opportunities.

THE THEME OF WORLD SCIENCE DAY FOR PEACE AND DEVELOPMENT 2025 — "THE ROLE OF SCIENCE IN SUSTAINABLE SOCIETIES" — REMINDS US THAT THE FUTURE WILL BE SHAPED NOT ONLY BY WHAT WE KNOW, BUT BY HOW WE CHOOSE TO USE THAT KNOWLEDGE

Blending Traditional Wisdom with Modern Science

The path to sustainability is not limited to high-tech laboratories. It also runs through the fields, forests, and villages where generations have practised indigenous science.

Traditional knowledge systems-such as organic farming, rainwater harvesting, and herbal medicine-have long sustained communities in harmony with nature. Today, modern science is rediscovering and validating this wisdom. Farmers combine traditional practices with digital weather forecasts and satellite-based advisories. Ayurveda and modern biomedicine are being integrated to offer holistic health solutions. When traditional knowledge and modern science work together, they create ecosystems that are both resilient and deeply rooted in culture.

Science and Climate Action: A Global Responsibility

Climate change is the defining challenge of our time — and science is our most powerful ally. From uncovering the human causes of global warming to developing mitigation and adaptation strategies, scientific research has guided international action. Global collaboration has strengthened this effort. Nations share satellite data, co-develop early warning systems, and exchange knowledge about disaster preparedness. This is science diplomacy — where cooperation replaces conflict and shared understanding becomes the foundation for peace. India has been an active player in this movement. Initiatives such as the International Solar Alliance (ISA) and partnerships under SAARC and BIMSTEC showcase how scientific collaboration can build regional resilience. When nations connect through science, they build trust and trust builds peace.

Science as a Bridge for Peace and Diplomacy

"Science for Peace" is not just a slogan; it is a philosophy. Scientific collaboration transcends political boundaries because the problems humanity faces — climate change, pandemics, natural disasters-do not recognise borders.

The Intergovernmental Panel on Climate Change (IPCC) stands as a symbol of this cooperation. Thousands of scientists across the world contribute to its reports, enabling leaders to make informed decisions for the planet's collective good. The COVID-19 pandemic further reminded the world that when scientists unite across continents, they can save lives faster than any army or treaty.

Innovation, Industry, and the Path to Sustainability

Science fuels innovation and innovation drives progress. Across India, young entrepreneurs and start-ups are using science to solve local problems: from recycling waste to developing renewable energy solutions and improving healthcare access. Programmes such as Start-up India and Atal Innovation Mission have nurtured a generation of innovators who view sustainability not as a constraint but as a catalyst for growth. The use of AI in flood prediction, drones in agriculture, and 3D printing in affordable housing are transforming communities. The future will belong to those who innovate responsibly — balancing economic ambition with ecological care.

Science Education and Public Awareness

For science to truly serve humanity, it must move beyond laboratories and reach every citizen.

Science education must be strengthened-particularly in rural and underserved areas — so that children grow up with curiosity and critical thinking. Promoting STEM education (science, technology, engineering, and mathematics) and encouraging more girls and women to pursue scientific careers will unlock vast reservoirs of talent.

However, beyond education, public engagement is essential. Citizen science projects, environmental clubs, and science fairs can help communities link their everyday actions — such as water conservation and waste segregation-to the broader global goals of sustainability. A scientifically literate society makes better decisions, demands accountability, and fosters an environment of rational problem-solving.

Science in Policy and Governance

Effective governance must rest on evidence. From urban development to agriculture, policymaking informed by scientific data ensures efficiency and long-term impact. India's national institutions — such as NITI Aayog and the NDMA — already integrate research into public policy. Geospatial data, satellite imagery, and climate models are increasingly employed to design infrastructure that anticipates future risks. Strengthening the science-policy interface, where scientists and policymakers collaborate directly, is essential for creating adaptive and resilient systems of governance.

The Ethical Compass of Sciences

As we celebrate the power of science, we must also recognise its ethical boundaries. The rapid advancement of artificial intelligence, genetic engineering, and nuclear research poses profound moral questions.

Science must always serve humanity, never threaten it. A sustainable society advances knowledge with humility and compassion, using discovery as a means to protect life, preserve dignity, and promote equality. Responsibility must guide every breakthrough.

A Common Vision for the Future

The theme of World Science Day for Peace and Development 2025-"The Role of Science in Sustainable Societies" — reminds us that the future will be shaped not only by what we know, but by how we choose to use that knowledge.

Science provides us with the tools; wisdom determines their purpose. When guided by ethics and inclusivity, science becomes a bridge between human aspiration and planetary well-being.

It teaches us humility — for every answer leads to new questions, and every discovery to new responsibilities. Let us, therefore, commit to a culture that values inquiry, respects innovation, and ensures that science always serves peace and sustainability.

As Albert Einstein wisely said, "Peace cannot be kept by force; it can only be achieved by understanding." And understanding — the true essence of science — remains humanity's greatest hope for a peaceful and sustainable future.

The writer is a former Executive Director of the National Institute of Disaster Management

dailypioneer

@TheDailyPioneer

dailypioneer/satendra-singh-158558

HINDU (P-9), 13 NOVEMBER 2025

The limits of international branch campuses

Philip G. Altbach

Professor Emeritus and Distinguished Fellow, Center for International Higher Education, Boston College, U.S.

Eldho Mathews

Programme Officer (Internationalisation) at the Kerala State Higher Education Council

Last month, British Prime Minister Keir Starmer arrived in India with a planeload of vice chancellors. The Indian and U.K. governments announced that several U.K. universities plan to open branch campuses in India. Some of them have already received University Grants Commission (UGC) approval, while others are in the early stages of the application process. The fact that Mr. Starmer led this delegation can certainly speed up the regulatory approvals and establish these new campuses as legitimate ventures. However, it is worth analysing this initiative.

The need for branch campuses

The recent changes in the India-U.K. educational partnership are tied to the broader India-U.K. Vision 2035 and the recently signed India-U.K. Comprehensive Economic and Trade Agreement. Also, British higher education is undergoing an unprecedented financial crisis, created both by inadequate support from the Starmer government and by a decline in the number of international students going to the U.K. and paying high fees. It is likely that some British universities are looking to a move to India as a way of earning income from Indians without importing students. But will Indians want to study at a branch campus as a substitute for the "real thing"? Will the branches apply the same standards both for student performance and faculty quality in India as they do on their home campuses?

Branch campuses do not always succeed. And when they fail, students are often left without alternatives. In recent years, several international branch campuses faced significant setbacks. Texas A&M University closed its Qatar campus after two decades of operation. In Europe, the University of Kent's Brussels campus was shut down due to financial pressures. These developments reveal a growing fragility in the operation of international branch campuses where global uncertainties and local market realities challenge the sustainability of such ventures. This risk should be an eye-opener for India, where clear contingency frameworks are yet to be outlined. One of the major gaps in current UGC regulations is the lack of a clear safety net for students, especially if a branch campus were to suddenly shut down.

Just what is a branch campus? Is it a full academic institution transplanted from one country to another, with a campus, a variety of offerings, perhaps some focus on research, facilities for student services, and the like? Or is it a floor of an office complex offering a few specialised degree programmes deemed to be attractive to target audiences and taught by local faculty or professors from the home university who fly in for a few weeks or perhaps teach only on Zoom? Globally, there seem to be many more of the latter.

Experts point out that building a "real" branch is expensive and time consuming. Most "real" branch campuses around the world have been financed by governments or in some cases by property developers. For example, the campus of New York University in Abu Dhabi was built using funds from the UAE. Foreign universities are seldom willing to invest in actually building overseas campuses. So, it is worth asking whether the British universities will be making significant investments to build their branches in India or whether they simply intend to leverage local partnerships and facilities.

There is also the question of teaching. Will these branches provide full-time faculty from their home campuses? Experience shows that this is seldom the case. As a result, these campuses have to rely primarily on local faculty. If that is the case, what then will distinguish these branch campuses from India's emerging elite and semi-elite universities?

Also, will the branches have a research mission? The vast majority of branch campuses worldwide are only teaching outposts, as building research capacity is expensive. Indeed, research has been a point of contention between the Chinese government and a number of the branch campuses in China – including British branches of Nottingham in Ningbo and Liverpool in Suzhou.

In India, the question is whether the branch campuses will be allowed to engage with the national research ecosystem by participating in the schemes of the Indian Council of Social Science Research or Department of Science and Technology or remain isolated teaching units. Their contribution to India's research output and innovation metrics would be meaningful only if they are incentivised to undertake research collaborations and capacity-building.

Balancing ambition and reality

The ultimate value of foreign branch campuses will depend less on their brand and more on their ability to offer something not readily available in India. If handled well, branch campuses can provide access for students as India expands higher education enrolments. They can provide useful examples of innovative government and management practices that may be relevant for India's often sclerotic higher education system. However, the absence of clear frameworks on accreditation and quality assurance leaves uncertainty about how such collaborations will align with national standards and protect student interests. The question of fee structures adds another layer of complexity because India's many semi-elite and elite private universities already offer globally benchmarked programmes with international partnerships. As India approaches an era of branch campuses, there are significant possibilities, but *caveat emptor*.

The ultimate value of foreign branch campuses will depend less on their brand and more on their ability to offer something not readily available in India

TELEGRAPH (P-12), 13 NOVEMBER 2025

On Donald Trump's compact for higher education

Forced to choose

SAIKAT MAJUMDAR

Donald Trump's compact for higher education signals a wholly new way in which universities can be yoked to the ideology of State administration. This new model of administrative authoritarianism is likely to have a large impact worldwide, including on the higher education landscape in India where political intervention tends to happen through direct policy and administrative decisions by the State. Trump's compact, on the other hand, is offered as a *choice* to US universities — to those "Institutions that want to quickly return to the pursuit of Truth and Achievement". Institutions which accept the compact will gain access to significant federal funds. Their adherence to the terms of the contract will be reviewed annually by an external agency, and non-compliance will be penalised by the return of any funds obtained.

An electoral base sceptical of scientific research, including that on environmental degradation and economic realities, now faces a promise of truth and achievement untarnished by ideology. Such is the nature of the post-truth world's return to the pursuit of Truth. Universities entering the compact will have to institute a range of policy reforms, including identity-blind student admission and financial support as well as faculty and staff appointments, an open climate in civil discourse on campus, institutional neutrality *vis-à-vis* socio-political incidents, a five-year tuition freeze for American students with particular preference for students pursuing the hard sciences, clear and neutral standards for grading, and the reduction of foreign involvement and recruitment of international students.

Nine universities made up the cohort to whom the compact was offered on October 1 — Brown, Dartmouth, MIT, the universities of Arizona, Pennsylvania, Southern California, Texas at Austin, Virginia, and Vanderbilt. Except Vanderbilt and UT Austin, which have offered ambiguous responses, all the others have rejected the compact. The federal administration has now offered the compact to institutions nationwide. On October 27, New College of Florida became the first institution to offer to accept the compact.

The compact is a departure from Trump's bitter and intense face-offs over the issue of anti-Semitism on university campuses. On a superficial level, the compact offers a degree of fairness and support for mainstream American values and interests. But there is no doubt about which America it seeks to support; suppressed, minoritised, and immigrant interests have no place here. The open marketplace of ideas implies space for conservative voices; non-identarian admission and appointment signal the end of institutional support for minorities. Foreign students and staff are no longer welcome.

Brown University: principled stance

It's a fairness that appeals to Trump's support base. It can even win him some new ones. A five-year tuition freeze for American students may resonate with a population that has become exhausted with astronomical sticker prices on college degrees and is increasingly unconvinced about their worth. A significant part of the mainstream (worldwide) has increasingly become disenchanted, indeed antagonised, by what they see as the domination of Left-liberal views on campus. It explains why the outrage against the bullying of universities has primarily been limited to students and faculty and has not drawn significant support beyond the intelligentsia. The mainstream may very well see the idea of a fair marketplace as a balance-setter, even though there is little doubt that this call for fairness actually aims to swing the ideological pendulum to the other end.

"The increasing costs of higher education are weakening domestic popular political support for higher education," the former Canadian Opposition leader, Michael Ignatieff, recently said at the Times Higher Education's Going Global Conference in Toronto. "It becomes easier and easier for populist politicians to attack higher education as a kind of elite luxury that the taxpayer pays for." Ignatieff knows the bitter reality personally; he was the rector of Central European University from 2016 to 2021, an institution that, for the most part, was forced to leave Hungary for Austria by the Hungarian prime minister, Viktor Orbán, the pioneer of illiberal democracy in Europe, sometimes called 'Trump before Trump'. Ignatieff points out Orbán was "the master" who had learned before anyone else "that controlling the universities that recruit and train elites means they can eventually control the political system."

I felt the close breath of this ideological struggle between the right-wing Hungarian government and a weakened Central European University this summer during my stint as a Fellow at the Institute of Advanced Study in the eviscerated CEU campus in Budapest. Orbán has exploited the legal vulnerability of an internationally chartered university to force out of Hungary the institution supported by his arch-enemy, the Hungarian-Jewish philanthropist, George Soros. While ideology continues to fuel the hostility between universities and populist dictatorships worldwide, the latter's preferred modes of interference and domination remain legalistic and bureaucratic. We see this with the current regime in India where public institutions are structurally dependent on state or Central administrations, not only for funds but also for staff appointments, including the constitutionally-mandated gubernatorial appointment of vice-chancellors and faculty recruitment through networks of political connection and party loyalty.

Trump's compact is very different; it is in clever but superficial accordance with the character of American capitalism. It makes its appearance as a choice offered to universities that becomes for them a favourable financial transaction. But as a national measure that is now open to institutions across 50 states, it is also what Ignatieff calls "a 'renationalization' of one of the most outward-looking educational systems in the world." For a political party that has always pushed for less, not more, government, this striking opportunism seeks to bring what is possibly the greatest space for dissent, free thought, diversity and internationalism under administrative and ideological control. But right now, it is the carrot that looms large, not the stick. Choice, money, and transaction — aren't these the fundamental markers of the free market? But by what sleight-of-hand does the carrot melt into the stick?

Saikat Majumdar is Professor of English and Creative Writing at Ashoka University and writes here in his personal capacity

TRIBUNE, (P-6), 13 NOVEMBER 2025

HP's joblessness

It reflects fault lines of the state's economy

HIMACHAL Pradesh, often praised for its high literacy and human development indices, now faces a grim paradox — one in every three young persons is unemployed. The latest Periodic Labour Force Survey (PLFS) puts the youth unemployment rate (ages 15–29) at a staggering 33.9 per cent, up from 29.6 per cent in the April–June 2025 quarter. In contrast, Punjab's rate eased to 18.9 per cent, Haryana's dipped slightly to 15.4 per cent, while the all-India average stood at 14.8 per cent.

The hill state's joblessness is not new, but its scale has become alarming. Behind the bleak figures lie structural imbalances: a limited industrial base, seasonal tourism and a disproportionate dependence on agriculture and government employment. The state's educated youth, many of them degree-holders, shun low-paying private sector work and await elusive government vacancies. As a result, thousands of qualified applicants compete for a handful of posts, while others migrate in search of work. The gender gap is equally stark. Unemployment among educated women remains far higher than among men, reflecting both social norms and the lack of suitable job opportunities. In rural areas too, mechanisation and shrinking farm sizes have reduced informal work options, swelling the ranks of the jobless.

The state government cannot afford to remain complacent. It must move beyond recruitment promises and chart a comprehensive employment strategy. Expanding small-scale manufacturing, agri-processing and eco-tourism can help absorb educated youth. Equally crucial is aligning skill training with market demand, promoting start-ups and incentivising private sector participation in hill-friendly industries such as renewable energy and food-processing. Himachal's high literacy is an asset, but without jobs, it risks becoming a source of frustration and migration. The growing army of jobless youth should serve as a warning. Development must not only educate but also employ.

TRIBUNE, (P-7), 13 NOVEMBER 2025

Democracy vs control: The tug of war in PU

ROMI TAIN
EX-DEAN, ARTS FACULTY, PU,
& EX-PRESIDENT, PUTA

NO POINT: The most question remains unanswered amid varied viewpoints on PU's governance reforms. FILE

The long-drawn agitation in PU, which attracted a huge response from political parties, kisan and mazdoor unions, students' organisations and civil society, had begun as a students' protest against an affidavit to be submitted by the students to the effect that they would not take part in any protest in the university premises.

In the meantime, the Central government issued a notification on October 28 overhauling the 76-year-old democratically elected representative governing structure of Punjab University (PU), known as the Senate (supreme legislative) and the Syndicate (executive body). However, the long-awaited but complicated issue of Senate reforms, which goes back to the tenure of Vice-Chancellor Prof MM Puri, remains inconclusive.

Since then, though the reform issue had become dormant for a long time, it picked up momentum during the turbulent tenure of the vice-chancellorship of Prof Arun K Grover, who preferred to conduct the proceedings of the Senate independent of factional politics.

It was also during his tenure that a National Assessment and Accreditation Council (NAAC) committee (March 2015) underlined the need for restructuring the PU Senate and the procedure for the appointment of deans.

At the same time, on October 8, 2015, the then president of the Punjab University Teachers Association (PUTA), who was also a nominated member of the Senate, submitted a proposal for governance reforms. They were put up at the Syndicate meeting, leading to the formation of a 16-member Governance Reforms Committee (GRC) on November 28, 2015.

Chaired by a former chief justice of a high court, it recommended the constitution of three sub-committees to look into reforms, comprising amendments in the PU Act, changes in PU statutes/regulations and improvements by delegation within the regulations. Their reports were put before the GRC and several special invitees and forwarded to the Syndicate and Senate members. They were also submitted to the high court in the PIL awaiting consideration.

The Senate reforms stem from the modification needed in the PU Act (1947) that was carved out of the dated Indian Universities Act (1904), which was designed to fulfil the governing requirements of the then evolving publicly funded university that had come into existence in 1882.

The graduate constituency, the clause of allotment of faculties in four disciplines to a given Senate and the concept of nihil-members to teach faculty — this was the required arrangement at that time in the absence of provision of the university's own inhouse faculty.

According to such an arrangement, any two Senate members in a given faculty could join hands to bring in an 'added member' from among the affiliated college lecturers and other professionals in their respective faculties.

It was after the Partition, when the university was relocated in east Punjab, that professors and heads of university department were allowed to be included in the faculties of their respective domains as 'ex-officio members under the PU Act (1947). The 'faculty constituency' in the Senate comprised six elected Senators.

Despite the Senate initiatives that began in 2015, including an affidavit filed by the Vice-Chancellor on governance reforms and financial concerns of PU in a PIL initiated suo moto by the Chief Justice of Punjab and Haryana High Court in October 2019, two terms of the PU Senate (2016-22 and 2020-26) have been completed without any action to that effect.

> Those arguing for status quo fail to justify the outmoded stance of the pristine PU calendar in the much-changed scenario of contemporary times.

It is pertinent to recall the independent initiative of the Chancellor, PU, who deputed his emissary to Chandigarh to consult with all stakeholders before the initiation of the elections to the Senate of 2020-24. The term of the last Senate ended on October 31, 2024 without the approval of the mandatory election schedule for the next Senate of 2025-28, probably given the sub-judice status of the election process for the previous Senate.

Moreover, since the exit of the last VC, no Senate meeting has been held. It has led to a legitimate democratic governance vacuum in PU's administrative structure, giving rise to various kinds of opinion about dismantling PU's heritage governance bodies and replacing them with a nominated, centralised structure, as existing in other state and Central universities.

It is also being discussed across varied stakeholders that PU evolved in unique circumstances during the colonial regime as the only Punjab heritage university which was established with publicly collected funds after the coming up of the three foundational universities of Calcutta, Madras and Bombay. And it was for this reason that its uniqueness needed to be preserved. The Senate and Syndicate constitute the epicentre of PU's unique academic heritage status.

It was this status of PU that was highlighted by voices opposing the Gazette notification issued on October 28. It sent shockwaves through PU stakeholder circles, reverberating from Chandigarh to villages in the interior of Punjab.

What gave further spur to the spell of opposition was the delicate time of the announcement of the notification (November 1, 2025). It coincided with the re-organisation of the state (November 1, 1966) as also the ongoing high-profile election campaigns in the Tarn Taran Assembly seat, which is being projected as an emerging trend, setting the tone for the 2027 Punjab Assembly elections and 2029 parliamentary elections.

Yet another factor that gave impetus to the opposition against the notification was the geographical placement of PU in Chandigarh, the capital of two states with its union territory status. Thus, any issue related with the governance of the university gets immediately linked with the larger political dynamics of the state, so much so that any attempt to dilute the university's democratic character is seen as weakening Punjab's claim over Chandigarh.

What led to the exacerbation of the problem was the Centre first putting on hold the notification, with a rider about its implementation, and later withdrawing it on November 7, 2025. Though student organisations have welcomed the decision, they refuse to wind up their struggle until the schedule for the Senate election is announced. It is alleged that the election has already been deliberately delayed for a year by the Centre.

All said and done, the most question remains unanswered amid the varied viewpoints on PU's governance reforms. Those arguing for status quo, citing the PU's heritage character, fail to justify the outmoded stance of the pristine PU calendar in the much-changed scenario of contemporary times, in comparison to those prevailing at the time the Indian Universities Act (1904) and PU Act (1947) came up. And those advocating major modifications to the PU Act 1947 have failed to justify the dilution of the democratic character of the Senate and Syndicate.

PU should be saved from both extremes: one, the factionalism emanating from the old set up to the disadvantage of the academic domain; and two, the bureaucratic and hegemonic control of the remodelled governance body as unfolded in the notification that was later rescinded.

QUICK CROSSWORD

ASIAN AGE (P-5), 14 NOVEMBER 2025

As shutdown ends, Trump U-turn on H-1B, edu visas?

The end of the longest-ever government shutdown in the United States marks a moment of relief for millions of Americans, especially those working for the government. The deal allows the US federal government to borrow about $1.8 trillion a year to its current $38-trillion debt.

While Democrats appear to have conceded defeat by agreeing to back the funding bill, surveys showed that 50 per cent of Americans blamed Republicans for the shutdown, while 47 per cent blamed Democrats.

However, the 43-day shutdown of the administration does not reflect well on the world's superpower — something that rarely happens in other countries. Funding is the most important power vested in the legislature to control the President. The shutdown is not good for the US, either, especially when it has to compete with a tough competitor like China. The Trump administration recently had to settle for a bad compromise with China after it realised that the economic costs are more than anticipated.

After ending the feud with China, Mr Trump appears to be keen on rebuilding America's strengths to play long haul with Beijing. As part of this, Mr Trump appears to be keen on dialing back his restrictive policies on immigration.

In an interview with an American news channel, Mr Trump bluntly told the interviewer that people cannot be taken off an unemployment line and put onto a factory floor to make missiles — an accurate description of the limitations of the native US talent pool.

Unlike other leaders, Mr Trump prefers to adopt a transactional approach to resolving the problems at hand, while announcing measures that cheer his support base hastily

Unlike other leaders in the United States, Mr Trump prefers to adopt a transactional approach to resolving the problems at hand. As such, he announces measures that cheer his support base; and when things don't work, he reverts to old methods — earning him the unflattering epithet "TACO", or "Trump Always Chickens Out".

While Mr Trump faced the ire of his own party leaders for softening his stance on H-1B visas, treasury secretary Scott Bessant — defending Mr Trump's comments — said the US would like foreign workers to stay in America for seven or eight years to train native workers and then return home.

Mr Bessant's comments further hint at the Trump administration's determination to scale back its restrictions on temporary work visas and foreign student visas. Mr Trump's remarks in the interview appear to be premeditated to revive discussion on the shortage of talent in the US ahead of easing those restrictions.

Apart from the economic repercussions, the recent elections in a few American states — where the Republicans suffered reversals — might have made Mr Trump realise the diminishing marginal utility of his tough actions.

The electoral reversals and his dramatic compromise with China appear to have made Mr Trump and his team understand that emotions do not help them make good policy. The Trump administration may, therefore, pursue a graded approach to immigration by selectively allowing highly talented foreigners to come in while keeping its immigration gates closed to all and sundry. For Indians who are keen on US visas, the bar could remain high; so work harder for success.

ASSAM TRIBUNE (P-6), 14 NOVEMBER 2025

Giving children the right to be heard

Dr Namrata Gogoi

True child empowerment begins with listening, empathy, and emotional learning that nurture mental wellbeing beyond academics or celebration.

Each year, the month of November brings two occasions that centre on the same idea but in different ways – November 14, India's Children's Day, which celebrates Pandit Jawaharlal Nehru's affection for children, and November 20, World Children's Day, observed globally by UNICEF. The theme for this year's World Children's Day, 'My Day, My Rights,' reminds us that childhood is not only to be cherished but also to be respected. It calls for listening to children – not merely celebrating them once a year, but recognising their right to feel, to question, and to be heard.

Yet, behind the cheerful programmes and colourful posts lies a quiet crisis. In 2022, India recorded over 13,000 student suicides – the highest in ten years. Just this month, in an unfortunate incident, a nine-year-old girl in Jaipur jumped from her school's fourth floor and died instantly. The tragedy leaves us asking the same painful question: What drives a child to such despair? There are many such stories across the country, each pointing to the same truth – we are missing something vital in the way we raise, teach, and connect with our children.

Children today live in contradictions. They have more comfort, technology, and opportunity than ever, yet many feel lonelier than before. On one hand, there are children growing up in the 'Six-Pocket Syndrome' – surrounded by doting adults who give everything except time and boundaries. On the other, there are children raised largely by caretakers while parents juggle work and responsibilities. Daniel Goleman once described the family as an "emotional crucible" – the place where empathy, trust, and self-control are first learned. When that crucible is filled with things but devoid of presence, emotional growth weakens. Surrounded by people but starved of attention, many children turn to screens and social media for the comfort and connection they can't find elsewhere.

The issue, however, is not only in what children experience but in what we neglect to teach them. Schools teach them how to calculate, memorise, and compete, but rarely how to reflect, empathise, or communicate. Goleman's framework for Emotional Intelligence (EQ) identifies four core areas – self-awareness, self-management, social awareness, and relationship management. When these are missing, we see familiar patterns: anxiety mistaken for discipline, anger misread as confidence, and isolation mistaken for calm.

This is where Social-Emotional Learning (SEL) can help. It doesn't mean another subject in the timetable. SEL, when woven into everyday teaching, helps children recognise emotions, manage them, and relate better to others – preparing them not only for exams but for life itself. It means building small habits – checking in with how children feel, helping them name emotions, encouraging them to resolve conflicts through words, not anger, and much more. A few minutes a day spent listening or reflecting can make school a safer, kinder space. These are not 'soft' skills; they are life skills that protect a child's mental health long before therapy is ever needed.

Communication gives these emotional skills their voice. Without emotional understanding, words become hollow; without expression, emotions remain trapped. Communication isn't about speaking well – it's about connecting. When a child says, "I'm scared," and we reply, "Tell me what makes you feel that way," instead of "Don't cry, be brave" we teach them that their feelings are valid. When we listen without judging or rushing to fix, we show them that emotions are not weaknesses.

Many of us – parents, teachers, and adults alike – are quick to advise when what a child really needs is for us to listen. Yet, the best way to teach emotional balance is to model it – admitting mistakes, apologising when wrong, and staying composed in frustration. Children learn emotional behaviour not from our words, but from our reactions.

Technology, meanwhile, adds another layer of strain. Children text faster than they talk, replacing emotion with emojis. Their friendships unfold on screens, yet they struggle with real-life conversation. The illusion of being connected conceals deep isolation. The answer isn't to remove technology but to restore conversation – to bring back small, real moments of attention: family meals without screens, bedtime chats, a few minutes of sharing about the day.

Who, then, is responsible for this growing emotional deficit – parents, teachers, society, or the children themselves? The truth is that responsibility is shared. The solution, too, must be shared: families that listen before they judge, schools that value empathy alongside excellence, and a society that measures success not only in grades but in grounded, resilient minds.

The UNICEF theme 'My Day, My Rights' reminds us that rights begin where understanding begins. The right to education means little if a child is too anxious to ask a question; the right to protection means little if they cannot say they feel unsafe. Empowering children to express themselves clearly and kindly – and teaching adults to listen with patience – is the surest way to honour those rights.

This Children's Day and World Children's Day, may we celebrate not with performances or prizes, but with presence and empathy. Because before a child learns to dream or achieve, they must first learn – and be allowed – to be heard.

(The author is an educator and certified Emotional Intelligence coach)

ECONOMICS TIMES (P-10), 14 NOVEMBER 2025

Teach Kids Gender Empathy in Schools

Earlier this month, during a hearing on the reported misuse of Protection of Children from Sexual Offences (Pocso) Act, advocate Sandeep Deshmukh urged the Supreme Court to make it mandatory for all schools — government-aided or otherwise — to educate students on the 'folly and drastic consequences' of rape. This, Deshmukh elaborated, should mean children in schools being taught that violating another's privacy and dignity is not only wrong but is also a crime, and that ignorance of the law is no excuse. Driving home the point, especially to boys, that sexually abusing or assaulting someone is a serious crime is a workable, necessary idea. Driving out socially tolerated misogyny is another challenge that schools must take up.

Along with such awareness, schoolchildren — boys *and* girls — should be taught gender equality and sensitivity. Impressionable minds before reaching, or on the brink of, puberty have a far better chance of imbibing these values than their older counterparts. Also, with families susceptible to patriarchal moulding, biases, stereotypes and condoning, it is the school where planting these values has the best chance of taking root for future adults.

India recorded 29,670 rapes in 2023 — roughly 81 a day. Alarmingly, but perhaps unsurprisingly, majority of perpetrators are known to survivors: family, friends and neighbours. Schools, government and private, must institutionalise this education, not as a one-off 'special class' or workshop, but as a subject on the lines of civics or moral science woven into the primary school curriculum. More than throwing numbers at them and teaching what is lawful and unlawful, it's necessary to inculcate in young Indians gender empathy. Let schools embrace this task in earnest.

HINDUSTAN TIMES (P-18), 14 NOVEMBER 2025

[OUR TAKE]

Trump rethinks HIB visa stance

The welcome shift benefits India, a major supply line of skilled workers into the US

It was TACO (Trump always chickens out) time again, as US President Donald Trump dialled down the emphasis on the immigration of skilled workers into the US. Less than two months after he raised H-1B visa fees to a prohibitive $100,000 — this amount is higher than the median wage for entry-level H-1B employees — Trump has accepted that the US cannot do without skilled migrants from other countries. To be sure, Trump's initial H-1B bombshell was diluted much earlier when his administration clarified that those shifting their US visa status to H-1B — this would include university students etc. in the US — need not pay the high fees.

Trump's change of stance is perfectly rational. The US and its blue-collar workforce are right about America's decline as a manufacturing power, a position which they first ceded to the Japanese, and eventually to the Chinese. But the US as a whole has undergone anything but economic decline, not just in the realm of finance but also, cutting-edge science and technology. A lot of this success has come from the work done by skilled migrants of other nationalities in the US who have either studied in America or migrated there to pursue better employment opportunities. Asia, primarily China and India, but also other smaller countries, has been the main supply line of skilled workers in the US, as was reported in these pages a couple of days ago.

Rationality aside, Trump's about-turn from his hawkish stance on skilled immigrants and the regulations concerning them also amounts to a partisan act by him, as far as the ideological divide between his supporters in the Make America Great Again (MAGA) and big business camps is concerned. The former has been critical of the ecosystem that makes the US an attractive place for skilled migrants, while the latter has been consistently underlining their centrality to the fortunes of US business and its overall economic and technological prowess.

For a country like India, which has been the biggest beneficiary of the H-1B visa programme by a distance and is also one of the biggest sources of international students in the US, all this is good news. This, however, should not lead to complacency but yet another lesson that there is no other option but a continuous, patient and nimble engagement with Trump's America.

TRIBUNE, (P-6), 14 NOVEMBER 2025

Academic autonomy under siege

Enforcing a one-size-fits-all governance model can hit India's standing in science & technology

DINESH C SHARMA
SCIENCE COMMENTATOR

ADMINISTRATIVE CONTROL : The Indian Statistical Institute, established by physicist-turned-statistician PC Mahalanobis nearly a century ago, is on the radar of the Central government. FILE PHOTO

BIZARRE and somewhat amusing developments are taking place in the world of science and technology in India. A national science academy, which had famously refused to make APJ Abdul Kalam its Fellow, bestowed upon industrialist Mukesh Ambani its Fellowship — an honour till now reserved only for scientists having stellar academic and research achievements. A top technological institution carried out 'artificial) rain' supposedly to address poor air quality in Delhi, knowing fully well that there was no scientific basis for doing so. It did so just to fulfil the wishes of the state government.

A Union minister dishonoured Vikram Sarabhai, visionary founder of India's space programme, at a public forum by saying that Sarabhai used to carry rockets on a bicycle as we had no resources. He apparently did this to justify his absurd claim that Indian achievements in space were all due to resources made available 2014 onwards by the Narendra Modi government.

These recent developments may seem isolated and unconnected, but they are not. They are part of a long chain in recent years during which our scientific, research and academic institutions have been losing their autonomy one by one. Some have been forced to fall in line, while others have decided to surrender voluntarily.

A fledgling Indian Space Research Organisation (ISRO) had the courage to turn down a request from Prime Minister Indira Gandhi in 1980 to send an Indian astronaut on a Soviet mission. It was not an act of defiance but a polite refusal based on sound arguments (ISRO was then busy making its first satellites and rockets and had no human flight programme on its agenda), which the PM was graceful enough to accept. She then assigned the task to the Indian Air Force, resulting in Rakesh Sharma's space journey in 1984. ISRO is still autonomous on paper, but it has no courage left to correct the minister when he disrespects its founder publicly.

Similar is the case of the Indian National Science Academy (INSA). Though it has been supported financially by the Centre for decades, it was not the handmaiden of the government till recently. In 2010, at the height of the controversy over genetically modified (GM) foods, the INSA joined two other science academies in emphasising that GM food crops should be thoroughly tested for safety to human health and the environment before any commercial release. In January 2018, three academies came together to rubbish a statement made by a Central minister questioning Charles Darwin's theory of evolution and suggesting its removal from educational curricula. In both instances, science academies took principled positions, rightfully asserting their freedom and autonomy.

> Academic freedom is critical to let scholars, teachers and students think, question and express ideas without fear of censorship or retribution.

In the present case of electing new Fellows, if the science academy felt it prudent to involve non-scientists like Ambani and other industrialists in pursuance of its charter, it could have very well done so by designing appropriate collaborative programmes and platforms. No science academy worth its name would make someone its Fellow without requisite credentials. Ambani is now a member of the hallowed group that includes scientific luminaries like Satyen Bose, Meghnad Saha, Homi Jehangir Bhabha and Shanti Swarup Bhatnagar.

The Royal Society, London — considered the gold standard of science academies — enrols people who are not professional scientists, such as researchers from industry, as its Fellows, provided they have made a "substantial contribution to the improvement of natural knowledge." The INSA's decision to make Ambani and others its Fellows sets a dangerous precedent, besides being disheartening for many mid-career scientists looking to become its Fellows someday.

One such scientist with globally recognised contribution to his credit declared on social media — "Alas! I have neither the bank balance nor academic merit to be an INSA Fellow." The comment reflects the general mood, though most in the scientific community have preferred to keep mum.

A prominent institution on the radar of the Central government is the Kolkata-headquartered Indian Statistical Institute (ISI). The government has proposed to bring in the Indian Statistical Institute Bill 2025 that seeks to establish its direct administrative control over this iconic body established by physicist-turned-statistician Prasanta Chandra Mahalanobis nearly a century ago. Globally renowned for work in statistics, mathematics and applied sciences, the ISI is a unique self-governing scientific institution registered as a non-profit society.

The proposed law seeks to dissolve the existing ISI Society and replace it with a Centrally-controlled Board of Governance. The President, Director and members of the Academic Council will no longer be elected but appointed by the Central government. The Bill also stipulates that the new body will take over all movable and immovable properties of the ISI.

It is clearly an assault on academic freedom, democratic structure and institutional autonomy. This is similar to what the Centre has attempted to do with the governing structure of Panjab University, or what US President Donald Trump is trying to do with top universities in his country.

Autonomy is not an esoteric idea — it allows faculty committees to debate and refine the curriculum based on wide-ranging inputs and experience. The process is the key to achieving academic excellence and keeping academic programmes relevant to current scientific challenges. Replacing it with bureaucratic oversight from Delhi would undermine both the quality and independence of the curriculum. The 1959 Act that governs the ISI currently allows the institute to grant degrees independent of the University Grants Commission (UGC). The draft Bill is silent on this matter, implying that the ISI will be placed under the UGC and thus run like a regular university, which it is not.

Academic freedom is critical to let scholars, teachers and students think, question and express ideas without fear of censorship or retribution. It encourages innovation and critical thinking, while protecting the integrity of research and teaching. Institutional autonomy is necessary for protection from political, bureaucratic or corporate interference, and to promote excellence and diversity. Enforcing a 'one-size-fits-all' governance model for research and academic institutions, and allowing political interference from Delhi in their running, is going to deeply damage India's standing in science and technology.

India should invest in its youngest learners

AZEEZ GUPTA
CO-FOUNDER, PRORETLEARNING

As much as 85% of brain development happens before the age of six. A study in Vellore has shown a 5-point IQ increase among pre-school-age children who underwent stimulation and learning through structured early childhood development (ECD) programmes compared with those who did not. Global research shows that millions of neural connections form every second at this age and that ECD has a 10-20% impact on high-school completion rates and lifetime income, which is why it is often classed as the intervention with the highest social return on investment.

Yet in India, ECD for children — from when they are born till they hit the age of six and join primary school — has been overlooked. We spend only about 10% on a five-year-old compared to what we invest in a six-year-old. Society cares about high-school completion and university, but not about the early years that are the simplest to address and most important for the future. Why is the investment low and how do we ensure that our children receive the best ECD?

If we want a future-ready workforce, it begins with children who can think critically, play creatively and learn joyfully. And if we want to deliver impact at scale, the government must play a central role because scale in India means: reaching 14 crore children under the age of six, of whom 8.6 crore attend anganwadi centres. While parenthood is deeply personal, it's also central to India's economic and human capital future.

What can states and caregivers do to ensure that all children receive the care and education they deserve?

Create awareness and aspiration: The government's School Chalein Hum' scheme in the early 2000s helped universalise school enrolment, but close to one crore children are still not enrolled at the pre-school stage. A campaign is needed to universalise anganwadi and pre-school enrolment, drive up attendance and ensure that society realises the importance of the early years towards building IQ, social ability and self-control. States should put such efforts in mission mode, overseen by CMOs.

Invest in infrastructure and material: Children end up going to private schools because they seem more "formal". While mother tongue must remain the first language of instruction and play-based, activity-based learning the pedagogical mode, states must provide uniforms, play facilities, "graduation ceremonies" and learning materials — storybooks, workbooks, building blocks, clay, balls, flashcards, indigenous toys.

This will improve both the perception and quality of learning. Haryana has started the CM Model Playschool initiative through which it has upgraded 6,000 anganwadis and seen increased enrolment and parental satisfaction. Punjab has launched three years of pre-primary in schools, while also strengthening anganwadis, and is seeing the results through a shift-back of children from low-quality private schools to government ones.

Strengthen community engagement: States can leverage community workers and low-tech access to strengthen community engagement, ensuring every child has meaningful, locally relevant content that engages him/her and empowers parents to support their children's learning more effectively. Chandigarh and Haryana have leveraged anganwadi parent-teacher meetings and used WhatsApp to provide personalised learning, health and nutritional content to parents and seen big gains in the number of children who are reaching their required developmental milestones.

States will have to increase their annual anganwadi and pre-school budgets by about 30% to realise these steps-a reality. It translates to around Rs 300-500 crore annually. It is a substantial outlay, but much less what is being spent on other issues with a less far-reaching impact. The states could choose to invest in universal daycare by extending the duration of the anganwadi from four hours to 7-8 hours, which would allow more mothers to work. Telangana has already done this with good results.

With the right tools, strong parental involvement, and state capacity, we can build India's brilliant future from the very beginning. And what better place to start than with our youngest generation?

The Tribune

TWO VIEWS

EARLY INTERVENTIONS

A rethink about early learning in anganwadis and play schools is needed.

Customised nutrition policies hold the key to health equity.

ISTOCK PHOTO

The unequal battle against undernutrition

MANU PRATHAP | DINESH R
RESEARCH ASSOCIATE & RESEARCH STAFF, MV FOUNDATION

UNDERNUTRITION in early life remains a pressing public health crisis in India. While national statistics celebrate the decline in child stunting, the averages picture a more unsettling reality — regional and social inequalities that hamper the country's progress. According to the National Family Health Survey (NFHS-5), nearly 38% of the children under the age of five are stunted. Though it is an improvement from the previous survey, there are regional disparities. Over time, the incidence of stunting through interventions in some regions has reduced.

The highest prevalence of child stunting continues to be in Bihar (42.94%), UP (39.73%) and Jharkhand (38.38%) — states where poverty, inadequate healthcare and low maternal education persist as critical barriers. These states illustrate how economic and social disadvantages converge to impede nutritional outcomes.

In contrast, Kerala (23.43%), Punjab (34.48%) and Tamil Nadu (25.04%) stand out for their relatively low stunting rates. The UTs of Goa, Puducherry and the Andaman & Nicobar Islands, also report better outcomes, benefiting from stronger health infrastructure, higher literacy levels and more inclusive social policies.

Chandigarh, Daman & Diu, Himachal Pradesh, Manipur, Punjab, Tamil Nadu and Uttarakhand have shown notable reductions in stunting between NFHS-4 and NFHS-5.

The persistence of stunting is not only about genetics; it is also a development issue and a product of inequality. A study by Magudum, et al, has shown household income, maternal education, clean water, food diversity and women's empowerment play roles in causing such disparities.

The problem is compounded by gaps in awareness and behavioural change. Many women are unaware of the nutritional needs of children and the importance of a balanced diet during the first 1,000 days of life. Nutrition programmes often focus on supply — distributing supplements or food — but the demand side, including household awareness and women's agency in decision-making, is equally crucial.

The implications of early-life undernutrition are far-reaching. Stunted children face delayed cognitive development, lower school performance and a higher risk of illness and mortality, which can further harm their physical and mental health. The damage extends into adulthood — reducing productivity and earning potential and perpetuating the cycle of poverty and exclusion. In a country aspiring to harness its demographic dividend, such losses are unaffordable.

Tackling the nutritional divide demands state-specific strategies that integrate health, sanitation and education within a community framework. States with high stunting prevalence must prioritise context-sensitive interventions that address both supply and demand barriers. For instance, in UP, factors such as a child's birth order, maternal education, community-level nutrition practices, inadequate household sanitation facilities and low household wealth have a significant impact. But in Tamil Nadu, individual-level factors play a greater role. This implies that targeting similar variables in states without considering their stunting levels can be ineffective.

Policies could be customised as per the state's needs. For instance, Tamil Nadu offers a model for customisation: its Integrated Nutrition Programme, merged with the Integrated Child Development Services in 1980, employs a two-worker model to strengthen community engagement — unlike the one-worker model in most states.

To enhance policy effectiveness, introducing co-production is vital. This approach enables citizens to co-create and participate in programmes, fostering trust, accountability and better alignment with ground realities. Since community-level sanitation behaviour remains a major driver of intra-state disparity, empowering communities to own these outcomes is key.

India cannot achieve its demographic dividend if many children are denied the right to healthy growth. The fight against stunting, therefore, is not just a public health priority — it is a moral and economic imperative.

Views are personal

NAV BHARAT TIMES (P-16), 14 NOVEMBER 2025

> अमेरिका आज जो है, वह प्रवासियों की वजह से ही है। वे हमेशा अमेरिका की समृद्धि की प्रेरक शक्ति रहे हैं।
>
> – बराक ओबामा

अमेरिका की मजबूरी

H-1B वीजा और विदेशी स्टूडेंट्स के दाखिले को लेकर अमेरिका का रुख नरम पड़ता दिख रहा है। जो ट्रंप एडमिनिस्ट्रेशन अभी तक मानता था कि प्रवासियों की वजह से अमेरिकी लोगों का हक मारा जा रहा है, उसके विचारों में बदलाव अचानक नहीं आया। इसके पीछे अमेरिका की अपनी जरूरत और मजबूरी है।

टैलंट की कमी । राष्ट्रपति डॉनल्ड ट्रंप ने एक इंटरव्यू में कहा कि अमेरिका को H-1B वीजा धारकों की जरूरत है, ताकि देश में टैलंट आ सके। उन्होंने स्वीकार किया कि अभी अमेरिका की इंडस्ट्रीज को संभालने के लिए जिस तरह के हुनर की जरूरत है, वह स्थानीय लोगों में नहीं। ट्रंप की यह बात MAGA समर्थकों को चुभने वाली थी। कट्टर ट्रंप सपोर्टर भी विरोध में उतर आए।

AI Image

H-1B पर नरम रुख

उद्योग जगत चिंतित । तीखी प्रतिक्रिया को देखते हुए ही वित्त मंत्री स्कॉट बेसेंट ने बताया कि स्किल्ड विदेशी लोगों को अमेरिका बुलाकर अमेरिकियों को ट्रेनिंग दिलाएंगे और फिर उनको वापस भेज देंगे। इस योजना से अमेरिका की मौजूदा स्थिति जाहिर होती है। वीजा नियमों में सख्ती के बाद उद्योग जगत ने जो चिंता जाहिर की थी, उसका असर दिखने लगा है और इसी वजह से अपने समर्थकों के गुस्से को दरकिनार करते हुए ट्रंप को नया फैसला करना पड़ा।

भारतीयों का योगदान । H-1B की शुरुआत 1990 में की गई थी। शुरुआत में हर साल 65 हजार वीजा जारी किए जाते थे, लेकिन जल्द ही इस कैपिंग को बढ़ाना पड़ा। यही समय था, जब प्रवासियों और उनमें भी खासकर भारतीयों ने अमेरिकी टेक इंडस्ट्रीज को संभाला और उसे वह ऊंचाई दी, जहां आज वह है। इस मेहनत, हुनर और लाखों सपनों को समझे बिना ट्रंप ने रातोंरात चीजें बदलने की कोशिश की, जो संभव नहीं था।

प्रवासी जरूरी । नए H-1B वीजा के लिए एक लाख डॉलर की एंट्री फीस से अमेरिकी उद्योग के सामने टैलंट क्राइसिस खड़ा हो गया है। US चैंबर्स ऑफ कॉमर्स ने तो इस फैसले को कानूनी चुनौती दे रखी है। इस समय जब AI को लेकर चीन के साथ होड़ चल रही है, तब अमेरिका को पहले से ज्यादा हुनरमंद कर्मचारियों की जरूरत है। यह अच्छी बात है कि ट्रंप ने विदेशी स्टूडेंट्स की अहमियत भी समझी। इस साल मई में विदेशी स्टूडेंट्स के नए वीजा इंटरव्यू पर रोक लगा दी गई थी। लेकिन, यह मानी हुई बात है कि दुनियाभर से आई प्रतिभाओं, उनके खानपान-भाषा-संस्कृति की विविधता ने ही अमेरिकी शैक्षणिक संस्थानों को सीखने की सबसे बेहतर जगहों में से एक बनाया है। १६

The world in a single nest: How India's education is embracing Tagore's global vision

PREM KUMAR KALRA

J K VERMA

When Rabindranath Tagore founded Visva-Bharati University, he envisioned it as a place "where the world makes a home in a single nest". His dream was not to Westernise Indian education, but to universalise it — to let the winds of the world blow freely through India's corridors of learning without uprooting the Indian tree. A century later, that vision appears to be taking root once again. The decision to allow foreign universities to establish campuses in India marks a defining moment in the nation's educational journey. India's civilisation has always been broad, inclusive, and intellectually open.

The ancient universities of Takshashila and Nalanda remind us of our rich tradition of cosmopolitan scholarship. History is replete with accounts of scholars from China, Greece, and Central Asia travelling to India in search of wisdom and dialogue.

Today, the arrival of foreign universities is often viewed through economic or competitive lenses. Yet its deeper significance lies in something more profound — the revival of India's ancient spirit of dialogue between seekers of truth across cultures. It signals India's readiness to engage with the global education ecosystem on its own terms. Diversity, excellence, and affordability will soon stand at our doorstep. For thousands of Indian students, the dream of an international degree no longer demands the crushing expense of studying abroad. The world, quite literally, is coming home.

This exchange, however, will not be one-way. The partnership between Indian and foreign institutions promises to be both cooperative and competitive. Indian students will benefit from exposure to global pedagogies, research methods, and multidisciplinary learning environments. In return, foreign universities will gain unique insights into the opportunities and challenges of one of the world's fastest-growing knowledge economies. The "global classroom" is already taking shape — where a student from Jaipur debates a peer from Japan, and a professor in Delhi co-guides a thesis with a mentor in Melbourne.

Yet the road ahead is not without challenges. The internationalisation of education, if left unchecked, could become a luxury reserved for the privileged. Many global programmes still cater primarily to affluent learners. India must therefore establish strong frameworks for scholarships, flexible credit transfers, and "earn while you learn" opportunities. Equity and access must remain at the heart of this transformation. The true spirit of Indian education lies in balancing public good with private growth. The nation must ensure that education does not become a commodity, but continues to serve as a catalyst for character and creativity.

Importantly, India is no longer merely a recipient of global influence; it is also emerging as a contributor. Several premier Indian institutions, including the IITs and IIMs, are now setting up campuses abroad. This represents not just the export of curriculum, but the sharing of an Indian educational philosophy — one rooted in moral reasoning, inclusivity, and holistic growth.

Among the most promising innovations in this evolving landscape is the Academic Bank of Credits (ABC). This initiative allows students to accumulate and combine credits from both Indian and foreign universities, paving the way for dual or joint degrees. It recognises that learning is a lifelong, borderless pursuit.

A student might begin her degree in India, complete a semester in Singapore, and finish her research in London — all within a single academic framework. The result is not only greater mobility, but a deeper intellectual maturity born of diversity.

Meanwhile, the classroom itself is transforming. The rise of Artificial Intelligence (AI), virtual laboratories, and hybrid learning models has made education more interactive and cost-effective. Students can now attend lectures by global faculty, collaborate with peers across continents, and simulate experiments in real time. Yet technology cannot replace the human touch. The teacher's role as a mentor, guide, and moral compass has never been more vital. We must ensure that machines do not erode the spark of curiosity and the depth of reflection that define true learning. This transformation calls for introspection. What do we truly value in education? As India opens its universities to global influences, it must also nurture critical thinking, empathy, and ethical awareness. The test of education lies not merely in employability, but in enlightenment. The challenge is to engage with global diversity without losing one's distinct identity.

The global winds, then, need not uproot the Indian tree — they can help it bloom. India's entry into the global education marketplace is not merely a policy shift, but a cultural evolution. It signals a confident assertion that Indian education can stand shoulder to shoulder with the best in the world while retaining its moral centre.

If pursued with vision and vigilance, this initiative will allow India's universities not only to absorb global knowledge but also to radiate their own light outward. The Tagorian nest, it seems, is ready once again — for the world to make its home.

Prof Prem Kumar Kalra is the Senior Director of the Dayalbagh Educational Institute, Agra, and a former Director of IIT Jodhpur. Prof JK Verma is the Head of the Department of English at the Dayalbagh Educational Institute

TELEGRAPH (P-14), 15 NOVEMBER 2025

The geometry of belonging

SHELLEY WALIA

The mathematician, Manjul Bhargava, Fields Medal winner and professor at Princeton, delivered a lecture in India that has since stirred no small amount of controversy. Dressed in *kurta-pyjama*, a sartorial choice that some read as a subtle nod to the cultural politics of the far-Right, he argued that schools across the world should move away from teaching colonial history and, instead, highlight the history of science as it originated in Indian texts and scriptures.

Bhargava's proposition precipitated a paradigmatic schism, dichotomising perspectives on the narrative of mathematical history. On the one hand, his advocacy for a recalibration of the dominant Eurocentric discourse, which privileges ancient Greece as the foundational locus of mathematical inquiry, resonated with those seeking to rectify historical injustices and acknowledge the substantial contributions of Indian mathematicians. Conversely, his suggestion was perceived by others, including myself, as perilously proximate to a right-wing ideological agenda that instrumentalises selective historical narratives to assert cultural hegemony. When intellectual assertions regarding heritage converge with the rhetorical tropes of political leadership, the distinction between impartial scholarship and politically expedient appropriation becomes increasingly tenuous.

None of this is to deny the extraordinary richness of Indian mathematics. From the *Sulba Sutras*, which contain sophisticated geometric rules, to Aryabhata's (picture) work on the place-value system and trigonometry in the 5th century, which led to Brahmagupta's formalisation of zero and negative numbers in the 7th century, Indian contributions are both foundational and profound. The transmission of these mathematical concepts to Europe *via* Arab intermediaries played a pivotal role in shaping the intellectual trajectory of the Renaissance and the ensuing scientific revolution. This historical dynamic underscores the antecedent and the influential nature of Indian mathematical contributions, thereby rectifying the historical narrative and providing a more nuanced understanding of the global genealogy of mathematical knowledge.

Yet the problem is not whether India should be given its due. The problem lies in how the story is told, who tells it, and for what purpose. Bhargava's perspective of rejecting colonial history while privileging a mythicised lineage of Indian science risks collapsing global history into a nationalist narrative.

A more profound concern underlying this discourse is the dearth of rigorously trained historians of science in India which has resulted in a significant lacuna in the field. In contrast to the disciplines of history and literature, where postcolonial scholarship has effectively problematised and deconstructed the dominant Eurocentric narratives, the history of science remains notably underdeveloped. Consequently, the prevailing historiography of mathematics continues to adhere to a Eurocentric framework, privileging ancient Greece and Europe as the primary loci of mathematical innovation while relegating non-Western contributions to the periphery of the narrative.

What India urgently requires are scholars who are well-versed in both Sanskrit and advanced mathematics, a rare but crucial combination. Only such expertise can systematically recover, contextualise, and reinterpret the mathematical knowledge embedded in ancient texts. Without this intellectual labour, the vacuum is easily filled by political ideologues who cherry-pick cultural achievements to bolster chauvinistic pride. In this sense, Bhargava is both right and wrong: right that the story of science is distorted, but wrong in proposing simplistic remedies that play into the hands of the right-wing rather than building a rigorous, global, and plural history of science.

The disparity becomes increasingly evident when situated within the context of postcolonial studies in

the humanities, a field that has undergone significant transformations through the critiques of imperialism advanced by thinkers such as Frantz Fanon, Aimé Césaire, and Edward Said. Said's seminal work, *Orientalism* (1978), paradigmatically exposed the manner in which Western discursive practices constructed the East as an exoticised and backward Other, while Césaire and Fanon's analyses underscored the dehumanising effects of the colonial discourse on the colonised. Their collective scholarship has facilitated a profound reevaluation of national histories and cultural narratives across the Global South, challenging the entrenched assumption that European experiences and perspectives constitute the sole legitimate starting point for historical inquiry. This intellectual trajectory underscores the imperative for a more inclusive approach to understanding the complex dynamics of knowledge production and cultural exchange.

Yet in the history of science, this decolonising impulse has not been carried through with equal vigour. The Eurocentric story of mathematics as a Greek and European invention remains dominant, while the profound contributions of India, China, and the Islamic world are treated as mere preludes. The irony is striking: while literature, politics, and culture have undergone sustained decolonisation, science remains shackled to a Western master narrative.

This is precisely why the task is urgent. If postcolonialism has taught us anything, it is that recovering suppressed histories must be done through rigorous scholarship, not through political sloganeering. The absence of historians of science in Indian universities leaves the field vulnerable to precisely the kind of right-wing appropriation that Bhargava's lecture risks legitimising.

Equally troubling is the politics of presentation. When Bhargava, a US-based academic, appears in *kurta-pyjama* to deliver his lecture, it cannot be dismissed as mere coincidence. Clothing, in India's contemporary climate, is a signal. It evokes the visual language of the right-wing which deploys traditional attire to authenticate claims of cultural rootedness. Whether Bhargava intended it or not, his choice of dress played to the gallery of reactionary conformists who thrive on this form of symbolic validation. This is not to deny Bhargava the right to wear what he chooses, but to recognise how symbols matter in politics. In an era when everything from food to attire is weaponised in cultural battles, intellectuals must tread carefully to avoid feeding narratives that they may not fully endorse.

Bhargava's call to foreground Indian science could have been an opportunity to demand more rigorous historiography, more institutional support for interdisciplinary training, and more international collaborations to reconstruct the global history of mathematics. Instead, it came across as a gesture of cultural revivalism, aligning too neatly with the rhetoric of a ruling establishment that seeks legitimacy in imagined golden ages. The danger is twofold. First, it risks alienating serious scholars, both Indian and international, who are wary of nationalist distortions. Second, it reduces India's genuine mathematical inheritance to a political talking point, robbing it of the universal recognition it deserves.

The way forward, then, is not to reject colonial history outright, nor to glorify Indian achievements in isolation, but to demand a balanced, plural, and global history of mathematics. This means acknowledging India's pioneering role, tracing its transmission to other cultures, and situating it alongside contributions from Mesopotamia, China, the Islamic world, and Europe. It means investing in the training of historians of science who can bridge the gap between textual scholarship and mathematical expertise.

Shelley Walia has taught in Panjab University

TRIBUNE, (P-12), 15 NOVEMBER 2025

Why student elections remain banned

SANJEEV SINGH BARIANA

> Punjab has not seen polls on campuses in four decades; HP and Haryana too face restrictions

IT was in March 2018 that former Punjab Chief Minister Capt Amarinder Singh, while addressing the state Assembly, announced that "from the next academic session (2018-2019), direct student body elections will be held in universities and affiliated colleges". He specifically mentioned Guru Nanak University (GNDU) in Amritsar, Punjabi University in Patiala, and Punjab Technical University in Jalandhar.

The announcement turned out to be a damp squib. The Congress never brought up the topic again; its term ended in 2022. Even the Aam Aadmi Party government has chosen not to broach the subject.

WHAT LED TO DISCONTINUATION

Student elections in Punjab's universities were discontinued in 1984 when terrorism was at its peak. The ground looked rife for their revival after the return of normalcy during the tenure of Chief Minister Beant Singh in the early 1990s. His assassination on October 30, 1995, put paid to any such plans.

The All India Sikh Students Federation (AISSF), originally focusing on promoting Sikh values, was among the leading proponents of a radical movement during the days of militancy in the late 1970s and 1980s. University campuses — particularly GNDU and Punjab Agricultural University (Ludhiana) — were seen as hotbeds of youths supporting extremist ideology. The Patiala campus of Punjabi University was no exception.

When activists resorted to violence during protests and demonstrations, elections were banned from the 1984-1985 session.

VOICES FOR AND AGAINST

Students from GNDU and Punjabi University raised the issue of restarting elections on campuses when they joined Panjab University students in Chandigarh recently to protest the now withdrawn new governance model. Punjabi University students had demanded restoration of the university Senate in 2017. GNDU student organisations have often been in the news for raising issues concerning students.

Former minister Brahm Mohindra says, "There can be no excuse for not conducting elections in a democracy. Elections might look difficult these days, but nothing is impossible if the government wants it. Elections are the best training grounds for building leadership qualities, shaping young minds for issue-based debates and taking decisions."

According to former Vice-Chancellor of Panjab University Arun Grover, "Elections are not happening because no political party wants it. Students are basically seen as anti-establishment forces."

GNDU Vice-Chancellor Prof Karamjeet Singh says "taking different aspects into consideration, it is the government which decides whether or not to have any elections".

Those opposed to student elections on university and college campuses feel that the process allows unnecessary influence of political parties and disruption of studies.

CAMPUS TO STATE POLITICS

Several leaders first made their mark in student politics. Senior Akali leader Prem Singh Chandumajra, an alumnus of Punjabi University, was appointed as the first president of the Youth Akali Dal. Brahm Mohindra was an active student leader during his days at Mahindra College, Patiala.

Leader of the Opposition Partap Singh Bajwa, a student leader of DAV College, Chandigarh, in 1976, went on to become the district president (Gurdaspur) of the Punjab Youth Congress before being appointed as vice-president.

Former Congress MLA Kuljit Singh Nagra remained president of the PU Student Union for nearly a decade. Dalvir Singh Goldy, also a former PU leader, became an MLA on the Congress ticket.

HP, HARYANA ON SAME PAGE

Himachal Pradesh University (HPU) has over 100 affiliated colleges but no elections have been held since 2014. The ban followed repeated incidents of violence and clashes in HPU and colleges.

In Haryana, a ban on holding student elections was imposed by the Bansi Lal government in 1996 following incidents of violence.

Indirect elections were held after a 22-year gap in 2018 — class and department representatives in colleges and universities were chosen and they further elected the president and other office-bearers.

This process too lasted only a year, and was discontinued.

HINDUSTAN TIMES (P-14), 17 NOVEMBER 2025

The Hindustan Times
ESTABLISHED IN 1924

{ OUR TAKE }

Trump's policy somersaults

These course corrections do not suggest a change in his world-view, but are forced by economic and political compulsions

Schadenfreude is often a powerful tool in politics. It is even more powerful when societies are deeply unequal and the engine of inequality has had broad support from the ruling elite. The MAGA campaign of Donald Trump, the politician, talks about trade wars and demonises outsourcing of services and allowing skilled migrants into the US, was precisely that: Schadenfreude par excellence. But demonising or punishing others, and taking pleasure from their misfortune, is of little good when it comes to fixing things, especially in an economy as high-stakes and globalised as the US. Trump, the president, is realising more of this every passing day.

First, he had to walk back on his *de facto* killing of the H-1B visa programme. Take out skilled migrant workers, and the US will go from an abundance of cutting-edge human resources to a scarcity of talent. Now, he has rolled back a lot of his tariffs on essentials such as meat, bananas and coffee. Of course, there is also the larger detente with China amidst all this — largely because the latter holding back rare earth supplies would have brought the US electronic industry to a halt.

Make no mistake: These sensible course corrections aren't because of some sincere change in Trump's worldview. They have been made because they are necessary to not just keep the American economy going but also preserve political capital — such as among small traders and even consumers — in the wake of recent electoral reverses. Of course, some of it is also to pre-empt an institutional blowback from the US Supreme Court, which is weighing in on how much of Trump's tariffs can bypass legislative scrutiny.

This is not happening for the first time. That Trump always chickens out or TACO is now a given. Because the US is also the global economic leader, the rest of the world, India included, has no other choice but to live with these flip-flops and show patience and perseverance. However, two more things are worth noting. One, TACO shouldn't necessarily be seen as a weakening of Trump's political appeal in the US. More so in an environment where his opponents seem to be celebrating these as justification for status quo ante. Two, and this is more unfortunate, is that by having reduced US politics to a diabolical cycle of schadenfreude and TACO, Trump is not taking it anywhere close to being more just.

INDIAN EXPRESS (P-10), 17 NOVEMBER 2025

Arfa Sayeda Zehra, an elegant teacher, a fearless critic

SAIF MAHMOOD

FOR SEVERAL years, social media has been fascinated by a petite elderly lady with cropped hair, speaking in mesmerising Urdu of the beauty of language and our composite culture, of human dignity and compassion, and of women's rights. Her name was Arfa Sayeda Zehra, and she passed away in Lahore last week, leaving behind a legacy that will endure far beyond her years.

Arfa Apa, as I called her, represented a rare breed — the last of a generation that exemplified the very best of our shared cultural heritage. I remember, years ago, having a conversation with her at a literature festival. At one point, I asked her: What is Urdu? She paused, and with a twinkle in her eye, said: "Saif *mian*, Urdu *sirf ek zabaan ka nahin, ek mukammal tehzeeb ka naam hai* (Urdu is not just a language, it is an entire culture)." It is not just speech, but the sum of how one lives, thinks, feels, and navigates the world; and it was this wholeness she dedicated her life to protect. This conviction was evident in every statement she made, often with disarming wit. Of the impossibility of translating cultural experience, she would say: "*Kofte mein jo maza hai wo kabhi meatballs mein ho hi nahin sakta* (the joy of kofta can never be experienced in meatballs)."

There are certain words in Urdu for which there are no English equivalents; among them are *akhlaaq* and *khuloos*. The word *akhlaaq* has been translated differently as "etiquette" or "refined manners" and *khuloos* as "genuineness" or "sincerity" but none of these convey the essence of the original. While *khuloos* is also typified by an element of lovingness and warmth, *akhlaaq* entails an enduring attachment to one's social values. Arfa Apa embodied both.

Although a quintessential Lahori, her speech embodied the elegance of Lucknowi *tehzeeb*, her accounts of her encounter with which, during her brief stay in the city, became legendary. She would gently mock her own Lahori bluntness against Lucknow's famed refinement. Her self-deprecating humour was an integral part of who she was. When Zarminae Ansari, founder of Joy of Urdu, asked her to suggest a name for their online poetry masterclass, she named it *Arfa aur Zarminae ki himaaqatein* (The stupidities of Arfa and Zarminae). The classes turned out to be an unqualified success.

Arfa Apa was a fearless critic of authoritarian regimes. A former professor of history and principal of Lahore College for Women University, her contributions to public policy and civil society were guided by a resolute commitment to justice, human dignity, and the primacy of dialogue

Arfa Apa was a fearless critic of authoritarian regimes. A former professor of history and principal of Lahore College for Women University, her contributions to public policy and civil society were guided by a resolute commitment to justice, human dignity, and the primacy of dialogue. In an era of vanishing grace, she personified the values we are at risk of losing — to speak with the knowledge that your words can both harm and heal. To stand with the vulnerable. And when language fails, to accept the untranslatable: Call a *kofta* a *kofta* and allow it to maintain its *maza*.

The writer is a London-based international lawyer, advocate, Supreme Court of India, author, and visiting academic at University of Oxford, UK

JEI 17/11

INDIAN EXPRESS (P-15), 17 NOVEMBER 2025

WHY MANINDRA AGRAWAL

As Director of IIT Kanpur, Manindra Agrawal heads one of the most prestigious research and innovation hubs in the country. Under his leadership, IIT Kanpur has emerged as a key centre to build India's self-reliance in cross-sector technology sectors, including defence, telecommunications and sustainability. Agrawal, who has made foundational contributions in mathematics and computer science, also serves as an adviser to the Central government on multiple issues, including artificial intelligence (AI), higher education reforms and technology policy.

'While we provide freedom to our faculty to pursue their own activities, we have a very permissive attitude towards non-performance'

Manindra Agrawal, Director of IIT Kanpur, on AI, systematic flaws driving India's coaching boom and the changing face of India's research ecosystem. This session was moderated by Deputy Editor Amitabh Sinha

Amitabh Sinha: Before we start, technology, especially some of the older technologies, often originated in the defence sector. Is defence still the primary driver of this economy for the future, or are you prepared for what comes next?

Manindra Agrawal: Technology is changing, and there is unpredictability. Technology that was not even known 10 years ago has suddenly come up. Even somebody like me does not really pay attention to it. The current generation is almost in agony like without mobile phones, but many of us know that we have got by very well without them.

What is unpredictable is initially, sometimes, technology being developed and produced outside. We just adopted it. Initially, there was resistance to it happening. But things are changing. And here in the beginning, Unified Payments Interface (UPI) was certainly a remarkable innovation that brought huge changes.

As we go forward, we need to focus more on creating technology ourselves rather than relying on technologies. One cannot hope to produce all the technologies but we need to have sovereignty over certain critical technologies. The academia, industry and the government need to join hands, especially to build it. Issues in addition to technologies does pose significant resistance and is a huge problem to deal with.

Amitabh Sinha: There is a lot happening. For example, in 2020 the National Institute on Quantum Technology (Quantum Mission (NQM) was launched. In 2023, the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) was launched. A lot of activity across India. We have launched the National Quantum Mission (NQM) in 2020, India AI Mission (2024). India Semiconductor Mission and several others that have either started or are in the pipeline.

This is implemented by the Research, Development and Innovation (R&D) Fund, which is like the Anusandhan National Research Foundation. It is largely to develop teams of key technologies and will be led by industry and responsibility, academia.

Amitabh Sinha: There is a, not very long ago, when we in the [illegible] and [illegible] were in the technologies. What has prompted a renewed and emphasis on self-reliance now?

Agrawal: The movement has changed, to an extent. Two years ago, the ground before was that major countries, apart from a few exceptions, will cooperate when it comes to key technologies. There was a belief that in the close and near future technologies — that was understandable — but otherwise the belief was that there will be cooperation in key technologies. Now that belief has been shaken.

For instance, when the European Union (EU) were dragged on social media by their companies for importing Russian oil and based on that Microsoft blocked the software access to a company called Nayara Energy, to me, exposed this reality to open. That made us go ahead and say that the key takeaway was that if the US decides to have an isolationist initiative leadership with India tomorrow, there are simply too many US-based companies in critical sectors and we cannot do anything. All our laws will be gone and that has many thoughts. Some may say that is too extreme thought and it's not going to happen but we have to be mentally prepared for such an event unfold. It is not an unthinkable situation.

Amitabh Sinha: Should India's emphasis now be on developing operating systems (OS), business suites and office software? Currently, several government applications are shifted to and have made by an Indian company. Is that the way forward? Do we have enough expertise and resources to build these ourselves?

We do have expertise and the ability. It is after all Indians behind which has developed the software in the US, not exclusively Indians but a lot of them originated from India.

What we need to significant focus on is developing these. If you are looking to develop an OS, it's a long haul. And, it's not needed to be correct. There have been attempts made to develop an Indian OS. Centre for Development of Advanced Computing (C-DAC) developed an Indian OS called Bharat Operating System Solutions.

However, it is one thing to develop the software, to build a completely different bottleneck to be used heavy upscaling. It is not that it happens in the government sector not in academics. It has happened in the private sector. The government's role is to nudge it for its purpose. They cannot mandate it, but they can persuasively facilitate it.

Amitabh Sinha: What are the few technology areas where India needs to, and has the capability, to become a world leader?

There have to be strategic areas that are absolutely critical to the way we run this nation. Nuclear is one of the areas where the government has taken a very strategic decision. We have to have that. It is not going to vote. We don't do many political — it is about the development and maintenance of the nuclear deterrent. We need to make decisions with that in mind. We cannot be influenced by the changes that would happen with the amount of wealth that would be pumped in or have the world think more the way they originated at that time. We need to be in continuous doing this to academia [what] works and what doesn't.

Amitabh Sinha: Are there any efforts to make it easier to attract the best Indian talent abroad to return and work in India? What opportunities are being created for foreign professionals to come here and contribute to technology development?

We can be grateful for one other, defence, the US, which forced a lot of Indians to begin here to think about creating wealth in India. There are risks, there's uncertainty, it didn't deter them and, ultimately, the Government of India, to create a really attractive offer for well-accomplished people who have a calling. To be rewarded regardless of their age, to bring them back to Indian academic institutions. There is a special package which will be offered to help it to settle down and set up their labs.

Amitabh Sinha: Are you satisfied that the best Indian IITs and other universities doing enough to offer a real challenge to academics to move back to India?

I would say, partly yes. There was a time where the academia was primarily focused on teaching, and rightly so. In those days, we were in the business of people. There the Indian [illegible] were doing research, publish papers, and public R&D models. Many institutions have done quite well in this direction but there is much more to be done. We need to collaborate with industry. However, since the last decade, there has been a genuine motivation to academia that previously research was not rewarded, but now it is rewarded. We have a culture at IITs where the research is the ground.

The environment in India has taken a considerable amount of pressure. Many students of ours have been pumped into industries, with a very clear mandate that the output can not just be research papers but also technologies. The academia is responding to it.

Madhav Chopra: What are the key aspects or strengths of Indian smart living in its academic and research ecosystem as a unique foreign faculty?

[illegible] we do provide freedom to our faculty to pursue their own activities, we have a very permissive attitude towards non-performance. There are several positive aspects of that, as I was suggesting. The great thing about Indian academia is that there is no suppression in the system. But the downside is that the faculty who need some amount of growth to do well and stay productive, are not getting much.

For example, we don't have a sabbatical in academia. The moment one is kept here and comes, he/she has to continue with teaching. That happens. So, don't have a single institute level incentive for innovation, which is necessary to stay competitive in any area. We need to adopt some of the very good practices that are followed there, which I urge the edge going for the students in world.

Another thing would be the salaries. The government also has its way to do that. We get some funding and create institutions of excellence by doing research. It is actually very good, but it is supposed to operate on. There is a thin line between government institutions that are trained towards research but also with the aspects of financing the research from the industry and there is a balance which is very delicate to ground.

The environment in India has taken a considerable amount of pressure. Many students of ours have been pumped into industries, with a very clear mandate that the output can not just be research papers but also technologies. The academia is responding to it.

Madhav Chopra: What are the key aspects or strengths of Indian smart living in its academic and research ecosystem as a unique foreign faculty?

[illegible] we do provide freedom to our faculty to pursue their own activities, we have a very permissive attitude towards non-performance. There are several positive aspects of that, as I was suggesting. The great thing about Indian academia is that there is no suppression in the system. But the downside is that the faculty who need some amount of growth to do well and stay productive, are not getting much.

For example, we don't have a sabbatical in academia. The moment one is kept here and comes, he/she has to continue with teaching. That happens. So, don't have a single institute level incentive for innovation, which is necessary to stay competitive in any area. We need to adopt some of the very good practices that are followed there, which I urge the edge going for the students in world.

Another thing would be the salaries. The government also has its way to do that. We get some funding and create institutions of excellence by doing research. It is actually very good, but it is supposed to operate on. There is a thin line between government institutions that are trained towards research but also with the aspects of financing the research from the industry and there is a balance which is very delicate to ground.

Amitabh Sinha: You have previously spoken against over-reliance on coaching. What is wrong with the system that makes coaching institutes so successful?

Whenever there is significant gap between demand and supply, things like coaching will come in. We certainly have a significant gap in the number of students wanting high-quality engineering education and number of such seats available. The total seats available in IITs, NITs and IIITs total to less than 30,000 and the number of students wanting to get in is 10 or 20 times more.

What also doesn't help is the examination. That is quite sensitive to coaching, in the sense that not knowing classes being influenced, but not without. In theory, there is nothing wrong with coaching. But what has been happening because of the way the system is, the coaching institutes teach students in such a manner that they are bright but for some reason they are not able to crack JEE. Coaching or simply any such examination that is in terms of rote, pattern of presentation.

Harshvardhan Bhatnagar: Several children who do not belong to any coaching schools from [illegible] class onwards. What kinds of holistic learning challenges do you have with such students?

Everyone there are now, we focused on educating in that framework or vision, that our children do not only develop the ability in [illegible], to be employable, and also being [illegible] in society. However, because of the very pressure system that they have gone with in many cases, it is somewhat challenging to do that with difficult situations. At times it gives rise to mental health difficulties, depression and other problems. We are seeing this increasingly now.

The model of the institute has changed from earlier generations. The ability to be in a different environment and to cope with these challenges and then is leading to certain challenges. Add to that a significant increase in the number of people on campus. It is putting a lot of stress on the faculty to supervise or [illegible]. Their mental health has also, but we are seeing [illegible].

Amitabh Sinha: You said that more than 40 quality engineering seats are still empty. There are 23 IITs. Is there a need for more? Also, what is your assessment of the current IITs?

There are quite a few IITs in existence. We now have [illegible] universities of IITs. There is the old generation. Post-Delhi we generation is the eight that were set up in 2008 and — those are Gandhinagar, Jodhpur, Patna and Hyderabad. Then another generation of IITs started around 2015 — IIT Dhanbad, IIT Dharwad and others. The last generation, I would say, newly, some time to really come into its own.

Many of the newer generation IITs are doing quite well. Of course, the first generation of IITs is doing quite well. But I am not the size of India, there should be many more high-quality institutions. The challenge is getting the right faculty for them. How do we set up their culture. The processes, the right approach of the faculty to study, and the students to study everything different is, that is becoming a big challenge. Almost all the [illegible] have their [illegible].

Abhijnan Mahapatra: Several foreign universities are now setting up campuses in India and more IITs have also opened abroad. How do you assess the long-term of foreign universities setting up campuses here? Are there any concerns?

I think it is a very good development. It is a very good education. It is not possible for one to clearly the demand in the country. So, what we should ensure is that they don't steal the best talent as we seek to make ourselves. We have the quality of education in a healthy competitive manner. Then it will be a win-win for all.

ON CLOUD SEEDING IN DELHI

'On the day we did the seeding, we were very aware that the cloud moisture content was quite low, below 15 per cent. We knew that it was not going to rain. We did it as an experiment — to collect data'

ON DEVELOPING CRITICAL TECHNOLOGIES

'One cannot hope to produce all the technologies but we need to have sovereignty over certain critical technologies. The academia, industry and the government need to join hands'

MILLENNIUM POST (P-7), 17 NOVEMBER 2025

TALKING SHOP

The Uplift That Wasn't

EWS quotas in higher education were a bond for the poorest, but have become a trap that the deserving fall through, while the rich ride it using forged papers

RAJEEV NARAYAN

THE WRITER IS A VETERAN JOURNALIST AND COMMUNICATIONS SPECIALIST

A well-intentioned quota system for the country's poor has morphed into a black market of fake certificates and systemic squander, where paperwork trumps poverty and opportunity bends toward the resourceful, not the deserving

"Poverty is not natural. It is only man-made and can be overcome and eradicated by the actions of fellow men."
— Nelson Mandela

It arrived not as legislation, but as hope. For families living in rented single rooms, for parents juggling casual wages, for students studying under dim bulbs while their future felt permanently rationed by circumstance, the 103rd Constitutional Amendment was a thunderclap of possibility. When both Houses of Parliament cleared the 10-per cent reservation for Economically Weaker Sections (EWS) in January 2019, the applause was not just political, it was personal too. India had said what millions worldwide felt in silence – that poverty too deserved reservation. For the first time in independent India, affirmative action expanded beyond identity to include income.

The quota was planned as a gamechanger, one that would open doors in universities and government recruitment to students defined not by caste disadvantage but by economic deprivation. With nearly 23 crore Indians below the poverty line, and crores more in unstable near-poverty, the policy promised an escalator into India's most coveted upward mobility machine: government institutions. The rules were clear. EWS seats would be carved from fresh allocation, leaving existing reservations for SC, ST and OBC untouched. Eligibility would be capped at an annual household income of Rs 8 lakh, combined with limits on land ownership and residential assets. Merit, Parliament said, would not be sacrificed, only expanded to include 'merit born in hardship'.

Sadly, legislations don't transform lives; implementation does. Five years after the hope handed out in 2019, the ledger of outcomes demands an uncomfortable audit.

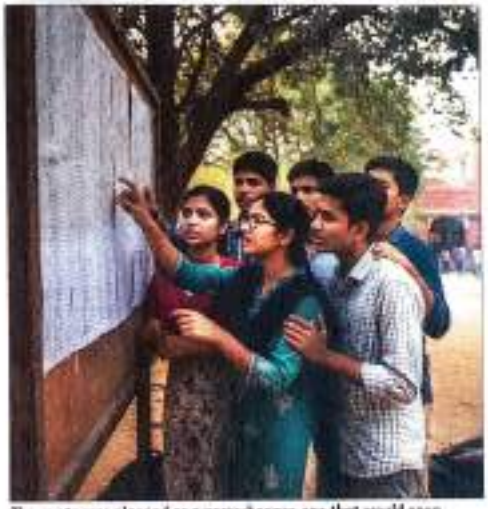
Zoo of Misrepresentation

In principle, the quota was an attempt to identify poverty. In practice, it asked poverty to prove itself on paper. In a country where lakhs earn in cash, lack land titles and live outside digital documentation grids, certification was never a neutral administrative step. It was always going to be a new battlefield. What few anticipated, though, was how quickly it would become a business model.

Barely two years into the scheme's rollout, reports surfaced from Uttar Pradesh, Bihar, Rajasthan, Maharashtra, Delhi and Madhya Pradesh, exposing a new underground service economy — the buying and selling of EWS certificates. Depending on the state, broker and urgency, prices ranged between Rs 25,000 and Rs 1.5 lakh. 'Packages' were on offer, including income certificates, landholding deeds, notary verification and, in some cases, 'local administrative assurance'. India had learnt how to certify poverty for a commission.

In 2023, a sting investigation across five northern Indian districts uncovered 2,600 prima facie forged income certificates issued in a single admission cycle. The number of prosecutions was… Zero. Former NITI Aayog CEO Amitabh Kant summarised the flaw with unnerving precision: "We built an entitlement without building a verification architecture."

Today, at many universities, EWS seats are filled at rates exceeding 95 per cent, higher than General or OBC occupancy. Statistically, it signals a roaring success. Sociologically, it is a regulatory collapse.



The quota was planned as a gamechanger, one that would open doors in universities and government recruitment to students defined not by caste disadvantage but by economic deprivation

Poor Versus Paperwork

The most tragic twist in the EWS story is not that the undeserving have entered, it is that the deserving are being kept waiting. The salaried lower-middle class can verify earnings through bank statements, Form 16s, tax filings and digital footprints. But the truly poor, such as daily wage-earners, informal workers, domestic help, small tenant farmers and gig workers, often earn invisibly. Their money is real, but unrecorded. Their deprivation is evident, but undocumented.

A 2024 study by the Centre for Equity Studies showed 37 per cent of truly low-income applicants failed to produce documents acceptable for EWS certification. By contrast, only 11 per cent from stable income groups faced rejection on paperwork grounds. Simply put, the poorer the applicant, the less likely they are to clear the "poverty test". A Supreme Court advocate called this a paradox of evidence: "The poor have hardship, but the privileged have paperwork." EWS was meant to offset inequality. Instead, it has mirrored the oldest rule of inequality, that advantage adapts faster than policy.

How Others Verify Poverty

India is not the only country to extend benefits using economic thresholds. But it is among the few to do so without first building an impermeable verification system. In the US, need-based education assistance is validated through IRS-linked income records, with fraud carrying heavy federal penalties. Brazil's ProUni scholarship programme cross-verifies household earnings with national tax and social security databases. China's poverty alleviation schemes deploy ground-level audits backed by digitised household, land and employment registries.

Welfare systems globally are policed by digital verification and enforced by legal consequences. In India, verification is analog, decentralised and easily gamed. Deterrence is slow, weak or absent. Most countries build guardrails before disbursing benefits. India built benefits and handed them out, hoping that the requisite guardrails would follow.

Over the past three years, education watchdogs, student unions and faculty bodies have highlighted a troubling mutation. of EWS certificates being channelled for pre-identified candidates in high-stakes courses like medicine, engineering and law. In these cases, reservation is no longer a safety net, it is a procurement strategy. This is not administrative failure. It is philosophical corrosion. A policy designed to neutralise privilege is being weaponised to cement it.

Sociologist André Béteille once warned: "In India, inequality does not disappear; it just reinvents itself through new rules of legitimacy." The EWS quota, intended to be a disruption, has been conscripted into inequality's long project of reinvention.

Reform, Not Repeal

The answer lies not in abolition, but in reconstruction. Verification must shift from affidavits to system-authenticated data. PAN-Aadhaar income mapping, digitised land registries, GST-linked income trails for informal businesses and automated cross-validation can build a robust verification spine. After all, India has managed to architect instantaneous authentication for 13 billion UPI transactions a month… It should surely be able to verify 20 lakh EWS applications a year.

And fraud must carry consequence and punishment; admission cancellation is not deterrence enough. Multi-year education bans, financial penalties and criminal prosecution for forgeries must become standard. Processes must bend toward the poor, not away from them. Community certification models, presumptive eligibility for informal workers and institution-led documentation cells can help genuine applicants navigate bureaucratic proofs they are just not equipped to put together. Finally, universities must publish regular EWS audit reports, including acceptance rates, rejection causes, verification discrepancies and fraud detection.

EWS was conceived as an instrument of inclusion, it must not degrade into a tool for capture. Its very purpose was to reduce distance between talent and opportunity, not create earnings avenues for brokers. The poor do not ask for shortcuts, only fairness. The time to course-correct is now. If India fails, it won't be the policy that is written off… What will die is the faith in what policy can achieve.

Soliloquy: In 2023, an RTI sweep across eight states revealed that fewer than 6 per cent of institutions verified EWS certificates post-admission. As many as 14 per cent of 'checked' cases showed serious discrepancies, but action followed in under 1 per cent. That same year, a student in Hyderabad was admitted via EWS but later found to be from a family owning three properties and a business filing GST returns of over Rs 40 lakh annually. His seat stood for two semesters before a review even began.

He can be reached on rajeevnarayan2008@gmail.com

Views expressed are personal

PIONEER (P-05), 17 NOVEMBER 2025

The need for a decisive shift toward inclusive development

Education is the most crucial foundation of disability welfare. It shapes the future of every child and serves as the key instrument that opens the door to opportunity, self-confidence, and social acceptance

FIRST Column

BHUVNESH YADAV

India today stands at a crucial turning point of rapid economic growth, technological innovation, and social transformation. The country is not only succeeding in enhancing its economic strength but is also making several new efforts in social welfare. Yet, the harsh reality remains that the true measure of a nation's progress is not determined by its GDP, manufacturing capacity, or digital infrastructure alone, but by how effectively it ensures security, dignity, and equal opportunities for its most vulnerable and disadvantaged citizens.

In this context, persons with disabilities (PwDs) emerge as one of the most important yet neglected segments of the nation's collective human capital. India is home to between 80 and 100 million persons with disabilities — a figure larger than the total population of many countries — yet this vast group still struggles to achieve full social, economic, and developmental participation. Persons with disabilities are not merely beneficiaries of assistance; they are active citizens, skilled human resources, and integral participants in the nation-building process. Therefore, the welfare and rehabilitation of persons with disabilities must occupy a central position in India's public policy framework.

Current Challenges

However, the present scenario is quite the opposite. Persons with disabilities continue to face numerous barriers in basic areas such as education, health, employment, accessibility, and social security. These barriers are not merely policy gaps but indicators of deep structural challenges, underscoring the need for a clear vision, a long-term strategy, and rigorous implementation in this sector.

Education: The Foundation of Empowerment

Education is the most crucial foundation of disability welfare. It shapes the future of every child and serves as the key instrument that opens the door to opportunity, self-confidence, and social acceptance. Yet inclusion in India's education system remains an incomplete promise. A large number of schools still lack basic facilities such as wheelchair-friendly ramps, tactile paths, Braille signage, accessible toilets, and lifts. For millions of children with disabilities, simply attending school becomes a daily struggle.

Pedagogically, the system is also fraught with challenges — a shortage of special educators, a lack of sign-language instructors, and only nominal implementation of individualised education plans. These factors reflect that the creation of an enabling environment in schools for children with disabilities is still far from complete, even at the foundational level.

In rural and tribal regions, the situation is even more complex. There is no systematic mechanism for the early identification of developmental delays or disabilities. Conditions such as autism, intellectual disability, and visual or hearing impairments are often detected late, restricting the scope for effective therapy, support, and learning. Though there have been some initiatives, such as digital education, model inclusive schools, and teacher training, India now needs to adopt inclusion in education as a nationwide movement — a broad-based "Inclusive India Campaign" that brings revolutionary improvements across infrastructure, curriculum, teacher training, and technology.

SOCIAL SECURITY SCHEMES FORM THE BACKBONE OF A LIFE OF DIGNITY FOR PERSONS WITH DISABILITIES — COVERING PENSIONS, SCHOLARSHIPS, HEALTH INSURANCE, TRAVEL CONCESSIONS, ASSISTIVE-DEVICE SUBSIDIES, AND HOUSING SCHEMES

Health and Rehabilitation

Health and rehabilitation constitute indispensable pillars of a dignified life for persons with disabilities. The goal of any public health system should not merely be to provide treatment but to preserve the quality of life, independence, and functional ability of every citizen. Yet the availability of rehabilitation services in India remains extremely uneven and limited.

In many districts, regular facilities for physiotherapy, speech therapy, occupational therapy, psychological counselling, and behavioural interventions are either missing or severely inadequate. Children affected by autism or intellectual disabilities lack access to specialised training and therapies, forcing families to depend on expensive private services, unaffordable for many. Another major challenge lies in the early identification of disabilities in children aged 0-6 years. Most parents tend to overlook developmental delays as normal, and the health system itself lacks adequately trained personnel for early screening. Consequently, the potential for early intervention diminishes. Moreover, assistive devices such as wheelchairs, orthotic supports, hearing aids, and Braille kits are often delayed or of poor quality.

If India truly seeks a robust rehabilitation system, it must ensure the establishment of multidisciplinary rehabilitation centres in every district, mobile therapy units, and digital tracking of assistive devices — as part of a comprehensive structural reform.

Employment and Economic Empowerment

The lack of employment opportunities for persons with disabilities severely affects their self-reliance and dignity. Despite reservations in government jobs, many positions remain vacant — either due to procedural lapses in recruitment or the absence of workplace accommodations. In the private sector, the employment of persons with disabilities remains the exception rather than the norm, even though the modern digital economy offers countless roles in which they can excel.

Unfortunately, most skill-development centres still lack inclusive curricula, trained instructors, and adaptive technologies, preventing many talented young people with disabilities from becoming job-ready. It is therefore essential that India launch a "National Disability Employment Mission" — with clear provisions for vocational training, workplace adaptations, private-sector incentives, and financial support for disabled entrepreneurs.

Accessibility: The Core of Inclusion

Accessibility — whether physical, transport-related, or digital — is the most fundamental yet often the most neglected aspect of life for persons with disabilities. If roads, footpaths, buses, railway stations, hospitals, offices, and government platforms are not barrier-free, persons with disabilities can never participate equally in mainstream society. This is not a matter of convenience; it is a matter of equal citizenship rights.

Although accessibility audits have been initiated in most cities, their pace and quality remain limited. Digital accessibility is also inconsistent — many government websites are incompatible with screen readers, rendering them almost unusable for visually impaired users. Hence, India urgently needs a comprehensive National Accessibility Mission, mandating strict accessibility standards for every public and private building, digital platform, and transport system.

Social Security and Entitlements

Social security schemes form the backbone of a life of dignity for persons with disabilities — covering pensions, scholarships, health insurance, travel concessions, assistive-device subsidies, and housing schemes. Moreover, the complexity of application processes, delays in benefit disbursal, and weak grievance-redressal mechanisms undermine their effectiveness. Social security must be implemented not as charity but as a right. This requires an integrated national digital portal, time-bound direct benefit transfers, and a strong, responsive grievance-redressal system to ensure that entitlements reach every eligible beneficiary efficiently and transparently.

Women, Children, and Tribal Areas

Among the disabled community, women, children, and those living in tribal areas face the most compounded challenges. Women with disabilities experience dual discrimination — both on account of gender and disability. They encounter additional barriers in education, health care, safety, and employment.

Children with disabilities often lack appropriate learning support and safety measures in schools, limiting their potential. Those living in tribal areas are frequently deprived of basic health and rehabilitation services. For them, region-specific programmes, mobile health units, tele-health, and community-based rehabilitation services are essential.

Institutional Coordination and Governance

Perhaps the most crucial fact is that disability welfare is not the responsibility of a single department — it spans education, health, social security, skill development, transport, IT, urban development, and finance. India needs to establish an administrative system that is fully coordinated, data-driven, accountable, and outcome-oriented. District-level coordination committees, digital dashboards, clear performance indicators, and independent evaluations can be vital steps in this direction.

From Sympathy to Empowerment

Ultimately, the true measure of India's aspiration to become a "developed nation" lies in whether its persons with disabilities can live with dignity and equality, free of barriers and discrimination. Achieving this goal requires not just policies on paper but a fundamental change in social and administrative mindset. Persons with disabilities do not seek special treatment — they seek equal treatment; they do not ask for charity, but for opportunity, and they do not need sympathy, but empowerment. It is this principle of empowerment that will lay the foundation of an inclusive, just and modern India — an India where no citizen is left behind because of disability, and where persons with disabilities are not mere beneficiaries but true partners in development and nation-building.

The writer is Secretary, Social Welfare Department, Government of Chhattisgarh
@dailypioneer
@TheDailyPioneer
dailypioneer

PIONEER (P-9), 17 NOVEMBER 2025

Technological empowerment of Women: The way forward for climate resilience

REEMA PANT

The Himalayan region, with its breathtaking landscapes and ecological sensitivity, is also a volatile and temperamental ecosystem. Rapidly changing global climate is impacting this geologically young region even more. Ridden with flash floods, glacial lake outburst floods (GLOFs), landslides, cloudbursts, glacial retreat, and earthquakes, this "water tower of the world" shows the profound impacts of the Anthropocene.The signs are clear as we witness an increase in forest fires, pre-season flowering, drying water resources, rising average temperatures, and the growing unpredictability of traditional farming seasons.

Amidst this unfolding crisis, a quiet revolution is taking place in the Himalayan ranges. Once again, it is led by women, but empowered by technology and grounded in local wisdom. Women, the backbone of society for ages, have long been the harbingers of the socio-cultural fabric of communities that are part of this fragile ecosystem. They have created systems in sync with nature to sustain their presence in otherwise precarious environments for millennia.

The Pioneer
SINCE 1865

As providers and resource managers, women have consistently navigated the changing weather and climatic patterns of the Himalayas, braving extremes and enduring disasters. From west to east, even as we observe cultural differences, there are stark similarities: women are farmers, forest gatherers, water managers, and caregivers. They manage their surroundings with the repository of generational knowledge within their communities, even before the advent of formal education systems. Although rapidly changing global conditions have made the Himalayas more fragile than many other vulnerable systems worldwide, women at the community level understand how to manage climate change and weather patterns. However, the intensity of change and the impact of disasters now present challenges that may require more than traditional wisdom. Women in the Himalayas face unique challenges, including dwindling natural resources, habitat fragmentation, human-wildlife conflict, unpredictable weather events, and the decline of traditional knowledge. To create truly resilient societies in the face of such overwhelming changes, these bravewomen urgently need technological assistance. The situation is pressing, and we must act swiftly.

Western science has recognised that mountain women have traditionally practised climate-resilient agriculture, water conservation, and forest management. What has changed in recent years is the increased scarcity of natural resources, habitat fragmentation, human-wildlife conflict, unpredictable weather events, and the erosion of traditional knowledge.

As an avid traveller, I have often had the opportunity to interact with women in the remote regions of Uttarakhand. It is concerning to realise that there is not only a massive gap in understanding and applying traditional knowledge systems, which have been crucial for community survival for generations, but also a lack of affordable and accessible technology.

Today, mobile phones are multifunctional devices capable of taking GPS locations, mapping, and providing early warning updates. These handheld devices are becoming increasingly reliable and robust.

Many self-help groups that recognise the power of technology have already begun blending traditional knowledge with these innovations, creating safer and more resilient environments. It is awe-inspiring to see women assimilating technology while preserving their traditional values, becoming better prepared for disasters, creating sustainable livelihoods, and monitoring the environment. This convergence of tradition and technology is enabling resilient ecofeminist leaders to mobilise their communities and act.

Women in remote Himalayan villages are now using mobile apps for real-time weather alerts, disaster alerts, crop advisory services, and digital marketplaces for local produce. Self-help groups are adopting technology to manage solar lighting systems, biogas units, and even low-cost drone-based activities - fondly referred to as "drone didi."

In most Himalayan states, several grassroots initiatives are helping women take on economically active roles as homestay managers, nature guides, "aapda sakhis" (disaster mitigation assistants), forest firefighters, cultivators of climate-resilient crops, and preservers of agro-biodiversity. They are using tech-enabled tools to stay informed, participate in timely action, and raise awareness about changing climate patterns and resilience strategies.

Traditional knowledge combined with appropriate technology, with proper support and guidance, can transform women in rural landscapes and the communities that bear the brunt of climate disturbances. Gender-inclusive technological initiatives for climate adaptation can significantly enhance the resilience of Himalayan communities. When all stakeholders - government, educational institutions, and civil society - share responsibility for developing gender-inclusive, technology-based programmes, only then can we bring about meaningful change. The government and communities have already begun to accept this challenge in the right spirit, acknowledging the grave danger if it is left unaddressed. Training hubs in rural areas that focus on digital literacy for women, with attention to climate and livelihood considerations, are being established. Women's perspectives are increasingly being incorporated into state climate action plans and disaster response frameworks.

Women's organisations at the grassroots level are gaining access to funds, tools, and knowledge networks. STEM education for girls in hill regions, with mentorship programmes, is being launched by government and private bodies to bridge the widening digital divide.

Environmental stewardship has never been more significant than it is today. As we advance in quantum computing, nanotechnology, space innovations, and artificial intelligence, we will still require air, water, and soil to survive alongside the delicate fabric of other cohabitants.

Environmental innovation is imperative and must be integrated into our lives to ensure survival with dignity in this increasingly complex and volatile world.

Educational institutions, particularly universities and technical colleges in the Himalayan belt, can play a transformative role by engaging students - especially women - in community-based technology initiatives, internships, and climate entrepreneurship programmes.

Climate change is real and a grave threat to the Himalayas. Every crisis comes with an opportunity. In this case, by technologically empowering women, we are not only enabling individual progress but also unlocking a powerful force for community resilience, ecological stewardship, and sustainable development. Women have coexisted with and adapted to the constantly fluctuating geoclimatic systems of the Himalayan range. They have established resilient communities as innovators, decision-makers, and protectors of the Himalayas. Today, they are also becoming victims of increasingly unpredictable climatic conditions. Their empowerment is not merely a matter of gender justice — it is essential for the survival and sustainability of the mountain ecosystem itself.

The writer is an educator, environmentalist, and advocate for gender rights. She works at the intersection of science education, women's empowerment, and disaster resilience in the Indian Himalayan region

DECCAN HERALD (P-8), 18 NOVEMBER 2025

NOSTALGIA OVER LOGIC

Heritage must not replace rigour in Mathematics

Draft curriculum's tilt towards ancient knowledge erodes analytical rigour and the foundations of proof-based reasoning

ARGHYA BANDYOPADHYAY

The University Grants Commission's (UGC) draft Mathematics Curriculum, 2025, unveiled in August, has triggered an unexpected upheaval in India's academic community. Framed under the National Education Policy (NEP) 2020, the draft promises to create a "forward-looking" syllabus that offers students a "robust foundation in mathematical concepts and skills". Yet, behind this reformist language lies a troubling imbalance – an excessive tilt towards ancient Indian Knowledge Systems (IKS) that risks eroding the very rigour on which mathematics must stand. At first glance, the draft appears well-intentioned. It proposes a structure for both undergraduate and postgraduate programmes, claiming to align modern mathematics with India's intellectual heritage. Its stated goals – value-based education, interdisciplinarity, and integration with the IKS – sound entirely unobjectionable. But a closer look reveals a pattern of substitution rather than supplementation; it introduces courses that privilege cultural familiarity over analytical training, heritage over abstraction.

Supporters of the new framework claim it offers a holistic blend of classical wisdom and modern science. Core areas like calculus, algebra, analysis, probability, and differential equations remain, alongside electives in computational and data science. A final-year research project for BSc (Honours) students is a welcome move to promote inquiry and research. Yet, the real shift lies elsewhere. The draft introduces courses such as *Kala Ganana* (traditional timekeeping), *Bharatiya Bijganit* (Indian algebra), *Sulba Sūtras* (geometric rules), and Philosophy of Indian Mathematics, with readings from *Sūrya Siddhānta* and *Āryabhaṭīyam*. Framed as steps towards "decolonising" the curriculum, they signal a philosophical turn – from mathematics as a universal language of logic to a vehicle of cultural identity.

Studying ancient mathematical traditions is valuable, but making them central to the same curriculum as modern analytical mathematics risks diluting conceptual rigour. *Sutra*-based methods or cosmic time cycles may enrich cultural understanding but contribute little to mastering Linear Algebra, Topology, or Numerical Analysis. Many topics, like the *Śulba Sūtras* early form of the Pythagorean theorem, are already taught in school. More debatable are the inclusions like *Kala Ganana* and *Pañchāṅga* which blur the lines between astronomy and astrology. Making them credit-bearing courses undermines disciplinary clarity, leaving students ill-prepared for JAM, NET, or international PG programmes that prize abstraction and proof.

India's contributions to mathematics are beyond question – from the invention of zero and the decimal system to the pioneering works of Brahmagupta and Bhāskara II. Yet, to honour this heritage meaningfully, it must be understood within the continuum of mathematical thought, not as a substitute for modern discoveries. Brahmagupta's insights on division by zero, or Bhāskara's innovations in algebra and number theory, prefigured ideas later explored by Euler, Bernoulli, and Goldbach. These connections belong in courses on the history and philosophy of mathematics, where ideas are studied contextually, not as relics or replacements for analytical reasoning. The question is not whether ancient Indian mathematics deserves inclusion – it certainly does – but how it should be integrated.

To privilege *sutra*-based instruction or to treat Sanskrit *shlokas* as proofs confuses cultural pride with scientific education. Mathematics thrives on precision, abstraction, and logical generalisation – qualities vital in today's technological world. In an era shaped by AI, ML, and data science, India's students must master Algebra, Analysis, Probability, Differential and Integral Equations, Optimisation, Discrete Mathematics, and Information Theory – the mathematical core needed in forecasting natural hazards, studying climate change, understanding cryptography, and finance. Overemphasising heritage at the expense of such a foundation risks producing graduates rich in nostalgia but poor in analytical power – a loss both academic and economic.

Finding a better balance

A balanced approach is essential. India's mathematical heritage should be celebrated through electives or interdisciplinary courses linking Mathematics, Sanskrit, History, and Philosophy. Exploring ideas like zero or infinity across cultures can enrich understanding without diluting rigour. Mathematics must stay universal – rooted in proof, abstraction, and precision. Framing it as cultural identity risks reducing a global discipline to symbolism and weakening its analytical foundation.

India's true mathematical heritage rests on diligence and inquiry, not on rote recitation. Ancient scholars such as Āryabhata, Brahmagupta, and Bāskara were innovators who questioned, calculated, and experimented. To honour them is to uphold their spirit of rational curiosity, not merely chant their formulas. Students may study the *Śulba Sūtras*, but they must also master vector spaces, partial differential equations, and eigenvalue problems. They should admire Ramanujan's mathematics while writing optimisation codes or while modelling cancer research. Heritage can enrich education but never replace rigour. Mathematics is a way of reasoning, demanding clarity, consistency, and proof – the very traits that built India's intellectual past. Abandoning these in the name of revival would betray that legacy.

India stands at a crossroads. One path seeks to turn education into cultural reaffirmation; the other prepares students for a world driven by scientific reasoning. True confidence comes from engaging globally in knowledge creation. A modern mathematics syllabus must preserve rigour, promote research, and inspire innovation. India's mathematical heritage should enrich, not replace, proof-based reasoning and computational precision.

As the UGC finalises its framework, it must decide whether students will memorise ancient *shlokas* or design the scope of future mathematics. The answer will shape the roadmap of Indian Mathematics and mathematicians.

(The writer is Principal, Khalisani College, Chandannagar, Hooghly, West Bengal)

18/11/25

INDIAN EXPRESS (P-12), 18 NOVEMBER 2025

Is AI from Class III a leap forward or one too soon?

R RAMANUJAM

THE MINISTRY of Education has announced that an Artificial Intelligence (AI) curriculum will be introduced from Class III onwards in the 2026-27 academic session to prepare India's future workforce for a "technology-driven economy". In July, the government launched the SOAR initiative (Skilling for AI Readiness) through which nearly 18,000 CBSE-affiliated schools are already offering AI from Class VI onwards, with 15-hour modules for Classes VI to VIII, and 150-hour elective courses for Classes IX to XII. The CBSE has submitted a draft curriculum for review to the NCERT for "AI integration" across grades. This is in contrast with AI in higher education: A handful of universities introduced mandatory AI courses for science and engineering students this year.

One must ask: Why this rush for AI in schools? It is true that AI is set to make a great impact on our lives, and that the country seeks to "play a leading role in AI technologies and shape global AI standards". But is teaching AI to primary- and middle-school children necessary or sufficient for building such capability?

According to the government, SOAR helps to "bridge the digital divide" and creates opportunities for children "from rural areas or communities with limited resources". In a country where an overwhelming majority of children and teachers have never used any digital tools in education, it seems at best ironic and at worst callous to talk of using AI as a means of bridging the divide.

Often, the phrase "AI in schools" hides considerable confusion. Some mean a vaguely defined form of AI literacy. Some want increased use of AI tools in classrooms. Others mean the use of AI to enhance teacher "productivity" (for example, to prepare class presentations). Developers speak of personalised learning and assessment. Governments talk of using AI to track every child's academic progress. In such a situation, it is imperative that we separate informed use of AI tools from teaching AI to children.

In the present curriculum, middle school introduces three AI domains: Computer vision, Natural Language Processing, and statistical data. Class VII highlights the "innovative role of AI in fostering sustainability and societal development, highlighting key concepts like Sustainable Development Goals, systems thinking, and system maps". In Class VIII, children learn the "AI Project Cycle" and AI ethics. Class IX discusses mathematics for AI and generative AI, Class X supervised, unsupervised and reinforcement learning models, clustering and neural networks.

It is hard to understand how children would relate all this to the mathematics and science they are learning. How does a 12-year-old make sense of "fostering sustainability and societal development" or the use of system maps? These are notions that require considerable maturity. Consider this question from the Class VII AI handbook: Which SDG focuses on 'gender equality and empowering all women and girls'? (a) SDG-3 (b) SDG-5 (c) SDG-8 (d) SDG-10. If learning about AI is to help children develop a critical outlook on its use, exercises of this kind nullify that hope. Given how little success we have had so far on critical thinking in our science education, such expectations seem unrealistic.

If learning about AI is to help children develop a critical outlook on its use, exercises of this kind nullify that hope. Given how little success we have had so far on critical thinking in our science education, such expectations seem unrealistic

The question of teaching AI in schools is not to be posed as one with a yes or no answer. It is about examining the educational purpose, the pedagogic means and assessment modes for doing so, and developing teacher capacity and resources for achieving the intended purpose. In the case of children in primary or middle schools, the psychology of children's learning is also critical. AI is both seductive and addictive. We need to be responsible while placing it in the hands of small children. We must keep asking ourselves: Are we being wise?

The writer is professor, Azim Premji University, Bengaluru

MILLENNIUM POST (P-6), 18 NOVEMBER 2025

MENTAL HORIZONS

The Silent Stress of Gen Z

Hyper-connected yet overwhelmed, Gen Z students are struggling with stress, anxiety and depression. Institutional reform, cultural change and collective empathy are now essential

DERICK H LINDQUIST

THE WRITER IS PROFESSOR AND DEAN, SCHOOL OF PSYCHOLOGY & COUNSELLING, O.P. JINDAL GLOBAL UNIVERSITY

The generation that has grown up surrounded by smartphones and social media—navigating global instability, economic uncertainty, and climate anxiety—now finds itself at a mental crossroad

Generation Z encompasses those born between 1997 and 2012. The first 'digital natives', Gen Z, has grown up with ubiquitous access to the internet and digital technology. While far more connected than any prior generation, many, nonetheless, report feeling isolated and disillusioned. Around the world, this generation is experiencing mental health challenges at alarming rates.

In 2024, the World Health Organisation (WHO) reported that one in seven adolescents between the ages of 10 and 19 experienced a mental health disorder. In the U.S., a 2022 U.S. Census Bureau survey of 18-24-year-olds—done amidst the Covid-19 pandemic—found persistent feelings of nervousness or anxiety in 44 per cent, while 33 per cent reported feeling depressed or hopeless. In India, meanwhile, 63 per cent of young adults (aged 18-27) believe prioritising mental health is crucial to a happy life, according to the 2025 Burson Group report.

Such numbers illustrate how widespread mental health issues (and awareness) are among Gen Z. The generation that has grown up surrounded by smartphones and social media—navigating global instability, economic uncertainty, and climate anxiety—now finds itself at a mental crossroad.

Higher Education Under Strain

Indian higher education has seen remarkable growth over the last few decades. Today, there are more than 1,100 universities and 45,000 colleges, supporting more than 40 million students. The pressure to succeed academically in this hyper-competitive system—where outcomes, not well-being, are what count—is taking a toll. Many students report chronic stress, anxiety, depression, and emotional exhaustion.

Fortunately, there is growing recognition that mental health is an essential component of student development and success. In acknowledgement, the University Grants Commission (UGC) issued new mental health guidelines earlier this year. All colleges and universities have been instructed to establish dedicated mental health and wellness cells staffed by counsellors or psychologists. While such institutional reform is welcome, the fact remains that most higher education institutes lack qualified mental health professionals, and the counselling centers that do exist are too often underfunded and understaffed.

A resilient generation needs resilient systems—starting with emotionally supportive campuses

Culture and Stigma

Despite growing awareness, particularly among the more urban and educated, deep-rooted stigma remains a major barrier in India for those struggling with mental illness. Those in need may avoid help for fear of being judged as weak or unstable. Even among Gen Z, understanding and empathy for mental health issues can be lacking. The 2024 Fiama Mental Wellbeing Survey, for instance, found 83 per cent of young adults believe mental health issues carry no shame. Yet, paradoxically, 81 per cent of the same respondents would feel ashamed, personally, if they had to seek out mental health care.

Importantly, the Mental Healthcare Act of 2017 gives Indians the right to access mental health care. In practice, however, implementation is weak, especially in educational settings where early intervention could make a major difference. Indeed, many parents and professors still view stress as a normal part of student life, dismissing rather than addressing any concerns that arise. In effect, many students recognise the need for help but feel compelled to stay silent.

Economic Fallout

Research by Stanford psychologist Jamil Zaki indicates young adults today are less happy than those in middle age or old age. This contrasts with past generations, when young people were characteristically happier than either group. This is problematic. If a significant percentage of incoming university students are struggling with mental health issues, this will almost certainly affect retention, engagement, and drop-out rates, as well as future work, employment and productivity.

Mental health challenges can have an economic impact as well. According to Deloitte's 'Mental Health and the Indian Workplace' report, poor mental well-being costs Indian companies an estimated Rs 1.1 lakh crore (USD 14 billion) annually in lost productivity due to absenteeism, attrition, and other factors. When today's students enter the workforce, these cost estimates are expected to multiply. Universities that ignore psychological well-being risk not only failing their students but also weakening India's future economy.

Social Media and Technology

For Gen Z, social media provides both community and competition. Platforms like Instagram and LinkedIn have become new arenas of academic anxiety, every success highlighted and every failure magnified. Dopamine-driven engagement—likes, comments, and new followers—ensures repeated engagement. Users revel in validation and belonging from positive social feedback and wallow in disappointment, distress, and desensitisation from negative feedback.

Despite its many downsides, social media has given young adults a digital medium to talk about mental health, serving as a powerful tool for both support and awareness.

Educational content is widely shared, while hashtags like *#MentalHealthMatters* or *#AnxietyDiaries* have normalised conversations that were once considered taboo. Increasingly, mental health professionals are also using social media and other technology to share guidance and provide remote services like tele-counselling.

Emotionally Intelligent Campuses

To address this ongoing crisis, India must rethink how it approaches student mental health. These five steps are crucial:

- Integrate mental health into education— teaching emotional intelligence, self-regulation, stress management, empathy, and resilience alongside academics.
- Ensure colleges and universities have sufficient counselling staff to support their student body, at least one counsellor per 1000 students.
- Promote digital coping skills so students can navigate academic demands and social media challenges with more confidence and less risk of distress.
- Use data-driven monitoring to track student mental health trends and analyse risk, as may be seen, for example, in a first-generation student far from home.
- Make mental health outcomes a performance indicator of higher education institutions, just like research output or placement statistics.

A Collective Responsibility

Despite ongoing challenges, Gen Z student groups across India are creating peer-counselling programs, neurodiversity groups, mindfulness clubs, and mental health campaigns that push back against stigma. These actions and insistence that emotional well-being matters as much as grades are reshaping Indian higher education. As educators, we must recognise and support this movement, ensuring students can succeed academically without sacrificing their own mental health.

Views expressed are personal

MILLENNIUM POST (P-6), 18 NOVEMBER 2025

POLICY PERSPECTIVES

Rethinking Growth in a New Era

This year's Economics Nobel honours three scholars whose combined work explains why innovation thrives in some societies and stalls in others—and why institutions determine prosperity

JOHN FELIX RAJ & SOVIK MUKHERJEE

JOHN FELIX RAJ IS THE VICE CHANCELLOR, SOVIK MUKHERJEE IS AN ASSISTANT PROFESSOR OF ECONOMICS, BOTH AT ST. XAVIER'S UNIVERSITY, KOLKATA

The 2025 Nobel comes at a time when global growth is slowing, productivity gaps are widening, and technology is disrupting established production and employment structures

The 2025 Nobel Prize in Economic Sciences has been awarded jointly to Joel Mokyr, Philippe Aghion, and Peter Howitt for their transformative contributions to understanding the interplay between innovation, institutions, and long-term economic growth. Their collective work bridges the history of technology and modern growth theory, reinvigorating one of the most enduring questions in economics: "What sustains prosperity over time?"

This year's Nobel recognises ideas that have shaped both policy and academic thinking. Mokyr's historical insights reveal how knowledge, culture, and institutions interact to create fertile grounds for technological progress. Aghion and Howitt's formal models of "endogenous growth" and "creative destruction" explain how innovation reshapes economies from within. Together, their work provides a framework for understanding how nations can foster innovation without compromising stability or inclusion – a question central to 21st-century economic governance.

Joel Mokyr: The Historical Foundations of Innovation

Joel Mokyr's work offers a deep historical understanding of how societies sustain technological progress. His seminal books, The Lever of Riches and The Gifts of Athena, trace the emergence of modern growth to Europe's unique cultural and institutional setting during the Industrial Revolution. Mokyr argues that innovation stems not just from capital accumulation or inventors, but from practical knowledge – a codified understanding that can be applied to productive ends.

Mokyr's central claim is that economic growth depends on the interplay between knowledge and institutions. When societies value inquiry, reward experimentation, and allow the free flow of ideas, innovation flourishes. Conversely, when knowledge is suppressed by orthodoxy, rigid hierarchies, or monopolistic power, progress stalls. He highlights the importance of the "Republic of Letters," a community of thinkers and experimenters who advanced the Enlightenment's empirical spirit.

This perspective complements modern growth theory, reminding us that technology requires cultural legitimacy, institutional support, and social trust to evolve. Mokyr's work suggests innovation policies must nurture education, openness, and public belief in progress. His research gives economics historical depth, showing ideas drive development, not just capital or labour.

The 2025 Nobel Prize in Economic Sciences honours Joel Mokyr, Philippe Aghion and Peter Howitt for reshaping our understanding of innovation and long-term growth

Aghion and Howitt: Creative Destruction and Endogenous Growth

If Mokyr provided the narrative of innovation's past, Philippe Aghion and Peter Howitt gave it a mathematical structure. Their pioneering work in the early 1990s formalised Schumpeter's concept of creative destruction – the process by which innovations displace old technologies, creating progress and disruption. In their endogenous growth model, innovation is generated within the economy, driven by firms' incentives to invest in R&D.

Unlike earlier models, which treated technological progress as an external factor, Aghion and Howitt showed that innovation responds to competition, policy, and institutional incentives. When firms compete to innovate, they drive growth; when they face barriers or monopolistic control, stagnation sets in. Their framework explains why growth can be self-sustaining in open, competitive economies but fragile in those that suppress change.

Aghion and Howitt also highlight innovation's darker side. "Creative destruction" implies displacement – workers lose jobs, firms fail, and sectors vanish. Their model offers a nuanced policy insight: societies must balance "innovation" and "inclusion". Governments encouraging competition should invest in social safety nets, education, and retraining to help individuals adapt to technological change. This dual emphasis on dynamism and protection shapes debates on automation, AI, and the future of work.

Why This Nobel Matters Today

The 2025 Nobel comes at a time when global growth is slowing, productivity gaps are widening, and technology is disrupting established production and employment structures. The laureates' insights are profoundly relevant to today's world.

Their work emphasises that innovation is not an automatic outcome of capitalism. It depends on institutional frameworks – laws protecting intellectual property, education fostering critical thinking, and markets rewarding risk-taking. Economic stagnation is not inevitable; it's often a result of institutional complacency.

The laureates' research helps policymakers understand innovation quality. Not all technological change boosts growth. Some innovations increase market concentration, erode competition, or widen inequality. Aghion and Howitt's model highlights the need for policies promoting "disruptive innovation" over rent-seeking behaviour. Mokyr's historical lessons remind us that societies stifling dissent or neglecting knowledge systems risk long-term decline.

Their work invites a humanistic understanding of economics. Growth reflects how societies organise creativity, collaboration, and competition. The laureates' scholarship restores the moral and institutional dimensions of economic progress, often neglected in technical models.

Implications for Developing Economies

Mokyr, Aghion, and Howitt's insights are particularly significant for developing economies like India. India's digital transformation and startup ecosystem signal a shift towards innovation-driven growth, but institutional gaps remain. Weak IP enforcement, bureaucratic inertia, and skill mismatches limit sustained technological progress.

Mokyr's perspective suggests India's success depends on cultivating a culture of openness and intellectual curiosity, valuing experimentation and tolerating failure. Aghion and Howitt's models highlight the need to encourage competition while supporting workers displaced by technological change. This means aligning innovation policy with education reform, vocational training, and digital literacy initiatives.

Their framework warns against complacency. Economies relying on imitation or low-cost labour without investing in indigenous innovation risk stagnation. As creative destruction accelerates through AI and automation, emerging economies must position themselves as active contributors to the global knowledge economy, not passive recipients of technology.

Innovation as Continuous Renewal

The 2025 Nobel Prize in Economics is more than academic recognition – it's a timely reflection on the conditions sustaining growth in an uncertain world. Honouring Mokyr, Aghion, and Howitt celebrates a vision of economics that's dynamic, interdisciplinary, and human. Their work underscores innovation as a continuous renewal process, shaped by competition, guided by institutions, and anchored in curiosity and openness.

In an age of technological change, the laureates' message is clear: progress depends on inventing new tools and cultivating societies using them wisely. This Nobel reminds us that the true wealth of nations lies in people's creativity and institutions empower them to imagine, experiment, and rebuild.

Views expressed are personal

MILLENNIUM POST (P-7), 18 NOVEMBER 2025

SERVICE SPIRIT

Where Gandhian Values Still Live

Amid a profit-driven age, a quiet collective of young Indians is reviving Gandhian ideas through community-led action, moral courage and deep engagement with the most marginalised

G PALANITHURAI

THE WRITER IS A FORMER PROFESSOR AND RAJIV GANDHI CHAIR FOR PANCHAYATI RAJ STUDIES, GANDHIGRAM RURAL INSTITUTE

The youth group comprises individuals who are very simple, action-oriented, deeply spiritual, not religious, and whose activities are mostly people-centric

In recent years, in some of the social media tracks, it is argued that the era of Gandhi is over. We are living in a market era where profit drives people into action. Everyone is in motion, either physically or mentally, and in such a way, lifestyle has been shaped because of the revolution that takes place in technology and communication. If the movements of the people are looked at closely, one could see the people after power and authority, fame, profit, prosperity, property, gold, gadgets, and women. While working towards the above targets, they tend to lose their moral sentiments and ethical values. Since the above is the order of the day, contrary to the above, one could see a large number of youth, both men and women with high educational qualifications, who have dedicated themselves to attacking the problems of the most marginalised in the society which they consider as Gandhian action and they never proclaim that they are Gandhians or non profit organisations or doing social service. They joined together not to work for the people but to work with the people who are most vulnerable in the hill areas or in the plain with the support of many individuals who run businesses and industries, and they are consciously supporting such a kind of responsible service activities not as charity but as responsibility. This is the uniqueness of this group of people. The activities are coordinated not by a highly educated person but by an enlightened person. The group called themselves Kukku, which is nothing but the sound of a bird.

WHAT MAKES KUKKU UNIQUE

- Works with the community, not for it;
- Rejects labels like NGO or charity;
- Revives Nai Talim for tribal and Dalit children;
- Publishes children's literature and Gandhian works;
- Restores traditional architecture, local arts, tribal water systems;
- Operates through enlightened leadership—no hierarchy, no formal power.

Recently, on October 5, I went to Gobichettipalayam in Erode district in Tamil Nadu to open a very old hostel meant for scheduled caste boys and girls. I have accompanied a hundred-year-old Gandhian Krishnamurthi Jeganathan, who has been invited to open the hostel, as she fought for land for tillers. She has distributed 12,000 acres of land to the landless poor in Tamil Nadu and 31,000 acres of land to the poor in Bihar. She was with Vinoba Bhave and Jaya Prakash Narayan. She is the inspiration for this youth group, and hence she has been invited by this team to inaugurate the building.

It is to be noted that this hostel was created by a Brahmin by the name Lakshmana Aiyar, as per the advice given by Mahatma Gandhi. Lakshmana Aiyar and his father were freedom fighters. When Lakshmana Aiyar was in jail, he escaped from prison and met Gandhi. Gandhi asked him to take up the harijan welfare work and instructed him to surrender to the police. After his release from prison, he started the hostel for scheduled caste and scheduled tribe students with his money. He belongs to a very rich family. His family has been excommunicated as he kept a harijan boy in his house and allowed the people from SC and ST to take water from his well. In this process, she has lost all his property, including his house. Someone has taken the house in an auction and handed it over to him. He was elected as chairperson of the Kopichettipalayam Municipality, and it was the same municipality that abolished manual scavenging first in the whole of India, only under his stewardship. Such revolutionary contributions have not been properly recorded, and hence, this Kukku team has taken up the assignment, both documenting the constructive activities of Lakshmana Aiyar and continuing the harijan welfare activities.

Against this backdrop, the Kukku team has been asked to take up the responsibility of renovating the hostel and rejuvenating the activities of Lakshmana Aiyar by an industrialist who is known for philanthropy and trusteeship. The group has accepted and made it a point that it is not renovating the hostel for SC/ST boys and girls, but to continue the activities in the community also. Their activities are many. They are running a nuthalim school for the tribal students. Even the Gandhian institutions have given up the nuthalim education system. They run a magazine for children which is called "Thumbi". They are taking steps to revive the old architecture of our society and music through research. They create wells in the hill areas and provide water to the tribals. They run a publication to publish Gandhian literature which are in need in society. Kukku has drawn the attention of the public intellectuals, and they are being recognised.

A series of activities has been planned, and experts from fine arts, music, sculpture, clay modelling, and sports have been invited to this school, and activities are scheduled continuously for the whole year. Now it should become a high-class Ashram school. I have seen these types of activities in the villages where the Sri Aurobindo Society works as an outreach programme. Sri Aurobindo Society normally works with children, mostly the Dalits, but within a short span of time, they bring transformational change in attitude, behaviour, and performance of the students. By doing these kinds of activities with children, they attract the attention of women, youth, and parents of the children, and in due course, all become part of the transformational activities that are being carried out in the village. In the same way, this small group of youth is involved in such activities through this hostel. Those who are in transformational activities of the community in Tamil Nadu know the Kukku.

They are deeply involved in recreating the original knowledge in all the domains by standing on an alternative path with alternative leadership for achieving sustainable development. The group has writers, engineers, musicians, artists, and craftspeople working with the most marginalised group. While looking at their activities, behaviour, and attitude, one could see in them the traits of transformational leadership. If anyone analyses the perspective of this youth group, one could easily see that they are context-trained Gandhians. They are very simple, action-oriented, deeply spiritual, not religious, and their activities are mostly people-centric and not individual-centric. They never eye on funding but are trying to focus on the issues, and money comes by seeing their actions in society. They built a trust through their selfless actions. Hence, they are non-gandhians working for transformational change among the most marginalised groups, and it becomes a model for many as they have not built up institutions.

(Views expressed are personal)

TIMES OF INDIA (P-20), 18 NOVEMBER 2025

Why Harvard's In A Spot, And How It Can Get Out

It has cultivated a monoculture, leaving no space for conservatives and their ideas. It must begin by creating conditions for diversity of thought and freedom of speech

Vidyapati Gautam

Harvard has been in a hard place since the Trump administration barred it from hosting foreign students, and paused $2.2bn in research grants for allegedly failing to protect Jews from hate crimes on campus while flouting anti-discrimination laws. White House has also opened investigations into Harvard's govt-funded patents and its ties to China, threatening its accreditation, and demanding records of employees and international students.

While the university may wriggle free by striking a deal, which could be announced soon, how did it land in this spot?

Vanishing diversity | In the most recent faculty survey, only 10% identified themselves as conservative, which is an improvement from 5% in 2024, and 1% in 2022. Only five professors were registered Republican. Since political philosopher Harvey Mansfield retired in 2023, the Government (political science) department has not had a single conservative voice. When asked if Harvard should make a "concerted effort" to hire more conservatives, only 23% agreed.

Although Harvard has proposed establishing a centre modelled after Stanford University's Hoover Institution, a conservative oasis, it won't address the absence of conservatives from the university's everyday functioning.

No free speech | A 2024 internal study revealed rampant self-censorship at Harvard, with only one-third of the graduating class feeling comfortable discussing controversial topics. Remember, how the university axed Subramanian Swamy's courses in 2011 after he wrote an opinion piece protected by the free speech guarantees of the US First Amendment?

In its annual college free speech rankings for 2026, the nonpartisan nonprofit Foundation for Individual Rights and Expression (FIRE) ranked Harvard 245 out of 257 institutions. Last year, it stood last in 251st position.

Reverse discrimination | In a 2023 judgment, US Supreme Court declared Harvard's race-conscious admission policy (affirmative action) illegal. The Civil Rights Act of 1964 bars organisations taking govt dollars from discriminating "on the grounds of race, colour, or national origin". Regardless, Harvard concealed the admission statistics of its incoming class by altering the formulas it uses to report data, and postponing the release of information on the current admissions cycle.

Lowering the bar | Harvard made SAT scores optional for admissions in response to the Covid pandemic, but then extended this for successive academic years. Some

ill-prepared applicants slipped through the cracks. Soon after, the math department offered a remedial course for freshmen who lacked "foundational skills" in high school math. Following an uproar, Harvard reinstated the requirements for the class of 2029 and beyond.

The switch was to promote equity as well. Activists have long condemned the tests for supposedly excluding minorities from academia. However, economist Raj Chetty and others argue tests provide the "fairest admission policy for disadvantaged applicants".

Existential question | There's also the philosophical question about the purpose places like Harvard serve. "Once institutions of cultural formation," writes Patrick Deneen in *Why Liberalism Failed*, "elite universities have become purveyors of liberal anticulture, the deliberate and wholesale disassembly of a broad swath of cultural norms and practices in the name of liberation from the past."

Do they exist to push toxic narratives that revolve around the binaries of oppressor and oppressed based on gender, race, and religion, thereby entrenching permanent victimhood in certain groups and pathological hatred of perceived victimisers? What else sparked celebrations on campuses after Hamas slaughtered 1,200 Israelis on Oct 7, 2023? Why were educators gloating in the wake of the assassination of conservative activist Charlie Kirk?

Trump's demands reflect nothing but his 'art of the deal' big think, going into negotiations with all-out aggressiveness. While Harvard president Alan Garber has rejected his demands, it is concerning that universities are being coerced into adopting a new definition of antisemitism that labels certain criticism of Israel as hate speech, which will further stifle open discourse on campuses. Whatever happened to "f**k your feelings", a jibe conservatives threw at college snowflakes upset by some speech.

For Garber, Harvard could begin by affirming its commitment to open debate by endorsing the Chicago Principles on free speech. It may also weigh going the way of Hillsdale, a private college in Michigan that has consistently refused any state or federal funding because of the strings attached. Harvard can then pursue its pet agendas without political interference. Or it can ensure its "sins are forgiven", as Trump said, by paying $500mn in fines to support workforce development. The parties have already reached an advanced stage of negotiations.

Does Harvard truly believe it can prevail if the matter reaches the apex court? Will the justices let it violate their own earlier order against affirmative action? Garber should seize the opportunity to bring the necessary reforms he desires. Hire more conservative faculty, not to meet Trump's demand, but because all-round intellectual development requires it. Something better may emerge from it, certainly an improvement over the prevailing monoculture.

The writer holds an MPhil in International Politics from JNU

TOI/20

NAV BHARAT TIMES (P-14), 18 NOVEMBER 2025

शिक्षण व्यवस्था में लचीलेपन की जरूरत का संदेश देता है दिल्ली हाई कोर्ट का फैसला

यह मामला केवल अटेंडेंस का नहीं

दिल्ली हाई कोर्ट ने हाल में छात्रों को उपस्थिति और परीक्षा में बैठने के अधिकार को लेकर एक ऐतिहासिक और संवेदनशील फैसला दिया। अदालत ने स्पष्ट किया कि किसी भी छात्र को कम उपस्थिति के आधार पर परीक्षा से वंचित नहीं किया जा सकता। यह आदेश 2016 में एमिटी यूनिवर्सिटी के छात्र सुशांत रोहिल्ला की आत्महत्या मामले से जुड़ा है। कथित तौर पर कम उपस्थिति के कारण छात्र को सेमेस्टर परीक्षा में बैठने से रोका गया था।

शान्तोष कुमार सिंह

शिक्षा का अधिकार । कोर्ट ने कहा कि शिक्षा में, खासकर कानूनी शिक्षा में उपस्थिति के नियम इतने कठोर नहीं होने चाहिए कि वे छात्रों के मानसिक स्वास्थ्य को हानि पहुंचाएं या आत्महत्या जैसे कदम उठाने के लिए प्रेरित करें। इस फैसले ने स्पष्ट कर दिया कि शिक्षा के अधिकार को तकनीकी नियमों के कारण बाधित नहीं किया जाना चाहिए। साथ ही, बार काउंसिल ऑफ इंडिया (BCI) को निर्देश दिया गया है कि वह उपस्थिति के नियमों में आवश्यक संशोधन करे।

फैसले का संदेश । कोर्ट का यह फैसला उन छात्रों के लिए राहत का सबब है जो कभी स्वास्थ्य, कभी पारिवारिक या सामाजिक कारणों से नियत उपस्थिति नहीं बना पाते। भारतीय समाज में शिक्षा का अधिकार संवैधानिक गारंटी है। यह फैसला शिक्षण संस्थानों और नीति निर्माताओं को संदेश देता है कि उन्हें शिक्षण व्यवस्था में लचीलापन लाना होगा और छात्रों के मानसिक स्वास्थ्य को प्राथमिकता देनी होगी।

उपस्थिति के तर्क । शैक्षिक संस्थान लगातार इस बात की ओर ध्यान आकर्षित करते रहे हैं कि कक्षा में फिजिकल उपस्थिति से स्टूडेंट्स को जो व्यावहारिक और मूल्य शिक्षा मिलती है, वह ऑनलाइन या अनुपस्थिा रहने पर संभव नहीं। कक्षा की सहभागिता विद्यार्थियों में नेतृत्व, दल भावना और आलोचनात्मक सोच विकसित करती है, जो समाज के लिए उपयोगी नागरिक गढ़ने में सहायक है। फिजिकल उपस्थिति के बिना शिक्षा का विशाल हिस्सा केवल परीक्षा आधारित ज्ञान तक सीमित हो जाता है।

दूसरा पक्ष । विद्यार्थियों और अभिभावकों का कहना है कि सख्त उपस्थिति नियम कई बार ऐसे मेधावी छात्रों को भी परीक्षा से बाहर कर देते हैं, जो किसी मजबूरी या आकस्मिक कारण से क्लास नहीं आ पाए। ये नियम उन्हें पढ़ाई और आगे बढ़ने के अधिकार से वंचित कर देते हैं, जिससे उनके करियर और भविष्य के मौके प्रभावित होते हैं। अदालत का फैसला छात्रों के अधिकारों की रक्षा के साथ-साथ शिक्षा को लोकतांत्रिक और सबके लिए सुलभ बनाए रखने की दिशा में अहम कदम है।

AI Image

पक्ष-विपक्ष

- क्लास में मिलती है व्यावहारिक शिक्षा
- क्लास में टीम वर्क की भावना डिवेलप होती है
- शिक्षा से वंचित रखता है सख्त नियम

कोविड का अनुभव । इस मुद्दे में तकनीकी शिक्षा प्रणाली पर भी बात करना जरूरी है। कोविड-19 के समय ऑनलाइन शिक्षा ने भले ही कुछ राहत दी हो, लेकिन वह कक्षा में मौजूद रहने का असली अनुभव नहीं दे पाई। तकनीकी माध्यम पर निर्भरता, शिक्षा का मानवीय और सामाजिक पक्ष कमजोर कर रही है।

रेगुलर और डिस्टेंस । रेगुलर कोर्स में स्टूडेंट्स के लिए अटेंडेंस अनिवार्य होती है, जबकि डिस्टेंस लर्निंग व ऑनलाइन कोर्स में सुविधानुसार पढ़ाई कर सकते हैं। UGC के दिशा-निर्देश के मुताबिक, उच्च शिक्षा संस्थानों को अधिकतम 40% कोर्स ऑनलाइन मोड में संचालित करने की अनुमति है। लेकिन, ये ऑनलाइन पाठ्यक्रम रेगुलर कोर्स का पूर्ण विकल्प नहीं माने जाते।

संतुलन की जरूरत । समाधान शायद इसी संतुलन में है कि शिक्षा नीति में दोनों पक्षों की जरूरतों को जगह मिले। परीक्षा में बैठने का अधिकार हर छात्र का मूल अधिकार माना जाए, वहीं छात्रों को समय-समय पर फिजिकल उपस्थिति, सहभागिता और मूल्य शिक्षा के महत्व के बारे में समझाया व प्रेरित किया जाए। कॉलेज और विश्वविद्यालयों को चाहिए कि वे छात्रों की व्यक्तिगत परिस्थितियों को समझें और विशेष हालात में उन्हें राहत दें।

बदलाव की उम्मीद । शिक्षा का उद्देश्य सिर्फ परीक्षा पास कराना नहीं, बल्कि विद्यार्थी का सर्वांगीण विकास करना भी है। इसमें शिक्षक की भूमिका और कक्षा का सीधा जुड़ाव बहुत अहम होता है। तकनीकी साधन जरूरी है, लेकिन शिक्षा का सामाजिक, मानवीय और अनुभव से जुड़ा पहलू भी उतना ही महत्वपूर्ण है, जिसे बिना फिजिकल उपस्थिति के पूरा नहीं किया जा सकता। इस फैसले से उम्मीद है कि ऐसे नए बदलाव आएंगे, जो छात्रों के अधिकारों की रक्षा करते हुए राष्ट्रीय शिक्षा नीति और तकनीकी प्रगति के अनुरूप एक बेहतर व संतुलित शिक्षा प्रणाली तैयार करेंगे।

(लेखक JNU के अंतरराष्ट्रीय अध्ययन संस्थान में प्रोफेसर हैं)

NAV BHARAT TIMES (P-14), 18 NOVEMBER 2025

बच्चों की भावनाओं को समझें टीचर

कॉमन रूम

श्रद्धा वशिष्ठ

बचपन में हम सब अपने टीचर से डरते थे। डांट और पिटाई का डर, दूसरे बच्चों के सामने बेइज्जती होने का भय। आज के बच्चे भी इससे अछूते नहीं। इस डर के कारण न केवल ड्रॉपआउट के केस बढ़ रहे हैं, बल्कि कई बार स्टूडेंट्स की आत्महत्या के पीछे भी यही मुख्य वजह होती है। हालांकि इसके लिए टीचर नहीं, उनकी ट्रेनिंग जिम्मेदार है।

सोशल इमोशनल लर्निंग । शिक्षकों के प्रशिक्षण में जरूरी है सोशल इमोशनल लर्निंग। इससे विद्यार्थियों की भावनाओं को समझने में मदद मिलती है। दुनिया के कई देशों में इस पर रिसर्च चल रही है और इस तरह की ट्रेनिंग को स्कूली शिक्षा में लाने के प्रयास शुरू हो चुके है। भारत की बात करें, तो 2005 में कर्नाटक के चामराजनगर और बेल्लारी में नौ जनजातीय कल्याण विद्यालयों में स्टडी की गई थी।

शिक्षकों को ट्रेनिंग । सोशल इमोशनल लर्निंग के अच्छे परिणाम तभी मिलते है, जब इसे लगातार और सही तरीके से लागू किया

AI Image

जाए। इसके लिए शिक्षकों को इस तरह प्रशिक्षित करने की जरूरत है कि वे रोज की पढ़ाई-लिखाई में सोशल इमोशनल लर्निंग के सिद्धांतों को शामिल करें। जब बच्चे कक्षा में खुद को सम्मानित महसूस करते है, उन्हें लगता है कि उन पर ध्यान दिया जा रहा है, तब वे न केवल पढ़ाई में बेहतर प्रदर्शन करते है, बल्कि एक संवेदनशील और जिम्मेदार नागरिक भी बनते है।

बेहतर माहौल का निर्माण । साल 2024 में संयुक्त अरब अमीरात में किए गए एक अध्ययन में यह जांच की गई कि शिक्षकों की इमोशनल इंटेलिजेंस किस तरह छात्रों की पढ़ाई और उपलब्धियों को प्रभावित करती है। यह रिसर्च 6ठी से 12वीं कक्षा तक के 109 छात्रों पर की गई थी। नतीजों से स्पष्ट हुआ कि जो शिक्षक अपनी भावनाओं को समझते है, वे बच्चों को नियंत्रित करना जानते है, दूसरों के प्रति सहानुभूति रखते है और वे अपने छात्रों के लिए बेहतर माहौल तैयार करते है।

इमोशनल डिवेलपमेंट । नई शिक्षा नीति में स्पष्ट किया गया है कि शिक्षकों को इस तरह से प्रशिक्षित किया जाना चाहिए, जिससे वे विद्यार्थियों में आत्मनियंत्रण, सहानुभूति और सहयोग जैसे गुण विकसित कर सकें। शिक्षकों से उम्मीद की गई है कि वे छात्रों की भावनात्मक जरूरतों को समझेंगे।

काउंसिलिंग और सर्वे । नीति के मुताबिक, शिक्षकों के लिए जिला और राष्ट्रीय स्तर पर विभिन्न रूपों में ट्रेनिंग देने की व्यवस्था की जाए। सोशल इमोशनल लर्निंग को प्री सर्विस टीचर ट्रेनिंग का हिस्सा बनाया जाए। शिक्षा केवल पढ़ना और पढ़ाना नहीं, बल्कि जीवन को समझना है। NBT 14

DECCAN HERALD (P-8), 19 NOVEMBER 2025

TRANSLATING RESEARCH

Ideas that travel: India's deep science moment

RDIF promises transformative innovation, but results hinge on strong lab-to-market systems and industry partnerships

GURUCHARAN GOLLERKERI

The Government of India's decision to establish the Research Development and Innovation Fund (RDIF) under the Anusandhan National Research Foundation (ANRF) marks a historic inflection point in India's scientific journey. With a corpus of Rs 1 lakh crore to be deployed over six years, the RDIF is far more than another funding scheme – it signals the country's determination to de-risk private investment in research and innovation, and to position India among the top five nations in frontier technologies within the coming decade. But money alone does not make innovation. The challenge is to convert this funding moment into a deep-science transformation – to build an ecosystem that can translate India's expanding research base into usable technologies, new industries, and global competitiveness.

India today spends just 0.64% of its GDP on R&D, and the private sector contributes only 36.4% of that. In advanced economies, the share of private investment in research routinely exceeds 70%. The RDIF explicitly seeks to correct this imbalance by "de-risking" corporate participation in R&D through co-funding, fiscal incentives, and strategic partnerships. Yet, the success of this initiative will depend on more than capital allocation; it will hinge on our ability to build institutional translational capacity.

Three global blueprints show us how. Each underscores a vital truth: innovation succeeds when discovery and deployment are structurally connected.

The Belfer study makes an uncomfortable observation: across the world, even top universities produce enormous scientific knowledge, but little of it translates into practical technologies. The gap – the "valley of death" – lies between TRL 2 (proof of principle) and TRL 6 (validated prototype). Most academic research stops well before that bridge is crossed. India, too, faces this missing middle. Our labs teem with creative talent, yet few discoveries evolve into products, patents, or ventures. What is needed is a translational infrastructure – proof-of-concept (PoC) funds, entrepreneur-in-residence programmes, and early engagement with industry – that can push science from curiosity to commercial readiness. The RDIF can serve as the backbone of such a system if it explicitly earmarks a part of its corpus for university-based translational accelerators.

RISE Europe's Sciencepreneurship Playbook examines how European universities created "lab-to-market" cultures by re-engineering incentives, not just budgets. Faculty are encouraged to form spinouts. Research groups are aligned with industry clusters. Translational Key Performance Indicators (KPIs) – not just publication counts – are used to evaluate performance. Most importantly, universities build shared testbeds and invite corporate partners to co-locate on campus. If India's RDI framework is to catalyse private participation, co-location and co-creation must replace transactional collaborations. Industry should not merely sponsor research; it should work alongside researchers from the outset.

Imagine if every RDIF-supported university established an Industry Translation Council, composed of R&D heads from the top 20 companies in its region. Such councils could guide PoC investments, open testbeds, and serve as early customers for lab-developed technologies. That is how public money crowds in private innovation. The US National Centre for Advancing Translational Sciences (NCATS) offers a less glamorous but critical insight: successful translation depends on process rigour. NCATS argues that reproducibility, milestone tracking, and cross-disciplinary teams are essential to avoid waste and accelerate impact. In India, where research often operates in silos, this is a wake-up call. RDIF funding must come with translational performance dashboards – tracking cycle times, success probabilities, and readiness levels.

The government has rightly declared that India aims to be among the top three to five nations in five to ten key technologies. The following stand out as deep-science frontiers where India can lead if the RDIF catalyses coordinated public-private investment: (1) Semiconductors and Electronics Manufacturing, (2) AI, Robotics, and Advanced Computing, (3) Green Hydrogen and Sustainable Energy Materials, (4) Life Sciences and Precision Health, and (5) Advanced Materials, Quantum Technologies, and Space Systems.

Measuring outcomes anew

To truly transform India's research landscape, universities must evolve from knowledge producers to impact platforms. This means three structural shifts: (1) Dedicated translational units – each research university should host a "Sciencepreneurship Studio" with PoC funding, IP management support, and access to industry mentors; (2) Joint R&D labs – universities and corporates should operate shared laboratories with co-funded researchers and open IP models; and (3) Founder-friendly policies – faculty should be allowed sabbaticals to launch spinouts; IP ownership should be equitably shared; venture participation should be legitimised as an academic outcome. Private industry must seize this opportunity.

The government's de-risking signal is clear: for every rupee invested in national R&D, private capital will be matched and protected through public support. But this should not become another CSR token. Companies must view R&D partnerships as strategic assets – ways to build proprietary technology, secure supply chains, and achieve global competitiveness. Corporate venture arms, R&D consortia, and innovation challenges under the RDIF umbrella can accelerate this shift.

India's innovation problem is not one of talent or ideas; it is one of translation and trust. Researchers rarely trust the private sector to value science; industry doubts academia's speed or reliability. We must redefine success. Instead of measuring "how much we spent," we must measure "how far ideas travelled." These are the metrics of a confident, innovation-driven nation. The RDIF represents a once-in-a-generation opportunity. With Rs 1 lakh crore at stake, India can finally align its research ecosystem with its economic ambitions. But to do so, we must move from funding research to translating research; from grant disbursement to outcome orchestration. If we combine Belfer's entrepreneurial model, RISE Europe's ecosystem pragmatism, and NCATS's process discipline, and weave them into the RDIF's fabric, we can create a powerful national translational engine.

This is India's deep science moment, which must become a movement where every rupee of research leads to innovation, every innovation leads to industry, and every industry contributes to national self-reliance. Only then will Viksit Bharat be not just a slogan, but a scientifically grounded, innovation-powered reality.

(The writer is Director, School of Social Sciences, Ramaiah University of Applied Sciences) DH 19/8

MILLENNIUM POST (P-7), 19 NOVEMBER 2025

MANY VOICES

Why engage with M(Other) tongues?

The enduring feminine metaphors of language remind us that identity is layered, evolving and enriched by the many tongues we speak and inherit

SHRUTI JAIN

THE WRITER IS A PROFESSOR OF GERMAN LANGUAGE, LITERATURE & CULTURAL STUDIES, CENTRE FOR FOREIGN LANGUAGES AT O.P. JINDAL GLOBAL UNIVERSITY

Have you ever been asked what your mother tongue is? Did you feel baffled because you couldn't quite identify which language to call your mother tongue? The question, though seemingly simple, is increasingly difficult to answer in today's multilingual, multicultural world. What does it really mean to have a mother tongue? Is it the language spoken by your biological mother, the language you learned first, or does it depend on your surroundings, your family, your workplace, or the communities you belong to?

Rabindranath Tagore is famously known to have compared the mother tongue to "mother's milk." His analogy captures the intimate and formative bond between language and identity. In times when languages are dying and the hegemony of certain languages prevails under the diktat of the neoliberal market, the call to preserve our respective mother tongues becomes urgent. As linguistic diversity diminishes, safeguarding mother tongues is not just about heritage but also about resisting cultural homogenization and reclaiming voices that risk being silenced in a globalised world. Yet, in today's fluid linguistic landscape, where people often grow up speaking multiple languages or adopt new ones due to migration and globalisation, the singularity of the metaphor feels increasingly unconvincing. Many scholars argue that the term 'mother tongue' is a relic of a simpler past, ill-suited to modern realities. After all, one's primary language need not always be the language of the biological mother. In a world where caregiving roles are diverse and multilingualism is common, the question of which language truly constitutes one's 'mother tongue' becomes even more elusive. Alternatives like 'dominant language,' 'first language,' or 'home language' have been proposed, yet none fully capture the complexity of our relationships with the languages we speak.

The term "mother tongue" persists not because it suggests a singular origin, but because, through its association with the maternal, it inherently emphasises plurality and inclusivity

Yet, despite its limitations, the term 'mother tongue' persists across cultures—as *matri bhasha* in India, *Muttersprache* in German, *lengua materna* in Spanish, and *Mamelushn* in Yiddish. Why does this enduring association between language and the feminine remain so deeply ingrained?

The metaphor of the feminine as speech can be found across various ancient world philosophies. In ancient Egypt, the goddess Maat, wife of Thoth, the god of wisdom, was revered as the goddess of rhetoric and order. Similarly, in Sumerian and Akkadian texts, goddesses like Inanna (or Ishtar) were associated with wisdom, creativity, and speech.

The maternal link to language highlights openness and connection, showing how multiple tongues expand and enrich our understanding of the world

This symbolic connection between the feminine and language is particularly significant in Indian philosophy. The *Rigveda* proclaims, "Speech was and is the Mother." Here, the goddess Vac Devi is celebrated as the embodiment of speech and sound, the origin of all life. Etymologically, *Vac* (Sanskrit for "speech" or "word") shares connections with the Latin *vox* and its modern counterparts in Romance languages, such as *voice*, *voix*, and *voce*.

Vac Devi is later associated with Saraswati, the river goddess whose attributes include wisdom, speech, and the arts. Saraswati, unlike fertility goddesses, is linked with intellectual creativity rather than physical procreation. She represents a maternal force that transcends traditional motherhood—a mother beyond mothering. Vac Devi's lineage extends to Tara and Kali, figures that also symbolise the feminine as speech and tongue, respectively.

Kali, with her protruding tongue, exemplifies primal sound and the fiery essence of language. The 51 skulls in her garland are said to represent the letters of the Devanagari script, signifying her role as the originator of speech. Her iconography could be seen as reflecting the ongoing struggle for ownership of words and the quest for self-expression within patriarchal structures.

The Rigveda divides speech into four levels: *Para* (divine, unmanifested consciousness), *Pashyanti* (intellectual consciousness), *Madhyama* (mental consciousness), and *Vaikhari* (audible speech). These levels emphasise that language operates on multiple planes, from the transcendent to the tangible.

Om Prakash Singh, in his book *Communication: Theory and Practice* (2016), translates *Para* as the divine knowledge of the Lightning Spirit and *Apara*, under which the other three levels, namely *Pashyanti*, *Madhyama* and *Vaikhari*, are subsumed, as "placental knowledge"—a connection to the fetal state of pre-natal awareness.

French philosopher Luce Irigaray and biologist Hélène Rouch, in their conversation published in *Je, Tu, Nous: Toward A Culture of Difference* (1993), discuss the semiotic value of the placenta as a biological third space. They describe it as a space that neither belongs solely to the child nor the mother but arises to accommodate the other without defence mechanisms. The placenta thus represents a unique socio-symbolic space where coexistence and difference are celebrated—a profound metaphor for the relationship between language, self, and other.

This connection between the feminine and language underscores how the maternal, reimagined, allows us to see tradition not as rigid or hierarchical but as permeable to reinterpretation and renewal. Anu Aneja, in her book *Disembodied Mothers: Re-writing the Maternal Metaphor through Goddess Iconography* (2016), emphasises that the maternal symbolises open spatial arrangements, where others exist freely alongside one another.

The German thinker Johann Wolfgang von Goethe adds another dimension to this idea. Goethe, a polyglot and advocate of the 'Eternal Feminine', believed in the plurality of languages as a force of unity. Goethe believed that nature itself was a material representation of language and that by learning foreign tongues, we come closer to understanding ourselves. "Those who do not know foreign languages know nothing of their own," he famously remarked. It is no wonder that Goethe gave the world the idea of *Weltliteratur*—a literature of interconnectedness based on respect, appreciation, and tolerance for different cultures. He reminded us that we do not live in isolated compartments of national, monolingual identities but as global citizens.

In conclusion, the term "mother tongue" persists not because it suggests a singular origin, but because, through its association with the maternal, it inherently emphasises plurality and inclusivity. Language, much like the maternal role, is not confined to one form or one origin, but is an ever-evolving, inclusive force that accommodates diversity. Rather than asking, "What is your mother tongue?" one should consider asking, "What are your mother tongues?" This shift reflects the idea that language, much like motherhood, is not a singular experience but a space that embraces multiplicity. In embracing our "mother tongues" in their plural form, we recognise that our identities are shaped not by a singular language, but by a rich tapestry of linguistic influences that come together to shape our worldview. The maternal association with language underscores the idea of connection, expansion, and openness, reminding us that our communication and understanding of the world are not limited, but enriched, through the plurality of languages we speak.

Views expressed are personal

TIMES OF INDIA (P-13), 19 NOVEMBER 2025

Switching Jobs: Where's the line between strategic & premature?

Consistency Builds Strength, Variety Builds Capability And Knowing When To Change Routines Prevents Plateaus

By Abhijit Bhaduri

If time isn't compounding into skills, you're not building a career — you're just passing time.

Careers used to be slow-cooked. Climb steadily, wait your turn, collect badges of loyalty. In the AI era, the half-life of skills is shrinking. The real currency is how fast you learn and adapt — not how long you occupy a cubicle. When I asked others about the right time to switch jobs, I got answers that ranged from a few months to a few years.

The real question is not "how long should I stay?" but "is time here compounding into skill and clarity?"

Why flexing muscles is the AI era

Brains love patterns. Whether you're figuring out a video game, spotting market shifts, or learning how office politics works, mastery comes from repetition with variation. That takes time. At the same time, skills decay faster today. New AI tools, new business models, and shifting industries reward people who learn quickly and more deliberately. Not fast for the sake of speed — but where learning is constant. Think of your career like a fitness training regimen. Consistency builds strength, variety builds capability and knowing when to change routines prevents plateaus.

When it makes sense to stay longer

Stay if the job is still stretching you. Simple test: can you name three new skills or experiences you gained in the last six months? If yes, your learning curve is alive and when learning is alive, careers bloom. Another practical signal is employer reputation. A strong company brand works like a stamp on your passport. People assume you've seen quality processes and scale. It may not be fair, but it often shapes interview decisions before you even speak.

And don't forget internal mobility. Sometimes the company isn't the problem — the seat is. A new team, manager, or business unit can reignite your growth without losing the network and credibility you've built. Staying in these situations is not inertia. It is strategic patience.

When moving on is smart, not impulsive

If your days are busy but not meaningful, your growth engine may be stalling. Hard work is valuable only when it builds capability. If effort like you are always working but not advancing, the role may lack structure for real development. Pay attention to industry signals too. Some sectors are quickly shrinking. If you see roles stagnate, technology bypassing the work, or customers moving elsewhere, an early exit prevents your long-term trajectory. And be honest about why you want to leave. "I want exposure to client-facing work and data roles" is a direction. "My manager frustrates me" is a situation. Direction builds careers. Situations pass or follow us.

How to talk about leaving early

Share what you're moving towards. Future-focused conversations signal maturity. You're not escaping, you're evolving. Employers respond to movement. Time is not the goal. Transformation is. If a workplace strengthens your skills, confidence and sense of direction, stay and build on them. If learning stalls, move toward a place where growth restarts. Careers aren't ladders anymore. They're learning journeys. And the telling of each step can shape the story you tell the world — and yourself — about who you are becoming.

(The writer is a career coach and former partner & global head of learning and development at Microsoft)

If a workplace strengthens your skills, confidence, and sense of direction, stay and build on them. If learning stalls, move toward a place where growth restarts. Careers aren't ladders anymore. They're learning journeys

TIMES OF INDIA (P-24), 19 NOVEMBER 2025

THIS TECH GIANT'S INDIAN ENGRS ARE REINVENTING STORAGE FOR THE AI ERA

The hardest problems in digital storage are being cracked in India — and transforming AI workloads for firms

Akhil George & Sajit John | TNN

Few global technology companies sit as quietly yet as deeply inside the world's digital plumbing as NetApp. Its storage systems underpin everything from banking and telecom to research labs and national infrastructure. In India alone, its technology powers the ceaseless firehose of data flowing through UPI, where every tap, transfer and settlement generates three distinct layers of data across banks, apps and NPCI. NetApp's storage platforms sit beneath much of that invisible machinery, a fact that helps explain why the company has repeatedly been ranked India's number one in external storage and all-flash arrays. But behind that market presence is another story that CEO George Kurian insists is equally important: the engineering muscle that India contributes to NetApp's most strategic innovations.

Kurian was in Bengaluru soon after NetApp's Insight conference in Las Vegas, where the company unveiled a suite of major announcements centred on AI-ready data infrastructure. Central to those advances is a new system architecture called AFX, which combines extreme-performance storage with GPUs so that data can be processed in place rather than copied repeatedly across applications. It is a shift Kurian described as "insanely faster," because it eliminates the traditional maze of six or more redundant copies created during various AI workload steps like annotation, tagging, governance and training.

AFX works alongside what NetApp now calls its AI Data Engine, a new stack that includes an active metadata engine, built-in security and guardrails, and a data transformation layer. Together, they allow enterprises to work on original data directly at the storage layer. "Many times, what you see with AI, is that you want to take the original data coming out of enterprise systems and transform it to AI-ready data," Kurian explained. "Now with our latest tech you can implement guardrails, controls, annotations, tagging—all without having to create secondary copies."

That means both training and inference become dramatically faster, since you don't have to make copies of petabytes or exabytes of enterprise data. It also makes it more accurate and easier to govern.

India's outsized role

The scale of what India contributed to this is striking. "We have 160 engineers working on it and 119 are based out of India," Kurian said. NetApp VP and engineering head Vasanthi Ramesh added that the work spanned multiple layers—from Ontap (NetApp's storage operating system) to new services to the AI Data Engine itself—reflecting how deeply embedded India is in NetApp's core architecture decisions. Ramesh explains that this complex engineering effort mattered because traditional storage-on-compute designs only made sense when AI workloads were small and predictable. But with LLMs hitting storage with enormous, parallel I/O requests, the old coupling simply broke. "The whole thing about AI today is that the access you need to your data should be really fast," she said. "The number of times the GPU is hitting your storage has increased exponentially."

The answer that NetApp's engineers came up with was disaggregated architecture—splitting compute and storage so that compute could scale independently. That required rewriting deep layers of NetApp's storage stack, creating a metadata engine capable of handling vast indexes (essentially creating a lot of basic info about the data held in a storage solution), and building systems for vector embeddings so that data could be fed efficiently into model-training pipelines.

"We are cutting short that big pipeline that used to be built. We give one box through which you can move data very fast, classify it, create metadata, generate embeddings, and scale performance as much as you want. And that performance talks directly to your Nvidia GPUs."

Kurian sees the India team's role in this as part of a broader pattern. "There's a lot of good core innovation happening in India," he said, pointing out that the campus has grown from 3,000 employees during his last visit over a year ago to nearly 3,500 now. The engineering work is not only scale-heavy but deeply technical—embedded systems, storage internals, AI/ML, generative AI processing and real-time inference. Ramesh noted that the metadata engine, composable architecture, near-compute design and zero-latency inferencing were "big trends" in Gen AI infrastructure, and India delivered on all four.

Kurian links these innovations to the real-world surge in AI adoption worldwide. "We help organisations get ready for AI," he said. That readiness hinges on organising enterprise data—something few companies have historically managed well. NetApp now sees rapid global uptake of these capabilities. "We had about 350 customer wins in the last reported quarter," he said, "up from 50 before." Enterprises are building AI centres of excellence, deploying common platforms and ensuring models comply with legal and data-governance controls. Healthcare and life sciences are currently the most advanced, he added, because their data tends to be better structured and historically machine-readable.

Cyber engineering prowess

AI is not the only front where India plays a decisive role. Cybersecurity has become the company's other major pillar of innovation. Kurian described a landscape where threat actors are constantly trying to get to your data, making storage the most logical place for defence. NetApp now embeds intelligence engines directly into its operating systems to detect ransomware "virtually instantly." Ramesh revealed that the core of NetApp's ransomware protection service is built in Bengaluru: "We have a bunch of data scientists who work from Bengaluru building these AI models." The system draws from a constantly updated threat landscape database and uses ML models to generate signatures and detect patterns of malicious behaviour.

Beyond its technical depth, the India team also plays a growing leadership role. Ramesh pointed out that India now has a very large leadership team, ranging from directors to senior managers, and a strong representation of women in the technical workforce. The company has also invested in India's future talent pipeline, designing a data intelligence curriculum that is now part of Nasscom's Future Skills platform with 1.5 million learners. It has also mentored more than 120 startups globally through its accelerator programme, a growing portion of which are now India-focused.

10/1/26

NEXUS OF GOOD

New Model for Learning

Prayoga Institute of Education Research, a 2025 Nexus of Good awardee, is redefining how India learns — through experiential science programmes, teacher-researcher models, and research-driven social impact

ANIL SWARUP

THE WRITER IS AN AUTHOR AND A FORMER CIVIL SERVANT

Prayoga presents a replicable model of how education can uplift communities while nurturing India's next generation of scientists and innovators

Prayoga Institute of Education Research was one of the proud awardees of Nexus of Good Annual Awards, 2025. It has emerged as a beacon of innovation. In a world where education and innovation are the pillars of society's development, Prayoga stands as a unique private institution with a mission to serve a public cause. Recognised by the Department of Scientific and Industrial Research (DSIR), Government of India, Prayoga's work reimagines how India can teach, learn, and inspire.

At its core, Prayoga focuses on creating scalable, adaptable, and open-source solutions that enrich learning experiences, foster scientific inquiry, and transform teachers into reflective, innovative teacher-researchers. Its work combines rigorous research with practical interventions, ensuring that educational innovations reach the students and teachers who need them most.

Kriya: Learning Science by Doing Science

Among Prayoga's many initiatives, Kriya stands out as a transformative experiment in experiential learning. The program has already reached more than 11,500 students across 100+ schools in Karnataka, rekindling the joy of discovery among children.

Through carefully designed experiments and contextual learning activities, Kriya helps children connect what they learn in textbooks to what they observe in life. The program's success extends to rural, economically weaker sections (EWS) and private schools, creating a lasting impact on the education ecosystem.

The impact has been profound: Students who once approached science with hesitation now explore it with excitement, while teachers gain confidence in facilitating experiential learning of science.

Anveshana: Nurturing Scientists for the Nation

If Kriya sparks curiosity, Anveshana nurtures it into inquiry and research. This initiative encourages high school students to take on independent research projects — introducing them to the process of questioning, hypothesising, experimenting, and analysing.

Anveshana is remarkable not just for what it teaches, but for whom it reaches. Many of its participants, being first-generation learners, often encounter scientific and laboratory instruments for the first time. Guided by Prayoga's mentors and researchers, these students have produced work of exceptional quality.

The program's transformative impact is evident in the achievements of its 110 young researchers. Students, including those from tribal and rural backgrounds, have authored research articles published in international journals, and have won prestigious awards for innovation and research at national forums. 11 peer-reviewed research articles in international journals is no small feat! The next year, the program will be scaled further, extending its reach to more schools and nurturing the next generation of young scientists across India.

Prayoga's Kriya and Anveshana programmes show how experiential learning and student research can reshape the nation's scientific future

I had the privilege of witnessing the Anveshana Project Showcase for the 2024 batch. Watching students — from tribal and rural backgrounds — confidently explain their research projects was deeply moving. I am proud to share that these tribal and rural girl students are now published authors – it is possibly the first time that a scientific research article authored by Indian high school students is published in a Scopus-indexed journal by Elsevier.

Looking ahead, there is also the exciting possibility of incubation within Anveshana, where students could explore ways to develop their research projects into larger solutions or prototypes. The 37 research projects executed at Prayoga have far-reaching implications on human society and scientific progress. Coupled with a potential Centre for Excellence, this approach encourages innovation, experimentation, and the early development of entrepreneurial thinking among students.

Empowering Teachers: Transforming the Transformers

Sustainable reform in education begins and ends with teachers. Prayoga recognises this truth and has built one of the most comprehensive teacher empowerment models in recent years.

Over a five-year engagement program, teachers are trained, mentored, and continuously supported to evolve into teacher-researchers. The process includes residential workshops, dialogues with educationists and scientists, and ongoing mentorship by the Prayoga team. Teachers plan, execute, and reflect upon their classroom practices — learning to innovate within their own contexts. What sets this program apart is that Prayoga goes a step beyond and assigns mentors to the teachers, who handhold teachers through their transformative journey.

What sets this program apart is the personalised handholding: mentors accompany teachers through every stage of their transformative journey, ensuring that new teaching methods are not only learned but internalised. When teachers grow confident and reflective, the ripple effect on student learning is profound. Prayoga's model provides a replicable framework for how teacher development can be both sustained and scalable.

Leadership with Vision

At the heart of Prayoga's success is the vision of Dr HS Nagaraja, a respected educationist whose decades-long work has been devoted to improving the quality and accessibility of education in India. His philosophy is simple: education must empower both the learner and the teacher.

The institution's Advisory Board comprises eminent figures who provide strategic guidance to Prayoga's mission. Chaired by Dr MN Venkatachaliah (Padma Vibhushan), former Chief Justice of India, Prayoga remains at the forefront of educational innovation, seamlessly integrating research, pedagogy, and social impact.

Infrastructure and Expertise

Prayoga's work is anchored in a state-of-the-art facility spanning 1.5 acres, with a 30,000 sq. ft. working area dedicated to thematic science and education research. The campus hosts a team of Education Researchers, Scientific Researchers, Subject Experts in Mathematics and Science, Field Academic Staff, Program Management Professionals, and Data Science and Pedagogy specialists. This combination of advanced infrastructure and expert personnel creates an enabling environment for research, innovation, and meaningful social impact.

The Way Forward

India's education system stands at a crossroads. On one side lie challenges of quality and equity; on the other, immense opportunities born of innovation and intent. Institutions like Prayoga show us what is possible when research and practice meet purpose.

Its efforts in transforming schools, empowering students, fostering scientific inquiry, and nurturing teachers are reshaping the future of education in India. By embracing experiential learning, research-based pedagogy, open-source solutions, and incubation opportunities, Prayoga exemplifies the transformative potential of education research and social impact. Let us collectively support Prayoga in its endeavour to enrich the lives of students, teachers, and communities across the nation and beyond.

Views expressed are personal

MILLENNIUM POST (P-15), 20 NOVEMBER 2025

CEO SPEAKS

Intellectual Arrogance: The New Professional Weakness

DR SANKU BOSE

The most dangerous sentence in the modern workplace is no longer "I don't know." It is the far more confident, far more destructive declaration: "I know enough." In the age of Artificial Intelligence (AI), where knowledge evolves at the speed of an app update, this mindset has quietly become the new professional weakness. I've seen it untold not in dismal research papers or theoretical forecasts, but in real meeting rooms, classrooms, interviews, and board discussions—an arrogance so subtle that most people fail to recognise it as the very thing holding them back.

The irony is striking.

We are living in a time when AI can write code, solve problems, generate ideas, and now even teach with remarkable precision. The world has never been more abundant with free knowledge, accessible tools, and learning opportunities. Yet I see more professionals—young and old—growing smugly complacent. They use AI tools casually but assume that using them is the same as understanding them. They believe that years of experience immunise them from technological shifts. They think curiosity is optional, not foundational. And in each of these assumptions lies the seed of future irrelevance.

What unsettles me most is that intellectual arrogance rarely announces itself. It shows up quietly: in the manager who dismisses new tools because "this is how we've always done it," the senior academic who insists that AI cannot possibly enhance teaching, the student who believes a degree is the final certificate of competence. I meet bright young minds who confuse confidence with capability, and mid-career professionals who assume that past success guarantees future relevance. The world has changed its rules—but a frighteningly large number of people are still playing by the old ones, believing, in their ignorance, that they are doing the right thing!

I've noticed this even more sharply as I interact with India's young workforce. They are brilliant, ambitious, digitally fluent and yet many are not future-proof. They assume that being comfortable with technology equates to being prepared for the future. But the future does not reward convenience; it rewards adaptability. The real divide emerging today is no longer between the "skilled" and the "unskilled," but between the "teachable" and the "untrainable." AI doesn't replace people; it replaces people who stop learning. This is the inescapable truth.

There are three quiet warning signs that someone is drifting toward professional decline through complacence. The first is relying too heavily on past achievements, as if yesterday's victories can protect tomorrow's relevance. The second is avoiding unfamiliar tools not because they are unhelpful, but because they make us feel incompetent. The third is the belief that education ends once you leave university. If even one of these signs is present, the slide has already begun, usually without the person even realising it.

In my own professional journey, I have learned that humility is not a personality trait; it is a power skill. It is not about being modest, but about staying open—open to correction, to reinvention, to discomfort. And in a world where machines can learn continuously, the ability to remain open to learning has quietly become the strongest differentiator.

For universities, this shift carries enormous responsibility. At Sister Nivedita University (SNU), we have consciously redesigned our ecosystem around lifelong learning—the skill that will outlast every algorithmic upgrade. AI-integrated curricula, interdisciplinary models, international collaborations, and emotional wellbeing initiatives are no longer optional enhancements for us; they are essential for preparing students not for one career, but for multiple evolving ones. We are not preparing graduates for a stable world; we are preparing them for a world that constantly reinvents itself every few months.

I often tell students and young professionals that the old model—learn until 25, work until 60—has expired. The new model is simple and non-negotiable: learn forever. If you want to stay relevant forever. Curiosity is not a soft skill; it is economic survival. Adaptability is not a bonus; it is the backbone of employability. Humility is not politeness; it is practical intelligence.

IN A WORLD WHERE MACHINES CAN LEARN CONTINUOUSLY, THE ABILITY TO REMAIN OPEN TO LEARNING HAS QUIETLY BECOME THE STRONGEST DIFFERENTIATOR

As AI becomes more powerful, we must become more human. Perhaps consciously cultivate being so. That means nurturing the qualities a machine cannot replicate—empathy, creativity, ethical judgment, the ability to connect dots in messy, human contexts. But none of these qualities flourish in a mind that believes it already knows enough. The moment we declare our learning curve as complete, we begin to decline.

My message to young India and equally to experienced professionals is this: guard yourself against the quiet comfort of certainty. Stay curious even when it feels inconvenient. Challenge your own assumptions as frequently as you update your software. Learn something new before the world forces you to. And above all, choose humility over arrogance every single day. Because in this AI-saturated age, the real danger is not that machines will out-think us. It is that we will stop thinking we need to learn any more.

The author is the Vice-Chancellor of Sister Nivedita University and Group CEO, Techno India Group. A visionary leader, he is shaping future-ready institutions and inspiring students to lead with purpose.

TRIBUNE, (P-6), 20 NOVEMBER 2025

Let kids embrace AI at their own pace

Class III is too early a stage to have artificial intelligence as a mandatory subject

AVIJIT PATHAK
SOCIOLOGIST

RHYTHM: Schools should not discipline kids in a way that they lose their simplicity, curiosity and playfulness. GETTY

ARTIFICIAL intelligence (AI) is here, and it seems that you and I will have to negotiate it today or tomorrow. Yet, it unsettles me that even students of Class III (hardly nine-year-old) have to learn AI as a mandatory subject. The Central Board of Secondary Education (CBSE) has decided to introduce AI for all students from Class III onwards from the 2026-27 academic session.

In order to go deeper into the meaning of this move, or what the Ministry of Education regards as "one of the significant curriculum overhauls in modern history", it is important to reflect on two issues relating to the rhythm of life, technology, culture and pedagogy.

To begin with, it is important to understand that in these hyper-modern times, we are almost compelled to accept every new piece of technological innovation — and quite often, without the slightest ambiguity. However, this constraint is often transformed into a form of seduction. It is not uncommon to see even three-year-old kids 'playing' with smartphones; and the resultant addiction to the screen is making it increasingly difficult for them to look at the open, vast sky, see a tree, notice a bird flying or feel the rhythmic play of a flower and a butterfly. Yes, technological gadgets seem to have colonised their souls.

As we normalise this invasion of technology in almost every domain of life, it is, therefore, not surprising that the CBSE too feels that even children of Class III should not lag behind, and must begin to learn the fundamentals of AI through 'playful/interactive' methods'.

Moreover, who can say 'no' to AI, particularly when the techno-corporate elite and the market-driven advertising machinery keep reminding us of its 'revolutionary' potential? And possibly, many ambitious parents also think that in this fast-changing world, if their children do not feel comfortable with AI as early as possible, they will lag behind and fail to cope with newly emerging fields like data analysis, robotics and design innovation!

However, amid this techno-seduction, we should not forget that not everything is necessarily promising about the use of AI in the realm of education. Professors of leading IITs and IIMs have expressed serious concern over this trend. Recently, Prof Ranjan Banerjee — the Director of IIT-Delhi — reminded his students that "an over-reliance on AI may hinder essential learning outcomes such as critical thinking skills." Likewise, in IIMs, as a professor has observed with deep anguish, some of the students are asking AI platforms to prepare even field studies.

> Let children develop their interest in the larger world by playing with the atlas, the globe and the art of storytelling.

Indeed, as these otherwise bright students are tempted to surrender their own critical/creative thinking and produce AI-mediated assignments, they deprive themselves of what makes them humane: their subjectivity, their agency, their experiential knowledge, their 'imperfection', their hard intellectual labour, and above all, their right to make mistakes. Accept it: Beyond the excessive hype over AI lies a brute fact. It can, as Israeli historian Yuval Noah Harari has cautioned us, create a situation in which humans might lose control over their own invention. Isn't it frightening?

Furthermore, as a teacher, I often ask myself: What do the children of Class III actually need for their cognitive, psychic, aesthetic and intellectual development? Is it AI or something else? Before everything, let us accept that without altering the very meaning of schooling, no technology can arouse the child's interest in active learning. Let schools not look like prisons; let schools not 'discipline' our children in a way that they lose their simplicity, curiosity, wonder and playfulness.

Of course, they ought to learn a bit of elementary mathematics. They need to learn how to read, write and articulate themselves. It is equally important for them to learn how to share, relate to others and work in a group. Let them learn elementary arithmetic through everyday activities that demand addition, subtraction, multiplication, division and some sort of quantification or measurement.

Let them develop their interest in the larger world by playing with the atlas, the globe and the art of storytelling. Let them see, touch, smell and read good/colourful books, and evolve a taste for reading. Let them develop the faculties of observation and reasoning. Let them do things with their hands and legs. And above all, let them play and sharpen their physical/kinetic energy. Let them look at a flower, a tree, a river, and experience wonder and mystery. And this sort of sensitivity, we should not forget, is the highest form of intelligence. I have, therefore, no hesitation in saying that the students of Class III do not need AI. Instead, they need a pedagogic milieu the likes of Rabindranath Tagore, Mahatma Gandhi and Jiddu Krishnamurti experimented with.

Think of the burden of knowledge these tender children are asked to carry: English, science, civics, mathematics, computer applications and now AI! Why do we want to rob them of their childhood? Why don't we realise that if in the formative years, they are allowed to evolve with love and care, and inspired to learn/unlearn without the fear of lagging behind, they will eventually evolve as intellectually awakened, emotionally fulfilled and aesthetically sensitive citizens?

It will not be difficult for them to retain their creative surplus and critical thinking. And as they grow up, it will be possible for them to decide when and how to use AI, and most importantly when to say 'no' to it, and assert that the meaning of being humane is to be a master (not a slave) of technology.

Is anybody from the Ministry of Education or the CBSE listening?

ASSAM TRIBUNE (P-6), 21 NOVEMBER 2025

IITG invention

The invention of a groundbreaking solution to address fuel adulteration and oil spill cleanup by researchers at IIT Guwahati is something that has done the State proud. Indeed, facilitating world-class research and innovation should be central to the functioning of our higher institutions of education. If one were to look at top-notch global institutions, such pioneering research has always been associated with them. Unfortunately, we still have a lot to do to catch up with global standards and one expects this pioneering feat by IITG to be a trailblazer vis-à-vis fundamental research and innovation. The IITG team has developed a Phase-Selective Organogelator (PSOG) molecule, a novel material capable of detecting fuel adulteration and cleaning oil spills. This innovative material can also detect adulteration or contamination of petrol with kerosene, aiding administrations in identifying such issues. Given that mixing of kerosene with petrol is a common issue in India, this innovation can go a long way in checking petrol adulteration. Additionally, with its potential to selectively absorb oil from water and solidify it, it offers a significant advantage in cleaning oil spills. Oil spills are among the most harmful environmental disasters, causing extensive damage to marine life and coastlines.

Over the centuries, science and technology have played a key role in uplifting human civilisation, with the pace becoming more pronounced following the industrial revolution. Indeed, there exists an undeniable link between a progressive, equitable economy, and the proper application of science and technology. Economic progress and technological advancement generally go hand in hand. The paradox in India has been that despite the remarkable growth of science and technology, a large segment of the masses continues to remain deprived of the fruits of development. This brings us to the all-important question of how to apply science and technology for the greatest good of the greatest number – something that has not yet taken place in the country. The eminent scientist, Prof CNR Rao had once – while terming the IIT system as the only brand India created after Independence – lamented in the same breath that had all the IITians worked for the good of the country, India would have been different today. It's disturbing to see that technological advancements have fallen short of fulfilling the collective, national need of making India a better place to live in for its citizens. Here is the crucial imperative of ensuring that science and technology are applied for sustainable and optimum utilisation of our natural as well as human resources to transform India into a developed nation. Countries desirous of making a mark globally – such as China and South Korea – are investing heavily in education. Our government would do well to enhance allocations for sectors like education and healthcare.

AT/21/6

MILLENNIUM POST (P-7), 21 NOVEMBER 2025

NATION PULSE

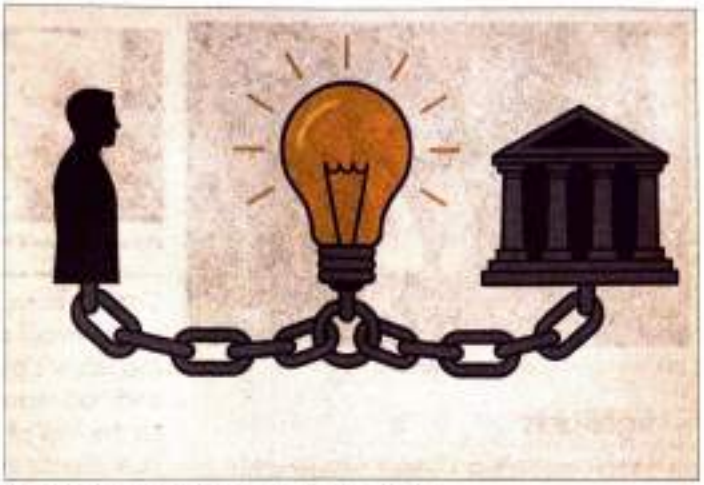
Individuals. Ideas. Institutions.

As institutions age and societies rush ahead, the challenge is keeping alive the dialogue between visionaries, the ideas they spark and the systems meant to carry them forward

SHISHIR PRIYADARSHI

THE WRITER IS THE PRESIDENT OF CHINTAN RESEARCH FOUNDATION

Individuals, ideas and institutions power a nation's progress—each incomplete without the others—and when any link weakens, decline begins quietly, which is why this chain matters more than ever today



Individuals ignite imagination; institutions give it continuity

A few weeks ago, over an unhurried cup of coffee in my hometown, a friend pointed to a dilapidated bungalow across the street. "That place," he said, "was once the headquarters of a cooperative that transformed this entire district. Started by one man with a stubborn idea—and look at it now, swallowed by a mall." He wasn't saying it with nostalgia as much as with a quiet warning. "That's the thing about nations," he added. "They rise when individuals carry ideas, and they decline when institutions forget them." His remark lingered with me long after the conversation ended, because in one stroke he had captured what I've long believed: that human progress can be understood through a simple but profound chain—individuals, ideas, and institutions. And that the moment any link weakens, the entire chain begins to fray.

Every institution we admire today, and many we take for granted, began with the courage of an individual who refused to accept the world as it was handed to them. Sometimes this person is a reformer who pushes against tradition; sometimes an entrepreneur who dreams past today's constraints; sometimes a thinker who asks the uncomfortable question. These individuals are the sparks. They ignite imagination, they disturb complacency, they widen the horizon of what seems possible. Yet sparks alone cannot illuminate a path for an entire society. For imagination to spread beyond personal conviction, it must be carried by something more durable—an idea.

Ideas are the bridges between one person's vision and collective purpose. They translate emotion into meaning and conviction into direction. Some ideas arrive with a roar, others with a murmur; some succeed by challenging the world, others by helping people make sense of it. Many fade with time, but a rare few outlive their creators and go on to inspire people who never knew—or even heard of—the original thinker. But even the strongest idea is vulnerable to the erosion of time, unless it finds a structure that can give it continuity. That sturdiness comes from institutions.

Institutions are often spoken of in dry, bureaucratic terms, but at their essence, they are the quiet skeletons that keep societies upright. They convert fluid principles into predictable action and give longevity to what would otherwise remain temporary bursts of brilliance. The best institutions retain the moral clarity of the ideas they were built to protect while adapting to new realities. The worst forget their purpose, becoming monuments instead of movements. More troublingly, when institutions lose memory of the ideas that birthed them, or when they calcify into rigid systems suspicious of change, they cease to nurture new individuals. They then become places where imagination goes not to flourish, but to tire itself out.

We often imagine individuals, ideas, and institutions as a neat, chronological sequence—first the person, then the philosophy, then the organisation. But the truth is far more dynamic. Institutions shape individuals every day: teachers who influence students, bureaucracies that mould young officers, companies that cultivate new entrepreneurs. Ideas evolve within institutions as reformers push for change or reinterpret old principles for new generations. And individuals, at every stage, challenge institutions to rediscover their founding impulses. The relationship is less like a ladder and more like a conversation—one that must continue if a society is to remain alive to its purpose. When individuals stop believing, or ideas stop inspiring, or institutions stop listening, decay doesn't arrive with a crash; it arrives silently, in drift and disillusionment.

This dialogue between individuals, ideas and institutions feels especially fragile in our present moment. We live in a time of technological acceleration, social churn, political contestation and institutional fatigue. Many of our systems were built for slower, more predictable eras and now struggle to keep pace with demands that shift every few months. At the same time, individuals brimming with imagination often feel stifled by structures that move too cautiously, while institutions worry that rapid change may erode the stability they were designed to protect.

The key question for our age is how to keep the dialogue going: how to ensure individuals find the space to think boldly, how to keep ideas flexible and relevant, and how to make institutions both reliable and responsive.

It is in moments like these that the lives of past leaders acquire renewed relevance—not as icons to be idolised, but as examples of how this delicate chain can be held together. Lal Bahadur Shastri is one such figure whose legacy quietly illuminates this dynamic. His leadership was marked not by spectacle but by moral steadiness, not by grand declarations but by clear-headed institution building. He believed that ideas achieve meaning only when translated into structures that serve ordinary people, and that institutions remain strong only when rooted in simplicity, integrity and trust.

His example reminds us that strength need not be loud and that endurance often comes from clarity rather than force. It is a reminder—not nostalgia—of how the chain between individuals, ideas and institutions is neither theoretical nor abstract, but profoundly real.

As we navigate our own moment of transition, perhaps the lesson to carry forward is both simple and demanding. Societies thrive when individuals dare to imagine differently, when ideas inspire more than they divide, and when institutions hold firm without shutting their doors to renewal. None of these pillars can sustain itself alone. The spark needs the bridge; the bridge needs the anchor; the anchor must stay connected to the spark.

If each generation can strengthen this chain in its own way, then the past remains alive, the present becomes purposeful, and the future stays within reach.

Views expressed are personal

STATESMAN (P-7), 21 NOVEMBER 2025

Arduous trek to a teaching job in the US

GRACE KAO

As we approach the Thanksgiving holiday and the end of the fall semester in the US, it is also a time of anxiety for Ph.D. students on the academic job market. Many more people with Ph.Ds aspire to be professors than there are positions. The road to becoming a professor is arduous, even for students at Ivy League institutions like the University of Pennsylvania, where I taught for 20 years, and at Yale University, where I have taught for eight years. All of us with tenure-track or tenured positions in fields like sociology have gone through what I am about to describe. It is remarkably similar across multiple disciplines at research-intensive universities.

This career path is not for the faint of heart. The job market cycle spans an entire year. Keep in mind that students near completion in a highly-ranked Ph.D. programme have already been through a rigorous selection program.

In our department, most Ph.D. candidates will enter the job market in the sixth year of their graduate studies. By this point, they have completed their coursework and field exams as well as written and defended a dissertation proposal. They have likely written much of their dissertation, which is an original body of research in the form of a book. They have attended weekly workshops and learned to critically assess research during their graduate training. They will have served as teaching fellows, helping professors with their classes.

While it is not a requirement for graduation, they will have certainly attended many academic conferences and published multiple peer-reviewed journal articles. Journals have acceptance rates in the single-digit to 10 per cent range, and it sometimes takes 1-3 years to publish a single peer-reviewed paper.

To prepare for the job market, sometime in the summer, job market candidates will begin writing a cover letter as well as research, teaching and service statements. These materials are written and revised many times by the students and their professors. Students have to solicit letters of recommendation from their committee members (people like me). They need to prepare their writing samples. They then scour job listings for jobs in the US and sometimes all over the world. There are single deadlines for the year, which may be Sept. 30, Nov. 15, etc. In the sociology job market this year, there may be dozens of tenure-track jobs (yes, you read that correctly) in the entire United States for a beginning assistant professor. I would advise my students to apply for all the ones that may fit their expertise and that they can imagine accepting if offered the position. The odds that they will be interviewed for any particular job are near zero, as a single position can solicit hundreds of applications.

Once they apply and send their materials to the application portal, the waiting game begins. Meanwhile, they will give practice job talks - these are usually 35-40 minute presentations about their research with a 30-minute or so "Question and Answer" session. Other audience members of professors and students will ask difficult questions about their research, and they must practice how to respond to them. Poor responses to questions, even after a great talk, can end a job candidacy.

In our discipline, some schools might conduct zoom interviews with candidates first before inviting them to campus interviews, while others skip this step. Typically, three candidates are invited to a campus interview for one tenure-track position. What is heartbreaking is that despite the many practice job talks and preparations for the job market, some Ph.D candidates or Ph.D holders will not receive an invitation for a job interview.

Every graduate student I have ever met spends time grappling with existential questions about whether they want to teach at a small liberal arts college or a research university; whether they would like to live in an urban area in the Northeast like New York or Boston or in the West Coast like Los Angeles; and whether they are willing to live in a small town in the South or a mid-sized city in the Midwest. I tell them all of this is irrelevant because no one has offered them a job yet and they have no choices to make until they successfully get a job offer. This is a lesson that they will not quite understand until they are actually on the job market. Ph.D candidates can also hope to obtain post-doctoral positions, but these are less common in the humanities and social sciences than in STEM fields. Still, these can be excellent one to two-year positions, where one can spend additional time conducting research and building one's curriculum vitae. However, the supply of post-docs also leads to a more competitive supply of job candidates, because new Ph.Ds and Ph.D candidates have to compete against them.

If you have friends or family members who are currently enrolled in Ph.D programs and hope to become professors, be kind to them. Don't ask them why they are in school for so long and if they have yet received a job offer as a professor. It's a bit like asking a K-pop trainee if they have debuted yet.

The Korea Herald/ANN.

TRIBUNE, (P-7), 21 NOVEMBER 2025

Punjab must defend its stake in PU

NAVREET KAUR
DEPT OF PUBLIC ADMINISTRATION, PU

THE phrase 'governance reforms' is being strategically used to demolish the democratic essence of a public university. The notifications (for governance structure reforms in Senate) dated October 28, 2025 and then November 4, issued regarding the reconstitution of the Senate of Panjab University, and the withdrawal of the same on November 8 raise many concerns. They relate to the constitutional principles of federalism, the purview of the executive or administrative directions external to its provisions (in this case, the Ministry of Education) and the authority of the Senate in initiating reforms under Sections 19 and 20 of the Panjab University Act, 1947, erosion of the democratic structure and encroachment of the rights of Punjab.

It appears that the process and mechanism adopted are inconsistent with the statutory framework laid down under the Panjab University Act, 1947. The governance of Panjab University is explicitly and comprehensively defined under this Act. Sections 19 and 20 of the Act vest the Senate with powers to regulate, review and recommend reforms related to the university's constitution and governance.

The Senate is the supreme policymaking body. Any reform concerning the composition, representation or powers must be proposed and debated in the Senate, and then processed through the legislative or statutory route, as explicitly specified in the Act, and not through executive or administrative directions external to its provisions.

Panjab University functions as an interstate institution under the Punjab Reorganisation Act, 1966. Hence, any structural reform must be preceded by consultation with Punjab. Section 72(1) of the Reorganisation Act recognises PU as an inter-state institution in which Punjab retains an integral role. The said notification (now withdrawn), issued without consultation or concurrence of the Punjab Government, contravenes the cooperative federal mechanism envisaged in the Act.

The Government of Punjab in 2021, through the Directorate of Public Instruction (Colleges), stated before a high-level committee that "the reforms to be undertaken for better governance of the university should also be strictly as per existing statues and law and that no action is taken contrary to the statutes or against the interests of the State of Punjab."

Instead of changing rules as per law, the notification had reduced the representation of Punjab in the college teachers' constituency (from 11 to 6), principals' constituency (from 11 to 4) and abolished the graduate constituency (15 representing alumni to 0) and the faculties constituency (6 to 0).

The delay in announcing the Senate election for 2024 and the systemic restructuring of the Senate by reducing the representation of Punjab in the university's governance framework and the Syndicate by replacing electoral processes with administrative nominations was a calculated attempt to reinforce the Centre's claim to governance over the university, sidelining the representation and Punjab's historic stake in PU.

The collective protest has also raised the faulty federal patterns, chronology and passive approach of the state government. The protest is being led by PU students; it should have been led by the Punjab CM. The government chose to concentrate on the "Tarn Taran elections" instead of addressing this issue. This protest reaffirms the power of democracy and raises issues beyond party lines.

Institutions historically anchored in Punjab's sphere are being restructured into centrally governed bodies, reducing Punjab's jurisdiction and representational power in Chandigarh. The political parties have largely failed to address these issues.

The Tribune

TWO VIEWS

PU SENATE ISSUE

Let academics, not agitation, lead the way

HIMANSHU ATAL

RESEARCH SCHOLAR & ASST PROFESSOR, SGGS COLLEGE, CHANDIGARH

THE ongoing protest over the Senate issue at Panjab University, Chandigarh, has once again placed one of India's premier institutions at a crossroads. As someone who stands at the intersection of two worlds — research and teaching — I witness the unrest not merely as a news event but as a tremor that is affecting classrooms, laboratories and the academic rhythm of colleges across the region.

FILE PHOTO

This period is critical for thousands of students. Practical examinations are underway and semester exams are approaching. College faculty members are navigating packed schedules to ensure the smooth conduct of assessments. Amidst this academic urgency, prolonged protests and political escalations are pushing the real stakeholders — students and teachers — into avoidable distress.

Protest, undoubtedly, is a democratic right. Students should raise their voices when they feel unheard. But protests must also be measured, purposeful and mindful of their ripple effects. What we are witnessing now appears to be veering in a direction where the larger academic community may suffer more than it benefits. The central mission of a university — education and research — is being overshadowed by institutional tensions and politicised narratives.

For the administration, particularly the Vice-Chancellor and senior authorities, this is a moment demanding maturity and steadfastness. Decisions should not be clouded by political pressure or influenced by transient interests. Political parties will come and go, each with their agendas. But Panjab University must remain steadfast as a centre of excellence — an institution of innovation, critical inquiry and intellectual freedom, not a ground for propaganda or misplaced ideologies.

The identity of PU has been its academic strength, cultural ethos and legacy of producing thinkers and leaders. It must not be allowed to drift into a space where external influences dilute its purpose.

A peaceful resolution is not just preferable, it is essential. Dialogue, transparency and accountability must replace confrontation. The administration, student representatives and faculty must find common ground that prioritises academics, mental well-being and institutional integrity.

At such a moment, the media, especially the digital format, must play the role of the fourth pillar of democracy with fairness and restraint. When a young woman raises her voice against an authority, the coverage should be balanced and sensitive to the long-term implications for her personal and academic life. While a single story can elevate someone, it can also expose them to scrutiny beyond their years. In this age of viral headlines and instant judgments, balance is not just a virtue; it is a safeguard. A university campus is a delicate ecosystem; public narratives can easily tilt its harmony.

As someone committed to research and teaching, I believe the way forward lies in restoring harmony. The classroom must remain the centre of student life, not the protest site. Our students deserve stability, our teachers deserve support and our university deserves dignity.

Panjab University has weathered many storms in its long history. It can overcome this one too — if all stakeholders choose wisdom over indignation and long-term vision over short-term victories.

A calculated attempt was made to dilute Punjab's historic stake in PU.

The classroom must be the centre of student life, not the protest site.

INDIAN EXPRESS (P-10), 22 NOVEMBER 2025

A student's death, a society in the dock

IT TAKES a village to raise a child, and between home and school exists a compact to nurture curiosity, offer steady ground when the world grows unkind, and safeguard vulnerability. The death by suicide of a Class X Delhi student lays bare the fragility of that promise. "*Sorry* mummy, *aapka itni baar dil toda, ab* last *baar todunga...*" The heartbreaking note left behind by the 16-year-old — a child allegedly worn down by months of censure and public shaming by teachers — shows what happens when a young person feels stranded in the very spaces in which they are meant to be nourished.

Across India, such tragic stories have become far too frequent. The National Crime Records Bureau registered 13,892 student suicides in 2023, accounting for around 8.1 per cent of the total deaths by suicide in the country. The numbers have grown by 65 per cent over a decade. The surge not only outpaces the national suicide growth rate, it is also a reflection of the unyielding academic stress, growing socio-economic uncertainty, and the increasing cultural pressures the young find themselves mired in — the shrinking space afforded to mistakes and the ever-expanding demands to be perfect or to conform; the inordinate amount of social-media exposure and the loneliness and inarticulation of youth in a world that is ostensibly more connected.

The school has placed four members of its academic staff under suspension. The Delhi government has set up a high-level probe committee. But the cycle of blame and retribution fails to address the deeper challenges. In classrooms and coaching centres, in family dining rooms and social gatherings, the architecture of young people's distress is often visible in fragments — independence tamped down as insouciance, silence mistaken for sullenness, perfectionism praised until it calcifies into anxiety. For many adolescents, their interior worlds are crowded with apprehensions they struggle to name. While schools and parents speak the language of care, the grammar of everyday life tells a harsher truth. It is this contradiction that now confronts parents and educators with unprecedented urgency. How does one build environments where ambition does not eclipse well-being, where attention extends beyond performance metrics, where counselling truly creates safe spaces for children to speak up, to falter without fear, where they are seen for who they are? The road ahead lies not only in creating systems that recognise distress early, but in reshaping the cultural impulses that ignore vulnerability. It is time for that deeper work to begin.

HIGHER HORIZONS

Global Degrees, Local Campuses

With foreign study turning costlier and riskier, India's bid to become a global education hub gains urgency, but success hinges on reforms, autonomy, and industry-linked outcomes

K.D.P. RAO

THE WRITER IS A FORMER ADDITIONAL CHIEF SECRETARY OF CHHATTISGARH

The education industry in India is estimated to reach $225 billion by fiscal year 2025. But with the current infrastructure, as experts feel, a huge gap persists between demand and supply

Acquiring qualifications from foreign universities was once a luxury only aristocrats and royalty could afford. Now it is a necessity for youth from the middle classes, especially in STEM streams, to secure a decent job either abroad or at home. A finding by the Erasmus Impact Study says that academic competence acquired through international courses greatly helps employability. Foreign institutions of higher learning in specialised fields like artificial intelligence, biotechnology, or renewable energy provide access to cutting-edge research facilities. Tech-led entrepreneurship has encouraged new employment avenues in the gig economy and in data-related fields. Hence, the beeline for enrollment in reputed institutions abroad.

Currently, over 1.3 million Indian students are pursuing higher education in 101 countries, making India the world's top source of international students. However, reportedly, in 2024, the student migration has declined sharply by 15 per cent, and in 2025, there is a 50–70 per cent drop in US applications and a staggering 93 per cent plunge in Canadian study permits. This reversal is largely attributed to policy crackdowns, hikes in fees, and enhanced financial and academic qualifications, not to mention racial discrimination and violence against Asians. The average cost for a 2-year master's abroad is estimated between ₹40–80 lakhs, excluding living expenses. But ironically, contrary to the dreams of global opportunities that attracted students to move out of their country, 40 per cent of them are reportedly returning jobless, facing OPT/TPD limits (1–3 years).

Taking note of the scenario of student migration, NEP, way back in 2020, had incorporated a vision to transform the Indian higher education narrative into one of global standards, focusing on research, critical thinking, and problem-solving. The dual purpose is to position India as a global education hub, and also to curb the $28–30 billion annual outflow from Indian students enrolled abroad. Translating the vision into reality, a revolutionary scheme was rolled out in 2023, permitting world-class universities, 'ranked in the top 500 globally', to establish their own autonomous campuses in India either independently or through joint ventures with Indian companies. More than a dozen Foreign Higher Education Institutions (FHEIs) were invited through Letters of Intent (LOIs).

India is betting big on internationalising higher education through foreign university campuses and regulatory reforms

Correspondingly, the UGC issued guidelines in 2023. FHEIs were allowed to operate either under University Grants Commission (UGC) guidelines or in Gujarat International Finance Tec-City (GIFT City), a central business district in Ahmedabad. The FHEIs will offer courses through certificate, diploma, degree, research, and other programs at the undergraduate, postgraduate, doctoral, and post-doctoral levels in a variety of subjects and programs. Importantly, it was mandated that qualifications obtained in FHEIs shall enjoy the same recognition and status as if they were conducted in the home jurisdiction and also shall be equivalent to any corresponding degree awarded by the Indian Higher Educational Institutions. With regard to governance, the FHEIs will undergo a quality assurance audit and submit the report to the Commission. Besides, FHEIs are subjected to annual reporting, maintenance of accounts, and mechanisms for addressing student grievances. Similarly, the Exchange Control Regulations (Foreign Exchange Management Act) and the Foreign Contribution (Regulation) Act (FCRA) will apply to FHEIs as well.

The policy has paid dividends with Deakin University and the University of Wollongong from Australia setting up their campuses in Gujarat's GIFT City, and the University of Southampton in Gurugram, while other universities like Western Sydney University and Victoria University are erecting campuses in locations like Greater Noida and Noida. The Illinois Institute of Technology, US, and Istituto Europeo Di Design (IED), Italy, have received approvals to set up their campuses in Mumbai. However, no Ivy League or Oxbridge institutions, or solid mid-tier globals (top 100–400), better than many Indian privates, have responded yet. Other popular, well-ranked institutions expected to open their campuses are the University of Bristol and the University of Liverpool.

Nevertheless, most FHEIs that are expected to operate by 2026 are yet to set up their campuses. A combination of regulatory, financial, and operational issues seems to be impeding the momentum. A multi-layered approval process involving UGC, the Ministry of Education, and local governments, not to mention field-specific bodies like AICTE, is said to be the reason behind the delays. Secondly, the rule of non-profit status compels the FHEIs to register as trusts, complicating the process. Thirdly, an investment risk holding back the FHEIs is the requirement of a full-fledged campus, which makes the project capital-intensive; and absent subsidies, and with limits on surplus repatriation, the pricing can go higher than available global options while returns are uncertain. For example, Texas A&M closed its Qatar campus after 20 years due to similar reasons.

According to Statista, the education industry in India is estimated to reach $225 billion by fiscal year 2025. But with the current infrastructure, as experts feel, a huge gap persists between demand and supply. Pushing the GER towards 50 per cent by 2035, as envisioned, would necessitate tripling the current portfolio of universities and more than doubling the colleges, which the government cannot accomplish alone.

Entry of FHEIs in the Indian higher education sector, at this juncture, can be a game-changer as they can help reduce migration, facilitate expansion, and also set standards of excellence that encourage competitiveness. But a revision of the guidelines may be necessary in order to fully realise the dream of internationalising Indian higher education. For instance, the criterion of "top 500 global ranking" excludes many strong but unranked institutions, such as those in the US. The experiment of South Korea can be tried, where world-class institutions successfully collaborated with local ones. Preferential treatment to FHEIs can deliver better results in place of subjecting them to a 'license raj'. Though some reliefs were granted, like relaxing the land size norms, simplification of procedures, tax holidays, and exemptions are necessary for enhancing ease of doing business, just as the FHEIs in GIFT City exclusively enjoy. A framework of minimum restrictions and maximum autonomy, along with self-regulatory mechanisms, can help expedite the process of commissioning.

The FHEIs, on their part, inter alia, must build effective corporate networking towards ensuring quick placements since demand and placement are prime concerns of Indian students who pursue expensive courses either on loans or on the lifetime savings of their parents. Absent such assurance, the enrolment may suffer as aspirants would prefer to opt for the parent campuses of FHEIs abroad. It is estimated (Forbesindia.com) that by 2027, if 5–7 campuses hit 70 per cent enrollment with scholarships and local collaborations, it could revolutionise access and innovation. But an affordability mandate and parallel investment in Indian universities are necessary to prevent inequalities from exacerbating.

In 2016, according to Dr Choudaha (Beyond $300 Billion: The Global Impact of International Students), 5.1 million post-secondary students hugely contributed to the economies of host countries to the tune of $300 billion, alongside other benefits such as "academic, research, experiential, and cultural dimensions contributing towards an inclusive, innovative, and interconnected global society". India, as the leader of the Global South, can leverage the opportunity to boost economic prospects as well. For example, US higher education, as a major export, generated $44 billion in revenue in 2019 alone, while it was about $51.0 billion and $35.9 billion to the economies of Australia and the UK, respectively.

Views expressed are personal

MILLENNIUM POST (P-7), 22 NOVEMBER 2025

AT VANTAGE

Youth in Distress

The Indian youth has a mental health problem that is growing at an alarming pace. Effective mental health support at home, educational institutes, and workplaces are a must to stem the tide

SHUTAPA PAUL

THE WRITER IS AN AUTHOR AND MEDIA ENTREPRENEUR

As of 2021, our suicide rate was 12.6 per cent for every 1 lakh people; a notably higher number than the global average of 9.2 per cent

A Class X student commits suicide in Delhi over alleged harassment from teachers. A first-year student kills himself in Mumbai after presumably being beaten up for not speaking Marathi in the train. This is the unfortunate story of two young boys who took their lives on the very same day in two different cities in the country. The Hindi-Marathi language row and the incorrigible behaviour of the school teachers are both condemnable. But let's also ponder the growing and worrisome issue of mental health among the younger generation.

Our predecessors were not martyrs or superhumans, but they sure were sturdy. Comparatively, if you're a parent, guardian, or educator today, you can't disregard the emotional fragility of the young mind. Our older generations withstood wars, famines, droughts, the freedom struggle, and a bloody partition. Our parents survived economic highs and lows, communal riots, and the onslaught of the digital age. Many of our millennial childhoods had ugly shades where corporal punishment, sexual abuse and harassment, and roadside heckling were par for the course. We also grew up hearing or experiencing firsthand instances of extreme ragging. It was physical and mental torture; the kind of ignominy that broke the bodies and souls of young students. There would be cautionary tales emanating from medical and engineering colleges that scared and haunted us. As terrible and unfair as the world seemed, generations survived the sticks and stones, words, and humiliation. A few gave up, but most soldiered on. Can we say the same for younger folk today? Fed on instant gratification and validation, along with an overdose of social media, Indian youth are not made of the stronger stuff of yore, and their waning mental health is growing to be a matter of concern.

Across generations, the world has changed, but it has not gotten kinder; in fact, it's quite the opposite. Bullying and harassment wear sophisticated garb now. The digital world has unleashed faceless trolls who body-shame, objectify, or throw canards. Lives are hard, jobs are few, and the cost of living is high. Between the hustle and bustle of life, unbreathable air, cacophonous traffic, and the daily rigmarole, there is also the glitz, glamour, and opulence of the rich, beautiful, and fit. Gullible minds consume these stories of success and build in their minds a perception of happiness and accomplishment. These life goals may be pretentious, unreal or even fake, but to the impressionable mind, they denote the absolute epitome of a triumphant life. Nothing short of realising it can appease them; any obstacle that comes in the way will make life seem catatonic.

The world is getting harsher, not kinder, and India's young are struggling to withstand it

Even if life is a bed of roses, it comes with thorns. The younger generation has to be equipped to pick them out. And that requires an enduring disposition. But youth today are constantly surrounded by things that weaken rather than strengthen them. A colleague was telling me the other day that today's youngsters eat clean and are more conscious about everything that they do. Recent news stories also point towards a trend where, instead of the pub-loving, almost-alcoholic millennials of my generation, Gen Z and Alpha prefer veganism and a nicely brewed cup of expensive coffee. They are living more mindfully today than the previous generations, not only because they want to but also because they know they have no choice. Previous generations have plundered the planet, reaped profits, and killed the environment. For future generations to sustain, the current ones have to pick up the cudgels of social and climate reform. More power to the younger lot, but are they mentally and emotionally strong? This worries me.

One of the leading causes of death among young Indians between 15 and 29 years of age is suicide. As of 2021, our suicide rate was 12.6 per cent for every 1 lakh people; a notably higher number than the global average of 9.2. As per news reports citing numbers from the National Crime Records Bureau (NCRB), over 13,000 students committed suicide also in the same year; 2,000 of which were connected to poor performance in examinations. Some experts are going so far as to call youth suicide a public health crisis.

It's a positive development that more people today are speaking openly about mental health. As employers, we are forced to accept and acknowledge that mental health is essential. We strive to promote work-life balance at home and at work. Individuals, too, are more frank about talking about anxiety and depression today. Two decades ago, if we went to our bosses crying about mental health, we would have been called weak and unfit for the job. I'm glad the world is evolving to recognise the important aspect of human health. But isn't it also becoming all too common? Almost everyone is suffering from some form of mental ill-health or another. And I'm not speaking of the medically diagnosed mental illnesses that require medical intervention and psychological support. I just feel, and this can be an unpopular opinion, that we are not bringing up our youth to be resilient. Between wanting a Utopian concept of perpetual stress-free work and calling every single heart flutter a big calamity, we are nurturing a generation that may be tough on the outside but mushy inside. By giving our youth no challenges to overcome, by allowing mindless social media to poison their minds, by not introducing them to religiosity or spirituality early on in life to lean on, we are mollycoddling them, we are harming them.

Yes, be vulnerable, speak candidly of all your troubles, but at the end of it, let's teach our youth also of courage and determination. Give them the confidence to complain about bullying, not succumb to it. They must learn kindness, not just towards the person on the road but also towards themselves. The brain is a muscle that must be trained to overcome hardships in life. 'We shall overcome', 'this too shall pass', 'daar ke aage jeet hain' (there is victory ahead of fear) — these lessons are as important as it is to be emotionally vulnerable. Otherwise, we will keep losing bright young kids who should have their whole lives in front of them to fall, rise, learn, unlearn — and most importantly, to thrive.

Views expressed are personal

PIONEER (P-8), 22 NOVEMBER 2025

The battle for Indianness in education

What began in the 1950s as a quiet preference for British affiliations soon evolved into a deep-rooted belief that true academic excellence lay in the West. This shaped not just careers, but mindsets, policies, and even politics

VINAYSHIL GAUTAM

In the mid-1950s, Dr Radha Krishnan was emerging on the political firmament and was often sought after. Those were the days when any association with a British university, more specifically Cambridge, Oxford or London, was a special background for making a career in India.

The pattern changed in the decades to come, but the allure of foreign affiliation remained high in the Indian employment market and, indeed, in the Indian psyche.

London, Cambridge, Oxford and more did not exactly go away, but there emerged on the scene, alongside, institutions like Boston, Yale, Harvard and more. This showed in the employment market. A degree or placement from these institutions was a high recommendation for employment in India. The Planning Commission was a particular favourite for the influential with this background to return to India. Careers were made there, and prominence was assured.

The Government, both at the Central level and at the State level, kept the slogan of Indianness alive, but their ability to convert it into a dignified employment pattern was missing. A degree from, say, 'Ujjain University' and the like may have had a lot of worth, but it was not reflected in the employment market. Indianness was a slogan, not the prime attraction for careers. This was true at the graduation level, at the postgraduate level, and certainly at the PhD level. This fact of image and pricing was reflected in many political statements but never found its way into the employment market. This was unfortunate for the growth of the Indian education system.

It is true that in the sixties, many useful and worthwhile Central universities emerged, as did the IITs, IIMs and more. However, the malaise remained. Students graduating from IITs or with a certification from the IIMs also sought their careers abroad and were hardly attracted to the Indian market.

Hence, the situation emerged where talent was drawn to IITs and IIMs as well as distinguished Central universities, but graduating from there did not merit serious attention for staying back in India. This was popularly condemned as 'brain drain', but nothing operational was effectively done. There was a sense of status deprivation for Indian degree holders. Clearly, this did not bode well for nation-building. The flaws were obvious and many. Some of them were well recognised but seldom acted upon. Illustratively, if an Indian student went for a PhD topic abroad, his choice of topic was determined by the specialisation of his supervisor and the resources available in the institutions of his choice. This did not help the growth of an Indian-oriented IIT or IIM orientation. This situation persisted through the seventies and the eighties. A few people tried to flag this problem, but even an Indian-oriented political leadership was unable to reverse the trend. In fact, the influential members of the system, in many ways, reinforced it by sending their wards abroad for education and employment. They could do this more freely because they were influential in the Indian system, and the non-Indian universities from prestigious learning centres of the West knew how to develop relationships with them. They saw it as an opportunity to create a relationship of obligation with an influential class of Indian decision-makers.

STUDENTS GRADUATING FROM IITs OR OBTAINING CREDENTIALS FROM IIMs ALSO SOUGHT CAREERS ABROAD AND WERE SCARCELY ATTRACTED TO THE INDIAN MARKET

What is said above was no secret and so obvious that it would be like missing the writing on the wall. Yet, as stated, nothing was done. There were many theories projected to explain this, but while these theories may explain and enlighten, they did not alter the trend or its effect. Gradually, the resistance, if any, to this Western-oriented learning came from a political coterie which was essentially anti-West. This is in reference to the Indian Left parties, such as the Communist Party, the Communist Party of India (Marxist), and some socialism-oriented Indian parties, such as the Praja Socialist Party and the Samyukt Socialist Party, et al.

The Indian parties of Left orientation lacked the range and depth to set up universities in India with a particular bias or correction of an existing bias. The communist variations of populist parties were a little more endowed with range. They started sending some of the brightest students in their range of influence to Moscow for PhD work and other studies. The language barrier there was strong, and going to the US was an easier option than going to Moscow (where learning Russian would be a prerequisite). All put together, the options did not really emerge, and the pull factor of English-oriented education, first in the UK and then in the US, continued to rule the roost. It still does. A few attempts were made to set up institutions with a particular bias, such as JNU, but the experiment produced mixed results and later revealed its own biases.

All told, the Indian system of education went by default, and the lethal blows delivered during early British rule and colonial dominance continued to shape Indian politics, Indian education and therefore Indian writing to a very large extent. It is interesting to note that successive education policies announced by the Central Government did little beyond rhetoric to effect meaningful change.

The Pioneer SINCE 1865

The Indian education system, rich as it was, did not receive any serious institutional support or place in the employment market. Indian degrees such as Sahityacharya or Teerth had little draw in the domestic education market, and the route to employment remained tied to degrees such as Bachelor of Arts, Master of Arts, Master of Science and the like. This lack of coupling with the Indian employment market had a negative impact on the growth of 'Indian' education.

The last few years have seen an attempt to reverse these trends, but the results have yet to come in. Persistence and perseverance with clarity of thought will perhaps show the way forward.

The writer is an internationally acclaimed management consultant

dailypioneer
VVinayshilG
vinayshil gautam 3488128

PIONEER (P-8), 22 NOVEMBER 2025

Shaping India's next generation of innovators

MEENAL MAJUMDER

2ND OPINION

THE PIONEER

In October this year, five students from modest government schools packed their bags and boarded a flight to Panama City. They were on their way to represent India at the FIRST Global Challenge — an international robotics competition featuring teams from 193 countries. Their journey began far from global attention, in a small and often overlooked Atal Tinkering Lab on their school campus.

These are not the students who typically find themselves on global STEM stages. For Gouresh, the team's lead programmer, the lab opened a doorway to a long-standing fascination with machine logic. For Ningaraj, raised by a single mother working in housekeeping, it offered possibilities that once seemed distant. A decade ago, such a story would have been difficult to imagine. Their achievement is about much more than competition results. It reflects what can happen when potential meets opportunity-and it raises an urgent question: how many such stories can India create?

Why Tinkering Matters

Tinkering labs offer something most Indian classrooms still lack: the freedom to explore, experiment, and fail safely. With robotics kits, microcontrollers, 3D printers, hand tools, and guided instruction, these spaces encourage inquiry-driven, hands-on learning. Students learn to solve real problems, collaborate, iterate, and apply theory to practice.

The five students who competed in Panama spent months after school-often late into the evening-teaching themselves coding, electronics, and mechanical design. Mentors from the Amazon Future Engineer Makerspace, run by The Innovation Story, supported them throughout. Within six months, the team built a functional, competition-ready robot designed to help other robots navigate obstacles — a fitting metaphor for what a supportive ecosystem can unlock. More importantly, the experience reshaped how they saw themselves: the lab did not merely teach robotics; it taught them to think like innovators. India has islands of excellence in STEM-Atal Tinkering Labs, private competitions, and nonprofit maker initiatives-but these remain fragmented. Over 10,000 Tinkering Labs now reach around 10 million students, yet with more than 15 million schools, access is still uneven, especially in government and rural institutions. This gap represents a lost opportunity. As India moves towards a projected $7 trillion economy by 2030, innovation capacity will determine how much growth can be unlocked — and who participates in it. Tinkering is often treated as an add-on, limited to competitions or one-off projects, but impact remains shallow when learning is episodic. To truly cultivate problem-solvers, tinkering must shift from a project to a core learning approach. This means integrating hands-on making into the timetable, training teachers for inquiry, linking labs to local challenges, ensuring ongoing mentorship, and building industry exposure. In short, tinkering must evolve from programme to pedagogy. India's future innovators will emerge when schools create space for curiosity and encourage students to become creators, not merely consumers. The talent exists; now intent must match it. Innovation depends not only on tools in students' hands but on the belief placed in their potential. India's innovators of tomorrow will emerge by design — if the nation chooses to design that future today.

The writer is the Founder of The Innovation Story

TRIBUNE, (P-8), 22 NOVEMBER 2025

3 states, 3 tragedies

Schools are failing children

THE suicides of a 16-year-old boy in Delhi and a nine-year-old girl in Jaipur lay bare a disturbing reality: India's schools, meant to nurture and protect, are increasingly turning into spaces where cruelty, neglect and unchecked authority can destroy young lives. These tragedies are not aberrations; they are symptoms of a failing system.

In Delhi, the teenager who leapt from a Metro station left behind a heart-breaking note describing humiliation at the hands of his teachers. His parents allege sustained harassment — scolding for trivial issues, threats of expulsion and mocking in front of peers. The FIR outlines how even after he confided suicidal thoughts to a counsellor, the school neither informed his parents nor intervened. When a child signals distress, indifference becomes a form of violence. In Jaipur, the CBSE's probe into the death of the nine-year-old shoolgirl is an indictment of institutional apathy. For 18 months she endured bullying. On the day she died, she approached her class teacher five times in 45 minutes, visibly distressed by obscene content written by classmates. The teacher dismissed her pleas, shouted at her and offered no support. Hours later, the child walked to the fourth floor and ended her life. The school even allegedly washed the death spot, compromising forensic analysis. These are not lapses; these are violations of duty of care. And then comes the horror from Vasai in Maharashtra. A 13-year-old girl was forced to perform 100 sit-ups with her schoolbag for arriving late, despite reportedly being anaemic. She collapsed soon after and died. The teacher has been arrested for culpable homicide.

Three children. Three states. One broken system. Enforceable school-safety laws, mandatory reporting of emotional distress, trained counsellors, anti-bullying systems and real penalties for both emotional and physical abuse are urgently needed. No child should face such tragic ends.

NAV BHARAT TIMES (P-12), 22 NOVEMBER 2025

स्टूडेंट्स का दर्द

बुलिंग से परेशान बच्चों का स्यूसाइड

दिल्ली से लेकर मध्य प्रदेश के रीवा तक, हाल की घटनाएं स्कूलों के माहौल पर बड़ा सवालिया निशान लगाती हैं। चार जगह चार मासूमों ने जान दी और सबके पीछे वजह यही थी कि टीचर्स ने उनके दर्द को नहीं समझा, उल्टे परेशान किया। इस तरह की घटनाएं शर्मनाक है।

चार मामले । हालिया मामला दिल्ली का है, जहां 10वीं के बच्चे ने मेट्रो के सामने कूदकर जान दे दी। आरोप है कि टीचर्स उसे कई महीनों से परेशान कर रहे थे। इसी तरह रीवा में फांसी लगाने वाली 11वीं की छात्रा ने स्यूसाइड नोट में लिखा कि टीचर उसे मारते थे और हाथ पकड़ लेते थे। राजस्थान के करौली में 9वीं के बच्चे ने आखिरी शब्द लिखे कि मरने के बाद टीचर को जेल भिजवाना। वही, जयपुर केस में भी स्कूल की लापरवाही सामने आई है।

AI Image

शिक्षकों ने की अनदेखी

अनसुनी पुकार । एक बात सामान्य है कि स्टूडेंट्स जितना दूसरे बच्चों के व्यवहार से नहीं टूटे, उससे ज्यादा उन्हें शिक्षकों के रुखेपन और अनदेखी की वजह से धक्का लगा। जयपुर वाले केस में 9 साल की बच्ची अपने टीचर्स को बताती रही कि दूसरे बच्चे उसे परेशान करते है, मगर स्कूल ने उसे रोकने के लिए कुछ नहीं किया।

संवेदनशीलता की कमी । CBSE की गाइडलाईंस के मुताबिक, हर स्कूल में रिड्रेसल कमिटी होनी चाहिए। लेकिन ज्यादातर स्कूलों में आज भी बुलिंग को लेकर संवेदनशीलता नहीं है। इसे बच्चों के बीच की सामान्य बात मानकर नजरअंदाज कर दिया जाता है। कई बार तो टीचर खुद ऐसा बर्ताव करते है, जिससे बाल/किशोर मन को ठेस पहुंचती है, जैसा दिल्ली में हुआ।

उम्र भर का दर्द । स्कूलों की घटनाओं का स्टूडेंट्स के मन-मस्तिष्क पर असर लंबे समय तक रहता है। कई बार तो जीवन भर। विभिन्न स्टडीज बताती हैं कि पढ़ाई के दौरान का नकारात्मक अनुभव बच्चों को हमेशा के लिए अवसाद में धकेल सकता है।

मनोदशा समझो । स्कूल या किसी भी कैंपस का मतलब केवल शिक्षा नहीं, स्टूडेंट्स का सर्वांगीण विकास है। और ऐसा तब तक नहीं हो सकता, जब तक टीचर्स अपने स्टूडेंट्स की बातों पर ध्यान नहीं देंगे, उनकी मनोदशा नहीं समझेंगे। पैरेंट्स अपने बच्चों को इस यकीन के साथ भेजते हैं कि स्कूल में टीचर है, जो सब संभाल लेंगे। इस तरह की घटनाएं उस भरोसे को तोड़ने वाली है।

INDIAN EXPRESS, (MAGAZINE-P-1), 23 NOVEMBER 2025

Paint like Nobody's Watching

While art education is restricted to basic principles, new platforms are enhancing the visual vocabulary of children, making room for exploration and curiosity

ART FOR ALL
(Clockwise from top) Children engaging with art at programmes by Foundation of Indian Contemporary Art, Kochi-Muziris Biennale and Kiran Nadar Museum of Art

Vandana Kalra

IF ONE were to view Catalan artist Joan Miró's use of lines and floating worlds of form and colour, could it seem like the squiggles and spontaneity of a pre-schooler's drawings? Or could Cubism pioneer Georges Braque's *Les Étoiles*, with its dreamy black cloud and white bird against the stars, be the voice of a [illegible]-year-old talking about freedom and beauty.

After all, that's how children are meant to draw — playfully, imaginatively and without the habits of the mind that force them into set patterns. As Austrian artist Franz Cizek, founder of the Child Art Movement, observed, "The more a child's work is full of these individual mistakes, the more wonderful it is." Yet, his words find limited resonance in Indian classrooms, where children are often encouraged to replicate what's on the blackboard, leaving little room for curiosity. That approach, however, is shifting as alternate spaces make efforts to re-frame art as a tool for expression.

While institutions such as India Art Fair, Serendipity Arts Festival (SAF) and Kochi-Muziris Biennale (KMB) have run parallel programmes for the young, art museums such as Bihar Museum, Kiran Nadar Museum of Art (KNMA), MAP in Bengaluru, [illegible] Shivaji Maharaj Vastu Sangrahalaya and Bhau Daji Lad in Mumbai, and spaces such as Kolkata Centre for Creativity, Foundation for Indian Contemporary Art (FICA) and The Kunji [illegible] with dedicated children's workshops, intended to make art a practice rather than a subsidiary subject.

Every Saturday morning, KNMA in Delhi becomes a playground of discovery. The quiet of the white walls is replaced by the chatter of young voices, hopping off moments or rustle of paper being cut and crafted. As children settle on mats and engage with the activities assigned, new forms emerge. A splash of paint turns into a mood as they are encouraged to follow their impulse. "Each session is theme-based, often inspired by artworks from the collection, encouraging children to move through a process of seeing, reflecting and creating," says Somya Sahal, Senior Manager, Learning and Outreach Programme, KNMA.

For children, the experience can open up an entirely new way of seeing. Delhi-based [illegible] Patel, now 12, recalls that at age five her landscapes followed the predictable template — a blue river, brown mountains, bright yellow sun and a patch of green. That changed when, during a workshop, she was nudged to attempt something unfamiliar. The lesson stayed. "I realised we can draw things that may not exist. I could discover something through sheer experimentation with colour and form," she says.

Director of SAF Smriti Rajgarhia shares how children were an integral part of its inclusive approach when the festival was being planned over a decade ago. "The ideas we discuss when we talk about culture are really world views and it is the youngest generation that will carry these forward," she says. With less than a month to go for the forthcoming edition, she had [illegible] in conversation with schools for multiple programmes. Workshops across disciplines — from storytelling to craft, crochet, instrument making and stop-motion animation — are also being planned. A regular at SAF, Mumbai-based [illegible] [illegible], mother of two adults, "I used [illegible]

ARTISTS ON CHILDREN'S BOOKS

Venkat Shyam

It is far more effective to communicate with children through images than text. A picture is a language that needs no words and it was when I began painting that I understood how visual language can be so powerful. In Gond art, every picture is a narrative. It tells a story. Through that one image we can open up so many conversations, on aspects such as diversity, environment, our values. Children are naturally attracted to Gond art because of the bright colours we use — yellow, red, blue, orange — which make them want to read the book or simply understand what is being said.

Madhvi Parekh

I have always enjoyed working with children. I taught at a Montessori school in Mumbai in the 1960s and later, when my daughters were studying at Delhi's Sardar Patel Vidyalaya, I would occasionally take classes there as well.

Teaching children is not just about instruction. It is also about recognising what interests them and giving them space. Of course, early start and exposure matters. I often used images to teach my daughters and now one of them is an artist (Manisha) and another is a designer (Deepal). Art can become a cognitive tool to sharpen perception. Recently, I conducted a workshop for a group of children and was struck by how intuitively they understood the visual language.

everyday lives, it is a struggle to explore children's likes and dislikes by taking them for different classes. This becomes a good place to understand their inclinations."

At KMB, the lessons continue through the year, with workshops for students, parents, art educators and diverse community groups. Since its inception in 2018, its Art By Children (ABC) Art Room team has worked regularly with government schools to develop context-based art pedagogy, where teachers also often become participants. "Schools are usually driven by the spirit of becoming No 1 but our aim is to let children explore their creative potential through process-driven activities emphasising on the basic principles of image-making and rhythm," say Blaise Joseph and Neetha KS of ABC.

In fact, paint and paper can also help voice what cannot be articulated in words. At Artreach India, these possibilities are explored with children and young adults from marginalised communities. "The core of our workshops is to give children space to share their thoughts. It is a slow process to build that one, to let them make mistakes and still have fun," says Ananya, Programmes Manager, Artreach India. Their modules range from multi-day workshops with several activities. From simple tasks of drawing, creations, arranging twigs and leaves to make monsters to 'interactive', artists collaborate with young minds to create murals and installations for community spaces. "Often children, who are considered 'problematic' elsewhere, show independent thought and [illegible] here. These workshops become safe spaces where they do not fear being labelled," adds [illegible] Singh, [illegible] Programmes Head, Artreach India.

Artists, too, are engaging with children. Vidyashankar, director of [illegible] [illegible]

Room, says, "Learning has become an important practice — a tool, process and outcome — for many artists today. Our current Emerging Artist Awardee, Prakash Pradhan, for instance, is channelling much of his research on rural migration in his home state of Odisha via regular workshops with children in a government school in [illegible], to understand the on-ground reality through their narratives."

Beyond the workshops, bookshelves are filling out too. Among others, [illegible] [illegible] [illegible] Publications traces the [illegible] elements such as [illegible] [illegible] The Art and Life of [illegible] [illegible] the avant-garde painter across Hungary, India and France, reflecting on her various influences.

So are all these children future artists? That's not the point. What counts is the freedom art offers. [illegible] [illegible] [illegible] of India was [illegible] paint the [illegible] [illegible] to [illegible] of a [illegible] company.

[illegible] [illegible] [illegible] children whose [illegible] colours and scraps of cloth would be [illegible] [illegible] [illegible] [illegible] [illegible] because artists [illegible] [illegible] perhaps [illegible] more closely with their inner [illegible].

GETTY IMAGES/ISTOCKPHOTO

Design for the future

Designer-educator Sandy Speicher explains why design thinking is an effective tool to promote multi-sectoral learning across disciplines

Seema Bawa

Steve Jobs revolutionised our lives with smartphones by applying the principles of graphic design to personal computing. The Welsh School of Architecture is delving into how design can shape a supportive and nurturing end-of-life environment.

Closer home, Bengaluru-based preventive healthcare service, NURA, works with hospitals to train and empower family caregivers to improve patient outcomes in healing at home.

This ability to synthesise and formulate creative solutions is a skill increasingly in demand and necessary to shape the future, says American designer-educator Sandy Speicher, who emphasises that design is the next big thing in education. Usually understood in terms of fashion, interiors, and aesthetics, design is also about creating human-centred, sustainable experiences that work in favour of people.

"Design education is not for self but public service; it is about how to make communities happy and prosperous," said Speicher, during an interview while on a visit to India to forge connections with institutions willing to integrate innovative design thinking with different academic streams. "It is the only way forward to navigate modern complexities."

Systemic and savvy

The former CEO of the global design firm IDEO, Speicher is currently an advisor at the BITS School of Design in Mumbai. She feels that, while India provides abundant opportunities for future careers and is a fantastic place to brainstorm ideas, "the country lacks a design identity. There is a need to harness the power of design thinking across all disciplines."

Design has to be systemic and savvy to community needs and offer real-time benefits to people. "In the social space, human-centred designing is happening, but it is not visible yet in the education sector. Learning about what support people need is how design ought to be taught and understood."

Take the case of pollution in Delhi. How can design thinking address the root causes, which come from population, human behaviour, geographical landscape and vagaries of weather?

The issue is not – and should not be – the concern of environmentalists or scientists alone. Experts cutting across specialisations should feel the pain, imagine what can be done to alleviate the situation, execute a pro-active plan, and keep sharing the same.

"This is how design thinking operates: feel, imagine, do, and share. Every curriculum should sensitise students and turn them into mini-investigators in their respective fields of knowledge and steer them to problem-solving at every level, from local to global," says Speicher. According to her, the skills to bridge knowledge gaps independently, collaboratively, and resourcefully are most relevant today. A heart to build livelihoods and being sensitive to who is left out should be at the core of one's development.

Everybody thinks and acts like a designer; teachers are designers, but they neither know it nor have the language for it. When design keeps the human being at the centre of education instead of being more engineering or policy focussed, it is then sustainable.

Speicher says recognising design as a process creates deeper understanding and empathy. "It is vital to be attuned to people's needs, feel for the community, and support with simple solutions," she says, highlighting the success of a project in Latin America where she helped scale a network of schools in Peru and made education affordable for the country's growing middle class.

Successful projects

"We introduced a blended learning approach with indoor and outdoor classrooms and did away with rote learning. Students were given 'me time' to develop other skills or pursue research of their interest. The classrooms were turned into flexible spaces to accommodate more or fewer students. We also developed a database of 18,000 lesson plans for the teachers," she explains. Since 2011, Innova has grown to 80 schools with 80,000 students, expanded to Mexico, and has inspired similar education models worldwide.

> Every curriculum should sensitise students and turn them into mini-investigators in their respective fields and steer them to problem-solving at every level, from local to global

In India, she worked with Kiran Bir Sethi on the Design for Change challenge for the preteens (10 to 13 years). The outlines are processed for children to create new ideas with innovative solutions. "To feel for another community and see another world beyond theirs imparts the power of 'I can' to the students."

Today, creative leaps are crucial without losing sight of the intersection of design, leadership and social impact. The pandemic taught us to focus on our relationships with everything – our work, organisations, other humans, and the planet – and is also shaping learning environments.

"The best breakthroughs come with empathy and creativity. Good design projects bring the shared intent, vision and aligned commitments to improve the world and solve complex problems."

According to her, programmes that provide students with holistic transdisciplinary education practised through future-forward human-centred research will have an edge over others in the coming years. "Future design leaders have to be creative thinkers, problem identifiers and solvers, and aesthetically sensitive to responsibly simplify work in multi-disciplinary groups."

PIONEER (P-9), 24 NOVEMBER 2025

Scientific nationalism: Reuniting science, culture, and conscience

A ASHVATHAMAN

Science and nationalism are often treated as different realms-one devoted to universal truth, the other to collective identity. But in India's civilisation, they were never separate. The pursuit of knowledge was always linked to the service of the nation and the upliftment of humanity. From ancient astronomers to modern innovators, our thinkers saw no contradiction between devotion and discovery.

Scientific Nationalism is the rediscovery of that balance. It calls for the reunion of intellect and integrity, innovation and identity, discovery and dharma. It reminds us that science becomes meaningful only when guided by conscience, and that nationalism becomes transformative only when empowered by knowledge.

The Civilisational Context

India has always viewed science as sacred. The Vedas described the universe as Vijnana-structured intelligence guided by order. Aryabhata's astronomy, Charaka's medicine, and Susruta's surgery were all acts of inquiry rooted in humility. Knowledge was not pursued for dominance over nature, but for harmony with it.

When Dr APJ Abdul Kalam spoke of transforming India into a developed nation through science and technology, he did not separate innovation from ethics. His laboratories were spaces of national service, where rockets and satellites became symbols of collective aspiration.

That spirit defines Scientific Nationalism-the conviction that the advancement of knowledge must strengthen the nation and uplift humanity.

The Philosophy

The foundation for this idea lies in Pandit Deendayal Upadhyaya's Integral Humanism, which envisioned balanced growth of body, mind, heart, and soul.

- The body stands for material and technological progress,
- The mind for intellectual inquiry.
- The heart for cultural rootedness, and
- The soul for spiritual and moral direction.
- When these four dimensions work in harmony, science becomes humane, and nationalism becomes enlightened. Progress without morality leads to arrogance; patriotism without knowledge leads to stagnation. Scientific Nationalism harmonises both.

Science with Conscience

Modern technology gives humanity immense power, but without conscience, it risks dehumanisation. Artificial Intelligence can empower or exploit; biotechnology can heal or harm. The moral compass that guides these forces determines their impact.

The Pioneer SINCE 1865

Scientific Nationalism insists that the Indian approach to science must be value-based. It does not seek to copy global models but to enrich them with civilisational wisdom. In Bharat's worldview, knowledge divorced from ethics is ignorance in disguise. True progress is that which enhances life, not that which endangers it.

The Need for Cultural Confidence

For centuries, India's scientific contribution was undervalued due to colonial narratives that separated science from spirituality. Yet, history records that Indian civilisation has always been scientific-not in imitation of others, but through its own method of observation, reasoning, and reflection.

Today, as India rises in space, nuclear, and digital technologies, we must also rise in cultural confidence. When a student codes in Tamil, when a scientist researches in Hindi, or when an innovator designs for rural India, science becomes part of our living culture. It ceases to be foreign and becomes familial.

Education for a Self-Reliant Bharat

Scientific Nationalism calls for an education system that teaches not only how to think, but also why to think. The National Education Policy (NEP 2020) is a vital step towards that goal. It encourages learning in mother tongues, multidisciplinary education, and ethical reasoning-principles that bridge the divide between intellect and identity.

When a student in a small town learns robotics in their native language, they are not just acquiring technical skill-they are inheriting a civilisational legacy. They become part of a tradition that sees knowledge as service, not status.

From Laboratories to National Mission

Every innovation that serves the nation-from Chandrayaan to Digital India-embodies Scientific Nationalism in practice. ISRO's missions, indigenous vaccine development, and the semiconductor drive all show that India's path to self-reliance lies not in isolation, but in rooted innovation.

For Bharat, the laboratory is a temple and innovation a form of worship-because knowledge that serves people is sacred.

The scientist and the soldier serve the same mother-one by defending her borders, the other by expanding her horizons.

The Way Forward

To embed Scientific Nationalism into national consciousness, three key steps are needed:

- Integrate ethics into science education. Every engineering, medical, and research programme must teach the moral implications of innovation.
- Promote regional-language research. Translating core scientific materials into Indian languages will democratise knowledge and bridge the urban-rural divide.
- Link research with social reform. Encourage scientists to focus on national challenges-water, energy, healthcare, and agriculture-where technology directly uplifts society.

Science must no longer remain the privilege of a few; it must become the power of the many.

The Moral Compass of the Future

Scientific Nationalism is not hostility towards the world; it is humility before our own potential. It invites the global community to see science not as a race, but as a relationship-a collaboration between intelligence and compassion. Dr Kalam once said, "Dreams are not what you see in sleep; they are those that keep you awake." Scientific Nationalism is that wakeful dream-of a Bharat that creates, innovates, and leads with moral strength.

- Science gives us power.
- Culture gives us direction.
- Conscience gives us purpose.

When these three unite, Bharat will not merely follow the global race for progress-it will lead it with wisdom and humanity.

Scientific Nationalism is not a slogan. It is a renaissance — a reawakening of India's timeless spirit through the instruments of modern science.

A Ashwathaman is Tamil Nadu BJP State Secretary, and founder of Project Tamil AI and the Integral Humanism Foundation

asuvathamanalimuthu
ikasuvathaman
dailypioneer

$1 lakh H-1B fee isn't protection, but a regulatory sledgehammer that will hurt Americans

America's ~~Got~~ Needs Talent

Lubna Kably

Weapon of mass destruction

Donald Trump's proclamation in September to impose a $1 lakh entry fee on each new non-immigrant high-skilled worker (H-1B visa holder) was pitched to protect American jobs. But the data tell a different story. Far from safeguarding the US labour market, the fee threatens to increase costs for American employers, weaken US competitiveness in technology and healthcare, and harm citizens — exactly the opposite of its stated aim.

Has Trump realised this, and softened his stance? In an interview with Fox News earlier this month, he said: 'You also do have to bring in talent.' When the host said the US has plenty of talented people, Trump replied, 'No, you don't.... You don't have certain talents, and people have to learn.' Trump's MAGA-America First base is not happy with this turnaround.

But data tell their own story. According to a November 2025 National Foundation for American Policy (NFAP) report, 'H-1B Petitions and Denial Rates in FY2025', companies such as Amazon, Meta Platforms, Microsoft and Google were top H-1B sponsors in FY25 (4,644; 1,535; 1,394; and 1,050 approvals respectively). These are companies that also invest heavily in AI and other advanced fields.

These are not labour hires, as has been claimed by policymakers. NFAP's report notes a median salary (in FY24) for H-1B professionals in computer-related occupations of around $1.25 lakh, with an average of $1.36 lakh. Further, 63% of approved H-1B beneficiaries earned a master's degree or higher, indicating that H-1B visa holders are highly skilled professionals sought in the US and other countries. By slapping a six-figure fee on each of these hires, the US essentially burdens its most innovation-driven firms with a 'talent tax'.

By slapping a six-figure fee on H-1B hires with a master's degree or higher, the US burdens its most innovation-driven firms with a 'talent tax'

Interestingly, in FY25, only three Indian-based companies — TCS, LTIMindtree and HCL America — appeared among the top 25 employers with approved H-1B petitions for initial employment (new hires). In FY25, the top seven Indian-based companies had only 4,573 H-1B petitions approved for initial employment, a drop of 70% from FY15 and 37% fewer than in FY24.

The Trump regime's rationale rests on protecting American workers because of rising unemployment in tech. But NFAP finds the opposite: unemployment in computer and mathematical occupations declined from 3.4% to 3.0% between August 2024 and August 2025. In architecture and engineering, it fell from 1.7% to 1.4%.

Large US firms need to rely on international talent, and NFAP analysis found that 70% of full-time graduate students at US universities in selected AI-related fields are international students. Retaining them in the US after graduation is essential to US leadership in AI, according to a congressional commission. At a time when the US is racing China in AI, cloud and robotics, raising the hurdle for these critical hires makes no strategic sense.

One of the most underemphasised impacts of the entry fee is on the healthcare sector, where immigrant professionals play a central role. NFAP, in another November 2025 report, 'The Contributions of Foreign-Born Workers to US Health Care', points out that nearly 19% of healthcare workers in the US are foreign born. That includes physicians, nurses, pharmacists and home health aides.

One of the first lawsuits against the $1 lakh fee came from Global Nurse Force, a California-based staffing company that has placed more than 10,000 nurses at over 175 hospitals worldwide. It submitted in court filings that the six-figure fee will immediately halt international nurse recruitment, force it to shut down its US operations, and worsen hospital staffing shortages — particularly harming ICUs, emergency rooms and surgical units, with outsized impacts on rural and inner-city communities.

A $1 lakh fee means hospitals, nursing homes, homecare agencies and medical research firms will face sharply higher costs for every foreign-trained specialist or nurse they'd otherwise sponsor. That cost — either absorbed or passed on — ultimately raises premiums, lowers staffing levels, and undermines access to care for ordinary Americans.

While well-known companies garner the most attention, contrary to popular perception, this isn't just a fee on mega giants. In FY25, 28,277 US employers petitioned for H-1Bs; 61% hired only one person. Over half of all new applications went to employers with 15 or fewer approvals. These are universities, hospitals, regional tech firms and manufacturing plants — not just big names.

The NFAP report highlights a 2020 study, 'How Do Restrictions on High-Skilled Immigration Affect Offshoring? Evidence from the H-1B Program', showing that when US firms are denied H-1Bs, they often move jobs abroad. 'For most global multinational companies, this is at almost a 1:1 rate. The results demonstrate an important unintended consequence of immigration restrictions: the movement of jobs and talent abroad, with major implications for US competitiveness,' it states.

70% of full-time graduate students at US universities in selected AI-related fields are international students. Retaining them in the US after graduation is essential to US leadership in AI

NFAP reminds us that the annual H-1B cap of 85,000 represents only 0.05% of the US labour force, a rate that hasn't kept pace with the rise of a trillion-dollar digital economy. The $1 lakh H-1B fee isn't a protective device for American workers. It's a regulatory sledgehammer that risks hurting American citizens. Trump's right to have second thoughts about it.

lubna.kably@timesofindia.com

Q+16

MILLENNIUM POST (P-8), 25 NOVEMBER 2025

BEYOND SCORES

Missing Lessons in Our Classrooms

Without compassion, connection, and moral grounding, even educated individuals become vulnerable to extremist narratives. India must rebuild an education system that shapes hearts as much as minds

OP SINGH

THE WRITER IS PRESIDENT & CEO, INDIAN POLICE FOUNDATION

The Delhi blast case underscores a deeper crisis: brilliant minds without emotional grounding are vulnerable to hate, proving that true education must include empathy and humane values

In public debates on education, we often speak with pride about high-scoring students, competitive examination toppers, and the technical brilliance of India's young professionals. We celebrate intellect, analytical power, and career success. But in this celebration, we tend to overlook something far more fundamental: education of the heart. True education is not merely about sharpening the brain; it is about nurturing compassion, empathy, emotional understanding, and a sense of connection with society. Without these softer, deeper values, even the brightest minds can become vulnerable to dangerous ideologies. The recent terror blast in Delhi, in which several well-educated medical professionals were arrested, is a disturbing reminder of this gap.

A Disconnect Behind Degrees

For decades, policymakers have believed that education acts as a shield against radicalisation. The assumption has been simple: a person equipped with knowledge, logic, and professional prospects is less likely to be misled. However, the Delhi blast case has exposed the cracks in this belief. Investigations revealed that the terror cell behind the attack was not made up solely of underprivileged or disaffected youth. Instead, it included doctors and other white-collar professionals—people who had undergone rigorous academic training, who had years of medical education behind them, and who were entrusted with saving lives. Yet, they became instruments of death.

Their technical qualifications could not stop radicalisation because radicalisation does not operate at the level of the brain alone. It enters through emotions—hurt, grievance, alienation, identity confusion, or the pull of belonging to a closed group. It thrives in spaces where empathy, reflection, and social responsibility are weak. A highly intelligent but emotionally unanchored individual is, in fact, easier to manipulate. A sharp brain without a compassionate heart becomes a tool, not a safeguard.

In schools, students are not taught how to handle anger, how to understand others' pain or how to bridge differences

Radicalisation begins subtly—often with a sense of disconnect. A young person may feel ignored by society, undervalued, or misunderstood. They may perceive real or imagined injustices with no emotional support to process them. Into this psychological vacuum enters propaganda—packaged cleverly, targeting emotional vulnerabilities.

What prevents a young mind from sliding down this path is not just knowledge, but connection: connection with family, connection with community, connection with national identity and connection with humanitarian values across religions. Compassion and empathy act as shields. They create a moral hesitation before violence. They encourage the young person to question hateful narratives. They cultivate an instinctive rejection of anything that harms innocent lives.

In schools across India, children are often taught equations, grammar rules, and historical dates. But many are not taught how to handle anger, how to understand others' pain, or how to bridge differences. Teachers, pressed for syllabus completion, rarely have the time to focus on emotional literacy. Parents, overwhelmed by competition, prioritise achievement over character. The result is predictable: we produce individuals who know how to think, but not how to feel.

The Delhi Blast Case: A Warning Society Cannot Ignore

The involvement of medical professionals in the recent terror blast must be viewed in this larger context. Doctors represent one of the most trusted and emotionally demanding professions. Their very calling is built on empathy, patience, and respect for the sanctity of life. Yet, the fact that a group of them could allegedly participate in a terror operation exposes the depth of their emotional disconnect.

Here were individuals trained in anatomy, surgery, and healing—but untrained in compassion for society. Their white coats and degrees did not shield them from narratives of hatred. Their education equipped their minds, but left their hearts unattended. The true teaching of every religion—Hinduism, Islam, Christianity, Sikhism, Buddhism—is rooted in compassion, mercy, and non-violence. No scripture permits the killing of innocents. Yet, when interpreted through an extremist lens, religious verses are distorted into weapons. Only a morally educated heart can recognise this distortion and reject it.

In this case, the professionals involved are believed to have been influenced by extremist ideology that claimed to be religious but violated the very essence of faith. This disconnection from the true spirit of religion was possible because they lacked grounding in empathy, reflection, and humane values. In short, their emotional education was missing.

What Must Change Now

India must urgently rethink its educational priorities. Moral education cannot be a one-period-a-week ritual. Compassion cannot be outsourced to NGOs. Emotional literacy cannot be left to chance. We must place empathy and values at the centre of learning, not at its fringes.

- Schools must encourage dialogue, not rote learning.
- Teachers must be trained to identify emotional distress and isolation.
- Universities must create spaces for interfaith and intercultural engagement.
- Family conversations must include values, not just marks and achievements.
- Religious institutions must emphasise compassion, the true essence of every scripture.

When a society teaches children to care, to question hate, and to value life, radicalisation has no space to grow. The Delhi blast case is not just a security issue; it is a societal alarm bell. It tells us that we must stop equating education with degrees and marks. Education must produce human beings who are emotionally balanced, morally responsible, and spiritually grounded.

A society becomes unsafe not because brains become sharper, but because hearts become harder. If India truly wants to counter radicalisation, it must invest not only in intelligence agencies and counter-terror operations, but in something far more powerful—the emotional education of its children and youth. When hearts are educated, minds cannot be misled. When empathy is strong, hatred finds no place to hide. And when compassion becomes the core of education, the path to peace becomes clearer, stronger, and lasting.

Views expressed are personal

PIONEER (P-9), 25 NOVEMBER 2025

Why life skills should be essential in today's education

RITU JAWA

The educational landscape is constantly evolving, and the emphasis is gradually shifting from conventional academic skills to encompass broader student development. Leading educators increasingly assert that life skills are not optional but integral parts of the curriculum. Creativity, problem-solving, emotional resilience, and effective communication are just a few of the qualities that should be at the heart of an education that prepares students not only for tests but for all that life demands of them in the future.

The focus of educational structures has predominantly been on cognitive knowledge, which is important, but practical and social skills-essential for success in life-have often been minimised. Students today face an incredibly complex array of challenges, including mental health pressures, rapid technological advances, and intricate social dynamics. Teaching life skills in the curriculum equips students to face these challenges with confidence, adaptability, and maturity.

Education that emphasises life skills is crucial for developing creativity and a growth mindset, both of which are essential for personal and academic success. When students tap into their creativity, they are more likely to develop innovative solutions to problems rather than relying solely on memorisation. Likewise, a growth mindset enables students to believe that anyone can improve their skills and capabilities through hard work and persistence. Together, these attributes foster resilience and lifelong learning, instilling the understanding that failure or setbacks are opportunities to learn and grow.

It is equally important to prioritise emotional intelligence within life skills education. Awareness of emotions, the ability to manage and regulate them, and the capacity to express them appropriately form the foundation of positive mental health and healthy interpersonal relationships.

Research indicates that students who engage in life skills-based education demonstrate enhanced coping abilities, higher self-esteem, and lower anxiety and stress levels than their peers. This holistic development benefits students individually while collectively creating a warm and harmonious learning environment. Critical thinking, decision-making, and communication skills are also vital in today's rapidly changing society. These skills empower students to analyse information critically, make evidence-based decisions, and clearly articulate their ideas-capabilities that are valuable in both higher education and the modern workforce. Research shows that investments in social and emotional learning yield significant long-term returns, both academically and professionally.

Life skills education is not only intended for personal benefit but also contributes to addressing broader societal challenges. Schools that cultivate self-awareness, empathy, and social responsibility help create communities that value inclusion and actively tackle social issues. Teamwork, conflict resolution, and respect for diversity are essential skills for fostering productive and peaceful societies.

Ultimately, life skills form a critical bridge between creativity and mindset. They provide students not only with knowledge but also with the wisdom, resilience, and empathy needed to navigate future challenges. Life skills should be embedded in the curriculum to develop flexible, confident students capable of contributing meaningfully to society. Educational leaders emphasise that the mission of schooling extends beyond the transmission of knowledge to nurturing well-rounded, capable, and compassionate citizens. Life skills lie at the heart of this mission and must be prioritised within every education system.

The author is Principal, Dharav High School, Gurugram

dailypioneer
@dailypioneer
ritujawa

TELEGRAPH (P-11), 25 NOVEMBER 2025

STUDY ABROAD

Alan Blinder on the Trump effect on international student numbers across US colleges

American Dream

The Trump administration has explicitly sought to curb the enrolment of college students from abroad, and its broader quest to remake the American higher education system has unnerved prospective pupils and led universities to limit graduate school admissions.

In a recent report, the Institute of International Education said that the overall number of international students on American campuses — including students who started in prior years — was nearly steady, declining about 1 per cent from the last academic year. Although information about international students can be murky and caveat-laden, the slight change roughly aligns with separate US Department of Homeland Security data about students on visas.

But the downturn in new enrolments suggests that the United States could see steeper decreases in the coming years, as current students finish their studies or leave their campuses for other reasons.

The data released recently as part of a project backed by federal money was somewhat narrow, stitching together statistics from less than a quarter of the nation's degree-granting colleges and universities. But it included schools that often account for large international student counts, and it is seen by officials in higher education as an important snapshot of enrolment.

The institute said 67 per cent of the approximately 825 institutions that provided data reported decreases in new enrolments from abroad. Amid months of Trump administration wrangling over immigration policy, nearly all of those schools said that concerns about obtaining student visas contributed to falling enrolments, and more than two-thirds pointed to travel restrictions.

GROUND ZERO: In May 2025, the US Department of Homeland Security revoked Harvard University's certification to host international students

The survey found a rise in new undergraduate students, reflecting a rebound from pandemic-era declines, but a 12 per cent decrease among new graduate students. (The majority of international students in the US are graduate students.)

Although the data from this fall was stark, it was also an extension of a trend from last year.

In the fall of 2024, according to the report, American schools reported a 7 per cent decline in new international enrolments. The nation's 1.2 million international students are still a key population for universities, accounting for roughly 6 per cent of total enrolments. India and China, the world's two most populous countries, together sent nearly 6,29,000 students to the US.

International students can be essential income sources for American colleges and universities, and higher education officials have been anxious for months about how President Donald Trump's immigration policies might affect that revenue stream. The recent report suggested that some of the most dire forecasts for this fall, like one that floated the possibility of a 40 per cent decline in new enrolments, had been overwrought.

The Trump administration has also sent mixed signals about its intentions for international students.

A sputtering Trump administration proposal for an agreement between the government and American schools floated a 15 per cent cap on international students as recently as last month. And since Trump took office, the government has cancelled visas for some students, delayed screening interviews and imposed travel restrictions.

In May and June, the government tried to block Harvard University from enrolling any international students. A federal judge blocked those efforts.

But in an interview this month with Fox News host Laura Ingraham, Trump stood by a plan to allow up to 6,00,000 Chinese citizens to obtain student visas. Many students, he noted, pay significant tuition costs.

"It's not that I want them, but I view it as a business," Trump said. Draconian cuts to international students, Trump warned, could "destroy our entire university and college system".

The higher education industry is also clashing with Trump over a recently announced $1,00,000 fee for new H-1B visas, which colleges and universities rely on to fill various jobs.

In court filings last month, academic officials detailed how the visa fee could derail hiring, unleashing consequences for research and teaching.

NYTNS

Bang. Bang. Bust

- **May, 2025:** US embassies around the world asked to stop scheduling appointments for student visas; official memo says social media vetting would be intensified
- **June:** Resumes visa appointments; applicants asked to make social media accounts public for "enhanced screening"

Members of the board that oversees the Fulbright Program, which facilitates international student exchanges, resign

- **August:** US State Department revokes 6,000 plus international student visas citing violation of US law and overstays. Also proposes new rule to limit their study period in the US
- **October:** Puts out plan to cap international undergraduate students at 15 per cent per campus, with no more than 5 per cent from any single country.

Source: US Department of State website and news reports

HINDU (P-7), 26 NOVEMBER 2025

Publish or perish: making sense of India's research fraud epidemic

India's higher education sector faces a research fraud crisis due to a 'publish or perish' culture. Faculties prioritise publications over teaching, undermining academic integrity and neglecting the needs of the student population

Pushkar

Research fraud is a global problem and has become worse due to the growing use of Artificial Intelligence (AI). The problem is even more acute in India's higher education sector where both the number of journal publications and retractions are growing rapidly. However, journal retractions do not capture the scope of research fraud since it is impossible to know the exact number of fraudulent publications that escape notice.

Publishing over teaching

Most observers blame the 'publish or perish' culture for India's research fraud epidemic. However, a prior issue is the preference that the University Grants Commission (UGC) and Higher Education Institutions (HEIs) give to publishing – which is different from research – at the expense of teaching for faculty members to advance their careers. This institutional bias drives a preference among faculty members to publish papers and is rewarded by promotions and other benefits at the workplace, whereas there are no significant incentives for better teaching.

The rationale to privilege publishing over teaching comes from two main considerations. The first stems from national and global university rankings, which have become ubiquitous and are considered to be of great value by the government, the HEIs themselves, and by students. These rankings reward publications but not teaching. HEIs are therefore incentivised to insist that their faculty publish. For private universities, the number of students they admit every year matters a great deal, and achieving higher rankings than their competitors is seen as necessary to attract more and better students. Public institutions do not want to be left behind either.

The second consideration is the widespread belief that faculty members conducting research improves teaching and hence student learning outcomes. However, the evidence does not quite support this belief.

The voluminous research on the research-teaching link has examined a diverse set of issues including the specific mechanisms at work, the fuzziness and diversity of the multiple variables used to understand the relationship, and both quantitative and qualitative research. However, there is no broad consensus that the relationship between them is significant or even that there is one. If there is some sort of soft consensus, it is that the context often matters.

Both these considerations likely contributed to the UGC's decision to introduce the Academic Performance Indicator (API) in 2010 as part of the Career Advancement Scheme (CAS) for faculty members' promotions. The API established a clear bias for publications in assessing faculty members. Despite several amendments over the years, there has been no fundamental change to the API in terms of the emphasis on publications. The 2025 UGC draft regulations for the appointment and promotion of teachers in order to maintain academic standards, it claims, will reduce focus on quantifiable metrics such as publications. But for now, the publishing madness remains ascendant.

A return to teaching

If we turn to context, there are at least two reasons that render the emphasis on research questionable, on ethical and practical grounds.

First, the faculty members at all types of HEIs are expected to publish – whether at colleges devoted to undergraduate teaching, universities that are teaching-cum-research institutions, and specialised research centres which typically run only PhD programmes. There is no thought given to context: whether the university or college has the necessary physical infrastructure (libraries and laboratories for example), human capital (research-capable faculty members), academic environment (a sufficient population of postgraduate students and academics in specific disciplines), sufficient research funding, and a fair or even reasonable balance between the teaching, research, and administrative responsibilities of faculty members. Most HEIs fall short on many of these parameters. Without considering these issues, the emphasis on research and publishing is meaningless.

The outcome is eventually predictable. Given the limitations of most HEIs, the idea of 'publish or perish' is taken quite literally. Rather than carry out actual research, faculty members and even students churn out fraudulent papers for their HEIs to secure university rankings and for them to secure individual benefits. And publishers monetarily benefit from these publications and also participate in the scam.

Second, 80% of students at India's HEIs are undergraduates who need better teachers rather than competent researchers. Given that the research-teaching link is dubious and that most HEIs do not have the necessary research capabilities, it should follow that those teaching at undergraduate institutions should focus on teaching.

In the end, it appears that the only logic to prefer research over teaching is to help HEIs attain university rankings and to help faculty members secure individual gains, both of which are the main drivers of research fraud, and neither of which contributes in any way to India's knowledge sector.

Pushkar is director at The International Centre Goa. Views are personal.

MILLENNIUM POST (P-7), 26 NOVEMBER 2025

GLOBAL CLASSROOMS

Rethinking Academic Globalisation

As higher education globalises, institutions must rethink mobility, collaboration, and access—crafting internationalisation strategies anchored in equity, relevance, and long-term academic impact

AKHIL BHARDWAJ

THE WRITER IS VICE DEAN AND DIRECTOR - OFFICE OF INTERNATIONAL AFFAIRS & GLOBAL INITIATIVES, O P JINDAL GLOBAL UNIVERSITY

In a connected world, universities must build global partnerships aligned to student needs, institutional goals, and societal demands, delivering measurable outcomes

In the 21st century, universities across the world have increasingly recognised internationalisation as a defining element of their institutional identity and strategic growth. Traditionally, higher education institutions engaged in global collaborations primarily through student exchanges, faculty visits, and occasional joint research initiatives. However, the contemporary landscape of internationalisation has evolved significantly. Today, it encompasses far more intentional, integrated, and outcome-driven approaches aimed at enriching multicultural exposure, enhancing global competencies, and generating collaborative knowledge. The modern way of internationalisation cuts across a holistic matrix of institutional aspirations, in-house capacities, and carefully cultivated global partnerships. As universities strive to prepare students as industry-ready professionals and global citizens, their internationalisation strategies are undergoing a transformative shift toward value-driven, bespoke, and sustainable models.

At the core of this transformation lies a broader understanding of why universities pursue global engagement. International collaborations are no longer limited to symbolic partnerships or prestige-building alliances. Instead, they serve critical functions: exposing students and faculty to multicultural environments, enabling the exchange of best academic and administrative practices, fostering global citizenship and generating interdisciplinary knowledge through collaborative research and teaching. These objectives reflect the increasing interconnectedness of global societies and economies and underscore the responsibility of universities to prepare graduates capable of navigating complex global challenges.

Despite this recognition, traditional models of internationalisation have often fallen short in producing substantive, measurable outcomes. Many collaborations have existed merely on paper, yielding limited benefits for students and faculty. As a result, universities today are compelled to rethink how global partnerships are structured, implemented, and evaluated. A modern value-based mechanism is essential, especially one that ensures collaborations translate into meaningful academic experiences, skill development opportunities, and impactful research. This mechanism must consider the institution's internal resources, the aspirations of its academic community, and the potential of its global networks. Such an integrated and strategic approach ensures that internationalisation is not an isolated activity but rather a core component of institutional culture and development.

The future of internationalisation lies in bespoke, discipline-specific partnerships—not broad declarations

The need for bespoke models of internationalisation has therefore become more prominent. Instead of relying on conventional, one-size-fits-all models of collaboration, universities are now tailoring their global engagement strategies to reflect the specific needs of their students, faculty, and institutional goals. For instance, while student mobility has long been considered a primary mode of international exposure, it no longer appeals uniformly to all students or institutions. Traditional long-term mobility programmes, such as dual degrees, master's progression pathways, or semester-long exchanges, may be effective for some, yet they fail to attract large numbers at many universities. Factors such as academic structure, programme compatibility, cultural preferences, and financial constraints often influence a student's ability or willingness to participate.

Consequently, universities increasingly recognise the value of short-term mobility programmes. These programs, ranging from two-week study visits to two-month research immersions, offer students an accessible and immersive opportunity to experience global higher education and explore different cultural or geographical contexts without committing to lengthy stays abroad. Short-term models mitigate barriers related to finances, academic calendars, and personal responsibilities while still achieving the essential objective of global exposure. Their rise highlights a key principle of modern internationalisation: strategies must be grounded in authentic assessments of student and faculty needs. Before framing an internationalisation strategy, institutions must conduct thorough evaluations of their community's requirements, capacities, motivations, and constraints. This ensures that international opportunities are both relevant and meaningful.

Financial considerations further complicate traditional mobility programs. Even with scholarships, many students and faculty struggle to afford the costs associated with international travel, accommodation, and living expenses. In response, universities have innovated with the concept of global classrooms, enabling international exposure without necessitating travel. Through virtual guest lectures, collaborative online courses, and faculty-led digital exchanges, global classrooms offer an inclusive, financially feasible form of international engagement. These models hinge on careful mapping of teaching and research interests among collaborating faculty, which is an essential prerequisite for ensuring that virtual interactions are academically meaningful. Global classrooms also democratize access to internationalisation, allowing students from diverse socioeconomic backgrounds to benefit from international academic experiences.

Furthermore, emerging programme-specific collaborations, rather than broad institution-wide agreements, are becoming a hallmark of modern internationalisation. Universities are moving away from generic MoUs toward targeted partnerships that enrich specific academic programmes or disciplines. Such collaborations enable institutions to offer specialised global experiences, such as joint design studios for architecture students, cross-border moot courts for law students, or multinational business consulting projects for management students. These bespoke collaborations provide students with high-quality, context-specific global exposure and ensure that internationalisation aligns directly with programme objectives. Top-tier universities increasingly adopt such models to offer their students a "crème de la crème" global educational experience.

Faculty engagement also represents a critical element of the modern internationalisation process. Robust global partnerships depend on faculty members who are genuinely interested in and capable of collaborating across borders. Identifying such faculty champions, those motivated to participate in co-teaching, joint research, and international academic initiatives, is essential. To support this bottom-up enthusiasm, institutions can adopt a top-down facilitative approach. Bilateral thematic workshops, joint research symposia, and collaborative academic conferences create structured opportunities for faculty from different institutions to connect and explore areas of mutual interest. These engagements often serve as catalysts for sustained academic collaborations, resulting in co-authored publications, collaborative research grants, and shared pedagogical innovations.

In conclusion, the modern way of internationalisation among global universities represents a shift from symbolic alliances to meaningful, context-specific, and strategically designed collaborations. It emphasises holistic integration of global best practices, intercultural learning, and institutional capacity-building. As universities navigate an increasingly complex global environment, they must adopt internationalisation strategies that are flexible, inclusive, and responsive to the diverse needs of their communities. By embracing bespoke mobility models, virtual global classrooms, programme-specific collaborations, and faculty-driven initiatives, institutions can ensure that internationalisation serves as a transformative force towards preparing students as global citizens, fostering innovative research, and contributing to a more interconnected and collaborative world.

Views expressed are personal

PIONEER (P-8), 26 NOVEMBER 2025

Teachers carry the weight of constant decisions

SAKSHI SETHI

2ND OPINION

THE PIONEER

In a world obsessed with productivity, efficiency and optimisation, one profession has been quietly doing superhuman work long before corporate boardrooms invented terms like "decision fatigue." That profession is teaching. The humble teacher, often mocked, often blamed and occasionally praised, is expected to make thousands of decisions every day with the accuracy of a neurosurgeon and the patience of a saint. Yet people still say teachers get far too many holidays, which remains one of the biggest myths. Teachers are "off" about as often as the internet is off.

Every morning, long before sunrise, teachers are already dealing with mental chaos: Should today's warm-up change? Why is this student silent today-worry or mischief? Will some parent accuse me of ruining their child's life because I corrected a spelling mistake? Decisions crowd a teacher like mosquitoes in monsoon season-annoying, nonstop and unavoidable. Still, society pretends teaching is simple. As if managing teenage behaviour, impossible parental expectations, admin micromanagement, syllabus deadlines, moral responsibility and ensuring no child blows something up is a routine task. Teachers are expected to float through all this with a calm smile while their mind feels like a browser with 89 tabs open-half frozen, the rest crashing. Decision fatigue may be a trendy term for productivity experts, but teachers have lived it forever. They feel it before breakfast. While ordinary people decide whether to wear a blue or a white shirt, teachers decide whether the lesson can work without the projector, whether seating needs rearranging to prevent a mini-riot, and whether Rahul is genuinely sick or simply avoiding long division. This isn't multitasking; it's battlefield planning.

And then there's the myth that teaching ends with the bell. The bell simply signals that the teacher is moving from teaching duties to paperwork, counselling, planning lessons for 40 different learners, and responding to parent emails that sound like they come from a parallel universe. After-hours work is not extra-it is normal. Lesson plans, setting question papers, checking notebooks that multiply like weeds, preparing remedial notes, attending meetings that achieve nothing, worrying about mispronouncing a student's name-teachers are always switched on. More than switched on, they are glowing like a tired neon sign. Despite this, teachers have somehow become villains in public debate. They are always too something-too strict, too soft, too modern, too old-fashioned, too loud, too quiet. Society expects them to create ideal citizens but judges them like reality-show contestants watched by people who haven't entered a classroom in years. Decision fatigue shapes a teacher's day.

Every choice-correcting, calming, pausing-demands emotional energy. They manage a fragile human ecosystem where one sentence can harm or heal, making thousands of decisions daily. Yet they are celebrated once a year and ignored otherwise. Their burnout is dismissed while society still expects endless patience and creativity. Teachers are exhausted because the system is unreasonable. Humans are not built for constant decision-making, yet teachers live it daily. Anyone who thinks teaching is easy should spend one day in a classroom and see how teachers hold society together through every decision.

The writer is and educator

STATESMAN (P-7), 26 NOVEMBER 2025

Finding dignity in an unkind world

LIM WOONG

It is not difficult to see that online platforms have become the primary spaces where our youth gather, talk, argue, chase trends and figure out how to live with others. For students, social media functions almost like a parallel reality they cannot ignore. We often say that libraries shape their habits of mind, yet it is social media where their sense of right and wrong is tested, where they learn, sometimes painfully, to read situations, protect themselves and form a sense of community and belonging. Digital literacy, in this sense, is not just an academic skill but a foundation for navigating modern society.

Yet the same online spaces that encourage connection can quickly turn hostile. Research on dark personality traits shows that narcissism, Machiavellianism, psychopathy and sadism - often referred to as the dark tetrad - thrive in environments marked by anonymity, low accountability and the instant gratification of provoking a reaction. Social media provides ideal conditions for malice and troubled minds. Trolling, harassment, vanity, scams, fake news and deepfake content are predictable outcomes when empathy thins and attention becomes currency.

Teachers feel these effects acutely. Studies in educational settings describe a small but significant group of children - sometimes as early as kindergarten - who pressure peers, exploit classmates' goodwill, refuse responsibility, or display striking emotional bluntness. For teachers, these behaviours stop being clinical cases in a textbook the moment they enter the classroom; they become emotional burdens they can't help but face every day.

Many enter the profession driven by a passion for learning and mentorship, only to find themselves face-to-face with students (and often parents as well) whose behaviour resists trust and the very guidance meant to help them. The result is teacher burnout: an erosion of moral confidence and professional identity defined by the painful gap between who teachers hope their students can become and who they sometimes reveal themselves to be.

My own sense of disillusionment deepened recently while watching an SBS documentary titled "Savage Hours" about the serial killer Lee Chun-jae. The programme aired his voice and memories with an oddly poetic tone, as if inviting viewers to empathize with him. It reflected a troublingly romantic view of evil, the belief that darkness is misunderstood trauma or that we owe even the most sadistic individuals sympathy and forgiveness. But darkness is not always a wound; sometimes it is simply darkness. To sentimentalize cruelty is to misread it and, more importantly, to betray the victims whose lives were irreparably harmed.

Moments like these make cynicism feel like the only rational stance. Yet something unexpectedly hopeful often rises in its place. Recently, my graduate students led a seminar discussion on the "Light Triad," a psychological frame work emphasizing humanism, compassion and moral clarity. Unlike the dark triad, associated with exploitation, emotional coldness and ruthless greed, the light triad highlights the quieter but equally real dimensions of kindness and empathy that hold together authentic human relationships.

At the end of their presentation, my students shared something more personal: a YouTube music video titled "The Princess Code" - you must watch it for yourself. At first glance, the video appears playful. Yet its lyrics offer a surprisingly resilient worldview. They encourage greeting each day with a smile, finding small joys in the mirror, staying composed amid chaos, accepting hardship as part of one's story, and above all, not giving up. What may initially sound like self-centred positivity emerges as a declaration of self-respect and emotional maturity. It reflects the belief that even in an unkind world, one can still choose dignity.

For many teachers, this mindset becomes Teflon against so-called student "villains." Those who endure difficult students do not rely on duty alone. They draw strength from a quiet, persistent confidence that their work matters, that kindness

is not naive and that spiteful behaviour, online or in person, does not define the limits of what humanity can be. For them, the light triad is not theory but lived experience.

This offers an important reminder: Digital platforms expose us to some of the worst sides of human behaviour, and the same dynamics too easily seep into classrooms, where that darkness plays out with little restraint. We cannot eliminate the internet's darker corners, nor can we fully reform those who take pleasure in cruelty. Yet we can cultivate what is good in the overwhelming majority of us: humility, compassion and the courage to remain kind and to refuse malice when it would be easier to look away.

As long as we tend to the light within ourselves and recognize that same light in others (as found in my students, who must find their way through a world far more complex and less forgiving than the one I inherited), darkness does not prevail. It becomes only a brief chapter in a much longer and more hopeful story of teachers.

The Korea Herald/ANN.

TIMES OF INDIA (P-24), 26 NOVEMBER 2025

If you learn and lead, support systems around you will grow

Amita Mirajkar

Like many high school students at the time, I was at a career crossroads – should I pursue medicine (family being in the field) or computers (popular among girls). Today I'm glad I went with my gut feel. The career in the world of software engineering continues to excite me even today. My formative years while working in Pune, inspired me to value good company culture and the impact of technology on businesses. Later, while working in the US, I realised the value of great work ethic, taking pride in one's work, and mutual respect among co-workers.

Adversity can be an opportunity in disguise

During the 2008 economic turbulence, while working in the education sector, channeling online learning opportunities for working adults was a turning point for all of us who went on to become co-founders of Clairvoyant. We experienced first-hand how one could wield technology to uplift communities by enabling them to upskill and reskill. With four dear colleagues as partners leading from the US, my husband and I returned to India to start the India office. Through rough terrains and green pastures, Clairvoyant expanded its global footprint, empowering enterprises across diverse industries at the confluence of data, cloud, and AI. Our team's undaunted support and relentless hard work culminated in a significant milestone – a successful merger with EXL in 2021. It stood testimony to our collective vision of advancing human potential by creating data-driven ecosystems.

CAREER LADDER FOR WOMEN

Women need encouragement

No amount of effort is ever enough to encourage more women to take up STEM. Being recognised as one of the 'NASSCOM Indomitable Women in Tech' was a moment that was both exhilarating and humbling for me. I was wrong in my early years to think that women do not need extra support. Over time, I realised that because of societal baggage, women do need deliberate encouragement. Some are born with great support systems, but most are not. We can take responsibility to fill the gap – all we need to do as seniors in the industry is to encourage women in STEM, create a level playing field, provide mentorship, and ensure diversity is valued. Let's not forget, it's also a two-way-street. Young women need to hold themselves up to high standards and not leave any stone unturned to learn, grow, create value, and lead. Once this is done, you'll notice the support system around you grows, as a virtuous circle.

Amita Mirajkar is co-founder & CEO of Clairvoyant India

TRIBUNE, (MAGAZINE-3), 26 NOVEMBER 2025

TIME CAPSULE

YASH PAL (NOVEMBER 26, 1926-JULY 24, 2017)

The people's scientist

BORN in 1926, in Jhang, then a part of British India and now in Pakistan, Yash Pal emerged as one of the most influential figures in the country's scientific and educational landscape. His life reflected the journey of a nation discovering itself, and his work helped generations of Indians discover the joy of scientific thinking.

After completing his schooling in the years surrounding Independence, Yash Pal pursued physics at Panjab University, earning his MSc in 1949. His academic brilliance soon took him to the Massachusetts Institute of Technology (MIT), where he completed his PhD in 1958. But instead of building a career abroad, he returned home, determined to strengthen India's scientific foundations.

His professional life began at the Tata Institute of Fundamental Research (TIFR) in Bombay. For decades, he worked there on cosmic rays and high-energy astrophysics, contributing significantly to our understanding of particles that travel through space and the Earth's atmosphere. His research placed him among pioneering scientists exploring the universe beyond our visible world.

In the early 1970s, he became the first Director of the Space Applications Centre in Ahmedabad. Here, he shifted his focus from pure research to applied science—particularly the use of space technology to improve life on the ground. Under his guidance, satellites were used for communication, education, rural outreach and development, long before these ideas became mainstream.

From 1986 to 1991, Yash Pal served as the Chairman of the University Grants Commission (UGC). This period saw him champion research in universities and support the creation of institutions like the Inter-University Centre for Astronomy and Astrophysics (IUCAA). But his influence extended far beyond higher education. As the head of the committee that prepared the landmark "Learning Without Burden" report, he argued passionately that schoolchildren should face less rote pressure and more meaningful learning, a principle educators still discuss today.

To the public, however, Yash Pal was best known as the friendly, wise presence on Doordarshan's "Turning Point", where he made complex scientific ideas simple, relatable and even entertaining.

YATHESHT PRATIRAJ PHOOL

DECCAN HERALD (P-8), 27 OCTOBER 2025

Breakfast at school needs a national rollout

States and Union Territories, including Rajasthan, Kerala, Chhattisgarh, Gujarat, and Delhi, have made a welcome proposal to the Central government towards adding breakfast to the midday meal scheme, which provides free food to children in anganwadis and lower classes in government schools. There has also been a proposal from states, including Karnataka, to extend the midday meal programme, called the PM Poshan scheme since 2021, to class 12. The recommendation to include breakfast in the scheme is not new. The National Education Policy (NEP) proposed it, noting that a nutritious breakfast would be particularly productive for children. In 2021-22, the Ministry of Education proposed inclusion of breakfast in the PM Poshan scheme, but the Finance Ministry turned it down. The parliamentary standing committee on education has also made a reference to this in a report and said the matter was being pursued.

In terms of health and nutrition as a policy imperative, the midday meal scheme has been one of India's landmark initiatives with a lasting positive impact on millions of children and society. Providing breakfast will expand the scope of the scheme and cover the daily nutritional needs of a vast population of children. The value this proposal brings to millions of poor families in India, which ranks 102nd out of 123 countries in the 2025 World Hunger Index, cannot be overstated. The levels of undernourishment, child stunting, and child wasting are very high in the country. The provision of breakfast to children must be envisioned as a targeted welfare scheme; its outcomes will be more valuable than many sops provided by governments.

Breakfast in the menu can significantly improve nutrition and equity in learning

The Ministry of Education has reportedly estimated that the breakfast proposal would cost about Rs 4,000 crore. This is a negligible budgetary allocation in a country with an annual expenditure of over Rs 50 lakh crore. For this investment, the returns promise to be transformative for future generations and for the country. With the human and physical infrastructure already in place, the proposal is not likely to involve substantial expansion. The governments in Tamil Nadu and Telangana have launched breakfast plans for children. Local bodies, parent-teacher associations and NGOs are running the scheme in Kerala. Karnataka is providing milk, and Andhra Pradesh is providing a ragi malt drink to children, as part of the PM Poshan menu. Considering its takeaways, the breakfast programme needs a national presence and presents a strong case for inclusion in the PM Poshan scheme.

27/10/25

INDIAN EXPRESS (P-10), 27 NOVEMBER 2025

Bringing back Indian-origin faculty will need changes in policy, culture

SOMAK RAYCHAUDHURY

THE RECENT deliberations within the Indian government, to introduce a scheme aimed at repatriating "star faculty" and researchers of Indian origin from overseas, particularly in the context of the evolving political and academic landscape in the United States, are both timely and commendable. The proposal, which seeks to offer a substantial "set-up grant" to established scholars for creating laboratories and teams in premier Indian institutions, signals a welcome recognition of the urgent need to revitalise our research and development ecosystem.

The motivation behind this move is evident yet varied. The increasing political intervention and perceived challenges to university autonomy and academic freedom at US educational institutions — the locus of a substantial Indian diaspora — create a unique window of opportunity. Global academic talent is now more actively surveying options that offer stability, autonomy, and a conducive research environment. At the same time, the exigency of addressing the long-standing outflow of academic talent, particularly in the STEM fields — the notorious "brain drain" — has never been greater as India positions itself as a global knowledge economy.

As reported in the media, the initial focus seems to be on a small number of priority areas in STEM, which are fields strategically important for national capacity building. This demonstrates a focused and pragmatic approach to strengthening our competitive edge.

While the proposed "set-up grant" is a crucial, necessary step towards financial and operational autonomy, it addresses only one aspect of this complex challenge. As Chintan Vaishnav, previously director of the Atal innovation mission, suggests, the key lies in creating a "seamless experience" for a returning academic, that goes far beyond mere policy intent. The disparity in salaries, with a full professor in India earning about $40,000 annually compared to $130,000–$200,000 in the US and around $100,000 in China, means that we may never match global financial benchmarks. Therefore, the return on investment for these scholars, in addition to financial compensation, must be intellectual and cultural, and in the ease of doing research.

For the scheme to succeed, it requires a structural and cultural transformation extending beyond the grant itself. Policy interventions must include institutionalising administrative insulation — a "red carpet mandate" — that guarantees seamless management of logistics, procurement, and human resources, leveraging, for example, the recently increased institutional autonomy for non-government procurement. Further, the scheme must guarantee long-term career security via explicit tenure-track conversion pathways, moving decisively past the fragmentation of previous fellowship-based programmes. In the case of scientific research, policies outlining intellectual property ownership must be formulated and clearly enunciated in the host institutions. For senior academics moving back with families, job opportunities for spouses, housing, and school education opportunities for children need to be thought through. Finally, success depends on a high-level, public affirmation of academic freedom, insulating the faculty from onerous monitoring and scrutiny that is similar to what they are now facing in the countries from where we are expecting to welcome them back.

> The new initiative must be designed to explicitly address the limitations of the past: Procedural delays, funding uncertainty, and inadequate institutional support. The emphasis must shift from transactional, short-term engagements to full-time or longer-term, tenured appointments, perhaps connected to teaching and mentoring groups of students, in order to offer a stable professional home

The proposed short orientation programmes are essential, but institutions must go deeper. Many public institutions have very little experience in employing international faculty and seamlessly integrating them into their system. The culture must shift from a rigid, hierarchical structure to one that actively fosters interdisciplinary collaboration, merit-based advancement, and true academic freedom, the foundational competitive advantage of a world-class university.

India has attempted such programmes before, notably the VAJRA Faculty Programme, which, despite its noble intent for high-impact short stints, has seen modest participation, facilitating collaborations between only about 100 overseas scientists since 2017-18. The new initiative must be designed to explicitly address the limitations of the past: Procedural delays, funding uncertainty, and inadequate institutional support. The emphasis must shift from transactional, short-term engagements to full-time or longer-term, tenured appointments, perhaps connected to teaching and mentoring groups of students, in order to offer a stable professional home.

The global competition is fierce: Europe is strengthening academic freedom, China offers well-funded recruitment initiatives, and Taiwan is internationalising its system. India's success will be determined not by the size of the initial grant and facilities, but by the depth of institutional and policy reform we are willing to undertake. The "emotional pull" of returning home is a powerful, non-financial motivator, but it cannot sustain a career against structural deficiencies.

Finally, media reports seem to imply that these initiatives would be confined to a select number of research-intensive public institutes. Given that over the last two decades, the research landscape in Indian universities has transformed, such that some of the top-ranking research institutions happen to be central and state universities, as well as many in the private sector, there should be careful thought in the placement of these returning academics.

At Ashoka University, an institution founded on the principle of academic excellence and the fostering of critical inquiry, we view this initiative not just as a recruitment drive, but as a strategic inflection point for Indian higher education. At our university, we have witnessed the transformative power of repatriating Indian-origin faculty. They bring not just expertise but an invaluable international perspective on pedagogy, governance, and research best practices. We believe this scheme is an opportunity to not just bring back talent, but to fundamentally upgrade the institutional and cultural fabric of our top research bodies. The government's proposal represents a significant commitment. The onus is now on our premier institutions to commit to the accompanying, and much more difficult, changes in policy and culture that will truly make India the prime destination for academic excellence. The moment to reverse the brain drain and establish India as a global research hub has arrived. We must not let it pass.

The writer is vice-chancellor and professor of Physics, Ashoka University, Sonipat, Haryana. Views expressed are personal

MILLENNIUM POST (P-7), 27 NOVEMBER 2025

NEXUS OF GOOD

Rebuilding Childhood With Dignity

Mission Parivartan's overhaul of Varanasi Anganwadis shows governance can transform early childhood—improving infrastructure, training, attendance, nutrition and learning, offering India a scalable model

ANIL SWARUP

THE WRITER IS AN AUTHOR AND A FORMER CIVIL SERVANT

The impact of Mission Parivartan has been profound. Attendance at Anganwadi centres has increased significantly, from 35 per cent to 80 per cent

Mission Parivartan, led by a young IAS officer, Himanshu Nagpal, was one of the Awardees of the Nexus of Good Annual Awards, 2025, for transforming Anganwadi centres in Varanasi District, Uttar Pradesh.

The ICDS department and anganwadi workers play a critical role in the nation's development. Beyond just being a centre for gathering kids, an anganwadi centre is the spot where large-scale problems like malnutrition and pre-school education are tackled. As the country moves towards reaping the fruits of the demographic dividend, investment in children's futures becomes even more critical. In the age group of 6 months to 6 years, a kid is in its development stage where the body and mind of the kid are developing at their best, and therefore it is said that one rupee invested in this stage of life of a kid is as good as Rs 100 spent later for the child's and the nation's development.

With the spirit of making Anganwadi centres as a centre for learning and transforming their landscape into advanced learning centres filled with all the basic requirements as well as advanced learning infrastructure like smart TVs, BaLa aided structural design, rooftop rainwater harvesting system, solar panels, furniture for kids, toys and learning material, etc, Mission Parivartan was started in Varanasi. The goal was not to restrict the intervention to a few anganwadi centres for the sake of it, but to provide scalable, districtwide solutions to the problem that would be implemented across all 3000 anganwadi centres in Varanasi.

Mission Parivartan initiative has achieved a remarkable milestone in transforming Anganwadi centres across the district in the last 3 years. As part of the initiative, a total of 2,382 Anganwadi buildings have been rejuvenated, achieving an impressive 96 per cent saturation. Additionally, 692 new Anganwadi centres have been constructed, bringing the total to 3,074. This transformation aims to provide a conducive learning environment for young children, promoting their overall development and well-being. Over 3.5 lakh children aged 6 months to 6 years have benefitted from this intervention in the district over the last 2.5 years.

Upgrading Infrastructure and Amenities

The upgraded Anganwadi centres boast several key features, including saturation of all 18 basic Kayakalp parameters, such as baby-friendly toilets, handwashing units, BaLa-based painting, etc., along with upgraded works like digitisation with LED TVs to support learning and make education more engaging for kids, ensuring a comfortable and interactive environment. Furthermore, these centres are now solar-powered, ensuring a round-the-clock electricity supply. Other notable features include Poshan Vatika, kid-friendly toilets, and solar panels, all designed to promote health, hygiene, and sustainability. Outdoor play equipment has also been installed to encourage physical activity and development. The design of these anganwadi centres has been kept conducive to learning and mental growth, so that each corner of the centres serves as a source of learning and education. Things like writable floors, low wall green-boards, low-hanging paintings and wall displays, etc., ensure that each activity includes learning, and the building architecture serves as a source of learning for the kids.

Varanasi's experiment proves transformation doesn't require grand schemes—just design, consistency and political support

Beyond just the infrastructure, simple things like furniture, kitchen items, storage boxes, utensils, toys, first-aid kits, utility kits with a mirror, towel, nail cutter, etc., have also been provided at all centres, so that these centres function on a learning-by-doing model.

Urban Initiatives

In urban areas, Mission Parivartan has made significant strides in addressing the challenge of space and land availability. Very rarely has any solution to the urban anganwadi centre problem been attempted, and in city-based districts and increasingly larger cities, this problem will become even more severe in the future. The same problem existed with 991 urban anganwadi centres in Varanasi, which had been functioning on rent for years, yet not a single one existed within the 4 walls of a room; they were only in dingy streets and corridors. As a solution, 750 new rented buildings have been provided to accommodate Anganwadi centres under new rent agreements, while 65 old, unused buildings have been repurposed as Anganwadi centres. Additionally, 25 Porta Cabins and recycled bus compartments based on anganwadi centres have been set up in highly congested areas, ensuring accessibility and convenience. These Porta Cabins have been particularly effective in addressing space constraints, enabling Anganwadi centres to operate in parks and playgrounds. Anganwadi centres in urban areas, which were almost non-existent, working from streets and house corridors with barely any kids attending because of an extremely poor environment, now exist in beautiful air-conditioned rooms with smart classes for learning. Where rarely any kids used to attend an anganwadi centre in the City, now over 1 lakh kids in the City are proudly attending these centres daily.

Training and Capacity Building

Engineering departments, CSR partners, and NGOs devised these standard guidelines to be implemented as a model across different problem sets and areas, with standard costs. Then all the field staff were trained on the same solutions. Supervisors and Anganwadi workers also played a pivotal role in learning new and upgraded tools for learning, such as Tablets and Smart TVs, and in utilising different learning materials for kids.

Motivation, Monitoring Funds Convergence

A huge challenge was to secure land for new centres, identify new rented buildings in urban areas, and plan the priorities and locations so that the whole district benefited from the intervention in a phased manner. Weekly meetings were held with Supervisors, CDPO, and BDOs on the same day. Standard new rent agreements were drafted, and within a month of the intervention, results began to come in. To monitor different components, a control room was set up at the ICDS office, and Google Forms were used for daily reporting on updates to various indicators. For funding, CSR played a major role, with investments largely from Vedanta and Reliance Foundation, which helped make the efforts a reality, with Feeding India and Yuva Unstoppable also supporting the intervention. Besides CSR, MGNREGA funds, Gram Panchayat funds, and Critical gaps were also utilised to bridge small gaps in the campaign in works such as Poshan Vatika, electrification, boundary walls, etc. A significant contribution of this effort comes from the support of the Political leadership and assistance in the effort.

Impact and Outcomes

The impact of Mission Parivartan has been profound. Attendance at Anganwadi centres has increased significantly, from 35 per cent to 80 per cent, indicating improved engagement and enthusiasm among children. Moreover, severe malnourishment has decreased dramatically, from 7.7 per cent to 0.12 per cent, demonstrating the program's effectiveness. Learning outcomes have improved drastically, as reflected in the learning outcomes of the kids of first class in schools, and the NIPUN assessment results have improved from less than 40 per cent to over 90 per cent for students of Class 1 in government primary schools. Parents are now more likely to send their children to Anganwadi centres rather than private play schools, highlighting the initiative's success.

Views expressed are personal

STATESMAN (P-7), 27 NOVEMBER 2025

A personal journey of nurturing talent

DEBAPRIYA MUKHERJEE

Education is not the learning of facts, but the training of the mind to think, said Albert Einstein.

For the past six years, my work with students has been devoted to introducing and strengthening critical thinking in their learning journey. I often observe that many students struggle to achieve success in life - not because they lack talent or determination, but because they are shaped by an education system that prioritizes marks over real learning, memory over creativity, and conformity over individuality. As a result, students grow up uncertain about their passions, unprepared for real-world challenges, and lacking the confidence to explore new opportunities - creating a gap between academic performance and true success.

Too often, the emphasis on rote learning and examination outcomes prevents children from exploring ideas or understanding concepts at a deeper level. During classroom interactions, it becomes evident that students rely heavily on teachers' prompts, struggle to justify their reasoning, and hesitate to express their own thoughts. Many quietly wait for the "correct answer" rather than sharing their perspectives.

When I ask, "Can you explain your reasoning behind a particular science or mathematics experiment?" several students become unsure, as the question does not come directly from the textbook. Such interactions reveal that they have not been encouraged to question, analyse, or explore ideas independently - they expect information to be given, not discovered. These classroom conversations highlight the extent to which critical thinking is missing and underline the urgent need to guide students from passive learning toward active reasoning.

In today's world, critical thinking is one of the most essential skills for success, yet many students continue to learn in ways that limit their ability to question, analyse, and think independently. Recognizing this challenge, I have established specialized Mathematics and Science Laboratories to create an experiential learning environment where students can observe, experiment, reflect, and develop the skills needed to become curious, creative, and critical thinkers.

The lab has become a place where students step away from rote memorization and step into the world of hands-on discovery. Here, they build models, test ideas, measure outcomes, and learn through active investigation. For many, this has opened a door to a kind of learning they never thought possible. Concepts that once felt difficult in the classroom suddenly make sense when experienced through experiments and practical activities. What is most remarkable is the confidence our students have gained. Children who once hesitated to speak now eagerly explain their observations. Students who struggled with abstract concepts now demonstrate them with clarity using tools, models, and experiments they designed themselves. Their ability to think critically-to question, analyze, and reason-has grown stronger with every activity.

One of the most heartwarming transformations has been the spirit of collaboration the lab has fostered. Whether solving a mathematical puzzle, testing the Bernoulli principle, or building a working model, students support one another, share ideas, and celebrate each other's achievements. The lab has become a space where teamwork and creativity shine as brightly as academic success.

Parents often share stories of how their children talk excitedly at home about the experiments they performed - how they made a balloon-powered car, used geometric tools to create designs, or conducted simple chemistry reactions safely under guidance. These conversations show us that the lab's impact travels far beyond the school walls.

This initiative reflects my observations, the current gaps in learning, and the pressing need to transform our teaching approach to nurture strong intellectual habits.

Despite my sincere efforts to develop hands-on learning experiences, another significant barrier I face is excessive mobile usage, which increasingly jeopardizes students' critical thinking abilities. Constant exposure to quick-scroll content, instant answers, and entertainment-driven apps conditions young minds to seek immediate gratification rather than engage in patient analysis or problem-solving.

Instead of exploring ideas deeply or forming their own conclusions,

many students simply "Google the answer," bypassing the cognitive struggle that builds reasoning ability. Mobile addiction reduces attention span, discourages reflective thinking, and limits opportunities for meaningful conversations - elements essential for nurturing curiosity and logical judgment. As students become more dependent on digital shortcuts, their ability to question, evaluate information, and think independently weakens, posing a serious threat to their intellectual growth and long-term learning potential.

Excessive dependence on private tuition further intensifies these challenges. Tuition often reduces students' capacity to learn independently, as many rely on tutors for ready-made answers instead of developing their own problem-solving skills. It also increases academic pressure and stress, leaving little time for rest, hobbies, or healthy social interactions. Moreover, the financial burden of tuition creates inequality, leaving students who cannot afford it feeling disadvantaged. Over time, students may lose confidence in classroom learning and become less motivated to think creatively, hindering both academic and personal development.

By integrating inquiry-based methods, hands-on learning environments such as the Mathematics and Science Laboratories, and reflective classroom discussions, we can empower students to become confident thinkers and lifelong learners. Let us commit to creating a classroom culture where curiosity is encouraged, mistakes are viewed as opportunities, and every child feels inspired to explore their own ideas. The journey toward stronger critical thinking begins with us, and together, we can ensure that every student discovers the power of their own mind.

(The writer is a former Senior Scientist, Central Pollution Control Board.)

DECCAN HERALD (P-8), 28 OCTOBER 2025

DECCAN HERALD
ESTABLISHED 1948

Student politics needs a class on caution

The Karnataka government's move to revisit the ban on student union elections has brought back into focus an issue the state had shelved for more than three decades. Deputy Chief Minister D K Shivakumar's declaration that campus elections nurture leadership and must be reconsidered has reopened a debate that has remained dormant since the state imposed a blanket ban in 1989. But as the government moves in this direction, it must confront the very real and troubling history that led to the prohibition in the first place. Student unions in the 1980s had ceased to be mere platforms for representation; they had become battlegrounds where political parties, caste groups, and even the underworld jostled for influence. Violence was endemic. Clashes between rival groups—often caste-aligned—disrupted classes, damaged property, and made campuses unsafe for ordinary students. The atmosphere in several leading institutions in Bengaluru and elsewhere became so vitiated that education took a backseat to mobilisation, agitation, and turf wars.

More worryingly, the student leadership of the era was deeply entangled with criminal networks. It was an open secret that rowdy elements funded campaigns, offered 'protection', and used student leaders as foot soldiers. Elections became proxy contests between gangs backed by political patrons. The triangular nexus of politician-gangster-student leader hollowed out the very idea of a representative union. It is this criminalisation—not just political activism—that ultimately compelled the government of the day to outlaw campus elections. That history should serve as a red flag as the state contemplates a return to student politics. However, while a ban may have shielded students from the worst excesses of the past, it also insulated them from democracy itself. Universities are meant to be training grounds for the future. Elections teach leadership, negotiation, public reasoning, and accountability—skills no classroom lecture can impart. The absence of a union has left students without a legitimate voice on issues affecting their academic lives.

Karnataka's move to restore campus elections should not revive violence from the past

The challenge, therefore, is not a simple choice between an unregulated past and an over-controlled present, but finding a workable middle path that derives the best of both. The task before the committee is to design a system that harnesses the advantages of student representation while preventing a relapse into violence and criminal patronage. This will require strict codes of conduct, limits on external political involvement, transparent funding rules, and swift disciplinary mechanisms. If the government is determined to revive campus democracy, it must tread cautiously. Karnataka should remember the havoc unions once unleashed, but it should also recognise that democracy with safeguards is better than no democracy at all. 2018

DECCAN HERALD (P-9), 28 OCTOBER 2025

Building reading cultures beyond technology

SHAROON SUNNY

Conversations with teachers, whether in bustling city classrooms or quiet rural schools, often return to the same questions: How do children learn to read? What keeps them reading? And what does a "reading culture" actually look like in a society marked by deep inequalities and rapid technological change?

These are not questions of technique but about the environments we create, the languages we value, and the time we allow for reflection in an increasingly hurried world.

Reading and writing began as an attempt to understand and organise the world. In ancient Mesopotamia, a few marks pressed into clay set in motion new ways of thinking. Those who could read these early scripts held a special place in society; their skills were considered powerful enough to border on the sacred.

Seen through this lens, a reading culture is not merely a set of school practices or library periods. It is part of a long human habit of making sense of life — of finding meaning in symbols, sounds, and stories.

Early texts were meant to be spoken aloud. For centuries, most people accessed written knowledge not by reading silently but by listening collectively. This tradition survives in our classrooms and homes. Reading aloud helps children become fluent readers; adults still gather around stories during festivals and community events. The human voice remains central to how reading is shared.

Reading also slows us down. It teaches attention, offers companionship, and makes room for reflection — gifts that feel increasingly rare.

Modern research confirms what many teachers intuitively know. Learning to read is not simply about "cracking the code." Children's backgrounds, languages, and exposure to print shape how confidently they move from letters to meaning.

English poses unique challenges. While children learn that letters map onto sounds, they soon encounter exceptions — said, one, school, was, give. Without support, the gap widens quickly between those with access to books and those without.

A large study across low- and middle-income countries shows a clear pattern: children often learn to decode words, but comprehension remains a struggle. Some children grow up surrounded by books and conversations; others grow up in homes where print is scarce or absent.

In India, these divides can be stark. A child in a remote tribal hamlet may acquire rich cultural knowledge through oral storytelling but have limited access to print. Meanwhile, urban learners may be surrounded by texts but lack the time or support to read meaningfully. As literacy improves overall, those with more resources tend to move ahead faster. The gap widens quietly.

AI's presence in classrooms is expanding quickly. In Ghana, open-source tools now assess oral reading with striking accuracy. In a western Indian state, AI-based assessments have been rolled out in thousands of schools to identify early reading gaps. Technology can generate storybooks in home languages, support teachers, and make assessments more accessible.

But AI can also magnify existing divides. Communities with limited connectivity or devices lag further behind. The question is no longer whether AI can help with reading — it can. The question is who benefits, and who is left out.

Across schools, one pattern stands out: teachers who read for themselves create classrooms where reading feels alive. They share favourite lines, point children to new books, and treat reading as a joyful habit rather than a task. Reading cultures take root in these small, everyday gestures.

In tribal and rural communities, oral storytelling traditions — songs and tales — remain vital. They deserve recognition as rich forms of literacy. As modern pressures increase, preserving these traditions becomes part of sustaining a reading culture.

Building a reading culture does not require grand declarations. It requires steady, human-centred commitments: access to books in all languages, supportive classrooms, time to read, and technology used thoughtfully rather than uncritically.

Most of all, reading grows when people feel invited into it — when stories feel close, possible, and worth staying with. In an age of AI and metrics, remembering the humanity of reading is the most important step of all.

(The writer is an assistant professor at Azim Premji University)

DIS/AGREE

THE BEST OF BOTH SIDES

A weekly column, which offers not this-versus-that, but the best of both sides, to inform the debate

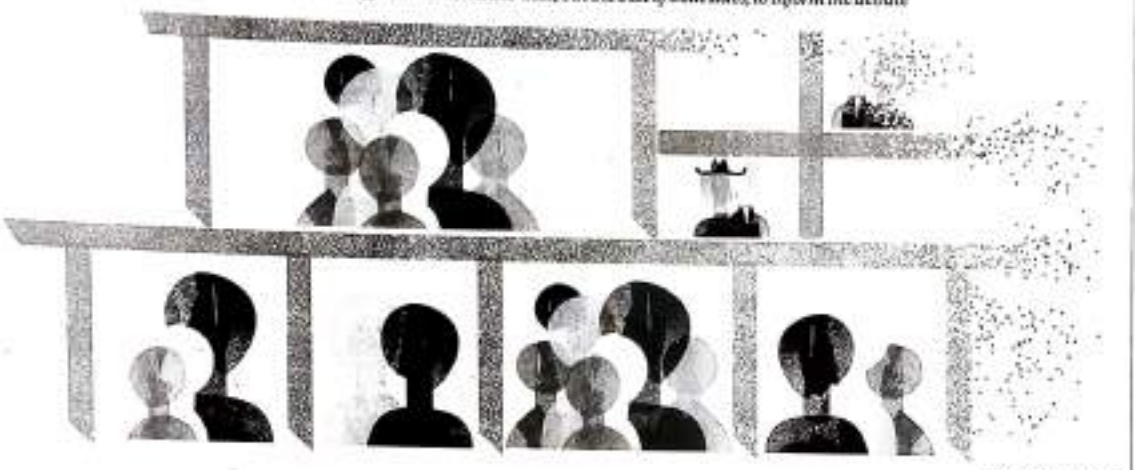


ILLUSTRATION: CHETAN KUMAR

Is Macaulay to blame for the 'colonial mindset' or is he a convenient strawman in politics?

India must exorcise Macaulay's ghost

VINAY SAHASRABUDDHE

ABOUT A decade after Independence, there was a popular refrain that while the "White angrez" had been sent back, the "coloured angrez" were still around. Many would also add that while the *angrez* have gone, *angreziat* continues. "We, the people," and the systems in India continued to be under colonial influence. Recognising this fact and analysing the impact of the BJP's victory under Narendra Modi's leadership in the 2014 Lok Sabha elections, The Guardian commented, "Today, 18 May 2014, may well go down in history as the day when Britain finally left India."

Little wonder, then, that PM Modi gave a clarion call to liberate India from the sinister influence of T B Macaulay, a symbol of colonial forces that almost compelled Indians to hate everything that was essentially Indian. On the one hand, promoters of Macaulay's thinking created an acute sense of inferiority. On the other hand, they tried to divide Indians, and while leaving, they left behind a much more fragmented society.

Sadly, thanks to the inertia of rulers after Independence, the content of education moored by Macaulay was allowed to continue for decades, only to be drastically altered with the new National Education Policy. It's a fact that our entire discourse about knowledge traditions, including the history, content and conduct of education, smacked of a deep influence of Macaulay's Minute. So much so that Mahatma Gandhi, in his 1931 speech at Chatham House, bluntly told the British how they had destroyed the Indianness of Indians. He said, "We have the education of this future state. I say without fear of my figures being challenged successfully, that today India is more illiterate than it was 50 or 100 years ago, and so is Burma, because the British administrators, when they came to India, instead of taking hold of things as they were, began to root them out. They scratched the soil and began to look at the root, and left the root like that, and the beautiful tree perished." What the PM is calling for is re-nourishing the roots of this beautiful tree.

PM Modi's critique of Lord Macaulay is not confined only to education. It is targeted at everything that reflects the colonial mindset. From the content of education to our model of public administration, from parliamentary procedures to courtroom mannerisms, there are several things that need to be liberated from colonial influence. PM Modi's appeal to end the colonial impact in the next 10 years could also be seen as a sequel to his "*Panch-Pran*" appeal and his emphasis on promoting the mother tongue in education. It is important to note that PM Modi also said the government was not opposed to English as a language.

Pro-status quo elements often deny the continuing impact of colonialism. They would do well to take a closer look at our governance structure, our parliamentary practices and facets of the public sphere at large. Many may not know what happened in 1999. Till then, the budget used to be presented in Parliament at 5 pm to suit the London time. It was thanks to then PM A B Vajpayee that the practice was abandoned.

From referring to the district magistrate as district collector to addressing judges presiding over courts of law as "My Lord" to the robes a lawyer is expected to wear in the courtroom, there are several imprints of colonial rule we need to discard. This is because ideas of racial supremacy, leading to an all-pervading Eurocentricism, were the foundational ideas of most colonial powers.

Thanks to British rule, the sinister impact of this Eurocentric thinking could make quick inroads in our consciousness. As a result, indigenous became synonymous with inferior. More than reading and writing, we relished speaking English as it quickly gave us a pseudo-satisfaction of being from the elite classes. This made us hollow from within, and we started disrespecting not just our mother tongues but our mother culture as well. From climatically unsuitable three-piece suits to hygienically ill-advised Western-style multi-course lunches and dinners, we pushed everything traditional to the periphery. Unthinkingly and needlessly, we started officially calling allopathy "modern medicine," making Ayurveda, Siddha, etc, "un-modern", for no fault of these indigenous medicinal systems. Ironically, in severely famine-affected parts of rural India, children relished singing poems like "rain, rain go away".

PM Modi's call for liberating our thinking from the influence of Macaulay is not against all that is foreign. Gandhi had quite eloquently written on this issue in 1924 in *Young India*: "*My Swa-raj* (self-rule) is to keep intact the genius of our civilisation. I want to write many new things, but they must all be written on the Indian slate. I would gladly borrow from the West when I can return the amount with decent interest."

The writer is a national executive committee member of the BJP

Long live Mahatma Macaulay

CHANDRA BHAN PRASAD AND ASHISH GAUTAM

WITH THE onslaught on the "Macaulay mindset", the vilification of Lord Macaulay has returned. He is, by implication, called a cultural enslaver. His admirers are derided as "*Macaulay Putra*" and for having "internalised inferiority". The "mindset" theorem suggests that English-educated Indians are relics to an imagined civilisational essence. Yet, few critics have read the primary text that grounds this outrage: Macaulay's Minute on Indian Education (1835). Selective quotations over two centuries have ensured that his arguments are understood only through subterfuge.

In 1813, the British parliament ordered the East India Company to spend at least Rs 1 lakh annually "for the revival and promotion of literature, and the encouragement of the learned natives of India, and for the introduction and promotion of a knowledge of the sciences among the inhabitants of the British territories". This mandate split British officials. Orientalists argued in favour of Sanskrit and Arabic education. Anglicists, led by Macaulay, argued that funds must support education aligned with economic modernity, empirical science and universal knowledge. This debate has been reduced to a language issue. Macaulay demonstrated, using accounts from Calcutta, that Sanskrit and Arabic colleges required stipends to attract students, while English schools drew fee-paying students voluntarily. His argument was based on economic viability and intellectual returns.

The distortion was led by NCERT books, which claimed Macaulay sought to create "a class of persons, Indian in blood and colour but English in tastes, in opinions, in morals and in intellect". Bipan Chandra used this quote as proof of cultural subservience. Sumit Sarkar reposted it. Students were never shown the full paragraph that reads: "We must at present do our best to form a class who may be interpreters between us and the millions whom we govern, a class of persons, Indian in blood and colour, but English in tastes, in opinions, in morals, and in intellect. To that class we may leave it to refine the vernacular dialects of the country, to enrich those dialects with terms of science borrowed from the Western nomenclature, and to render them by degrees fit vehicles for conveying knowledge to the great mass of the population."

This sleight of hand is reminiscent of the Ashwatthama episode. Lord Krishna instructs Yudhishthira to declare "Ashwatthama is dead". Yudhishthira does so, muttering "the elephant" under his breath. The visible and concealed truth coexist. Mythology often treats such misdirection as a divine sanction when the cause is deemed righteous.

The second quote routinely weaponised against Macaulay is: "... a single shelf of a good European library was worth the whole native literature of India and Arabia". Yet, the same Minute contains a line, "A country once superior in knowledge to the nations of Europe," referring to Egypt, which had declined...He notes that the West was "in a state as barbarous as that in which our ancestors were before the Crusades". He observes that "almost everything that was worth reading was contained in the writings of the ancient Greeks and Romans", and he lists Thucydides, Plato, Cicero, and Tacitus as intellectual superiors. He famously argues: "The languages of Western Europe civilised Russia. I cannot doubt that they will do for Hindoos what they have done for the Tartar." This was not a claim of racial hierarchy. It was a statement about how languages that carry modern science and philosophical knowledge transform societies.

Macaulay reinforced this point in his July 10, 1833, House of Commons speech. He described caste as a system that "pronounced some men to be by birth the lords of the soil and others to be by birth hewers of wood and drawers of water". He mocked the idea that a nation could advance while "the highest honours of the state were reserved for a favoured caste". The case against Macaulay is not solely rooted in colonial injury but also in his attack on caste codes. That's the reason I love scholar D Shyam Babu's coinage of "Mahatma Macaulay". It recognises that English disrupted caste-based social hierarchies. It consigns moral authority to the figure who initiated the first structural breach in our society's history.

English didn't merely replace Sanskrit, it diluted caste. Sanskrit preserved hierarchy. English entered India without ritual barriers. It opened access to science, law, administration, and global imagination. When caste society refused Dalits, English offered. Sanskrit pretends to defend authenticity while smuggling caste codes back into public discourse.

The Ashwatthama analogy completes the picture. Deception is legitimised for dharmic urgency. Only a Mahatma like Macaulay can, to quote Patnaik better than the England of his grandfathers, Ashwatthama is dead. Long live Mahatma Macaulay.

Prasad is a Mumbai-based author, Mercatus Center, George Mason University. Gautam is a doctoral candidate, Department of English, University of Delhi

ASSAM TRIBUNE (P-4), 29 OCTOBER 2025

Inclusive education and learning environment

Dr Sailen Das

Inclusive education supports varied learner needs, builds accessible classrooms, and equips teachers to ensure meaningful participation for every child.

The goal of inclusive education is to guarantee that all students, regardless of their skills, experiences, or situations, have equitable access to high-quality instruction in a typical classroom. It is founded on the idea that all children should have the chance to learn, develop, and engage with one another, and that diversity enhances the strength of the classroom. The goal of inclusive education is to integrate children with special needs or disabilities into regular classes with the necessary support mechanisms.

Fundamentally, inclusive education advances the notion that diversity is both normal and beneficial. Physical capabilities, learning preferences, social backgrounds, language proficiency, and cognitive difficulties can differ among students. In order to create a more engaging learning environment, inclusive education uses these differences as assets rather than as barriers. In addition to helping children with special needs, this approach promotes respect, empathy, and teamwork among all students.

Creating a barrier-free learning environment is one of the main objectives of inclusive education. This includes learning resources that are tailored to each student's needs, accessible classrooms, and adaptable teaching strategies. For instance, children with learning challenges can benefit from simplified texts or more time during tests, while those with hearing impairments might need assistance with sign language or audiovisual aids. In order to meet a variety of requirements, teachers must implement flexible strategies, including differentiated instruction, collaborative learning, and ongoing assessments.

A key element of successful inclusion is teacher preparation. Teachers must be well-versed in inclusive pedagogies, disability concerns, and classroom management strategies that encourage involvement from all students. Teachers become more competent and confident in addressing a variety of learning issues with regular professional development. The inclusive framework is further strengthened by the assistance of counsellors, professional assistants, and special educators.

Involving families and the community is another crucial component of inclusive education. When it comes to helping their children learn and working with schools to develop individualised education plans (IEPs), parents are essential. Participation in the community promotes equality and acceptance by lowering stigma, raising awareness, and creating a welcoming atmosphere.

The success of inclusive education is also greatly influenced by legislative and policy frameworks. Laws like the Right to Education (RTE) highlight the significance of inclusive education in many nations, including India. These regulations require qualified personnel, accessible facilities, and equitable educational opportunities for children with impairments.

There are many advantages to inclusive education; it is crucial because it guarantees that every child, regardless of aptitude, background, or learning challenges, has equal access to a high-quality education in a nurturing setting. It acknowledges that every student has distinct abilities and encourages schools to modify their curricula, infrastructure, and teaching strategies to accommodate a range of requirements. Students learn empathy, teamwork, and tolerance for diversity in the same classroom, all of which contribute to the development of a more inclusive and accepting society. By lowering social stigma and giving children with disabilities the chance to fully engage in school activities, inclusive education also improves their self-esteem and academic achievement. By encouraging collaboration and critical thinking, it enhances the educational experience for other students. It improves social skills by promoting interactions between students from different backgrounds; it boosts academic performance through individualised support for students with special needs; it fosters patience, cooperation, and a deeper understanding of human differences for students without disabilities; and schools that practice inclusion frequently create a more positive and compassionate culture.

It's crucial to note that inclusive communities are also necessary for inclusive education. Diversity, equality, and a setting where everyone feels appreciated, respected, and supported are the cornerstones of an inclusive community or society. People of different backgrounds, identities, and talents are respected and treated equally in an inclusive society. However, the foundation of an inclusive community is "equal opportunity for all."

Teachers may create an inclusive education system by implementing adaptable teaching methods, encouraging teamwork, and fostering empathy. Teachers may find the following key points useful for inclusive education: (i) recognising the distinct needs and strengths of every student; (ii) using adaptable teaching strategies, (iii) creating a supportive atmosphere, (iv) working together with families and special educators, and (v) offering equitable opportunities.

However, barriers remain. These barriers may be physical, psychological, sociocultural, and instructional. Educators, legislators, families, and society as a whole must work together to overcome these obstacles. Inclusive education, rather than simply being a method of teaching, constitutes a commitment to equality and dignity. By embracing diversity and ensuring that all students study together, we can build a society that is more compassionate. In addition to helping children reach their full potential and grow into responsible, caring adults, inclusive education, curriculum customisation, and extracurricular activities empower every child.

PIONEER (P-8), 29 NOVEMBER 2025

When Education Kills Curiosity

ANAMIKA DASGUPTA

2ND OPINION

THE PIONEER

Recently, another 16-year-old in Kota took his own life — the fourteenth this year. His classmate, speaking on camera, said he didn't know who he would be if he didn't crack the exams. Tragic as it is, we don't need statistics to see that the system meant to prepare our children for life is draining life out of them.

A nine-year-old once asked me, "Why should I learn multiplication when my watch can do it faster?" That question is the diagnosis: children sense what many adults refuse to admit — the world they are growing into has already outpaced the one we are preparing them for. The coming decades will be defined by volatility and velocity. AI, automation, and algorithmic decision-making are redefining what it means to be human. As Yuval Noah Harari warns, "In a world deluged by irrelevant information, clarity is power." The future will reward those who can connect ideas, not those who memorise facts.

AI won't replace humans — the real danger is humans behaving like machines. To survive and thrive, children must learn to learn, unlearn, and reimagine. As Sir Ken Robinson noted, human communities rely on diverse talents, not a singular conception of ability. Education must nurture curiosity, empathy, collaboration, and problem-solving — the very skills that define humanity. Schools should teach children how to think, not what to think; courage, imagination, and conscience, not mere compliance. Instead, India's mainstream schools still produce efficient imitators rather than original thinkers. Sociologists highlight a sharp distinction: socialisation — teaching empathy and cooperation — is treated as the family's job; social control — discipline and regulation — is the school's.

Our system wasn't broken by accident; it was designed to feed bureaucracy and conformity. Our education rewards compliance, not questioning; fitting in, not standing out. Progressive education, often dismissed as indulgent or urban elitist, must become mainstream.

The world we are preparing our children for values originality, adaptability, and human connection — not obedience. Rooted in autonomy, inquiry, and real-world relevance, progressive methods like project-based learning, travel-based learning, and community-led initiatives help children engage, experiment, and solve problems. In fact, India's ancient gurukul system thrived on inquiry-driven, mentor-led experiential learning, a tradition replaced by colonial-era rote schooling. Yet, meaningful reform challenges powerful interests. Schools today often serve political, corporate, or bureaucratic convenience. A system producing compliant consumers is easy to maintain; true change is disruptive and uncomfortable — and essential. Without it, we risk raising generations fluent in textbooks but illiterate in life, facing climate chaos, AI disruption, and moral uncertainty with no creativity or courage. The consequences are visible today: unemployable graduates, frustrated youth, and fertile grounds for social unrest. Education is civilisation's survival kit, not an industry. Progressive schooling must become the only form of schooling for the future. Otherwise, education itself will be the world's most sophisticated failed experiment — and those suicides in Kota will remain haunting reminders that the system collapsed long before the students did.

The Pioneer
SINCE 1865

The writer is Director, The Wonder School, Pune

TELEGRAPH (P-14), 29 OCTOBER 2025

Choose quality over quantity

BIJU DHARMAPALAN

In academia, citations have historically been seen as a measure of credibility. The frequency of a researcher's citations correlates with the perceived value of his or her work. This conviction has moulded careers, affected promotions, dictated financing prospects, and enhanced institutional standings. Recent discussions on the Stanford-Elsevier 'Top 2% Scientists' list demonstrate that equating high citation numbers with research quality is not a simple matter. Regarded as a global ranking of the most important scientists, the Stanford-Elsevier list purports to identify the top 2% of scientists in the world based on citation data from Scopus. However, the methodological faults compromise the list's authenticity — it is a superficial commemoration of citations as a substitute for true brilliance.

Citations are intended to recognise the utilisation and the significance of previous work. They ought to emphasise creativity, intellectual contribution, or methodological rigour. However, when converted into inflexible measures, they can be easily manipulated. The Stanford-Elsevier database is fraught with irregularities that underscore this issue. For instance, Nobel laureates such as Katalin Karikó and Drew Weissman — scientists whose contributions have transformed medicine and human evolutionary research — are absent. Simultaneously, journalists from *The British Medical Journal* seem to be ranked above those laureates and even deceased researchers are noted for their published legacies spanning generations. These anomalous inclusions reveal the deficiencies of the database when citations are the sole criterion.

The prevalence of hyper-prolific authors is equally concerning. Some authors generate over 100 publications a year, with self-citation rates above 97%. Some oversee extensive networks comprising hundreds of colleagues, co-authoring publications at a frequency that no one could rationally defend. Such tactics reveal a system manipulated to enhance visibility. Citation mills — entities that provide references to improve citation counts — have developed into a flourishing industry, further obfuscating the significance of metrics.

The misuse of citation-based rankings has emerged as a significant issue in India. Universities prominently promote their academics featured amidst the top 2%, presenting it as a testament to institutional superiority. This fosters a false perception of high-quality research environments for students and parents. Many prominent Indian scholars lack access to sophisticated laboratories or research facilities. They generate review articles *en masse*, frequently co-authored with numerous partners globally, with each manuscript extensively supplemented by self-citations.

The competition for citations is driven by incentives. Rankings such as the National Institutional Ranking Framework, the Quacquarelli Symonds and Times Higher Education significantly emphasise publication and citation measures. Promotions, financing possibilities, and institutional reputation are correlated with citation metrics. Private universities frequently subsidise open-access fees for faculty, as open-access journals generally produce elevated citation rates. Senior professors may need co-authorship from junior colleagues or students as a condition for mentorship, whereas visiting professorships are occasionally extended to international researchers contingent upon their inclusion of the institution's name in all publications. The outcomes are evident: in 2023, India secured the third position worldwide in retractions, with 2,853 papers retracted within a single year. Countries that yield the highest number of the top 2% scientists also have the greatest retraction rates.

A business model is concealed beneath the exaltation of citation counts. Open-access publishing has emerged as a profitable sector, frequently bolstered by ranking systems that prioritise quantity over quality. Publishers capitalise on the consistent influx of articles, while universities allocate funds to cover publication fees. The Stanford-Elsevier database operates within this framework, reinforcing this cycle. The contradictions of these systems are not beyond the reach of even the architects. Professor John Ioannidis, the creator of the Stanford-Elsevier list, is consistently ranked among the world's top 50 scientists, according to his own methodology. He published 71 papers in 2023, 73 in 2024, and 51 in 2025. His prolific output is indicative of the hyper-productivity that his system encourages, which prompts enquiries regarding potential conflicts of interest.

The misuse of citation metrics is a textbook example of Goodhart's Law, which states that "when a measure becomes a target, it ceases to be a good measure". Initially, the purpose of citations was to serve as a crude indicator of the extent to which research influenced subsequent work. Today, citations are frequently indicative of visibility, networks, and publishing strategy, rather than genuine advancements. Review articles, which consolidate existing knowledge rather than presenting new findings, receive an excessive number of citations. Citation counts are influenced by predatory journals that have inadequate peer review, just as much as by high-quality publications. In this environment, genuine innovation is at risk of being overshadowed.

Citations are not without significance, though. They are beneficial for tracing influence and identifying concentrations of active scholarship. But they cannot function as a substitute for quality. Quality in research is not limited to quantitative metrics; it necessitates originality, rigour, integrity, and societal relevance. It is determined by the impact of one's work on the field, the resolution of issues, or the guidance of the next generation of academicians. When citations are considered to be synonymous with quality, it motivates researchers to prioritise short-term visibility over long-term contributions, to produce papers rather than pursue hazardous but potentially transformative ideas, and to concentrate on popular topics rather than neglected but socially vital ones. It penalises individuals who invest time in the creation of significant work that may not immediately generate citations but could have an enduring impact.

The academic community has to re-evaluate the manner in which it measures excellence. The most effective method of determining the novelty, rigour, and overall impact of research is still through thoughtful evaluations by specialists and a qualitative peer review. Research should also be judged based on how effectively it tackles important issues, such as health, environmental concerns, technology, and equity. It is equally important to acknowledge the contributions that scientists make to the development of research cultures that are conducted in an ethical manner, as well as the contributions that they make to the education of future academics. Although quantitative indicators can be used to augment evaluation, they should always be contextualised and can never be considered to be absolute measures of quality.

These challenges are starting to become more apparent to policymakers. Recent studies highlight the increasing worry around metric tampering and its impact on the public's faith in science. To maintain its reputation as a credible organisation, academia must relinquish its obsession with citations and return to the fundamentals of research, which include curiosity, rigour, and responsibility. Lists and rankings will continue to be monuments to the distortions of a system that confuses visibility with merit until then. They will not be monuments to excellence.

Biju Dharmapalan is the Dean, Academic Affairs, Garden City University, Bengaluru, and adjunct faculty at the National Institute of Advanced Studies, Bengaluru

TIMES OF INDIA (P-20), 29 NOVEMBER 2025

What They Don't Teach You In B-Schools

Management curriculum focuses on efficiency, not imagination. But every current business needs managers who are at home with both process discipline & creative disorder

Partha Sinha

Every business breathes through two lungs – one draws in *growth*, the other exhales *efficiency*. The first requires imagination: understanding society, markets, culture, and human desire well enough to create something new. The second demands discipline: running that creation smoothly, with fewer leaks and better returns. Every entrepreneur, at some point, must juggle both – the artist and the accountant, the dreamer and the doer.

But when you look closely at how our management schools – the temples of modern business – teach, you start to see an imbalance. They've built cathedrals to efficiency and erected only small shrines to imagination.

Take Harvard Business School. Its required curriculum is heavy on finance, operations, analytics, and control – the metrics that make a manager numerate and the business measurable. It trains one to read a balance sheet like poetry, to manage risk with the precision of a surgeon. Yet even here, the creative side peeks in through electives: entrepreneurship, business and govt, international economy. Innovation appears as a visiting faculty, not as the dean.

Stanford Graduate School of Business begins similarly: data, decisions, optimisation, micro and macroeconomics, accounting, and information management. It is the managerial equivalent of boot camp. Students learn to optimise, simulate, and strategise – the language of order and control.

But as the second year unfolds, something changes. The syllabus softens. Suddenly you find courses in *Design for Extreme Affordability*, *Social Innovation*, *Political Economics*, and *Understanding AI for Business Problems*. You can pair your MBA with law, public policy, or engineering. Stanford doesn't just hand out spreadsheets; it hands out the permission to imagine.

IIM Ahmedabad – the Indian temple of rational management – wears its quantitative heritage proudly. Cost accounting, operations, economics, quantitative methods: the pillars are sturdy. Yet as the programme matures, students can choose electives in entrepreneurship, digital technologies, and innovation. The catch, of course, is that the creative side comes later – as a choice, not a foundation.

ISB too begins with analytics, global awareness, and operational excellence before inviting students to play in the sandbox of product design, digital transformation, or public policy. Its experiential learning programmes try to bring messiness into a classroom built for order.

So the evidence is mixed. The world's finest institutions are not blind to the need for innovation, but they teach it as an elective indulgence, an after-dessert thought. The core – the part stamped into every graduate – is still the science of efficiency, not the art of growth. Efficiency is measurable; imagination isn't. The exam can test a supply-chain model, not a spark.

Image: AI

And perhaps that's why, decades into the MBA era, our boardrooms are filled with efficiency experts but few visionaries. The modern manager knows how to run things, but often not how to *begin* them. The spreadsheets are flawless; the soul, sometimes missing.

This imbalance might have been acceptable in the industrial age, when predictability was profit. But in today's world – where markets shift faster than quarterly reports, where AI redraws industries before committees can meet – optimisation alone is a losing game. The next decade belongs to those who can read not just numbers, but *currents*: social, cultural, technological.

A company that optimises without imagining is a factory waiting to be disrupted. A school that produces operators without dreamers is, ironically, producing obsolescence with great efficiency.

The way forward is not to abandon the old disciplines, but to infuse them with a new imagination. The business leader of the future must know not only how to cut costs, but how to *create meaning*. To manage in a world of algorithms, you must first understand the poetry of data; to innovate in India or Indonesia, you must read the texture of local lives. The next generation of business education must teach anthropology alongside analytics, storytelling alongside statistics. It must make ambiguity compulsory.

Imagine a first-year MBA course called *The Semiotics of a Market*, where students decode consumer culture before they learn to price it. Or a core paper titled *Designing for Chaos*, where uncertainty is not a case problem but a lived experience. Imagine if students were graded not only on the precision of their models, but on the resonance of their ideas – how much traction, not just how much efficiency, they can create.

A few glimmers already exist. Stanford's cross-disciplinary ventures, Harvard's AI and ethics electives, ISB's live business projects – all nudge towards this direction. But these are still the exceptions that prove the rule. The day creativity becomes a *core course* and not an *elective*, management education will have caught up with the century it claims to lead.

Because the truth is: every business is a paradox. It needs the discipline of the banker and the disorder of the artist. The same system that measures cash flows must also measure *cultural flow*. The leader who understands both will define the next decade.

Perhaps the real MBA of the future will be a Master of *Balancing Ambiguity*. If business schools want to stay relevant, they must teach students to balance the equation – not between profit and loss, but between precision and possibility. The best managers will be part economist, part poet; fluent in Excel, but also in empathy.

Because the future won't be managed – it will have to be *imagined*.

The writer is a senior advisory professional

TRIBUNE, (P-7), 29 NOVEMBER 2025

The hollowing out of the vocation of teaching

NAVNEET SHARMA
CENTRAL UNIVERSITY OF HP

SUSHANT KISHORE
VELLORE INSTITUTE OF TECHNOLOGY

THE career of teachers is facing a crisis due to the slow pace of recruitment, peanut-paid contractual appointments, guest and ad hoc faculty and the fatigue of the existing faculty buried under the weight of vacancies in their departments.

A university teaching job has been reduced to a labyrinth of administrative burden, ranking-driven metrics and career stagnation, which is destroying the scholarly drive it is supposed to foster.

The 2025-26 Demands for Grants of the Department of Higher Education report reveals shocking statistics. Over 56% of professor positions in top universities are vacant; 26% of sanctioned faculty posts in 46 Central universities are empty; 28.56% of the 18,940 faculty positions approved by the government across IITs, NITs, IIMs, IISERs and Central universities sit empty. This crisis exposes systemic dysfunctions and apathy towards higher education. Against the NEP-2020 target of increasing the allocation for higher education to 6% of GDP, only 4.6% has been allocated this FY.

Universities respond to such budget pressures by replacing permanent positions with temporary faculty. Not only does this alter academic careers, it also leads to exclusion of marginalised groups due to the suspension of affirmative action embedded in the universities' permanent recruitment systems.

Even elite US universities are facing similar challenges. Harvard's recent hiring freeze left departments scrambling to fill essential positions in the middle of the semester, a pattern replicated globally. As departments lose faculty to retirement and attrition, the few who remain must shoulder enormous teaching loads and administrative responsibilities.

Academic roles in India are becoming a battleground of forms, protocols and performance data. A teacher's struggle is also against the globalising logic of various university rankings, which dictate what is visible, valuable and promotable within academia. Faculty autonomy, whether in curricular design or research agenda, is hemmed in by ranking checklists and the resultant tick-box culture.

Early-career faculty burn out under the weight of digital audit trails and the relentless demand to tick the ranking boxes. Research imagination is suffocated by the pursuit of metrics. Historical sensibility is smothered by the forced adoption of digital tools and the erasure of dialogic and reflective pedagogy. Even state universities and colleges whose mandate is to provide quality and flexible education to the regional students have to abide by the homogenisation of global ranking frameworks. This growth formula re-emerges as the algorithm that governs the teachers' tenure and promotion. As a result, the pursuit of meaningful knowledge, transmission of critical ideas and labour of mentorship is subordinated to the choreography of visibility, performance, bureaucracy and compliance.

> Over half of all professor positions in top universities remain vacant — a symbol of systemic neglect.

University campuses that were once terrains of unhurried intergenerational cultivation of knowledge and intimacy can feel hollowed out by the manic reporting of impact factors, employability indices and strategic partnerships and by another step away from the vocation of teaching.

The cumulative effect of staffing shortfalls, administrative excess and rankings manifests in a wave of exhaustion, existential futility, anxiety and burnout in faculty. University teachers report occupational stress with strong correlations to emotional fatigue and workplace disengagement. Aggression in undergraduate classrooms, anxiety amid job insecurity and emotional detachment under conditions of precarity are no longer anomalies but symptoms of a sector-wide crisis.

This collapse of teaching as a vocation at every level demands a fundamental rethinking of how academic labour is structured and institutional success evaluated.

Schools That Care

Children want schools where there is understanding without judgment, and teachers being curious about what sustains them and standing alongside them, not against them

IMAGINE
BY SHELJA SEN
NARRATIVE AND FAMILY THERAPIST, WRITER, CO-FOUNDER OF CHILDRENFIRST

GETTY IMAGES

IN THE old British times, canaries were sent down coal mining shafts to detect toxic gases. I think our children are metaphorical canaries of our times. Keeping in mind the spate of recent children's suicides, the youngest being nine years old, I am going to put the spotlight on our schools for this rising toxicity. This is not to blame but to reflect and take accountability for how we are harming our children.

Schools can perpetuate torture on our children in the name of discipline. From an early age, children start getting branded with labels like 'lazy', 'duffer', 'pagal', 'slow', 'nalayak', 'failure', 'good for nothing' and so on; the ones targeted the most being generally the most vulnerable — children with visible and invisible disabilities, those who do not get high grades, who come from low-income, non-*savarna* families.

I have heard stories of children being locked in dark bathrooms, beaten, having their tiffin taken away and not being allowed to go to the toilet until they wet their pants. In the news, we hear of much worse — children being asked to clean toilets; a child dying after being made to do 100 sit-ups; a pen being pressed between tiny fingers; being tied up and beaten; branded with a hot iron; standing on a chair until collapse; being made to stand in the sun in peak summer afternoon.

What is the most frightening about this "torture-in-the-name-of-discipline method" is that it weaponises the very people who can protect the child — peers and parents. Sona grew up in a shelter home for street children. She shared that once her teacher tore up her notebook in class, calling her a "duffer" and encouraged other children to join in the public humiliation. During the break, she spent hours locked in the toilet to escape her peers. Anand was forced to take off his trousers in class and the class jeered at him when he started crying. Shahana, studying in Class 10, described it as, "Schools are like *The Hunger Games*. We are pitted against each other and it is survival of the fittest".

Parents are also recruited into this deadly game by repeated complaints and blame. Again, the ones most targeted are those whose children do not fit the normative ideas of academic success. They are humiliated in the PTMs, in the principals' offices and, in turn, in their desperation, they punish their children.

Children do not suddenly, on a whim, decide they want to end their lives. They hang on to threads that tie them to life — it could be a loving home, a sense of belonging in school, a feeling of worthiness, knowing that they are active agents in their own lives and so much more. What if threads were snipped off one at a time until there is nothing but shame, isolation and no hope? Then, a little nudge can be a tipping point. Maybe it was an impulse at that time but we erase the months and years that led to that moment.

There has been huge outrage at the number of suicides in children in the past couple of weeks. One in Class 4, one in Class 7 and one in Class 10. How can we even make sense of this? I have heard statements like, "Children these days are very fragile", "They are too impulsive." These ideas are problematic as they assume that our children are disordered, when it is the structural and systemic injustices in our society that are out of order. Canaries cannot be blamed for the toxicity in the mines.

SAFETY BEGINS AT SCHOOL

Saving our children's lives is a civil rights issue

Safety at the core of education

Saving our children's lives is a civil rights issue. We have to keep their safety at the centre and then think about how we design education around it. Not vice versa.

Once we have that clarity, then there are so many innovative ways to reimagine schooling.

Upholding the dignity of every child

The National Education Policy (NEP) has five foundational pillars: access, equity, quality, affordability and accountability. What if, at the centre of all these, was upholding the dignity of every child? Not just as a vague concept but as clear practice guidelines on language, respect, how to respond to children when they go through difficult times and ways to build inclusive classrooms, etc. You might dismiss this as requiring too many resources or time but let's go back to the principle. We have to keep children's safety at the centre and then think about how we design education around it. Not vice versa.

Accountability

Many times, teachers have shared with me that they are aware that some teachers are extremely "cruel" towards students but they do not want to talk about it because they fear a backlash or, at times, even losing their job. It is the management's job to ensure accountability is woven into daily practices. We cannot wait for our children to die to start taking action. It also does not help if the action against teachers is punitive. That perpetuates the culture of harm and injustice. Teachers are just replicating what they have learned in the culture they have grown up in. We have to design wholesome systems that include training in compassion as a pre-requisite to being a teacher, an early response to transgressions and a system that prioritises teachers' wellbeing. Schools that care for their teachers care for their children.

"Management bullies the principal, the principal bullies the teachers, and then the teachers bully the students. Then they tell the students not to bully others"

Peer mentoring

Many times, children find it easier to talk to other children who are non-judgmental and can understand the struggles of being a student. What if, in every school, some senior students were trained as peer mentors who could provide a safe space to listen, understand or even gently steer them toward an adult whom they trust such as a parent, a school counsellor or a teacher? I have heard so many stories of children who have shared their struggles with a peer and felt immense relief that someone "gets it" and "I am not the only one who feels like this". This approach is impactful when participation is voluntary and the peer mentors are well-trained and supported by the counselling team.

Schools that Care

I remember an instance when a school principal was telling me how particular they were about their 'anti-bullying policy'. Soon after, I saw her berating a teacher harshly in front of me. I was reminded of a young 16-year-old's words. "Management bullies the principal, the principal bullies the teachers and then the teachers bully the students. Then they tell the students not to bully others."

When I asked young people, "What will make for safer schools?" their answers reminded me that the problem might be complex but the solution does not have to be rocket science. "Let our worth not be defined by our grades" and "show us that you care". What they are asking for is simple — understanding without judgment, being curious about what sustains them and keeps them going and standing alongside them, not against them. A fellow therapist shared a statement by a young person who was contemplating suicide, which will stay with me forever: "Don't try to stop us, try to understand us. When you understand us, together we can try to stop us."

Schools That Care is an initiative by Children First for building communities of care

Listening to the Deal...

IE-M/2

INDIAN EXPRESS, (MAGAZINE-P-2), 30 NOVEMBER 2025

Shall We Read?

Parents and bookstores are doing their bit to raise the next generation of readers

Sonal Gupta

SATURDAY AFTERNOONS are as busy as it gets at Kahani Tree, a children's bookstore in Mumbai's Prabhadevi. Finding it feels like stumbling upon a hidden Diagon Alley shop. Tucked away inside a corporate condominium, one steps into its warmly lit, wood-panelled two-room space, the scent of new books looming in the air. Thousands of picture books cover the walls. An elephant named Gajapati Kulapati swishes his tail on one shelf, while Pocket Potters of the Harry Potter universe sits invitingly on another.

In one corner, Prajakta Gadde, a mother of twin toddlers, is trying to keep her daughter from grabbing at the Peekaboo collection. "They are turning two in 10 days. Between a toy and a book, they always choose the latter," says Gadde.

The sprightly 60-year-old owner, Sangeeta Bhansali, nods in appreciation. "Children are made readers in the laps of parents. Forget what comes out of vocabulary and understanding, there are behavioral changes," she says. "When you read to them, you are trying to make them sit still and listen. That stillness is important. When you read to them, they have to close their eyes, listen to your voice and imagine."

As the digital age catches up, parents are turning to the most analogue, tactile reading format available. The 'de-screening' impulse, combined with other factors, has fuelled an encouraging growth in India's children's books market.

"Without screens, it is easier to get your children to read books," says Hania Chaudhary, a 32-year-old mother. Ever since her daughter Krishvi was born, Hania nurtured a love for reading with flashcards, black-and-white books and storybooks. "We made it a habit to read to her every night," she says. At three, Krishvi only seldom watches TV and is completely mobile-free.

And if judging books by the cover is a thing, then David Walliams (who shares the same illustrator as Roald Dahl), and Angie Sage (with her *Septimus Heap* series) are winning hearts with their colourful displays. Candy titles like *The Girl Who Drank The Moon* or *Llama Llama Red Pajama* do the tricks as well, says Shravani Pandit, editorial head at Bahrisons Booksellers in Delhi.

Predictably, there's also a demand for homegrown stories. Title Waves's executive director Trushant Tanganekar notes that many parents seek books from publishers such as Tara and Tulika and Amar Chitra Katha, hoping children stay connected to Indian culture. Saaya Verma, commissioning editor for Children and YA (young adult) at Hachette, says mythology-inspired books also draw steady interest, with *The Gita for Children* still a bestseller.

Manasi Subramaniam, senior vice-president (publishing), ACL sales & marketing at Penguin Random House India, acknowledges that "ongoing efforts of schools and parents to cultivate reading habits" drove significant growth in children's publishing.

Recent statistics shared by NielsenIQ BookScan show that "Children & Young Adult" books have registered a sustained double-digit growth in recent years. The segment contributes 25 per cent to the overall trade market, with online selling platforms like Amazon fuelling expansion. At Penguin, the children and YA segment contributes around a quarter of overall sales.

While online channels, undoubtedly, improve accessibility, bookstores today position themselves as digital-free harbours that offer a tangible and immersive experience. Bookstores are going all out to attract young readers with a host of events such as school field trips, storytelling or reading sessions, and author interactions.

A WINDOW TO THE WORLD (Left) Hania and Manish Chaudhary with their daughter, Krishvi at Crossword, Kemps Corner, Mumbai; at Mumbai's Kahani Tree

For instance, Crossword, one of India's leading booksellers, has children-focused initiatives like Book-A-Thon, featuring interactive workshops and the Crossword's Kids Club that meets weekly. "Parents and children don't always know what they want. When they visit, they can touch and feel books. You can't do that online," explains Tanganekar. Over the years, this Bandra-based store has seen an uptick in its children's book sales, which now comprise 40 per cent of overall sales.

Meanwhile, Kitab Khana, a boutique bookshop in the heart of south Mumbai, boasts of a unique children's literature collection sourced from the London Book Fair. S. Jagath, chief operating officer, who believes that the online space cannot completely capture the children's book market, says, "Everyone wants to go through the book first. The display is the USP."

According to Medha Bose, senior manager (production) at Hachette India, low-priced early-learning board books (on alphabets and numbers) remain major drivers of growth, but "there is also a thirst for more picture books with strong narratives and good production quality". Among popular examples, Pandit points to Roshani Chokshi's *Aru Shah* series, which reimagines the Pandavas as young girls, and Bhakti Mathur's *Amma Tell Me* books, which make mythological and religious figures accessible to children. Her one frustration, however, is that we are so intent on teaching that we forget children can learn without being told what to think. She cites *Monkey Puzzle* by Julia Donaldson and Axel Scheffler as an example of storytelling that trusts young readers. The story celebrates differences through a lost baby monkey's search for his mother with help from a butterfly.

Bhansali is doing her bit to fill the void in contemporary Indian children's literature, which she recognised nearly two decades ago. At the time, she met Chennai-based publisher Tulika, who was producing books that were uniquely Indian in their artwork and language (Hindi and regional). In 2006, Bhansali began Kahani Tree to provide visibility to these independent publishers. Today, she hosts 23 Indian publishers and has helped build libraries across states. Bhansali's shelves include books on gender, caste, disability and loss that help parents tackle difficult subjects. "When children read books that celebrate our differences and talk about empathy, it helps them become better citizens and human beings," she says.

SIR JAGADISH CHANDRA BOSE (NOV 30, 1858-NOV 23, 1937)

Physicist & father of Bengali sci-fi

SIR JC Bose, the first Indian in the field of science to be elected Fellow of the Royal Society, was born at MymenSingh in Bengal Presidency of British India on November 30, 1858. Born into a Brahmo Samaj family, his father believed that Indians should be well versed in their local culture and traditions before being introduced to foreign influence, which is why a young Bose was enrolled in a Faridpur school where children from different castes, classes and religion studied together.

At the age of 17, Bose moved to Calcutta and enrolled in St Xavier's college to pursue physics for five years, after which he travelled to England to study medicine at the University of London. Due to poor health, Bose had to leave medicine, and in 1881, he joined Christ's College at the University of Cambridge to study chemistry, physics and botany as a part of natural sciences.

Known for a versatile range of studies, Bose was the first to illustrate that plants have life and experience pain and pleasure, like animals. His observations were proven through his own invention-a crescograph.

Bose, a pioneer in radio and microwave optics, was also the first to demonstrate wireless communication using radio waves, besides detecting radio signals by using semiconductor junctions.

It was in 1885 that he returned to India and joined Presidency College in Calcutta as a professor of physics. Despite racial discrimination in the form of disparity in salary compared with his British colleagues, Bose remained dedicated to teaching and research. As a token of protest, though, he taught without salary for three years, until his position was confirmed on a par with British colleagues. However, he was paid arrears in recognition of his commitment.

Science fiction intrigued Bose, so much so that he authored 'Niruddesher Kahini', underscoring his recognition as the father of Bengali science fiction. This tale of weather control highlights getting rid of a cyclone using a small bottle of hair oil, 'Kunto Keshori'.

He spent the last years of his life at Giridih, in a house located near Jhanda Maidan, the building that was later named Jagadish Chandra Bose Smriti Vigyan Bhavan and inaugurated by the then Bihar Governor, Akhlaqur Rahman Kidwai, in 1997.

Bose died at the age of 87. Bose Institute in Kolkata, a premier research institute dedicated to interdisciplinary scientific study; Acharya Jagadish Chandra Bose Indian Botanical Garden, Kolkata; and JC Bose University of Science and Technology are among the institutes perpetuating his name.

MAHESH SHARMA

Tri-M/3