ASSOCIATION OF INDIAN UNIVERSITIES

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PRESS CLIPPINGS IN EDUCATION

01-30 APRIL, 2025

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DECCAN HERALD (P-7), 01 APRIL 2025

Flip-side of ed tech

MATHEW C NINAN

All at once, we embraced technology and placed it on a pedestal. Now, we are paying the price, as children grow up distracted, defiant, difficult, and even dangerous. Technology dominates schools today. Nothing else seems as significant. Its reach is vast, and its impact, all-consuming.

Are we so enamoured with tech-driven education that we are blind to its downsides? Is it not time to take an objective view and assess the pros and cons of technology's overpowering presence in schools?

Every school worth its salt wants to stay ahead in technology. They proclaim their high-tech hardware rather than their human software—relying more on machines than on people. The entire school system has been turned upside down.

Schools advertise their cutting-edge technology, digital learning labs, and robotics. But hidden beneath this glamour is a colossal mistake: we are abandoning the analogue mode of learning in favour of digital, without fully understanding the risks.

Are we, in Matthew Arnold's words, in a desperate situation —"Wandering between two worlds/ One dead and the other powerless to be born"?

Screen addiction is a growing concern, especially among children. Families struggle to wean their children off smartphones, tabs, and other devices—the vestige of the pandemic. Yet, while parents fight this battle at home, schools openly advocate screen use in their classrooms.

Teachers, too, are forced to adapt, using technology to capture the attention of students already immersed in the digital world. Many teachers find this transition painful, but they have no choice.

The harm caused by excessive screen time cannot be ignored. It diminishes children's ability to focus on auditory learning, as they grow accustomed to visual stimuli. Studies show that one in three children in Britain is short-sighted. The blue light from screens is causing immense harm to children's eyes, with one billion children worldwide becoming myopic. Experts recommend a maximum of two hours of screen time per day, but many spend seven hours or more. This overexposure also leads to sleep deprivation, another serious consequence of screen addiction.

The paradox of our time is that children are distracted in classrooms while they are silent on the playground. How do we explain this?

Studies in the UK show a disturbing rise in mental illness among the young. Suicide rates have gone up 167% among girls and 91% among boys. Cases of self-harm have surged by 500%. The number of children hospitalised for eating disorders has risen sixfold in a decade. This should serve as an alarm bell for the rest of the world.

Children suffer serious damage to their development milestones when addicted. Their thinking power is impaired rather than enhanced.

Reading and writing are being replaced by passive screen consumption. Is this not dangerous? No one would argue that reading and writing on paper is less effective than cutting and pasting information from an online source.

In many modern schools, assignments must be submitted online. It is predicted that by 2030, all testing will be online. How, then, can students be weaned off screens?

While businesses promote technology as 'futuristic', the reality is different. Tech giants like Bill Gates, Mark Zuckerberg, and Steve Jobs understood this, which is why they did not give their children smartphones.

Educational software sales generate billions of dollars annually. No wonder companies push schools towards high-tech solutions. However, some developed countries have begun reversing course. Sweden has removed technology from classrooms, reinstating blackboards, books, pens and paper. Australia is following suit. More countries will likely do the same. India must also take a stand on this critical issue.

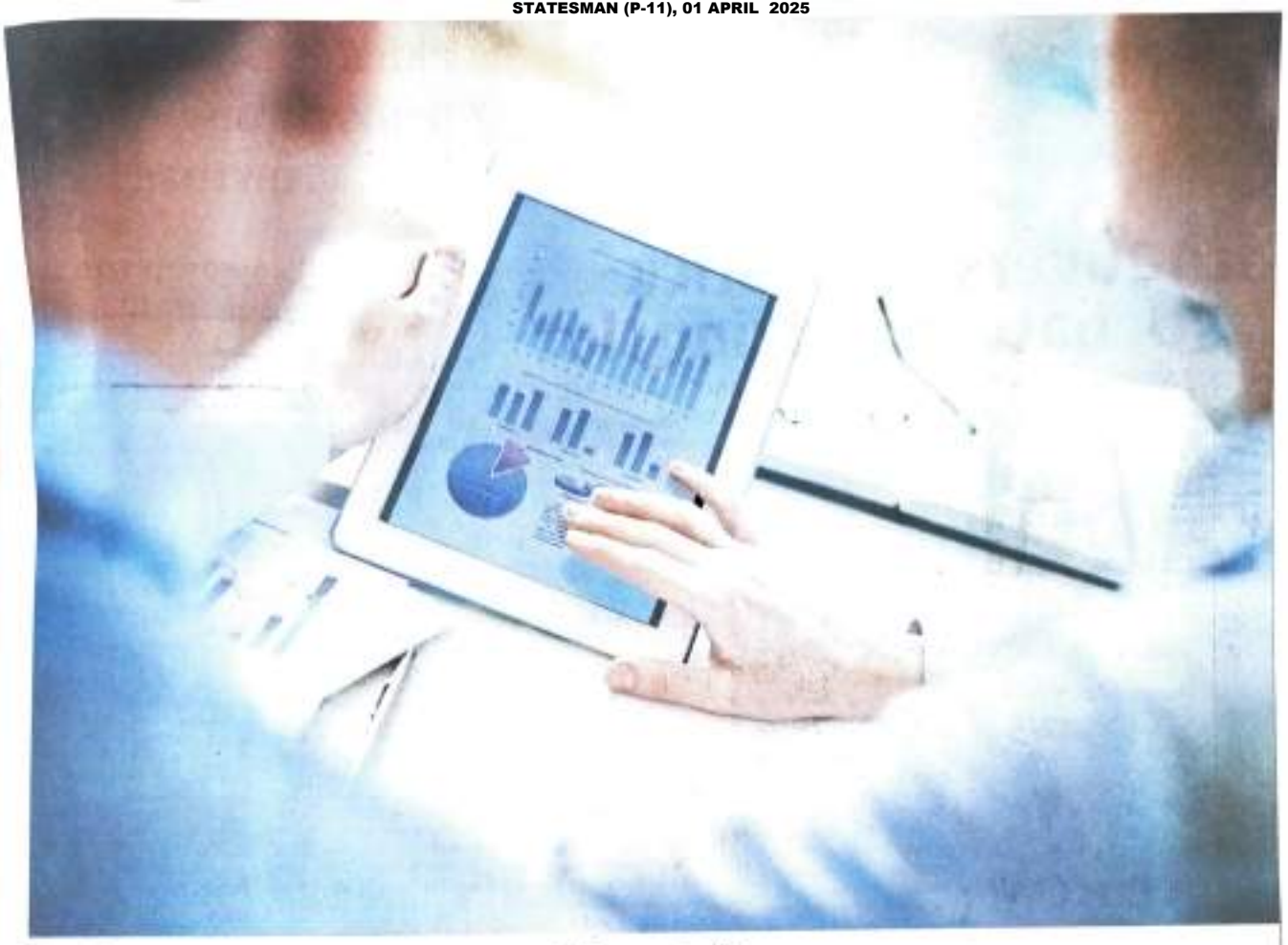
Technology must not be our master. It should serve us, not control us. This is where we erred—we embraced technology uncritically.

Children on public transport spend their time glued to the screen instead of watching the panoramic nature around them, people moving on the streets, cows grazing on the meadows, and the meandering rivers, azure hills and skies. The whole world is shut out. How could they develop their imagination and thinking skills if they do not come face to face with the world as it really is?

We must acknowledge that "the most powerful tool in the classroom is an excellent teacher". Not machines, but dedicated educators—men and women of calibre and commitment – make good schools. Four walls do not make a classroom, nor do state-of-the-art labs ensure good education. But passionate teachers do.

(The writer is Director, Little Rock, Brahmavar, Udupi)

STATESMAN (P-11), 01 APRIL 2025



Data analytics

course breaking barriers for non-techies

AMARNATH MITRA

The digital age has transformed industries, and data has emerged as the new oil, creating a need for data-driven decision-making. While the demand for data analysts and scientists soars, many professionals from non-technical backgrounds may get intimidated by the complexities of data and the process of analysis and often feel excluded from this data-driven revolution. However, the reality is that data analytics is not solely the domain of programmers and mathematicians. Any individual who has domain expertise and an eye for detail can shine as an analyst. What is required is a good course on data analytics that focuses on understanding the concepts and applying them to real-world problems rather than memorising complex codes and mathematical structures.

Demystifying data analytics courses for non-techies

The misconception that courses on data analytics are solely for those with a strong math-stat or coding background is a significant barrier. The truth is, data analytics is about understanding and interpreting data to solve problems at hand and make informed decisions.

Mythbusting: You need to be a coder to take up data analytics courses

Contrary to popular belief, a successful career in data analytics doesn't require you to be a programming wizard. While coding skills are certainly beneficial, many tools and platforms powered by generative AI have been developed to make data analytics courses accessible to everyone.

Democratisation of data and analytics

The beauty of data analytics lies in its ability to empower individuals from diverse backgrounds. Whether you're in marketing, finance, HR, healthcare, or any other field, data-driven insights can enhance your decision-making and problem-solving abilities. A data analytics course equips you with the tools to:

Ask effective questions:
The first step in data analysis is identifying the right questions. A strong understanding of business objectives and challenges is crucial for framing questions that drive meaningful insights.

Understand data and analytical process:
Develop the ability to explore and understand different types of data, their sources, and limitations. Grasp fundamental analytical concepts to interpret data accurately and draw meaningful conclusions. User-friendly analytical tools and business intelligence platforms will help and ease the process of data analysis.

Visualise information:
Effectively communicate complex findings through charts, graphs, and dashboards.

Make data-driven decisions:
Use insights to inform strategic choices and measure the impact of decisions.

Beyond the numbers

While technical skills are important, soft skills are equally crucial in data analytics. A good data analytics course tries to incorporate:

Critical thinking:
Develop the ability to question assumptions and analyse information objectively.

Problem-solving:
Learn to break down complex problems into smaller, manageable steps.

Communication:
Effectively convey insights to both technical and non-technical audiences.

Overcoming challenges

While data analytics offers immense potential, non-techies may face challenges. Here are some tips to overcome them:

Start small:
Begin with simple data analysis projects to build confidence and gain experience.

Collaborate with peers:
Use your domain knowledge to work closely with data analysts to leverage their technical expertise and gain insights.

Continuous learning:
The field of data analytics is constantly evolving. Stay updated with the latest trends and technologies.

Practice, practice, practice: Regular practice is essential to develop strong data analytics skills.

By embracing data analytics, non-techies, with their domain expertise, can gain a competitive edge in today's digital landscape. Don't let the technical jargon intimidate you. With the right mindset and guidance, anyone can harness the power of data. Data literacy is becoming an essential skill across industries. A data analytics course, therefore, can be a game-changer for non-techies, empowering them to make informed decisions, drive innovation, and excel in their careers.

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India's educational transformation — the true picture

Dharmendra Pradhan

is Union Minister of Education

It has been argued that the education system in India has veered off its course in the last 11 years of the Narendra Modi government. In fact, nothing could be further from the truth. The country that witnessed the monumental neglect of the education system by previous governments is deeply aware of the unpleasant truth. While nations across the world reimagined education for a rapidly evolving world, India's educational framework remained trapped in a time capsule, with the last major policy update in 1986, which was marginally amended in 1992. This was a deliberate perpetuation of colonial mindsets accompanied by a move to insulate the country from rapid technological changes taking place in the world.

What past policy was like

Corruption and a governance deficit were the defining features of the country's educational past. Public universities were systematically starved of funds. Unregulated private institutions mushroomed into degree mills. Those who suffer from selective amnesia need to be reminded of the infamous Deemed University scandal of 2009 – university status was granted to 44 private institutions without proper evaluation, with many found guilty of financial irregularities. Political interference in education was rampant.

The University Grants Commission and the All India Council for Technical Education became instruments of control rather than enablers of excellence. Appointments to leadership in universities were based on political loyalty. Textbooks deliberately downplayed the contributions of revolutionaries such as Shaheed Bhagat Singh, Chandra Shekhar Azad, Veer Savarkar and others while portraying uncomfortable historical truths about foreign invasions. Historical narratives were carefully curated to serve partisan interests. India's diverse cultural and intellectual traditions were systematically marginalised. All of these contributed toward creating an education system that remained disconnected from India's glorious past and devoid of civilisational ethos.

The National Education Policy of 2020 represents a decisive break from this inglorious past. It is a product of the most extensive democratic consultations in India's policy history. Based on the five pillars of access, equity, quality, affordability and accountability, the NEP 2020 is a policy of the people, by the people and for the future of the people.

The National Education Policy of 2020 is based on one of most extensive democratic consultations in India's policy history and will enable an educational renaissance

The focus is empowerment and change

One of its primary objectives is to correct structural inequities inherited from centralised, rigid and elitist frameworks. With this transformative approach, the enrolment of Scheduled Castes (SC) in higher education has increased by 50%, Scheduled Tribes (ST) by 75%, and Other Backward Classes by 54% since 2014-15.

Women's empowerment is at the heart of these reforms. Female enrolment across all categories has grown by an impressive 38.8%, crossing 2.18 crore in 2022-23. Among Muslim minority students, female enrolment rose by 57.5%. In the board examinations, the performance of girls has shown steady improvement. In higher education, PhD enrolment among women has increased by a whopping 135%. Today, women in the field of higher education STEMM (science, technology, engineering, mathematics, and medicine) constitute 43%, thus shattering the glass ceiling in domains that were dominated by men. Female teachers now constitute 44.23% of the teaching workforce, up from 38.6% in 2014, thus transforming academic leadership landscapes. The data represent a fundamental shift in India's academic ecosystem, with women reclaiming their rightful place in India's intellectual journey.

These gains reflect a fundamental shift in priorities. Per-child government expenditure has increased by 130%, from ₹10,780 in 2013-14 to ₹25,043 in 2021-22. The Government is prioritising early childhood education and foundational learning and numeracy for a child's overall development, cognitive growth, and future learning. Government schools are being upgraded with modern infrastructure, holistic pedagogy and other support systems. With concerted efforts, the number of out-of-school children and also drop-out rates have decreased. The pupil-teacher ratio has improved, and, most importantly, learning outcomes have been steadily improving.

The NEP 2020 has introduced futuristic elements such as coding from middle school, multidisciplinary approaches to problem-solving, and innovation hubs in rural areas. Over 10,000 Atal Tinkering Labs (ATL) are nurturing grassroot-level innovation. The Government has plans to add 50,000 more ATLs with broadband Internet connectivity in schools in the five years ahead. These initiatives represent a fundamental reimagining of education for India's future.

In higher education, sustainable revenue models have freed universities from resource dependency. India now has 11 universities in the QS World Rankings top 500, a remarkable improvement from the past. Research publications have increased by 88% since 2015, propelling India to 39 in the Global Innovation Index, up from 76 in 2014. The Anusandhan National Research Foundation is nurturing research and innovation in collaboration with industry and academia.

Language primacy

Most significantly, the NEP has restored primacy to all Indian languages and knowledge traditions, overcoming the decades of 'English-first' policies. Through the Indian Knowledge Systems (IKS) initiative, over 8,000 higher education institutions have adopted IKS curricula. Through the Bharatiya Bhasha Pustak Yojana, 15,000 original and translated textbooks in 22 Indian languages will be published, which will benefit millions of young minds to express themselves in their mother tongues.

The Government's commitment to social justice was reflected in the enactment of the Central Educational Institutions (Reservation in Teachers' Cadre) Act, 2019, for reservation of teaching positions in central educational institutions for SCs, STs, and others by treating the 'Institution as one Unit' rather than a grossly flawed system of treating 'each Department as one Unit'. Similarly, the Government dispensed with the mischievous practice of declaring "None Found Suitable" in university recruitments to reject candidates from SC/ST/OBC categories and converting these into non-reserved posts, in the interest of making reservation truly meaningful.

The government remains focused on building a Viksit Bharat wherein education truly liberates and empowers. The decade ahead will witness an educational renaissance that honours India's past while fearlessly embracing the future. India's education system has finally broken free from colonial shadows and ideological captivity. It stands poised to fulfil the dreams of millions of Indians.

This is not merely education reform. It is the intellectual decolonisation that India has awaited for a long time, which will catapult India into the comity of developed nations.

INDIAN EXPRESS (P-10), 02 APRIL 2025

MAKING HER WAY

Patna University Students' Union election has been a launchpad for Bihar's tallest leaders. It's now a young women's club

IN FEBRUARY, WHEN BJP's Rekha Gupta was named the Delhi chief minister, Congress's Alka Lamba reached across the aisle with a photograph from their student-politics days in Delhi University. In 1995, Lamba had been DUSU president as an NSUI leader, while Gupta was the general secretary, representing the ABVP. Thirty years later, in another state where women's political participation has been limited at best, the Patna University Students' Union (PUSU) election has thrown up a memorable result: Women have claimed three of the top five positions for the first time in the university's history.

The success of these women speaks not merely of personal achievement. As Bihar CM Nitish Kumar has said, this "reflects women's empowerment in Bihar", an increasing socio-economic autonomy that is a result of developmental policies such as the Jeevika programme under the Bihar Livelihood scheme, 50 per cent reservation for women in panchayat elections, and Kumar's cycle scheme that saw increased female enrolment in educational institutions. Over the last two decades, women's engagement with the political process has also undergone significant changes. In the 2020 Assembly election, for instance, the total turnout of female voters was 59.7 per cent, compared to 54.6 per cent male turnout. On the other hand, of the 371 women who contested the elections, only 26 were able to make it to the legislative assembly.

From Lalu Prasad to the late Sushil Kumar Modi, PUSU elections have been the launchpad of several of Bihar's tallest leaders who have played important roles in national politics. In an election year, the victory of these young women sends out a powerful message of a more inclusive and diverse political representation. It aligns with broader national conversations on women's rights and participation, especially in the light of the Women's Reservation Bill, 2023. The future is a fertile field of opportunities for the gutsy women from Patna.

Third language choice: Hindi in non-Hindi States, Sanskrit in Hindi-belt

Data hint that Sanskrit and Hindi are preferred by default due to a lack of supply and demand, even if they are not imposed

DATA POINT

Maitri Porecha
Sambavi Parthasarathy
Vignesh Radhakrishnan

With the debate over Tamil Nadu's refusal to adopt the three-language policy still ongoing, the latest data needed to address key questions on the issue is lacking. Vital data that could help bring clarity is the list of languages currently being taught in schools across the States. Notably, DMK MP Kanimozhi Karunanidhi raised this question in the Lok Sabha (LS) last month. However, the reply only provided the share of schools that taught three-languages, without mentioning the specific languages.

The last survey with this detail was the 2009 All India School Education Survey, which is not publicly available. *The Hindu* accessed a copy of the report through sources in the Education Ministry. Notably, even in the 2009 survey, school-wise data on languages taught is limited to the primary stage. However, the insights remain relevant, as the LS reply from 1995 states that 27 States/U.T.s had implemented the three-language formula (Table 1).

An analysis of the 2009 survey (Table 2) shows that in Bihar, 99.1% of schools taught Hindi, 64% taught English, and 56% taught Sanskrit in the primary stage, with only 8% teaching other languages. Similarly, in Uttar Pradesh, 94% taught Hindi, 75.3% taught English, and 65.2% taught Sanskrit in the primary, with just 7% offering other languages. For Uttarakhand, the numbers were 99.5% Hindi, 85.5% English, 79.4% Sanskrit, and 2.6% others.

Data from these three States show that in Hindi-speaking States, the third language offered is mostly limited to Sanskrit. This is notable as the 1968 National Education Policy (NEP) had preferred a modern southern language in Hindi-speaking States.

Officials in Himachal Pradesh's Department of Education told *The Hindu* that in the last 15 years, there was no enrolment for Telugu, Tamil, and French "due to unavailability of teachers". Also, in the State, 34% of the 100 sanctioned Punjabi teaching posts are vacant, 71% of the 100 Urdu teaching posts are vacant, while only 9.8% of the 5,078 Sanskrit teaching posts are vacant presently. The high number of teaching posts and low vacancy at present also hint at Sanskrit being the preferred third language even now.

A similar situation continues in Uttar Pradesh currently. Bhagwati Singh, Secretary, Madhyamik Shiksha Parishad, Uttar Pradesh, said, "We have one student of Malayalam, three students of Tamil, and five students of Kannada registered with us. These students appear as private candidates."

Data from the 2009 survey also show that in Gujarat, over 97% schools taught Gujarati and 20.9% taught English, and 64% taught Hindi in the primary stage, with only 2.2% teaching other languages. In Karnataka, 97.5% offered Kannada, 86.2% English, 30.4% Hindi, and just 15% others. In Punjab, 79.2% schools offered Hindi, with less than 1% offering languages other than English and Punjabi. This hints at another trend, that in non-Hindi speaking States, the third language is mostly limited to Hindi.

Moreover, the LS reply shows that in Bihar, Jharkhand, West Bengal and Odisha – States that had agreed for the three-language formula – less than 50% schools had implemented it as of 2023-24 (Map 3). In Himachal Pradesh, Madhya Pradesh, and Haryana, less than 60% schools had implemented, pointing to uneven execution among those States that agreed.

Detailed data for recent years is the need of the hour.

(With inputs from Amit Bhelari and Mayank Kumar)

Whither the three language formula

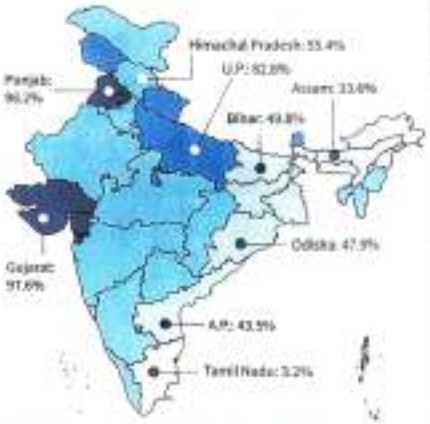
The data for the charts were sourced from All India School Education Survey (2009), Lok Sabha questions & answers and includes The Hindu's calculations

Table 1: The table shows the status of implementation of the three language formula in States/UTs as per a reply in the Lok Sabha on December 11, 1965

Category	States/UTs
The State governments that adopted /implemented the three-language formula as of 1965	Bihar, Madhya Pradesh, Uttar Pradesh, Chandigarh, Delhi, Haryana, Himachal Pradesh, Punjab, Rajasthan, Orissa, Sikkim, West Bengal, Arunachal Pradesh, Assam, Meghalaya, Mizoram, Nagaland, Tripura, Andaman & Nicobar Islands, Andhra Pradesh, Kerala, Lakshadweep, Daman & Diu, Goa, Gujarat, Karnataka, Maharashtra
Status not available in the report	Dadra and Nagar Haveli, Manipur
The State governments that had not implemented the three- language formula as of 1965	Jammu & Kashmir, Tamil Nadu, Puducherry

Map 3: State-wise share of schools teaching three languages as of 2023-24

In the map, the darker the colour, the higher the share of schools that teach three languages



1 The share of schools teaching three languages is more than 90% in only five States/UTs

2 The share is below 50% even in States such as Bihar, Jharkhand, West Bengal, Odisha, and Goa, which had agreed to implement the three language formula

Table 2: The table shows the share (in %) of schools that taught the regional language, English, Hindi, Sanskrit, and other languages in the primary stage, across select States, as of 2009

State	Regional	English	Hindi	Sanskrit	Others
Haryana	-	70.9	94.4	-	5.4
Himachal	-	68.3	97.3	-	1.5
Delhi	-	87.4	92.8	-	13.7
U.P.	-	75.3	94.0	65.2	7.8
Punjab	97.8	79.8	79.2	-	0.8
Uttarakhand	-	85.5	99.5	79.4	2.6
M.P.	-	52.5	99.1	1.2	10.9
Chhattisgarh	-	37.1	99.3	-	3.6
Gujarat	97.3	20.9	64.1	-	2.2
Rajasthan	-	52.5	98.7	-	5.8
Maharashtra	91.3	60.0	6.2	-	9.1
Arunachal	-	90.8	81.2	-	23.3
Assam	77.8	11.9	0.5	-	34.2
Manipur	86.3	86.5	35.2	-	27.6
Meghalaya	88.2	64.8	1.1	-	15.4
Mizoram	78.7	85.3	4.2	-	24.9
Nagaland	-	97.7	5.4	-	72.5
Sikkim	87.9	86.6	42.8	-	38.0
Tripura	98.5	79.7	0.5	1.9	18.3
Odisha	94.9	64.3	0.2	-	7.9
Bengal	94.2	86.5	2.0	-	3.5
Jharkhand	-	37.4	89	0.1	17.5
Bihar	-	64.0	99.1	55.9	8.4
Karnataka	97.5	86.2	30.4	-	15.0
Kerala	98.6	72.0	8.4	-	33.0
Undivided A.P.	94.3	83.1	6.3	-	7.2
Tamil Nadu	95.5	73.9	3.7	-	4.8

Others refer to languages other than English, Hindi, Sanskrit and the regional language in each State. The total in each row does not add up to 100 as one school can teach more than one language

The All India School Education Survey (2009) includes govt./govt. aided, private aided/unaided, recognised and unrecognised schools

MILLENNIUM POST (P-11), 03 APRIL 2025

POWER OF PLAY: HOW GAMIFICATION IS TRANSFORMING EDUCATION

DR SANKU BOSE

Education has long been associated with discipline and rigour, but a revolution is underway—one that makes learning feel more like a game than a grind! Gamification, the integration of game mechanics into educational settings, is changing the way students engage with learning material. Elements such as leaderboards, badges, challenges, and points are no longer exclusive to video games anymore; they are finding a place in classrooms, online courses, and corporate training programmes, turning passive learners into active participants. But does gamification truly enhance learning outcomes, or is it merely a passing trend?

The essence of gamification lies in its ability to tap into human psychology. People are naturally drawn to challenges, rewards, and a sense of accomplishment. Leaderboards encourage a spirit of healthy competition, pushing students to strive for better performance. Badges act as digital trophies, reinforcing achievements and motivating learners to continue. Points and progression systems create clear achievable goals, making abstract learning objectives feel tangible and attainable. More immersive gamified strategies, such as role-playing scenarios, mission-based learning, and interactive storytelling, not only enhance engagement but also boost retention. By introducing a structured yet playful approach to learning, gamification transforms dull lessons into compelling experiences.

The science behind this phenomenon is compelling. Cognitive and behavioural studies reveal that game elements stimulate dopamine release, the neurotransmitter associated with pleasure and motivation. This positive reinforcement strengthens neural pathways, enhancing memory retention and problem-solving skills. Psychometrics, which studies individual learning behaviours, indicates that gamified learning adapts well to different cognitive styles, catering to both visual and experiential learners. Cognitive load theory suggests that learning becomes more efficient when information is broken into smaller, more manageable chunks—something gamified systems naturally achieve through progressive challenges and milestone rewards.

For students with learning disorders, such as ADHD (Attention Deficit Hyperactivity Disorder) or other learning difficulties, gamification in learning is transformative. Traditional learning methods often fail to capture their attention or provide the instant feedback they need to stay engaged. Game-based elements offer structured yet flexible learning paths, allowing these students to focus on short, achievable tasks without becoming overwhelmed. Adaptive gamification, which personalises the difficulty level based on performance, further enhances inclusivity, ensuring that no learner is left behind.

Numerous educational platforms have successfully integrated gamification into their learning models. Platforms like Kahoot! and Duolingo use points, leaderboards, and streak rewards to make learning addictive. Minecraft: Education Edition turns abstract STEM concepts into interactive adventures, allowing students to experiment and build within a virtual world. AR and VR are further elevating gamified learning experiences, making subjects like history, science, and even medical training more immersive than ever. Imagine a history lesson where students can "walk through" ancient Rome using VR or a biology class where they can interact with 3D models of human anatomy. These innovations are not just engaging—they provide experiential learning, which has been shown to improve comprehension and recall.

Despite its growing success, gamification does face some challenges. Some critics argue that it fosters extrinsic motivation—students may engage with lessons just to earn points or badges rather than for genuine understanding. Others fear that an over-reliance on game elements could trivialise education, reducing complex subjects to superficial rewards. Additionally, implementing gamification requires careful design; poorly executed gamified systems risk frustrating learners rather than motivating them. However, when used thoughtfully, gamification is not a distraction but a tool that enhances focus, promotes mastery, and nurtures lifelong learning habits.

Adaptive gamification, which personalises the difficulty level based on performance, further enhances inclusivity, ensuring that no learner is left behind

With advancements in AI-driven personalisation, future gamified learning platforms will be able to adapt in real-time, providing students with individualised challenges tailored to their pace and skill level. The integration of AR and VR will continue to make learning more immersive, breaking the barriers between theoretical knowledge and practical application. Moreover, blockchain technology could introduce secure, verifiable gamified credentials, allowing students to carry their digital learning achievements across institutions and careers.

Far from being a fleeting trend, gamification is redefining education for the digital age. It harnesses the power of play to create deeper engagement, foster curiosity, and transform learning into an enjoyable and rewarding journey. While it may not replace traditional teaching methods, it complements them in powerful ways, making education more interactive, inclusive, and effective. The future of learning is not just about textbooks and exams— it can be an immersive, rewarding, and deeply personal journey!

The author is the Group CEO of Techno India Group, a visionary and an educator. Beyond his corporate role, he is also a mentor who guides students towards resilience and self discovery

MILLENNIUM POST (P-11), 03 APRIL 2025

LEARNING MADE FUN WITH GAMIFICATION

Gamification also creates a safe and controlled space for learners to practice and apply new skills

ANINDITA ACHARYA

For us '90s kids, Monopoly, or as some of us called it, Business, was serious business! This classic board game wasn't just about collecting cash... it gave us our first lessons in money management. Then there was Chinese Checkers, a colourful game with marbles that was more than just fun. It sharpened our brains and strategic thinking. Speaking of brain games, this correspondent's father had a tradition: after every exam, he'd gift her puzzles and building blocks. It was his way of making learning fun while sneaking in critical thinking and problem-solving skills. And remember "Taboo? The game where you had to describe a word without using the "forbidden" words? It pushed us to think creatively and communicate quickly, a skill that comes in handy even now.

Let's be honest. Learning is always better when it feels like play. Kids absorb things effortlessly when they're engaged and having fun, without the usual pressure of studying. Fast forward to today's world of advanced gamification, where interactive and immersive experiences make learning even more exciting. With elements like points, badges, levels, and rewards, there's a built-in sense of achievement that keeps learners hooked. It's a smart way to boost motivation, push through challenges, and actually retain what we learn because, in the end, who doesn't love a good game?

"Games have always been used as a part of teaching. We have used Scrabble, Monopoly, Uno and Pictionary. These have been games that we have used for language instruction, for literacy, for math, and even for financial literacy. We use Monopoly to teach financial literacy. It's because of the fact that the whole digital spectrum has come into learning that everybody thinks gamification is only digital learning, but that's not the case. If you look at how Minecraft has been used to create universes that students write about, that's intentional use of games for learning outcomes. Teachers can also use apps such as Kahoot. Technology has made access to these kinds of tools quicker and easier. The important idea is the balance of using games. As an educator you need to understand the timing of using a game in a lesson, the appropriateness of the content, the relevance to that particular class. Gamification should not be used just to make something exciting. If you look at a class that is using a quiz game, students are having fun, but they are also engaging with the content very differently. Keeping in mind the purpose and knowing what students will gain from using games is extremely important to planning a lesson using games," said Shefali Jhaveri, Head of Learning, Canadian International School, Bangalore.

Educators have found that gamification increases engagement by up to 50% and improves learning outcome by up to 35%

KEY BENEFITS OF GAMIFICATION IN LEARNING

- Supports cognitive development
- Enhances physical skills
- Boosts classroom engagement
- Increases motivation
- Encourages social interaction and teamwork
- Enables real-time assessment

A study by the Federation of American Scientists found that students remember only 20% of what they hear. When visuals are added, this increases to 30%. Another study showed that 67.7% of students found gamified courses more motivating than traditional ones. Research at the National Technical University of Athens, Greece, found that challenge-based gamification improved student performance by 89.45% compared to lecture-based learning. This shows that making learning more interactive can lead to better results.

"The global gamification market is expected to register a year on year growth of 25% to reach USD 70 - 90 Bn. Smartphone penetration in India is nearing 50% and this massive user base along with high speed 5G access will boost the demand for gamification. The growing application of gamification systems to shape human behaviour, drive innovation, improve productivity, enhance engagement and skill development is fueling this growth. Educators have found that gamification increases engagement by up to 50% and improves learning outcome by up to 35%," said Jaideep Kewalramani, COO and Head of Employability Business, TeamLease Edtech.

Modern learning uses gamification with points, badges, and leaderboards to make education more engaging. VR and AR create interactive experiences, while AI personalises learning and gives feedback. Apps like Kahoot and Duolingo make learning easy and accessible anytime. A report by the National Library of Medicine (NLM) shows that using active learning, humour, and technology in statistics education helps students understand concepts better, boosts confidence, improves retention, and enhances performance.

"With the increasing popularity of VR and AR, the Metaverse is becoming an integral part of higher education. Complex subjects such as medical sciences, architecture, and engineering can be taught more effectively through virtual simulations, reducing the need for expensive lab setups. For instance, a University leveraged immersive VR experiences to introduce students to the field of healthcare, inspiring many to pursue careers in nursing and medical sciences. The future workplace will be dominated by Gen Z and there's no denying that they are natural at games. This generation is 'born digital' and an overwhelming 70 percent of people under 25 prefer gaming over other forms of entertainment. Gamified learning will be a natural environment for them to acquire education," said Kewalramani.

PIONEER (P-7), 03 APRIL 2025

Parents need less screen time, students need more

In today's digitally driven world, technology seamlessly integrates into every aspect of our lives. From smartphones and tablets to laptops and smart TVs, screens constantly dominate our daily routines. While, parents may struggle with excessive screen time, students must cultivate digital skills to excel in academics and future careers.

Achieving a balanced approach that limits parental screen time while, fostering students' technological proficiency is essential for overall well-being and development. In today's digital era, parents often juggle numerous responsibilities, including work, household chores and parenting. The temptation to scroll through social media, watch videos or binge on series for relaxation leads to excessive screen time, digital fatigue and mental exhaustion resulting from excessive screen time. Furthermore, research indicates that during the COVID-19 pandemic, screen time increased significantly, with adults spending between 3 to 7.5 hours daily on digital devices resulting in heightened levels of stress, anxiety and depression.

Addressing digital fatigue requires conscious efforts to balance professional responsibilities with personal well-being. Implementing strategies such as setting boundaries for screen use, incorporating regular breaks and prioritising offline family activities can help alleviate the negative impacts of excessive screen time. Moreover, excessive screen time among parents can set a negative example for children. Children are likely to emulate the behaviour they observe, reinforcing a cycle of digital dependency within the household. It is essential for parents to consciously reduce their screen exposure to foster healthier lifestyles for themselves and their children. On the hand students live in a world that demands digital literacy.

Schools today are increasingly incorporating technology into the curriculum, from virtual learning platforms to coding programs, with the recent introduction of Artificial Intelligence (AI) and Robotics.

Developing technological competence not only enhances the academic performance of the students, but also prepares them for future careers that are predominantly technology-driven.

By mastering digital tools, they can harness creativity, solve real-world problems and develop critical thinking abilities. Promoting healthy use of technology can help parents reduce unnecessary screen time while promoting productive digital engagement for students. Here are some practical strategies that can help achieve this balance:

1. Establish screen limits: Parents can create structured guidelines for screen use by setting specific schedules for themselves and their children.

For instance, inspired by initiatives like the 'No Phone Zone' campaign seen in many documentaries, where families designate areas like dining rooms and bedrooms as tech-free zones.

Similarly, schools that implemented smartphone bans, as shown in *'Swiped: The School That Banned Smartphones'* demonstrated the positive impact of reduced screen time on student focus and family engagement. By following such examples, parents can promote meaningful face-to-face interactions at home.

2. Set a positive example: Children tend to mimic their parent's behaviour. For example, inspired by the documentary *Screenagers*, families who reduce screen time and prioritise activities like reading, hobbies or outdoor play often see their children follow suit.

3. Encourage productive technology use: Not all screen time is detrimental. Encourage students to use technology for educational purposes such as researching, learning coding languages, or engaging in creative design. Platforms offering online courses, educational games and interactive simulations provide immense learning opportunities.

4. Promote digital literacy: Parents and educators can work together to promote digital proficiency. For instance, initiatives by the Indian Government like Atal Tinkering Labs encourage students to learn coding, robotics and digital innovation.

5. Monitor and guide: While students should explore technology, parental supervision remains crucial. For example, platforms like YouTube Kids and Netflix offer parental controls and content filters to ensure age-appropriate viewing.

6. Promote offline activities: Balance is key. Encourage students to engage in physical activities, sports and creative pursuits offline. Similarly, parents should prioritise offline hobbies, reducing their reliance on screens for leisure. There is no denying that educational institutions play a pivotal role in ensuring students develop robust tech skills.

Schools should organise coding boot camps, robotics workshops and digital literacy seminars at regular intervals. Collaborating with industry professionals to introduce students to real-world applications of technology can further enhance their learning experience.

Parenting workshops, digital detox challenges and support groups provide valuable resources and motivation to reduce screen dependence. In the digital age, while parents benefit from reducing their screen time, students gain significantly from developing technological competence.

By setting boundaries, fostering digital literacy and promoting offline activities, families can strike a healthy balance. Ultimately, the goal is not to eliminate technology but to use it purposefully and mindfully, empowering the next generation while nurturing meaningful human connections.

Pro/7

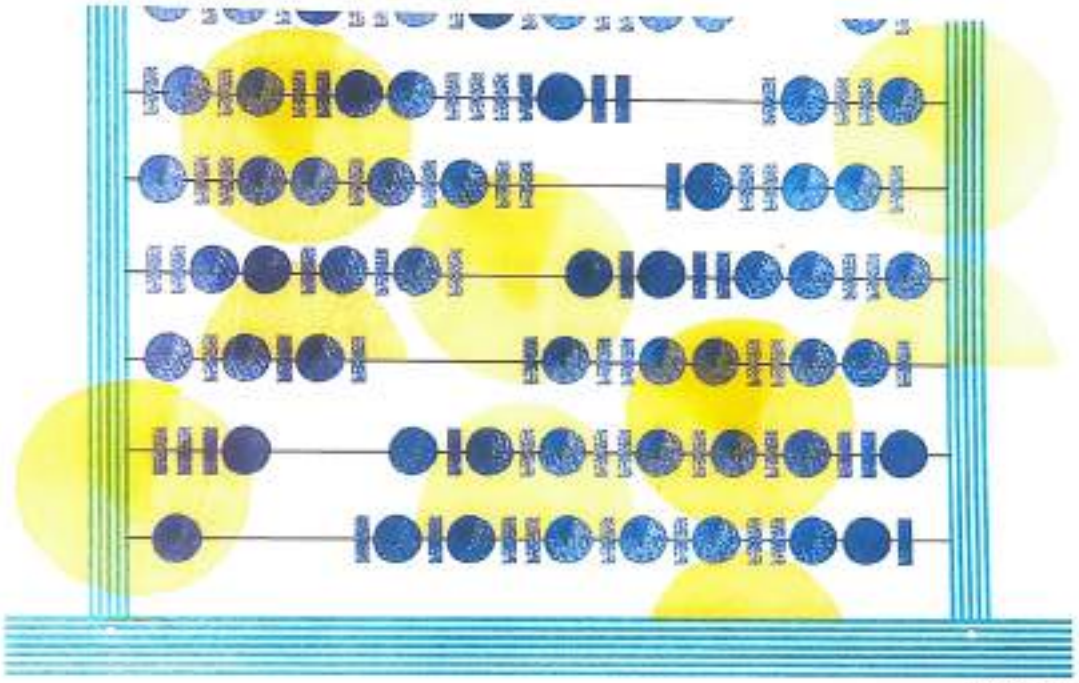
(The writer is an educator. Views expressed are personal)

INDIAN EXPRESS, (P-11), 05 APRIL 2025

AI future starts in school

For national AI literacy, we need a robust curriculum. Let's start designing it

ADITYA VISHWANATH AND KARISHMA SHANGHVI



C R Sasikumar

THERE IS BROAD consensus that the youth of our country need to be AI literate. AI is here to stay. All else remaining the same, people, economies, and countries that are AI literate will be more productive than those that are not. So, let us move on from the debate about "if" AI literacy is required and focus on the more pertinent and interesting question of "what" AI literacy is and "how" we develop it.

Let's explore this with a familiar story. When 12-year-old Rani's science project failed the night before her school exhibition, she panicked — her paper volcano wouldn't erupt, her poster looked dull, and her confidence was shaken. Instead of giving up, she turned to an app she'd seen her cousin use and started asking questions — how to fix the volcano, improve her board, and explain it simply. Within an hour, she had a plan, clear instructions, and a working project that wowed her class the next morning.

Now compare that to a grown-up watching ChatGPT draft a restaurant review or project plan, whispering, "I could never do that." This is the difference. Rani doesn't see AI as magic. She sees it as a tool she can reach for to solve a problem, just like a pencil or a calculator.

Being "literate" or "fluent" in a domain or tool means you understand it deeply and can apply that knowledge in the real world. National AI literacy means everyone should be able to harness AI to improve their lives. For this to become a reality, India's schools need an AI literacy programme.

This is possibly the first time in modern history that a revolutionary technology is being created and deployed simultaneously in both advanced and developing countries. Just like our leap in mobile and broadband connectivity, we need to leap in AI — to design our own creations to serve our own needs. This can only happen if our natively tech-savvy, inherently creative, and unapologetically ambitious youth are made ready for it.

For national AI literacy, we need a robust curriculum. Let's start designing it.

The first (and most perilous) question to ask is: "What is worth learning in AI?" Why perilous? Because AI is evolving at such a breathtaking pace that any list of tools or features may become outdated within months. But let's not give up just yet. Rather than focusing on specific content, can we go broader and ask if there are universal thinking skills for AI? Can we empower students to learn how to learn, so they can independently adapt to future developments? Here's a list.

Students should be able to communicate effectively with AI by asking thoughtful, focused questions and writing clear, structured prompts. Learning to speak with and guide AI as a young teammate — not just using it like an online search — helps get more meaningful responses.

Students should use AI tools strategically and creatively in their own work. This means breaking down their work into steps and knowing where to bring in AI. It also means critically discerning among the vast number of tools available today and making good choices. They should use creativity to think of new use cases and build their own AI solutions.

Finally, students need a strong critical thinking filter to judge AI's outputs. Learning any field deeply still matters — so you can ask better questions and assess quality. Students should catch when AI hallucinates, recognise bias, assess reliability, and consider ethical implications. In such moments, don't abandon the tool. Like you would with a young child, re-prompt, clarify, and iterate to get better answers. Also know when AI is not the right tool.

So we have communication, collaboration, critical thinking, and creativity. These are life skills — often called 21st-century skills. They'll help our students in all domains, not just AI. But this is just the first step. How can we implement this in our classrooms, in a high-quality and scalable way? Here are some suggestions.

All students can start with a level 1 programme — learning what AI is and creating a simple wrapper app on a large language model using a good prompt. Most can then move to level 2 — building AI agentic workflows (a series of agents using tools to perform tasks). Advanced students interested in AI careers can move to level 3 — learning foundational coding and machine learning to create new models, tools, and even revenue-generating businesses.

Schools should start teaching AI as soon as they think students are ready. This could be Grade 6, or even Grade 4. We see it every day: With tech, motivation often outshines age.

Teachers, this is one of the few subjects where your students may know more than you do. This is a golden opportunity to experiment with student-centred, project-based learning, even within traditional classrooms. You'll be nudged away from lecturing and towards co-creating learning with your students, the dream of all progressive educators.

How? Facilitate, don't teach. Be open about your (and everyone else's) lack of expertise. Use the magic phrase, "I don't know, let us figure it out together." Provide curated, rewindable videos. Let students discuss ideas. Help them analyse case studies and thoughtful readings. Research and create apps together. Allow mistakes and do-overs. Pitch and demo the apps to real users. Encourage students to upload their apps to their own portfolio web pages — a growing repository of problem-solving tools built by children, for India. Most importantly, use this experience as a model for teaching other, traditional subjects.

Let's come back to Rani. What she demonstrated wasn't brilliance or tech-savviness, it was literacy. Faced with a problem, she reached for the tools she had, used them critically, adapted her approach, and solved it. That's what we want every child in India to be able to do — not just with science projects, but with questions about history, art, society, health, and life.

We believe an AI curriculum can't be an optional add-on. It has to be woven into the fabric of how we teach, just like language or maths. When every child can access AI tools, understand them, and use them to solve real-world problems, then we'll know we've succeeded. Because the goal isn't to teach students how to build the machine. It's to teach them how to think with it. Let us start building our country's AI future within our schools.

MAPPING AI IN INDIA
An IDEAS SERIES

The first (and most perilous) question to ask is: "What is worth learning in AI?" Why perilous? Because AI is evolving at such a breathtaking pace that any list of tools or features may become outdated within months. But let's not give up just yet. Rather than focusing on specific content, can we go broader and ask if there are universal thinking skills for AI? Can we empower students to learn how to learn, so they can independently adapt to future developments?

Vishwanath is co-founder of MakerChat and Inspirit, and a visiting research scholar at Stanford University. Shanghvi is a philanthropist educator and founder of Shikha Academy and Shikha Institute of Education. This article is the second of a series on AI in India.

PIONEER (P-6), 05 APRIL 2025

Need for pragmatic reforms in higher education

SECOND Opinion

BIJU DHARMAPALAN

Effective policy frameworks are essential for guaranteeing the quality, accessibility and sustainability of education, which serves as the foundation of a nation's advancement. Nevertheless, the medical and higher education sectors are frequently impeded by outdated and rigid regulations rather than facilitated by them. The National Medical Commission's (previously the Medical Council of India, MCI) arbitrary criteria for recognising medical colleges and the University Grants Commission's (UGC) salary regulations for private institutions are examples of how bureaucratic rigidity can result in unintended consequences. To resolve these concerns and cultivate a more inclusive and efficient education system, it is imperative to implement pragmatic policy reforms.

MCI requires medical colleges to have a certain number of hospital beds and patient load for recognition. Although the goal is to give students clinical experience, this strategy ignores medical education development. Digital health technology, simulation-based learning and telemedicine allow students to develop practical skills without a bed-patient ratio.

Existing laws have led to unscrupulous activities like institutions manipulating inspection figures. Instead of infrastructure-based assessments, medical education policies should prioritise competency-based evaluations, outcome-driven learning and ethical training. Acknowledging modern pedagogical breakthroughs would improve healthcare and education.

Ideally, Governments and medical regulatory bodies should strive to promote preventive healthcare by decreasing the burden of diseases through improved nutrition, hygiene, vaccination and lifestyle awareness. Nevertheless, the requirement for a high patient burden in medical education implies a reactive rather than preventive approach, one that presupposes a persistent or expanding sick population. This criterion could potentially impede the ability of medical colleges to maintain recognition if society makes genuine strides towards improved health outcomes. This prompts critical enquiries:

a) Are we indirectly promoting a system that capitalises on illness rather than well-being?

b) Is it necessary to restructure medical education to prioritise preventive care, public health initiatives and advanced technology rather than solely focusing on hospital patient numbers?

The primary objective of a progressive medical education system should be to prevent individuals from entering hospitals rather than to overcrowd them. Rather than being penalised for a lower patient count, medical institutions should adapt if public health improves. Another flawed regulation is the UGC's insistence that private institutions follow Government salary scales for faculty. Although it is imperative to provide educators with equitable compensation, the imposition of public-sector pay structures in private institutions without providing financial assistance imposes an excessive burden on these institutions. Private universities are compelled to increase tuition fees, rendering education untenable for many students, as they primarily rely on tuition revenue.

Similarly, the insistence on 40 acres of land as a prerequisite for starting a university is an outdated and impractical regulation in today's digital era. With online education, virtual labs, cloud computing and digital libraries gaining prominence, the traditional concept of vast physical campuses is becoming less relevant. A university's effectiveness should be measured by teaching quality, research output and student success, not the size of its campus. Policymakers must adopt a more pragmatic and research-driven approach to regulations in medical and higher education. Instead of one-size-fits-all rules, a more adaptive framework should be developed that considers technological advancements, economic realities and global best practices. Engaging stakeholders-academics, industry experts and students-would result in policies that enhance education quality while maintaining affordability and accessibility. The future of education depends on our ability to reform outdated regulations and embrace innovation. Pragmatic policies will not only benefit institutions and students but also contribute to national progress by creating a more skilled, ethical and competent workforce.

(The writer is an adjunct faculty at the National Institute of Advanced Studies, Bangalore. Views expressed are personal)

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NEP 2020: Vision for transforming India

The National Education Policy (NEP) 2020 emerges as a transformative blueprint. It reimagines education as a holistic, inclusive and value-driven process, deeply rooted in Indian culture yet aligned with global aspirations

FIRST Column

Education serves as the bedrock for the holistic development of an individual, laying the foundation for the quality of human life. Its role in shaping a civilised and cultured society is paramount. Education must offer a comprehensive and integrated approach from the very beginning of life. In its true sense, holistic education covers all facets of human existence. It is designed to nurture physical and mental well-being, foster moral values, build character, cultivate patriotism, enhance knowledge and promote the development of a skilled personality. All this, while striking a balance between spiritualism and materialism, with the goal being the welfare of humanity. The core objective of the National Education Policy (NEP) 2020 is to create citizens who are firmly grounded in Indian values yet possess a global outlook.

The policy reflects the richness and significance of India's cultural heritage and traditions. By championing a value-based education system, the NEP 2020 aims to cultivate citizens who possess truthfulness, religious conduct, peace, love, non-violence, a scientific mindset and a commitment to universal human values. There is no doubt that the NEP 2020 will not only enrich students with multidisciplinary and multi-dimensional knowledge but will also equip them with the character to engage with global challenges while remaining deeply rooted in the cultural fabric of India. These youth will not only address contemporary global issues but will also carry the torch for the revival of India's cultural renaissance on the global stage.

Education in mother tongue

Language is not merely a medium of communication but an essential pillar of identity, heritage, and societal wealth. The revered poet and philosopher Maharshi Harishchandra once said, *'Nij bhasha Unnati Ahe, Sab Unnati ko Mool'* — meaning the progress of society is intrinsically tied to the development of its native language.

The NEP 2020 empowers us to take pride in our mother tongue, simultaneously freeing us from the shackles of colonial mentality. If education is delivered in a foreign language rather than in the mother tongue, it not only hinders the learning process but also turns the adoption of another language into an unnecessary burden. The Macaulay-led education system, which promoted Western ideals, inflicted long-lasting damage to India's traditional education framework, leading to the marginalisation of Indian languages and knowledge systems.

RAMA SHANKAR DUBEY

The NEP 2020 seeks to dismantle this colonial legacy by promoting the use of local languages, which are the true sounds of culture and philosophy. It is widely acknowledged that language shapes thoughts, behaviour, and culture, making the provision of education in the mother tongue a significant step forward in the NEP's vision.

The ancient India's education system, known for its emphasis on holistic development, did not merely focus on academic achievement but integrated religious teachings, moral education and the cultivation of human values. A cornerstone of the prosperity of Indian society was its deep-rooted commitment to character building. The Indian system of education aimed not only to impart knowledge but to shape individuals into virtuous, well-rounded citizens.

The National Education Policy 2020 continues this tradition by incorporating physical, mental, spiritual and moral development into its framework. From the earliest Vedic traditions, character building has been recognised as essential to the human experience.

For any nation's progress, its citizens must have a profound understanding of introspection, reflection, and philosophical inquiry. The NEP 2020 emphasises nurturing citizens with high moral character and ethical conduct, serving as catalysts for India's reconstruction. Swami Vivekananda famously stated, "True education is that which enables us to build our life, become human, shape our character and harmonise our thoughts." Similarly, Madan Mohan Malviya envisioned an educational philosophy that integrates the overall development of individuals with a deep sense of patriotism, selflessness and respect for society.

> THE NATIONAL EDUCATION POLICY 2020 CONTINUES THIS TRADITION BY INCORPORATING PHYSICAL, MENTAL, SPIRITUAL AND MORAL DEVELOPMENT INTO ITS FRAMEWORK. FROM THE EARLIEST VEDIC TRADITIONS, CHARACTER BUILDING HAS BEEN RECOGNISED AS ESSENTIAL TO THE HUMAN EXPERIENCE

Fostering research and innovation

The NEP 2020 envisions an education system that fosters critical skills such as artificial intelligence, machine learning, design thinking, holistic health and biological sciences. The policy has curated curricula at all levels to encourage the development of these essential skills. Importantly, the NEP emphasises that evaluation should go 'beyond rote memorisation, focusing instead on creative, reflective learning assessments.

In addition, the NEP encourages students to engage in internships with local industries, artisans and entrepreneurs, providing them with real-world experience. Higher education institutions, the hubs of knowledge creation, are being equipped to foster innovation and cutting-edge research. Through this emphasis on research, students will have the opportunity to excel and become pioneers in the realms of knowledge and technology.

Indian knowledge traditions

One of the key features of the NEP 2020 is its emphasis on the inclusion of Indian knowledge traditions within the curriculum. This initiative aims to cultivate social, cultural, and moral values among students, while also enhancing their creative and problem-solving skills. To restore India's position as a global leader, it is imperative to revive the rich intellectual heritage of ancient Indian knowledge systems. The integration of these traditions into education aligns with India's Sustainable Development Agenda for 2030, which aims to ensure inclusive and equitable quality education for all.

Moreover, teachers are being trained in these traditions so that they can impart the wisdom of India's heritage to their students. The policy's promotion of interdisciplinary and multidisciplinary education allows students to engage in a more holistic approach to learning, enabling them to explore multiple fields of study simultaneously. The NEP's focus on student-centric, research-oriented and innovative higher education will ensure that the academic environment is more conducive to creativity and intellectual growth.

Paving path for innovation

India's startup ecosystem has witnessed remarkable growth in recent years, positioning the country as the third-largest startup hub globally. The rise of startups in India has significantly contributed to the nation's progressive economy. From just 350 startups in 2016, the number has soared to over 159,000, with more than 11 unicorns fostering technological innovation.

With the advent of the NEP 2020, this surge in startups is expected to accelerate. Unlike traditional education policies, NEP 2020 goes beyond textbooks, emphasising innovation, research and problem-solving skills.

The policy aims to foster practical, real-world skills alongside theoretical knowledge. By focusing on critical thinking, creativity, collaboration and entrepreneurship, the NEP is preparing India's youth to thrive in a rapidly evolving global landscape.

The primary vision of the NEP 2020 is to create an education system that not only prepares students to become global citizens but also ensures that they are deeply rooted in Indian ethics, knowledge, skills and values.

The holistic education approach, with its commitment to human rights, sustainable development and global welfare, will empower the youth of India to shape the future of the world.

(The writer is Vice-Chancellor Central University of Gujarat, Gandhinagar. Views expressed are personal)

5/4/25

ECONOMICS TIMES (P-5), 06 APRIL 2025

'The More Time Kids Spend on Phones, The Worse Their Mental Health... But Bans in Schools Alone Won't Help'

Victoria Goodyear is an associate professor in physical activity, sport and health at the University of Birmingham, UK, working with both the School of Sport, Exercise and Rehabilitation Sciences and the Institute for Mental Health. She is a contributing author of two recent publications that examine school policies on smartphones and adolescent well-being. The first, written by a broad team of authors and published in The Lancet, investigates the impact of mobile phone policies in schools on students' mental health, academic performance, physical activity and sleep, drawing on data from over 1,200 adolescents aged 12-15 years across the UK. The second article, written by six authors in The British Medical Journal, focuses on strategies to support the development of healthy technology use among young people.

Apoorva Mittal spoke to Goodyear on Zoom on the findings and their implications in a world where digital devices are deeply woven into the lives of young people and at a time when Australia has introduced a law banning social media for minors and shows like Netflix's Adolescence are highlighting the negative impacts of these platforms on young adults. Edited excerpts:

And that was in areas across all of the outcomes around mental health, physical activity and sleep attainment and behaviour. One explanation for this is that school phone policies did not lower the overall time adolescents spent on their phones. We found that adolescents who attended a school with a phone ban only lowered the amount of time they spent on their phones—by 40 minutes on phones and 30 minutes on social media. When we put that in perspective of the whole day—when adolescents were spending four to six hours on phones, and two to four hours on social media—school phone policies were only making a small amount of difference to the time spent. The second finding from this study was that an increased amount of time spent on phones and social media was associated with worse outcomes in all of those areas.

"The challenge is with tech companies. There is a need for governments to require companies to show how they are delivering on children's rights, and ensure that appropriate safeguards are in place in all the services that are accessible to children"

The more time you spend on your phone and social media, the worse your mental health and well-being. With that in mind, the implication from this study is that time is an important focus for improving mental health and well-being and education and physical health outcomes. But school phone policies alone are not enough to tackle those negative impacts and we need to focus on use in and outside of school.

Do you have any suggestions for what could be done in school or even at homes?

What we are arguing in the British Medical Journal article is that we need to focus on education and age-appropriate design. Education is about preparing adolescents with digital skills and competency so they can participate, but also supporting them to work together as peers and supporting schools to deliver that education. This area is moving at a fast pace. It's very different from many childhood experiences of many adults. And we need to be able to provide that education so they are equipped with the skills. The second area is age-appropriate design, and that means designing technology with children's well-being in mind. It means ensuring that devices and social media accounts align with children's evolving capacities where they feel safe and secure in those environments.

Australia has approved a landmark law setting stringent limit on social media use by minors.

We are all navigating an increasingly digital society, issues and concerns in terms of social media and smartphone use are new challenges for us all. We currently lack an evidence-based, best practice approach to support the idea that phones should be banned until adulthood. But bans in schools alone are not enough.

Issues like bullying existed before social media too. Is there a way to help kids process those emotions?

We can create a framework in terms of age-appropriate design. There is some work in the UK underway, particularly the UK Digital Futures for Children, and it has guidance for 11 key principles to ensure children's rights are at the centre of technology design. Some of those aspects include a focus on acting in the best interests of children—like agency to reduce compulsive use, modifying the algorithms and content personalisation. The content that reaches children can often be biased for commercial or political reasons, and that in itself is an infringement of their freedom of choice and this can affect their decision-making and ultimately their rights and well-being.

"We found that adolescents who attended a school with a phone ban only lowered the amount of time they spent on phones—by 40 minutes on phones and 30 minutes on social media"

So it's really about bringing together big tech and policy.

Absolutely. The challenge is obviously with technology companies—there are for-profit incentives. There is a need for legislation and for governments to require technology companies to show how they are delivering on children's rights to support development, and ensure that appropriate safeguards are in place in all the services that are accessible to children.

The Netflix show Adolescence has gone viral, putting the spotlight on the toll of social media. What did you think of it?

I have watched it. I think what the show does well is it talks about the different areas of an adolescent's life. It talks about the connections between home and school and some of the access to content in technology. That's exactly what we are saying: we need to support young people across all those spaces, not in isolation.

Were there any challenges in conducting the study? What are your next steps?

Being a cross-sectional observational study, we can't draw causal conclusions. But we observed adolescents in real-life settings, which gives the findings real-world relevance. In terms of the next steps, this study signposts that we need to think more about in-school and out-of-school use, and we need to move beyond a sole focus on bans and think about a broader approach. Any new approaches that are tackling adolescents' phone use and social media use need to be accompanied by robust evaluation, and we also need to be thinking about the wider aspects of their lives and not as isolated spaces or activities: so across home, school and community settings.

Do these findings apply globally—in countries like India or the US?

Yes, broadly. While cultural differences exist, the trends around phone use and school policies are quite similar. The principles of our findings are relevant across different regions.

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HINDU (P-12), 06 APRIL 2025

Why are student visas being revoked in U.S.?

What is Trump's 'Catch and Revoke' programme? How many foreign students are enrolled in the U.S.?

Narayan Lakshman

The story so far:

The Trump administration has cracked down on the visas of anyone suspected of being involved in campus protests or otherwise linked, howsoever loosely, to advocating for human rights in Gaza.

What is the U.S. policy on student visas?

Addressing the student visa revocation issue, U.S. Secretary of State Marco Rubio recently noted that nobody had a right to a U.S. visa, adding, "...We have seen on campuses across the country where students literally cannot go to school... buildings are being taken over, activities going on – this is clearly an organised movement. And if you are in this country on a student visa and are a participant in those movements, we have a right to deny your visa."

Under the aegis of the U.S. Immigration and Nationality Act of 1952, the Secretary of State has the authority to revoke visas of foreigners deemed a threat. According to reports, U.S. immigration officials are now said to be also scrutinising new applications for academic (F), exchange (J), and vocational (M) visas, with the intention of refusing visas to those associated with such protests.

Under the second Trump administration's so-called 'Catch and Revoke' programme, Mr. Rubio noted that by March 27, the State Department had already revoked the visas of more than 300 in-country foreign students. Reports suggest there are Indian students too on the list. There were reportedly 3,31,600 Indian students in the U.S. in the 2023-24 academic year, according to the U.S. State Department numbers. Under the 'Catch and Revoke' programme, linked to President Donald Trump signing an executive order in January to counter "anti-Semitic" movements on university campuses, the State Department is said to be using AI-assisted reviews of social media posts by foreign students to decide who among them might qualify for visa revocation followed by deportation to their country of origin.

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In this context, the Trump White House has also signalled its seriousness of intent by tightening the screws in multiple spheres against major U.S. universities, including by cutting hundreds of millions of dollars in annual federal government support to Columbia University, University of Pennsylvania and Johns Hopkins, among others.

How does the govt. monitor such enrolments?

According to the Migration Policy Institute, the number of international students enrolled in U.S. colleges and universities has experienced strong overall growth, soaring from 26,000 international students in 1949-50 to nearly 1.1 million in 2022-23. International students also increased as a share of all students enrolled in U.S. higher education from 1% to nearly 6% during the same period.

Following the discovery that one of the 9/11 hijackers had entered the U.S. on a student visa but never attended class, the Student and Exchange Visitor Information System (SEVIS) was set up in 2003 to "collect, maintain, and manage information about all foreign students and exchange visitors" in the country. To this date, SEVIS requires all schools to "submit and regularly update student information in a central database that can be accessed by the government; students who do not appear or who stop attending classes can have their visas revoked and face deportation." In this context, the list of universities at which foreign students have had their visas revoked is long and growing. Besides the above, it includes Arizona State, Georgetown University, University of Minnesota, Cornell etc.

What are the challenges to the policy?

The question of legal remedies is a complex one in this case given that the present immigration enforcement action is not directed against U.S. citizens but against foreigners.

Nevertheless, last week the American Civil Liberties Union published an open letter asking universities to stand up to federal government pressure including surveillance or threats to international students and faculty. The group of academics noted that the protests were defined as protected free speech and assembly, guaranteed under the U.S. Constitution's First Amendment. Additionally, the American Association of University Professors and the Middle East Studies Association are reported to have filed lawsuits against the Trump administration, arguing that targeting students based on their views is unconstitutional and detrimental to academic freedom. Despite this, comments by Mr. Rubio suggest that unless challenged in court, the revocation programme could continue for the foreseeable future.

Why were students protesting over Kancha Gachibowli?

What is the ownership status of the 400-acre land parcel known as Kancha Gachibowli? Why did the government decide to auction the land? Why were environmentalists worried?

Swathi Vadlamudi

The story so far:

The students of the University of Hyderabad at Gachibowli have been protesting ever since the news of the auction of a 400-acre land parcel known as Kancha Gachibowli within campus premises broke. The battle has now reached the Supreme Court, which has acknowledged the destruction of greenery and the existence of wildlife in the area, before taking it up *suo motu*. Three PILs have already been filed in the Telangana High Court against the auction.

Why were there protests?

Students state that the land is part of the university, a claim which has been vehemently denied by the government.

The land was part of the 2,324 acres granted to the University of Hyderabad at the time of its establishment in 1974, as part of the six-point formula proposed by the then Congress government to assuage regional sentiments stoked by the Telangana movement of 1969. However, the land allocation was not formalised through title transfer. Subsequently, large tracts of land, unused by the university, were taken up by the government for various purposes including establishing the Indian Institute of Information Technology, the Tata Institute of Fundamental Research, and the Sports Authority of Andhra Pradesh to name a few. By 2010, more than 800 acres of land was taken away in 22 such instances.

What do documents say?

The 400 acres of land which is now under conflict was part of such diversions in 2004, under the then Telugu Desam Party (TDP) government. An MoU was signed with the University of Hyderabad, for the transfer of 534 acres, in lieu of 396 acres allocated at another location. The land formed part of 850 acres allocated to IMG Academies Bharata for developing sports facilities. A sale deed was subsequently signed, just before Legislative Assembly elections in which the TDP was routed by the Congress. After winning the elections, the then Chief Minister cancelled the land transfer, leading to a long drawn-out legal battle. The top court dismissed the Special Leave Petition, allowing the present government under Chief Minister A. Revanth Reddy to take up the land.

What are environmentalists saying?

Undisturbed for more than 20 years, the land has become home to a rich variety of native flora and fauna. Several migratory birds also visit the area. A recent compendium of biodiversity collated from the campus mentions 233 bird species, which is higher than the avian numbers in the KBR National Park and the Mrugavani National Park. It also cited *Mavricia hyderabadensis*, a unique spider, which is endemic to the Kancha Gachibowli forest, and found nowhere else. The document also lists at least three reptiles, and 27 bird species which are mentioned in Schedule I of the Wildlife Protection Act, 1972, indicating their vulnerability and need for highest protection, besides 72 species of tree diversity.

Why did the govt. decide to auction?

The Congress government in the joint State of Andhra Pradesh under the leadership of Y. S. Rajashekhar Reddy was the first to begin the monetisation of government lands through open auctions, which was decried and denounced by many concerned citizens and political parties. However, such auctions have become the unstated State policy of all subsequent governments in Telangana, irrespective of the party in power.

The Congress party, which won the 2023 assembly elections inherited a State debt of nearly ₹4 lakh crore, which is set to cross ₹5 lakh crore by the end of FY 2025-26. Mr. Reddy's recent admission that he had no funds for capital expenditure reflects the true state of State coffers. The judgment about the ownership Kancha Gachibowli came just in time as a respite for the government, which decided to garner funds for welfare measures through auctioning the land.

THE GIST

- The students of the University of Hyderabad at Gachibowli have been protesting ever since the news of the auction of a 400-acre land parcel known as Kancha Gachibowli within campus premises broke.
- Students state that the land is part of the university, a claim which has been vehemently denied by the government.
- Undisturbed for more than 20 years, the land has become home to a rich variety of native flora and fauna. Several migratory birds also visit the area.

STATESMAN (P-7), 07 APRIL 2025

Language should build, and not break, bonds

A. K. MERCHANT

Once again, an intense controversy has erupted in the country over languages. The National Education Policy 2020 (chapter 4) emphasizes the importance of educating children in their mother-tongue or regional language up to Class 5, and preferably Class 8 and beyond. However, given the 1369 classified mother-tongues and 560 unclassified mother-tongues, largely tribal, implementing the stated policy is fraught with many challenges.

Of the 121 languages listed in the Census, 28 are listed in the Central Board of Secondary Education (CBSE) list, while the 8th schedule of India's Constitution lists only 22 languages. Thus, a major controversy revolves around defining "mother tongue." The term is used interchangeably with "home language," "local language," and "regional language," leading to confusion about its exact meaning.

Developing resources, curricula, and teacher training for numerous languages is a significant challenge. Additionally, some worry that prioritizing mother tongue education might limit children's exposure to English, which is often seen as essential for global opportunities.

There is some truth to the charge of Hindi imposition. Nevertheless, post the recommendation of the Kothari Commission (1964-66) to promote multilingualism and national integration in India's education system, advocating for the study of a mother tongue/regional language, Hindi, and English or another modern Indian language, most states followed a three-language formula which was introduced in 1968.

Hindi does occupy a special space in the linguistic diversity of India by virtue of its sheer size. With over 60 crore (42 per cent of the current population) speakers under the umbrella of what the Census categorises as Hindi, it is the world's fourth largest language, way bigger than any other Indian language.

United Nations Agenda 2030-Sustainable Development Goals number 4 focuses on Quality Education that is inclusive, equitable and promotes lifelong learning opportunities for all. The choice of language is left to the individual so long as both girls and boys achieve literacy and numeracy. What needs to be understood is that language is a tool for communication and every child should learn at least one language in which he or she is able to communicate i.e. speak, read and write, meaningfully and eloquently. Language experts agree that it is possible for children to easily learn a few languages simultaneously without any difficulty, and they should be encouraged to do so.

The importance of English, as a language that provided a window to the world, was always accepted. Incidentally since it is the de facto international language, every parent understood the importance and even in the remotest of places in our country there is a desire to get their children educated in English medium. The United Nations functions on the basis of six identified languages - namely Arabic, Chinese, English, French, Russian and Spanish. Of course, this does not prevent heads of state and governments from addressing the General Assembly in their own national language.

The Bahá'í Faith emphasizes the importance of adopting an international auxiliary language to foster unity and improve communication among people worldwide; whether it would be English or some other language has to be decided by the global conference of language experts. They would have to bear in mind that language barriers hinder understanding and collaboration, which are essential for global peace and unity.

Bahá'u'lláh, the founder of the Bahá'í Faith, advocated for the selection of a universal auxiliary language and script, either by choosing an existing one or creating a new one. This language would be taught in schools world over alongside native languages, preserving cultural diversity while enabling effective communication across nations.

The Bahá'í Faith also highlights that such a language should not suppress existing languages but rather complement them, ensuring that cultural identities remain intact. The ultimate goal is to create a world where people can communicate freely and work together harmoniously.

In this context, the Universal House of Justice, the supreme governing body of the Bahá'í Faith, has reiterated the importance of this principle in a number of its general messages to all of humanity as well as to members of the Bahá'í community. These communications highlight that the lack of a common language is a significant barrier to world peace and understanding among nations and even within nations.

In the early part of the 20th century, Esperanto, a language invented by Ludovic Zamenhof, a Polish ophthalmologist, is credited as being an international language that aimed to foster understanding and communication between people of different backgrounds. However, it did not get universal acceptance and gradually lost the popularity it had gained. The Bahá'í teachings stress that the adoption of an auxiliary language should not lead to cultural uniformity or be made an issue of controversy at the cost of our children's bright future. Instead, it should complement native languages, allowing each culture to retain its unique identity while fostering mutual understanding.

The hope is expressed that this article would help to smoothen the policy debates and in the interest of Atma Nirbhar and Viksit Bharat foster harmonious collaboration among policy makers and legislators as well as the stoppage of acrimonious debates that are counterproductive. The goal should be to promote quality education and knowledge-sharing for the children in the country and also foster education for global citizenship as emphasized in the National Education Policy.

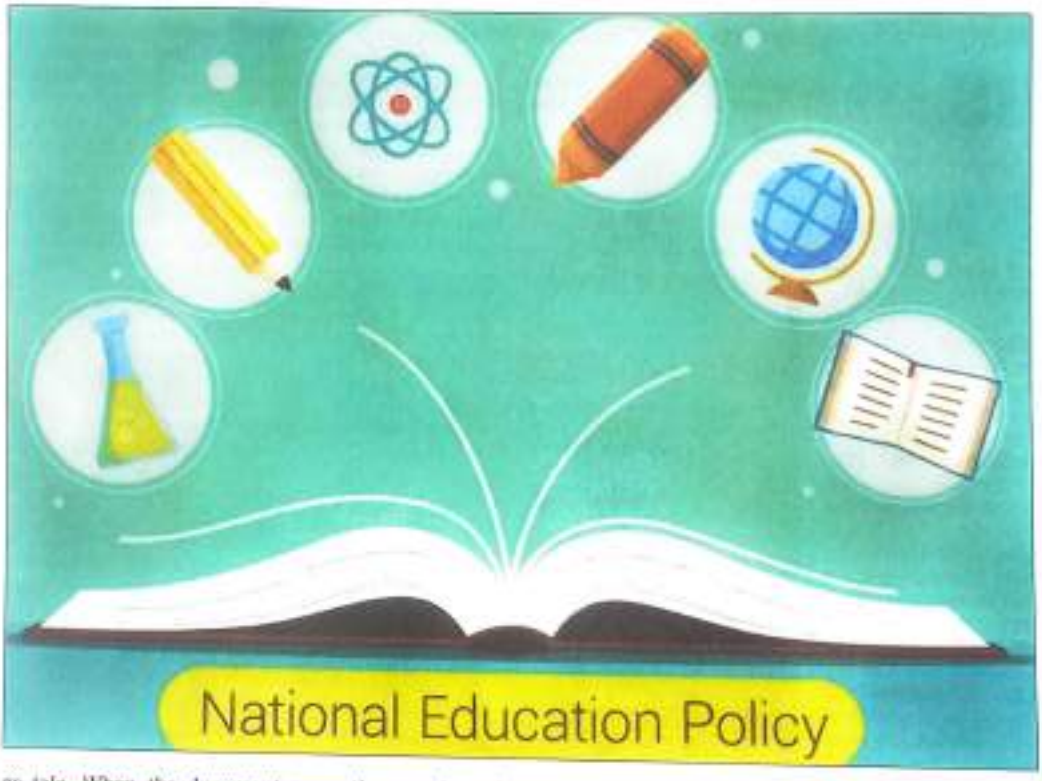
Promotion of Hindi should be left to the governments of Hindi-speaking states and to voluntary efforts. Those who need a link language should choose it for themselves. It may be further recommended that September 14, which is celebrated as Hindi Diwas, may be converted into Bhasha Diwas, a day to celebrate all Indian languages.

(The writer is an environmentalist, educationist, social worker and member of the Bahá'í community of India. Views expressed are personal)

The NEP is a tool to impose the Centre's will on education

Policies & principles

SUKANTA CHAUDHURI



Bengalis may take comfort that the epicentre of Centre-state wrangles about education (and other issues) has passed for now to the southern states, Tamil Nadu in particular. The National Education Policy of 2020 is a favoured weapon of war.

The NEP has become the flavour of all educational seasons. It is invoked for all deeds of commission and omission. Few citizens actually read it; I wonder how many officials do. Yet it is available on the education ministry's portal, and is a remarkably short document given its compass.

Its first incarnation was a weighty exercise of 477 pages, prepared under the chairmanship of Dr K. Kasturirangan, former chair of ISRO. The only cavil against such a distinguished and respected choice might be that he has not worked hands-on within the public education system. His team members might have made good much of this deficit; but there was at least one crucial absence, of an expert in elementary education and childhood care.

The draft NEP was a serious, substantial proposal. It paid rare attention to the training, status and working conditions of teachers. It declared education to be a social not a private good, to be supported primarily by the State. It made a momentous proposal to combine *anganwadis* with pre-primary and early primary schooling. In higher education, it advocated the liberal arts (which embrace the basic sciences) but provided no roadmap. However, it said astonishingly little on science education or even computer skills, while laying stress on Indian knowledge systems. Almost the only reference to mathematics was in two pages on arithmetical riddles for children.

In a word, despite its size, the draft NEP was patchy and sometimes low-keyed. The admirably serious commitment did not crystallize in enough concrete recommendations or attention to ground realities. Moreover, it sparked a controversy that foreshadowed things to come. The section on Indian languages was seen as a ploy to advance Hindi. The document was re-issued with the offending section redrafted.

The final NEP is a horse of a very different colour. It is as brief as the draft was long: it gallops from childhood learning to doctoral research in 65 pages. Thereby hangs another tale. When the document was released, two versions appeared within days of each other without a word of explanation. The most glaring difference is a proposal in the later text for a Higher Education Commission of India controlling all other regulatory bodies. There was no whiff of this in the earlier avatar.

The drastic abridgement concealed many compromises. The draft's detailed and humane treatment of school dropouts was reduced to a single bald sentence implying that all children need not attend physical schools. Another unfortunate sentence (taken from the draft) advocates "less emphasis on input and greater emphasis on output potential". Translated, this means schools in poor and remote areas will receive less funds and infrastructure. Yet just three paragraphs earlier came a pious resolution: "all students [will] have access to safe and engaging school education at all levels", even by "building additional quality schools in areas where they do not exist".

So far the NEP has been selectively implemented for cosmetic tinkering, political point-scoring and structural changes involving no expense — or, worse, requiring funds that are not provided. The four-year degree course has been introduced without any additional staff to tackle the 33% extra teaching load. The biggest potential game changer in the entire policy, the merging of *anganwadis* with early primary school, remains unaddressed.

Instead, the NEP is selectively invoked to justify any plan that strikes the Union government's fancy. The text lends itself to such opportunistic use. Its broad, pious principles can apply to virtually any policy. As the above example shows, there are also hidden contradictions from which one can pick the convenient alternative. The NEP has become an all-purpose tool to impose the Centre's will in any educational matter.

An apparently marginal issue has had dire consequences for West Bengal. Under the Union government's scheme 'PM Schools for Rising India', the Centre will fund the development of 14,500 schools in India (less than 1% of the total number) for five years. The follow-up, and all responsibility for the other 99%, rests with the state governments. The lucky schools must prefix the acronym 'PM-SHRI' to their names. The Bengal government declined this bizarre bargain. The Centre has thereupon blocked all funds under the Samagra Shiksha Abhiyan — effectively all Central funds for school education — on the charge that the state is not complying with the NEP.

PM-SHRI was launched in 2022: it is obviously no part of the NEP document of 2020. With questionable logic, any Central move on education is now linked to the NEP. Even so, PM-SHRI is a specific funding scheme which a state may or may not avail of. If it does not, it can hardly be charged with flouting national policy.

Education is the concurrent responsibility of the Union and state governments. For virtually all schemes *including PM-SHRI*, the cost is shared 60:40. Yet invariably, the schemes are devised unilaterally by Delhi and thrust upon the states on an 'Obey or else' basis. Education has been fashioned into a weapon of political power.

Tamil Nadu too finds Central funds blocked for an opposite reason, a policy long predating the NEP. The three-language school curriculum has been a staple of Indian education virtually since Independence. The NEP repeats the prescription. As recounted above, the language issue created a furore even at the draft stage. Tamil Nadu alone has consistently followed a two-language model, eliminating the third language which would very likely be Hindi. It insists on continuing the practice.

This may or may not be a good idea. The fact remains that Tamil Nadu is educationally among India's most advanced states. If the Tamils are to change tack, it will only happen through more interaction with India's other languages and cultures. Instead, the issue has spawned new conflicts. These are sad times when a national policy ends up dividing the nation.

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DAINIK JAGRAN (P-6), 07 APRIL 2025

शोध और विकास की प्राथमिकता

अदिति सिन्हा

भारत आज की दुनिया में वैश्विक आपूर्ति शृंखला से पैर मजबूत कर सकता है, जिसकी कुंजी शोध एवं विकास में निवेश बढ़ाने से ही निहित है

चीन की चमत्कृत करने वाली प्रगति में उसके दूरगामी सोच की अहम भूमिका रही है। चीन ने शोध एवं विकास यानी आरएंडडी में काफी पहले से निवेश करना आरंभ कर दिया था। इससे कम लागत में प्रतिस्पर्धी उत्पाद तैयार करने की उसने जो क्षमता हासिल की उससे वह वैश्विक विनिर्माण बाजार का सिरमौर बन गया। चीन ने सरकारी स्वामित्व वाले उपक्रमों की जगह से नवाचार केंद्रित अर्थिकी की ओर कदम बढ़ाने आरंभ किए। इसका परिणाम हुआवे, अलीबाबा और बीआइडी जैसी दिग्गज कंपनियों के रूप में सामने आया। ऐसी कंपनियों की सूची अंतहीन दिखती है। चीन अपनी जीडीपी का 2.6 प्रतिशत आरएंडडी पर खर्च करता है जो दर्शाता है कि वह भविष्य की अपनी महत्वाकांक्षी योजनाओं को मूर्त रूप देने के लिए कितना गंभीर है। भारत ने भी बीते एक दशक के दौरान इस मोर्चे पर काफी प्रगति की है, लेकिन निवेश एवं उत्पादन के लिहाज से वैश्विक प्रतिस्पर्धियों की तुलना में यह अभी भी अपर्याप्त है। भारत अपनी जीडीपी का केवल 0.64 से 0.7 प्रतिशत तक आरएंडडी पर निवेश कर रहा है। चीन का तो ऊपर उल्लेख है ही, जबकि अमेरिका भी अपनी जीडीपी का 3.47 प्रतिशत आरएंडडी पर खर्च करता है। ये दोनों ही अर्थव्यवस्थाएं भारत की तुलना में बहुत बड़ी हैं तो कुल राशि कितनी विशाल होगी, इसका सहज ही अनुमान लगाया जा सकता है। स्पष्ट है कि इस महत्वपूर्ण मद में सीमित निवेश भारत की संभावनाओं को प्रभावित कर रहा है।

सीमित निवेश के जबकि प्रदर्शन को देखा जाए तो वैश्विक नवाचार परिदृश्य पर भारत ने अपनी छाप छोड़ी है। ग्लोबल इनोवेशन इंडेक्स की 133 देशों की सूची में 2015 में 81वें स्थान पर रहने वाला भारत 2024 में 39वें पायदान पर पहुंच गया। प्रदर्शन में यह उल्लेखनीय सुधार भारत के विस्तार लेते डिजिटल इन्फ्रास्ट्रक्चर, अकादमिक जगत एवं उद्योग जगत के बीच बेहतर होते सुझाव और तेजी से बढ़ते स्टार्टअप इकोसिस्टम को दर्शाता है। हालांकि इस प्रगति में निर्णय प्रतिबद्धताएं अपेक्षित रूप से मेल नहीं खा रही हैं। ऐसे में, निजी क्षेत्र को निवेश बढ़ाना होगा। सकल घरेलू उत्पाद की दृष्टि से आरएंडडी में अभी निजी निवेश करीब 36.4 प्रतिशत के आसपास है जबकि अमेरिका और चीन जैसी बड़ी अर्थव्यवस्थाओं में निजी क्षेत्र का यह योगदान 75 से 77 प्रतिशत के दायरे में है। ऐसे में निजी क्षेत्र की सक्रिय सहभागिता के बिना औद्योगिक क्रांति के मामले में अनुकूल परिणाम प्राप्त होने संभव नहीं।

केंद्रीय वाणिज्य एवं उद्योग मंत्री पीयूष गोयल ने बीते दिनों चीन से तुलना करते हुए भारतीय स्टार्टअप इकोसिस्टम को सही आईना दिखाया है। भारतीय इकोसिस्टम के रुख-रवैये पर उनकी चिंता वाजिब है। भारत में भले ही डेढ़ लाख से अधिक पंजीकृत स्टार्टअप हों, लेकिन इनमें से अधिकांश ई-कामर्स, फूड डिलिवरी और गिग इकोनमी से जुड़े हैं। इसकी तुलना में चीन का जोर डीप-टेक, एआइ और हार्डवेयर इनोवेशन और ऐसे टेक दिग्गजों के निर्माण पर है। इसमें भारत के अपेक्षाकृत रूप से पिछड़ने का संबंध केवल आकांक्षाओं से न होकर ढांचागत रूप से जुड़ा है। उद्योग जगत को अपेक्षाओं के अनुरूप कर्मियों का न मिलना, शोध एवं विकास के लिए संसाधनों का अभाव और सीमित पेटेंट पूंजी से जोखिम लेने की वह क्षमता नहीं उत्पन्न हो पाती जो वास्तविक इनोवेशन और दीर्घकालिक निवेश के लिए जरूरी है। ऐसे में, 'क्या हम आइस्क्रीम और निप्पो ही बनाते रहेंगे' वाली गोयल की टिप्पणी भले ही कुछ तीखी लगे, लेकिन इसमें गहरा मर्म छिपा हुआ है।

प्रतीक तस्वीर

स्थितियां बदलने के लिए हमें अपनी प्राथमिकताएं तय कर उन्हें मूर्त रूप देना होगा। सार्वजनिक एवं निजी क्षेत्र द्वारा आरएंडडी में निवेश बढ़ाना इसकी पहली सीढ़ी होगी। हमें सुनिश्चित करना होगा कि आरएंडडी में निवेश दीर्घकालिक आर्थिक वृद्धि को गति देने वाला हो। नवाचार बढ़ाए, नए उद्योगों के उद्भव का आधार बने, उत्पादकता बढ़ाए और उच्चकौशल रोजगारों का सृजन करे। भारत जैसी अर्थिकी में यह ऊंची वृद्धि के लिए उत्प्रेरक हो सकता है। वैश्विक प्रतिस्पर्धा में सुधार के लिए भी आरएंडडी में निवेश आवश्यक है। तकनीकी नवाचार के आधार पर भारतीय कंपनियां ऊंचे मुनाफे वाले अंतरराष्ट्रीय बाजार के फार्मा, इलेक्ट्रानिक्स, हरित ऊर्जा और एआइ जैसे क्षेत्रों में अपनी पैठ बढ़ा सकती हैं। एक मजबूत आरएंडडी ढांचे के अभाव में भारत विदेशी तकनीकों पर निर्भर होकर वैश्विक आपूर्ति शृंखला में पिछड़ जाएगा। हेल्थकेयर से लेकर जलवायु परिवर्तन और खाद्य सुरक्षा से लेकर स्वच्छ ऊर्जा जैसी चुनौतियों के समाधान में भी आरएंडडी निवेश की उपयोगिता किसी से छिपी नहीं है। इसमें जहां सरकारी निवेश सार्वजनिक प्रणाली और राष्ट्रीय मिशनों में उपयोगी होगा तो निजी क्षेत्र का निवेश किफायती और दायरा बढ़ाने वाले नवाचारों में लाभकारी होगा। आरएंडडी में निवेश बढ़ाकर भारत न केवल घरेलू समस्याओं का समाधान कर सकता है, बल्कि उलझी हुई वैश्विक गुत्थी को सुलझाने का माध्यम भी बन सकेगा। इससे विदेशी निवेश को भी लुभाने में मदद मिलेगी। तकनीकी संप्रभुता में भी इसकी महत्ता है। याद रहे कि रक्षा, अंतरिक्ष, इलेक्ट्रानिक्स और फार्मा जैसे क्षेत्रों में स्वदेशी तकनीकी विकास से ही आत्मनिर्भर भारत जैसे अभियान को सफलता मिल सकती है। परंतु आरएंडडी क्षमताओं का विकास आयात पर निर्भरता घटाने के साथ ही आर्थिकी को बाहरी झटकों से बचाने में ढाल का काम करता है। यह विज्ञान एवं प्रौद्योगिकी में राष्ट्रीय क्षमताओं को बढ़ाने के साथ ही अकादमिक उत्कृष्टता का भी आधार बनता है।

एक ऐसे दौर में जब अमेरिकी राष्ट्रपति डोनाल्ड ट्रंप ने टैरिफ वार का बिगुल बजा दिया है तो एक प्रकार की यह आपदा भारत के लिए नए अवसर लेकर आई है। भारत के प्रमुख प्रतिस्पर्धी देशों पर जहां ट्रंप ने ज्यादा आयात शुल्क लगाया है तो उसकी तुलना में भारत को कुछ रियायत दी है। ऐसे में भारत अपनी क्षमताओं को बढ़ाकर वैश्विक आपूर्ति शृंखला में अपनी हिस्सेदारी बढ़ा सकता है तो उसकी कुंजी शोध एवं विकास में निवेश बढ़ाने में ही निहित है। भारत के लिए यह निवेश बढ़ाना अब यह कोई विकल्प नहीं अनिवार्यता बन गई है।

(लेखक लोक-नीति विश्लेषक हैं)
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HINDU (P-6), 08 APRIL 2025

Inconclusive chapter

Tamil Nadu should help prepare its students for clearing NEET

With President Droupadi Murmu withholding assent for the Tamil Nadu Admission to Undergraduate Medical Degree Courses Bill 2021, the State is bracing for another battle against National Eligibility cum Entrance Test (NEET)-based admissions. State Chief Minister M.K. Stalin has convened a meeting of legislature party leaders on April 9 to strategise the next move. With the admission season approaching, the development is bound to cause uncertainty and make medical aspirants anxious. Exemption from NEET now remains an inconclusive chapter in the State's decade-old policy discourse. No other State effort to legislate against a central mandate has been so protracted and unpredictable. In September 2017, two anti-NEET Bills met with a similar fate in Rashtrapati Bhavan. Four years later, the ruling DMK – having made NEET exemption a central electoral promise – passed the Bill in the Assembly based on the recommendations of the Justice A.K. Rajan Committee. Instead of forwarding it for presidential assent, Governor R.N. Ravi returned it to the House after five months. In a historic first, the Assembly unanimously re-adopted the Bill and sent it back to him; the Governor subsequently forwarded it to the President. Last week, Mr. Stalin informed the Assembly that assent had been denied, without specifying when Rashtrapati Bhavan had communicated the decision.

This delay in the matter attaining finality is concerning as students have been left facing a state of perpetual uncertainty. The State remains firm in its policy of conducting admission for government quota medical seats based on the Class 12 Board examination scores. Early on, the Ministry of Home Affairs had asked "whether the Bill endangered the sovereignty, unity and integrity of the nation" to which the AYUSH Ministry responded affirmatively. The framers of the Constitution had incorporated Article 254 (2) empowering the President to grant assent to Bills repugnant to central laws on Concurrent List matters. NEET has been consistently upheld by the Supreme Court of India too. The President is under no obligation to give assent, although the Bill reflects the collective will of Tamil Nadu's legislature: it was passed unanimously. True, NEET is neither foolproof nor an absolute measure of academic competency, but Tamil Nadu's legal options are limited. The judiciary is unlikely to settle the issue with any urgency. The State must prepare for a legal struggle, and in the interim, coach students to face NEET with confidence.

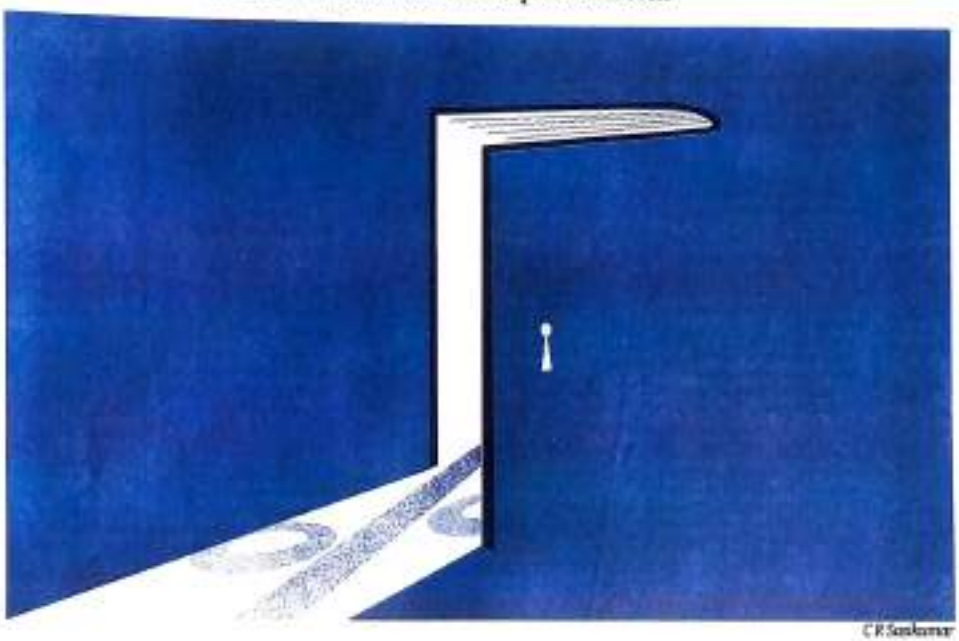
INDIAN EXPRESS, (P-13), 08 APRIL 2025

An incomplete social justice

Reservation in private universities is long overdue. Legal, constitutional mechanisms are available — what's needed is political will

DESHKAAL

BY YOGENDRA YADAV



C R Sasikumar

RESERVATION IN PRIVATE universities and colleges is an idea whose time had come long ago. If there was any doubt about its legality, that dispute too was resolved by the Supreme Court more than a decade ago. It is an idea that enjoys the backing of the largest opposition party. True, in the last instance, you cannot stop an idea whose time has come. The trouble is that we live our lives in the instances before the last one, the intermediate space in which the deep state can delay, defer and dodge any idea. This idea needs political will. Now.

Is that political will in the offing? Last week, Jairam Ramesh, Congress general secretary in-charge of communication, issued a statement. On the face of it, the statement is merely to "reiterate" Congress's long-standing demand for reservation for SC, ST and OBC candidates in private educational institutions. It recalls that in 2005, the Constitution was amended to extend reservation to private educational institutions, that its legality was upheld in 2014, and that this promise was a part of Congress's manifesto in 2024 and has been backed by a parliamentary committee. Yet the timing of the statement was pregnant with political possibilities.

We do not know if this statement foreshadows the resolution of the Ahmedabad session of the AICC. We do not know how the ruling dispensation would respond to this demand if Congress presses for it. But one thing is sure: We are in for another round of debate on reservation and social justice.

The case for extending reservation to private higher educational institutions (or PHEI, which include "state private universities" and private "deemed universities", besides aided and unaided private colleges) is straightforward. Higher education is a powerful mechanism for what scholars call "effectively maintained inequality". Just as historically excluded communities are entering colleges and universities, the institutions they can access are being evacuated of educational quality and employment opportunities. The "happening site" — the upper end of higher education — is being effectively privatised into a space controlled by the upper-class and upper-caste elite. If we are to retain even a modicum of commitment to the constitutional guarantee of equality of opportunity, the state must step into this domain by extending the existing policy of reservation for SCs, STs and OBCs to private colleges and universities.

We are witnessing two large-scale and long-term movements in the education sector. First, there is an unprecedented surge, a historic wave, in seeking higher education, mainly driven by the belated entry of communities that were historically denied learning. Satish Deshpande summarised this trend: "Between 1990–1991 and 2018–2019, the number of universities has increased almost five-and-a-half times and total enrolment has shot up by seven-and-a-half times, while the Gross Enrolment Ratio (GER) has gone up by two-and-a-half times." The rate of growth is higher for all the marginal social groups — SC, ST, OBC and Muslims — and for women within each of these groups.

That should have been good news but for the second phenomenon: The elite exodus from and the collapse of public higher education. We are witnessing the most phenomenal rise in the number of PHEIs. From 2015 to 2024 the number of private universities (including deemed universities) has gone up from 276 to 523. Private universities accounted for 26 per cent of total enrolment in 2021-22. That ratio was more lop-sided at the college level: Private unaided colleges account for about 45 per cent of the total students. The public colleges and universities that the socially disadvantaged communities flock to are overcrowded and understaffed, starved of even the minimum funds. These are increasingly sites for "time pass" that cannot offer knowledge, skills or jobs. In contrast, private colleges and universities have the desirable classroom size, decent to obscene infrastructure and their pay packages now attract the best faculty.

The cumulative effect of these two shifts is a massive divide in social access to educational opportunities. As Satish Deshpande puts it: "There is something illusory about the widening of access to (higher education) that allows the older elites to maintain their lead — or 'social distance' — in (higher education) despite the entry of non-elites."

The profile of the private HEIs needs no guessing. They do not follow any reservation, except of course the unstated reservation for the rich. The latest All India Survey of Higher Education data for 2021-22 shows that upper-caste Hindus (around 20 per cent of the country's population) are well over 60 per cent of private university students. Here is the social group-wise breakdown of students in private (state private and deemed private) universities: SCs were just 6.8 per cent (current population share about 17 per cent), STs 3.6 per cent (population around 9 per cent), OBCs 24.9 per cent (population between 45-50 per cent) and Muslims 3.8 per cent (population around 15 per cent). Needless to say, the picture would be even more skewed in the case of elite private universities and the sought-after courses in these institutions.

Reservation can make a difference. If we compare the social profile of students in public sector universities that are required to follow reservation, the difference is obvious: 14.6 per cent SCs, 6 per cent STs, and 31.2 per cent for OBCs. There is little difference in the case of Muslims (4.1 per cent) who do not enjoy reservation. For all its limitations, quota-based affirmative action works.

Hence, the need for the state to step in.

The profile of the private HEIs needs no guessing. They do not follow any reservation, except of course the unstated reservation for the rich. The latest All India Survey of Higher Education data for 2021-22 shows that upper-caste Hindus (around 20 per cent of the country's population) are well over 60 per cent of private university students. Here is the social group-wise breakdown of students in private (state private and deemed private) universities: SCs were just 6.8 per cent (current population share about 17 per cent), STs 3.6 per cent (population around 9 per cent), OBCs 24.9 per cent (population between 45-50 per cent) and Muslims 3.8 per cent (population around 15 per cent). Needless to say, the picture would be even more skewed in the case of elite private universities and the sought-after courses in these institutions.

Sadly, for all its lovely pronouncements, the new National Education Policy has little to remedy this situation. No matter what the letter of any education policy document says, commercialisation and privatisation of education have been the de-facto education policy of our country for several decades now. The only way of correcting this is through political action. The core of such an action should, of course, be the strengthening of public educational institutions — more funds, better governance, filling of regular faculty vacancies, professional autonomy, updated syllabi and so on. At the same time, this must be supplemented with a mandate to private institutions to follow the national policy of reservation for SCs, STs and OBCs. This should be combined with a requirement to offer freeships and scholarships to a specified proportion of students.

Would this be legally permissible? Jairam Ramesh's statement effectively answers that question. In 2005, the 93rd Amendment to the Constitution introduced Article 15(5) that allowed the state to make "any special provision" for the advancement of SCs, STs or SEBCs (the legal name for OBCs) which relates to "admission to educational institutions including private educational institutions, whether aided or unaided by the state, other than the minority educational institutions". The enabling provision was used by Parliament to pass the Central Educational Institutions (Reservation in Admission) Act, 2006 to provide for reservation for OBCs, but only in central educational institutions. The Supreme Court (*Ashok Kumar Thakur vs Union of India, 2008*) upheld this reservation for state-run and state-aided institutions, keeping the issue of unaided private institutions open. This remaining issue was also resolved, first by a two-judge bench (*TMA vs Union of India, 2011*) and then a five-judge bench (*Pramati Educational and Cultural Trust vs Union of India, 2014*) that upheld reservation in unaided private institutions. So, there is no legal hitch any more.

Bringing this issue to the political agenda would address a massive lacuna in the policy of social justice. Bringing Dalit, Adivasi and pichhade together on the same platform could also redress a deep problem in the politics of social justice.

The writer is member, Swaraj India, and national convenor of Bharat Jodo Abhiyaan. Views are personal

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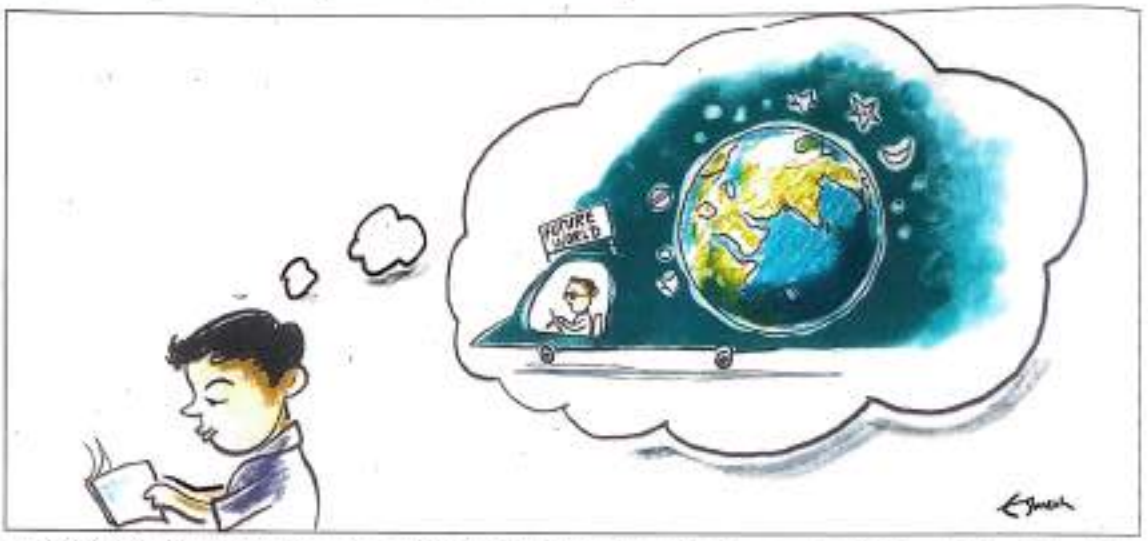
PIONEER (P-6), 08 APRIL 2025

A call for commitment in education

With quality in higher education intrinsically tied to a strong foundation laid at the primary level, the real transformation lies in empowering and inspiring teachers and fostering ethical academic environments



The successful implementation of the New Education Policy NEP – 2020 depends on its total acceptance at every level. Most important among them are the State governments and then those implementing it at the grassroots. The level of excellence and quality in higher education organically depends on the quality and excellence achieved at the primary school level and sustained up to the senior secondary level. This is the simplest equation, obvious to all those working in the arena. In education, one could safely attribute the attainment of excellence and innovations to the teachers, and what happens between them and the learner, at the professional level and also at personal, emotional and empathetic levels. It is the total commitment of the individual teacher, right from the primary school to the highest levels, that alone would make a positive difference in an objective and purposeful implementation of the policy.

It would be worthwhile to recall an example of a nation that overcame its destruction and humiliation through serious attention to education, beginning with school education. After WWII, devastated, destroyed and humiliated, Japan began its reconstruction by prioritising education in its primary schools and respecting and supporting their teachers. Maximum learning, brain development, and the essence of growing up take place there. If a child observes all along a dedicated and committed work culture, observes how much value is accorded to the maximum utilisation of time, and finds his teachers always full of inspired confidence, proud of being the creators of the future of the nation, could he ever forget any one of these attributes when he takes over the reins of some assignment as his time approaches? In contrast to this, a reluctant, unconcerned, lethargic approach to the change in an educational institution could indeed be injurious to all concerned.

Unfortunately, we in India suffer from such an approach on a pretty wide scale. This is supported by several other factors. Some of the State governments are opposing the NEP–2020; they have declared their intention to have their own policy of education. Technically, they may do so, but will it serve the larger cause of the nation, its progress and development? Will it help the young, sensitive learners with loads of dreams before them? The NEP–2020 is an outcome of an unprecedented consultation in which everyone had a chance to participate.

The need to move ahead as a single, integrated and cohesive national unit is the only alternative in the fast-changing world of education, which is moving much beyond the mere knowledge society or even a wisdom society! It is not easy even to predict what would be the shape of the academic scenario in the next ten years! On one side, the ICTis pouring in new potentialities that could transform the learning opportunities and alternatives, and greatly impact the nature of the age-old teacher — taught relationship! On the other, new concerns are developing because of human migrations, and consequent demographic, cultural and social changes. It would necessarily impact education, culture, and mother-tongue related sensitivities, apart from those of religions and faiths. The single-modal situations are getting converted into multi-modal in several nations, and that requires a fresh strategy for handling it. These are not easy propositions, as is made evident from reports emerging from several countries that had earlier experience only of a single language, monolithic culture and one religion! India is lucky in this respect, but it is creating issues that could seriously impede even the much-needed implementation of a dynamic education policy. It is beautifully expressed by Robert Carneiro: "Indeed, we are witnessing the emergence of a new breed of culture: that developed by Homo connectus or colleagatus — a culture of online networking made possible by the immediacy of modern information and communication technologies. It is important to note that the initial stages of connectivity are directly linked to the needs of Homo economicus, increasing his mastery of the world."

Let it also be realised that new knowledge being discovered and created is mostly for development, growth and progress. Mostly, it focuses on bringing the best out of the mind only, completely ignoring the 'Heart', out of the synergy of the trio that Gandhi had proposed much earlier: being the best out of 'Head, Hand and Heart'! India just cannot ignore the other two, because of its specific needs. Actual priorities could be readjusted depending on the emerging scenario. The majority of the young persons in India aspire to get a job after completing their education. They are neither trained in adequate skills nor transformed in attitude to consider the power of ideas and imagination they are blessed with, along with the skills of creativity and inherent human curiosity! Another factor that deserves serious deliberation was pointed out by Albert Einstein around a century ago: "The most important human endeavour is the striving for morality in our actions. Our inner balance and even our existence depends on it."

JS RAJPUT

This must become the prime objectiveof NEP–2020, in its implementation. Too much technology and AI could create more obstructions in this sphere shortly. In other words, almost the entire process of knowledge development is for a cosmocratic society that is already in a pretty well-established state, and occupying increasingly larger space for itself. Needless to reiterate, the social, cultural, economic, linguistic and religious factors shall always make their presence felt — but sadly enough, handling these would gradually become more and more complex, if sensible and sensitive actions are not properly initiated well in time and with sincere and ethical considerations. The implementation of the NEP–2020 shall have to remain alert to such developing situations. Academic autonomy is often the subject of certain actual and presumed intrusions that academics do not necessarily relish. It is ultimately the responsibility of universities, colleges and other institutions to decide how they will implement the policy, and harmonise with the indications given to them by central and State agencies. The professional credibility of every institution is determined by the academic stature and professional contributions of its academic faculty.

Faculty members need to remember that no profession diminishes in public esteem and credibility due to external factors — it is always internal factors that matter, and the most significant is the moral and ethical component, as has been proved in numerous instances. The quality of the academic contributions, the new knowledge generated, and the new applications suggested make a very positive difference in restoring it! Maintaining high professional standards requires a serious commitment to both the profession, values and the learners. Education policies have to be dynamic — more dynamic than in the past. In the future, changes will occur more frequently than in the past.

The most significant consequence of this will be the increasing acceptance of professional responsibility by academics. Regardless of the level at which they impart knowledge, create knowledge, and acquire new knowledge, it is their personal as well as institutional confidence that 'we are the creators of future generations and builders of new India' that would make all the difference. Aim at perfection, excellence will certainly follow and become visible.

(The writer works in education, social cohesion and religious amity. He is an Atal Fellow with PMML, New Delhi; Views are personal)

TRIBUNE, (P-6), 08 APRIL 2025

Real lessons needed

School reforms start with basics, not banners

PUNJAB's government schools, long plagued by infrastructure decay, teacher shortages and poor learning outcomes, are in urgent need of a meaningful turnaround. The recent assignment of AAP leader Manish Sisodia — known for transforming Delhi's education landscape — to oversee Punjab's education affairs raised hopes of substantive change. But the early signs are not encouraging. The recent initiative of unveiling school plaques in a PR-heavy manner does little to address the deep-rooted problems. Spending public money on cosmetic refurbishments or nameplates for newly declared "schools of eminence" cannot substitute for genuine improvements in infrastructure or classroom learning. Even the bureaucratic mentorship scheme lacks clarity, strategy and measurable goals. Without a proper vision or roadmap, such efforts risk becoming exercises in political optics.

Punjab's education system requires reform at the foundational level. According to the Annual Status of Education Report (ASER) 2024 for Rural India, only 34 per cent of Class III students in rural government schools can read a Class II-level text. In terms of arithmetic, just about 51 per cent can do basic subtraction. These figures paint a worrying picture. Unless these core deficiencies are tackled, any revamp will be superficial at best. Delhi's transformation wasn't built on slogans; it relied on sustained budgetary support, rigorous teacher training and community engagement. Punjab must follow suit — investing in basic amenities like toilets, clean drinking water, digital tools and school libraries. Attracting and retaining qualified teachers is equally critical.

The goal must be to improve learning outcomes, not just the look of schools. Publicity blitzes may garner attention, but only well-planned, data-backed interventions can rescue Punjab's school system from decades of neglect. If Sisodia genuinely wants to replicate Delhi's model, he must begin by empowering educators, involving local communities and focussing on what matters most — the schoolchildren.

Can AI revolutionise early childhood education

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Early Childhood Care and Education (ECCE) represents a critical foundation in a child's journey, essential for cognitive, social, and emotional development. Between birth and age five, children experience rapid brain development, which lays the groundwork for learning, behavior, and health in later years. Programs that include social-emotional learning and foundational literacy skills empower young learners to engage better with the world around them, setting the stage for lifelong learning.

AI is increasingly influencing ECCE by offering tools that support teachers, personalize learning, and enable administrative efficiency. Integrating AI in ECCE is not only reshaping the classroom environment but also addressing challenges like classroom diversity, resource limitations, and teacher shortages. AI's contribution spans automated administrative tasks, personalized learning experiences, and even parental engagement, all of which help deliver quality education even in resource-constrained settings.

Personalized Learning Experiences

One of AI's most transformative impacts in ECCE is its capacity to tailor educational experiences to each child's unique needs. By analyzing a child's learning patterns, AI-driven applications can adapt the content in real-time to ensure it matches the child's pace and interests. For instance, tools such as speech recognition and language processing assess literacy levels and customize phonics exercises accordingly. These AI-based systems encourage active learning by using interactive interfaces, games, and storytelling to make concepts more relatable for young learners. As a result, children can develop foundational skills more effectively, and teachers are freed up to focus on nurturing the social and emotional aspects of development, which are also crucial at this stage.

Supporting Teachers

AI is also relieving the administrative burden on educators, allowing them to invest more time in direct student engagement. For example, AI tools can automate lesson planning, attendance tracking, and report generation. By doing so, teachers are able to concentrate on building a nurturing environment that fosters growth and curiosity in young learners. AI-assisted planning tools use data-driven insights to generate recommended activities, thus ensuring that educational experiences are both developmentally appropriate and engaging. Notably, this approach enables teachers to focus on what matters most: providing responsive, attentive care that addresses each child's social and emotional needs.

Enhanced Parental Engagement

Parental involvement is pivotal in early childhood education, and AI plays a role here as well by facilitating communication and engagement between parents and educators. Apps that incorporate AI can provide parents with insights into their child's progress, helping them understand how they can support learning at home. Some tools even allow for real-time updates on a child's day-to-day activities and development milestones. This communication helps bridge the gap between home and school environments, offering a holistic approach that reinforces learning beyond the classroom. AI-based systems can also offer parents personalized recommendations for activities, resources, or strategies that align with their child's developmental stage.

Ensuring Accessibility and Inclusivity

AI's adaptability is making ECCE accessible to a more diverse group of learners, including those with disabilities. Speech-to-text programs, visual aids, and personalized content are just a few examples of how AI accommodates children with unique learning needs. For children with speech delays, for example, AI-driven tools can support language development through interactive reading sessions that adjust to the child's pace and proficiency level. This inclusivity promotes equity in ECCE, allowing all children, regardless of background or ability, to receive tailored support that prepares them for future academic success.

Data-Driven Insights for Improvement

AI's capacity for data analysis provides educators and administrators with invaluable insights into the effectiveness of educational programs and individual child progress. Aggregated data on learning patterns, engagement levels, and developmental milestones allows educators to refine and adjust their teaching strategies. For example, if a significant number of students struggle with a particular concept, teachers can identify this quickly and implement new strategies to address it. AI-driven analytics can also inform policy decisions, helping school administrators allocate resources effectively and identify areas for programmatic improvement.

BY ANALYZING A CHILD'S LEARNING PATTERNS, AI CAN ADAPT THE CONTENT IN REAL-TIME TO MATCH THE CHILD'S PACE

Addressing Ethical and Privacy Concerns

Despite the numerous advantages, integrating AI into ECCE brings ethical and privacy considerations. Protecting children's data and ensuring that AI tools are used responsibly is crucial. Experts stress that AI should serve as a tool to aid educators rather than replace the human interaction essential to early childhood learning. Moreover, transparency in data collection practices and adherence to data protection laws are essential to safeguard children's sensitive information.

Conclusion

AI's potential in Early Childhood Care and Education (ECCE) is vast, offering opportunities to enhance learning experiences, support teachers, and make education more accessible and personalized. While AI is no substitute for the emotional support and attention that young children require, it can serve as an invaluable ally to educators and parents, helping them navigate the complexities of early childhood development. As AI tools continue to evolve, a balanced approach that combines technology with human expertise will be essential for leveraging AI to foster positive outcomes in ECCE and empower the next generation to thrive.

The author is Co-founder & CEO of Footprints Childcare

HINDUSTAN TIMES (M-1), 09 APRIL 2025

Computing and data science remain popular among students

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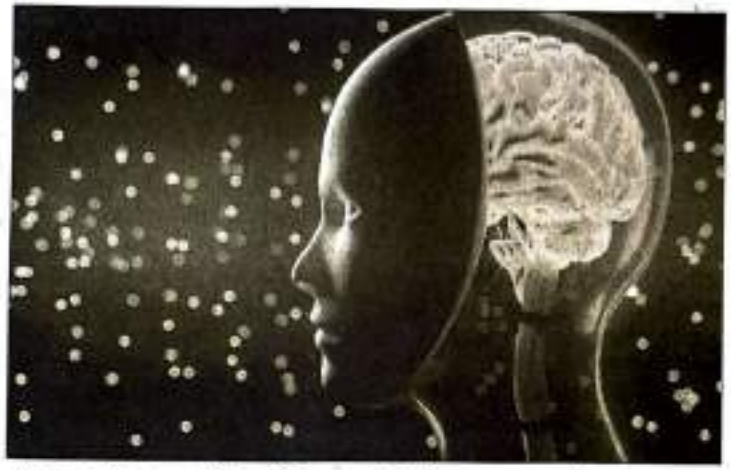

A career in computing offers a good salary progression GETTY IMAGES

Computing science, and particularly data science (DS), Machine Learning (ML) and Artificial Intelligence (AI), offer excellent opportunities for graduates with key skills. Computing Scientists can work in industries as diverse as aerospace, defence, agriculture, finance, education, healthcare, manufacturing, government, retail, or telecommunications, or they can become entrepreneurs. Salaries in the UK are on average over £53,000 for a Computer Scientist (indeed.co.uk/glassdoor.co.uk). Career progression is excellent, with many specialisations including DS/ML/AI, Cybersecurity, User Experience/Interface, Web Design/Development, and Software/Mobile App development, each offering pathways from entry level to senior managerial positions with very good salary progression.

In addition to salary, a career in Computing Sciences can also allow students to channel their interests and passions into a very rewarding career through combining their creativity, logical thinking and problem solving skills. As the average person spends approximately 90,000 hours at work, or effectively a third of our lives, it is very important to make work time 'happy time' as well as lucrative.

Rewarding careers in computing are also open to those with initial degrees in different disciplines, from Law to Psychology to even Music, as students can embark on a 'conversion' MSc to learn the required computing skills (whether a generic Computing Science MSc or specialist such as Data Science or Cyber Security). The combined knowledge and skills of those that cross disciplines with their further studies is often highly sought after and appreciated by employers who value diversity in the workforce.

So, what are the skills that those further degrees, often chosen by Indian students, should offer to maximise employment opportunities? First are technical knowledge and skills essential to all Computing Scientists and expected by employers. Proficiency in programming is a must, with experience in a range of contemporary languages, such as Python and JavaScript in DS/ML/AI, and other languages for other roles, e.g., Java, C, C++, CSS, HTML or Rust. Then there is knowledge of databases, SQL, and both the relational model and non-relational databases (e.g., MongoDB). Understanding Cloud Computing platforms such as Azure and AWS that provide data storage, computing and ML services is also important. Version control and collaboration through Git is key to developing code and projects, and although a high level of mathematical knowledge is not always required, an understanding of linear algebra, calculus, and optimization is very helpful.

Then, for specialised paths, there may be additional requirements. For example, DS requires a basic understanding of descriptive and inferential statistics, probability distributions, hypothesis testing, and regression analysis. Key programming languages to learn include Python and R, each containing important libraries for data manipulation/analysis, such as Pandas, Numpy, and Scikit-Learn in Python, and Dplyr and Tidyverse in R. Visualisation libraries for creating static or interactive visualizations can bring data insights to life (e.g. Matplotlib/Seaborn in Python, ggplot2 in R) and knowledge of Deep Learning libraries is critical for modern DS, with high-profile toolkits such as TensorFlow, PyTorch and Keras. Finally, communicating DS insights to end-users is critical, with a variety of business intelligence tools available for creating dashboards and interactive reports (e.g. Tableau/Power BI).

Studying an MSc abroad represents a significant investment, so before starting an MSc abroad, students should ensure that their courses cover essential technical skills, both theoretically and practically, through exercises, assessments, and project work.

Equally important for employability are 'soft skills', which are often the true differentiators between candidates that possess the expected degree when applying for particular roles. Degrees that emphasize those are often lead by research-active staff who collaborate with industry and understand their requirements. Such critical skills include problem solving and algorithmic thinking, critical thinking through objective and reasoned judgements, written and verbal communication with technical and non-technical stakeholders, collaboration and teamwork in cross-disciplinary environments, knowledge of agile methodologies and project management tools, adaptability and continuous learning, business acumen for understanding the business and decision-making context, and awareness of ethical considerations and privacy laws, particularly in relation to data usage.

Employability statistics are a result of emphasizing these skills throughout our degree programs, ensuring that students consistently demonstrate them, especially in their projects and dissertations. If you are a student considering studying abroad, ensure that your program also provides not only the key technical skills and knowledge for your desired career path, but also the crucial soft skills that will help you truly stand out to achieve good salary and job satisfaction.

Students in a recent trip to India asked me how they would make sure their jobs are not taken away by developments such as AI. The answer I gave them is simple "go deep beyond the surface with your knowledge and be 'human-like' with your skills; otherwise, you will indeed be replaceable. The world going forward will belong to those that go beyond using tools to drive the change, diagnose inefficiencies, and fix problems created by AI".

The author is the Head of School for Computing Science at the University of East Anglia, UK, and has a Chair in Data Science

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HINDUSTAN TIMES (M-1), 09 APRIL 2025

Why careers in renewable energy are critical for sustainability

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There is a significant global shift towards clean energy AFP

India has made notable strides in the renewable energy sector in the last decade. According to a report by the Ministry of New and Renewable Energy, the installed capacity under the Renewable Energy (RE) sector, including large hydro, rose from 81.22 GW in 2014-15 to 190.57 GW by 2023-24, marking a remarkable growth of 134.63% during this period.

Furthermore, the report highlights a significant global shift towards clean energy. As of December 31, 2023, the overall installed capacity under the RE and non-RE sectors globally stood at 8987.26 GW, with 3864.52 GW installed under the RE sector. In addition to renewable energy, eco-friendly manufacturing processes are also gaining momentum in India. One of the critical challenges in urban areas is the treatment of wastewater.

In this regard, The Energy and Resources Institute (TERI's) Advanced Oxidation Technology (TADOX) is effectively treating textile and dyeing wastewater, accomplishing zero liquid discharge and enhancing water reuse. Such technologies are key in addressing the environmental challenges posed by industrial activities and promoting sustainable manufacturing practices.

Additionally, according to TERI, nearly 66% of the sewage generated in cities remains untreated, leading to environmental pollution and contamination of freshwater sources.

The high infrastructure expense of centralised treatment systems is a considerable barrier to effective wastewater management.

To address this issue, innovative solutions have been developed, such as ceramic membranes from waste fly-ash for use in Membrane Bioreactors (MBRs). These solutions provide high-quality treated water at an affordable cost.

Moreover, smart infrastructure is redefining daily activities with the integration of cutting-edge technologies such as the Internet of Things (IoT), Artificial Intelligence (AI), and advanced data analytics. Together, these innovations are remarkably enhancing the quality of urban life, making cities smarter and more responsive to the needs of their residents.

These technological advancements are just the tip of the iceberg of what the world is witnessing. They are not only transforming industries but also paving the way for a greener and more resilient future.

The Role of Educational Institutions

A strong foundation in technical education is essential for driving this transformation. Leading technology education institutions in India, like Birla Institute of Technology (BIT) Mesra are taking the lead in fostering innovation and research in renewable energy, smart infrastructure, and environment-friendly manufacturing.

By empowering students with contemporary skills and knowledge, these institutions are preparing the next generation of engineers and scientists to address the sustainability challenges of the future. Moreover, strategic alliances between academia, industry, and government are essential for materialising research into viable solutions.

COLLABORATION WITH LOCAL COMMUNITIES PROMOTE A CULTURE OF INNOVATION

Collaborative projects with local industries and communities promote a culture of innovation, encouraging students to design solutions that address real environmental issues.

This proactive approach not only enhances students' employability but also contributes to the broader goal of sustainable development, as fresh ideas and creative solutions emerge from young minds.

Furthermore, this will create a conducive ecosystem for scaling up successful innovations to achieve environmental and economic advantages.

India's advancements in renewable energy, smart infrastructure, and eco-friendly manufacturing are setting a benchmark for other nations to follow. With its robust technological framework and commitment to sustainable development, the country is well-positioned to emerge as a leader in the global sustainability landscape.

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MT

HINDUSTAN TIMES (M-2), 09 APRIL 2025

Why some parents love schools with fewer than 100 students

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It all began with an unassuming poster, pinned to a wall at a local Bandra library during the pandemic: "Tired of Zoom classes? Presenting Comini Learning Pods."

It led curious parents to Priyanka Rai and Sai Gaddam, who had then just moved to Mumbai and were looking for alternative schooling options for their own children. As they began to speak to interested parents, the idea of a learning pod (where a small group of children learn together) turned into something bigger but small enough to suit their needs: Comini Microschool.

"Our goal was to build a neighbourhood school, not a fancy building. We wanted to create a space where parents could feel confident enough to pull their children out of traditional schools and explore community-led education," says Rai, who acquired a diploma in early education and co-founded the school with her husband, a neuroscience and tech expert, in February 2022. They were inspired by Finland's educational model, which is known for its emphasis on play and personalized learning.

Spread across a cheerful, 1,500 sq. ft sun-filled space, with tall glass windows and playful corners, Comini looks more like home than a school. That's the idea. From 9am to 4pm, five facilitators lead 25 children through a mix of guided sessions and a routine filled with free play and spontaneous interactions.

On a bright Friday morning in February, for example, three girls, aged 6 to 9, were busy preparing a puppet show, complete with handmade tickets. Others were busy with books with a facilitator in a cozy reading room. Another group had gone on an overnight farm visit. For Rai and Gaddam, Comini personifies this kind of flexibility, where children can pursue their creative interests freely through exploration.

In recent years, the micro school movement has taken root in India, taking inspiration from global models such as Aspen Learning Lab and Learnlife. With more parents seeking alternatives to mainstream and international schools, there is a growing market for more personalized and flexible learning environments.

According to the National Microschooling Center in the US, where this model has been growing rapidly, over 95,000 micro schools cater to 1.5 million students in the country. While India lacks specific data on micro schools, the market for private education has been expanding, according to reports published by the Central Square Foundation. Nearly 50% of all students in India are enrolled in private schools today, up from 30% in 1993. Market research firm IMARC estimates the Indian school market totalled $54.2 billion in 2024, with 1.55 million K-12 schools serving 218 million students.

The pandemic served as an inflection point for micro schools, says Rai. "Many parents converted to this model because they were shocked by what they saw during online schooling," she notes.

While the term itself is still evolving, a micro school is generally characterized as a private learning institution with 50 to 100 students. Led by a mix of professionals and community members, its unique selling proposition lies in a low educator-to-student ratio—typically 1:5 to 1:10, which allows for adaptive learning. Instead of relying on textbooks, educators utilize online resources, modules, and curated reference books to design their own curriculum.

Market research firm IMARC estimates the Indian school market totalled $54.2 billion in 2024, with 1.55 million K-12 schools serving 218 million students.

The fee ranges from ₹2-3.5 lakh a year. The range is lower than many larger private schools since micro schools don't offer the same infrastructure which helps reduce their operating costs; neither are they recognized by any government authority or educational board in India. Micro schools, thereby, fall in an unregulated area with no clear policy.

"While we cannot register as a school, as that requires certain infrastructural requirements, micro schools do need to be registered entities to keep the finances and taxes clean," says Poornima V., co-founder of Agile Shaala, which runs micro schools in Mysuru and Bengaluru.

The pandemic period served as an inflection point for micro schools PA/HT

Micro schools currently operate under different structures—some are registered as non-profits; others as private limited companies.

Some even put themselves under a homeschooling umbrella but there is no formal certification for homeschools either. "It is a grey area. But in the US, some states have clear rules for homeschooling," she adds.

Learning is tracked through continuous assessments aligned with the Cambridge IGCSE curriculum, and progress is documented and shared with parents, with students setting their own learning goals and becoming independent learners. Students have the option to sit for exams at grade 10 and 12 through IGCSE or the National Institute of Open Schooling.

How children learn

For educationist Lina Asher, who previously founded Kangaroo Kids and Billabong High, launching Dreamtime Learning Hub in Hyderabad's Jubilee Hills was a conscious decision to move away from the traditional school. Nestled in a bungalow with a red-sloped roof, the Hub features vibrant learning stations and wooden benches dotted across the lawn.

The curriculum is hyper-personalized and grades are divided in a unique fashion: in the 'Foundational Fantasy' programme, for example, children aged 3-6 are grouped into categories like wanderers, magicians, explorers, and discoverers. In the elementary years, students can choose identities such as adventurers, incredibles, avatars, or transformers.

"Smaller schools give you the flexibility to experiment with moving parts, without the scheduling complexities of larger schools. So, students can study subjects from grades above or below their current level, depending on their abilities, needs and pace," says Asher.

"Rather than comparing students to each other, we encourage them to compete against themselves, while also placing equal importance on social-emotional and physical wellness," she explains.

Micro schools also offer educators an opportunity to provide a new generation of children the kind of education they themselves lacked.

In Bengaluru, the Norwegian-style The Papagoya Micro-School emerged from founder and director Helen Issar's own frustrating schooling experience.

"I realized the traditional system had predefined success metrics, and if you didn't fit into those, you were labelled a failure. There was no middle ground. I also noticed a decline in play during the early years of schooling," she says.

She wanted to bring joy back into learning. "We believe children learn in unique ways and need to be in much smaller cohorts."

To bridge that gap, her school was designed on the 'pedagogy of play', with just 50 students from grades 1 to 6 and a clutch of facilitators who are called 'playmakers' on campus.

While micro schools are typically small in size, they broaden their learning environment by dipping into their surroundings. Goa's rich biodiversity and easy access to beaches and hills, for example, provide the perfect backdrop for The Learning Centre (TLC), housed in a 150-year-old Portuguese bungalow.

Learning here extends beyond the classroom: a math lesson might take students on a neighbourhood walk to explore concepts like addition, subtraction, and negotiation in shops. Swinging on a banyan tree near the centre could become a hands-on lesson in pendulums. Life skills such as first aid, waste management, handling reptiles, and cooking for the community are integral to the in-house curriculum.

To offset the lack of infrastructure, like large on-site sports facilities, micro schools often tap into community resources such as parks, and tie up with sports centres and pools. This approach makes it cost-effective and sustainable.

Enter the funders

While some micro school models are deliberately small-scale and non-profit, their rising potential is now attracting investors. This month, Dreamtime Learning secured a Pre-Series A funding from Gruhas, the investment firm co-founded by Zerodha's Nikhil Kamath and Abhijeet Pai, to support the expansion of its network of micro schools. Sudipta Saha, the founding chief business officer of Dreamtime Learning, attributes this growing interest to the crucial gap such schools are filling.

"Schools and colleges have become like factories, moving students from one grade to the next with success measured solely by marks and entrance exam results. Yet, today's generation is among the least employable. The root cause is the emphasis schools place on qualifications rather than fostering a genuine love for learning. Our vision was to promote learning for the sake of learning, not just for marks," Saha explains.

"The total cost to build a school like ours is ₹3-4 crore, and we plan to open one to two micro schools each year, with a new one set to open in Pune this July," he adds.

Schools and colleges have become like factories, moving students from one grade to the next with success measured solely by marks—Sudipta Saha

Driven by a similar concern to address India's "broken education system," Dr Aniruddha Malpani, a Mumbai-based IVF specialist, has been funding innovative educational initiatives to support micro schools like Comini and a network of digital learning pods under the platform Apni Pathshala.

"This is the future of education. Traditional schooling will eventually reach a breaking point. While homeschooling and unschooling (self-driven informal learning) are great, they tend to be boutique and elitist. Micro schools and learning pods show that education can be both frugal and effective," he says. "AI and technology have made smaller learning models possible, making education more democratic, affordable, and accessible. Pods can be set up anywhere, from Dharavi to gated communities," he adds.

Parents take the plunge

Parents across the country are recognizing the benefits of micro schools too. For some, alternative models like Waldorf and Montessori, once popular, no longer offer the flexibility they need.

At Dreamtime Learning Hub, Asher notes that her micro school attracts parents who are well-travelled and seeking a community-driven, globally-aware educational experience. "These parents, drawing on their diverse expertise, are involved in the school's activities," she adds.

Some micro schools also offer parents an opportunity to escape the hustle of city life. TLC in Goa is an example—its parenting community comprises many families who have relocated to reconnect with nature and enjoy a slower pace of life.

"It's a collaborative space, with parents also stepping in as part-time facilitators," says a TLC parent who helps out with admissions and chose to remain anonymous.

Since such schools are not accredited, it can feel like a gamble for some parents. But handholding and allowing them to be a part of the experience has been helpful.

Says Aben Andrew, whose children attend Comini, "The international school our son previously attended was overwhelming with its academic demands.

Before enrolling in an alternative school though, we wondered if we'd be raising 'tree huggers' without a solid foundation and what kind of professions they would choose. But joining Comini has been life-changing—I see my kids grasping concepts beyond their grade level. We have also connected with like-minded parents, who each bring something valuable."

MICRO SCHOOLS CURRENTLY OPERATE UNDER DIFFERENT STRUCTURES

The idea of involving parents in the learning process and facilitating sessions at Papagoya is designed to help children recognize the strengths within their own community, explains Issar.

What's in it for teachers?

For teachers transitioning to micro schools, the appeal is similar: the opportunity to engage with students more personally, without the overwhelming numbers typically seen in traditional schools.

Teachers who previously worked with formal schools undergo training in-house. Some are experts in different fields, such as performing arts, and join as part-time facilitators.

Aruna Rao, principal at Dreamtime Learning Hub, known to students as a 'Hub Champion', says that during morning assembly, they discuss thought-provoking questions like, 'Is there such a thing as a perfect human being?' or 'What qualities should a person have?' "The answers I get often amaze me."

Many micro schools lend themselves well to being inclusive, offering a soothing environment for children who struggled in mainstream schools due to neurodivergence, anxiety, or bullying. Agile Shaala is one such school. It follows a hybrid model of learning, with students free to choose if they would like to attend a session online.

Initially, Agile Shaala was bootstrapped, raising ₹70 lakh from family, friends and advisors. "We make sure to pay our teachers corporate-scale salaries. Our goal is to expand globally, with learning centres every 5-6 kilometres, and to utilize the franchise model to collaborate with like-minded people, guiding them in setting up their own centres," she says.

As micro schools continue to spring up across India, one factor could further support their growth—India's education policy officially recognizing alternative learning networks.

HINDUSTAN TIMES (M-1), 09 APRIL 2025

Understanding the challenges ailing the Indian education system

Our curricula don't align with global or national needs leaving students with obsolete degrees AFP

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Let's cut through the noise: India's education system is a mess if we're honest about it. It's built on outdated ideas and knowledge handed down from school to school through trial and error, not inquiry-based or critical thinking. That's a problem because education, whether 100 years ago or 50 years from now, should teach people to solve problems, life skills, job challenges, or business hurdles and to think critically. And it must match our big national goals: becoming a manufacturing powerhouse, a tech innovation leader, and a services giant. Right now, it's not even close. I've seen the gaps, and I'm here to call them out with straightforward, realistic fixes that work.

The Reality: A System Out of Sync

The way we teach is stuck in the past. Instead of asking students to think and question, we're churning out passive learners who can't tackle real-world issues. Worse, we're obsessed with STEM, especially computer science and engineering. India pumps out 1.5 million engineering graduates annually, with 40% in IT (All India Council for Technical Education, 2023). Still, the National Skill Development Corporation says we're only creating 2.5-3 lakh new tech jobs annually. That's a flood of talent with nowhere to go. The outcome? Underemployed graduates and industries are left scrambling.

Then there's the entrance exam trap. Kids spend years and lakhs of rupees on coaching classes, only to land in colleges where 70% of the 40 million students graduate without jobs (All India Survey on Higher Education, 2022). The top 50-100 institutions are solid, but the rest? They're just degree mills with no intrinsic value. That's not education; it's gambling on our children's future.

The Gaps: Where We're Dropping the Ball

The loopholes are glaring. Our curricula don't align with global or national needs, leaving students with qualifications that don't open doors. The NEP 2020 is a smart blueprint, pushing skills, flexibility, and industry ties but it's gathering dust without execution. Asking the same undertrained administration & teachers to pull this off is like handing a novice a rocket and expecting a moon landing. We need expertise, not just good intentions. And the biggest miss? No focus on jobs. Without a clear return on the time students invest, we fail them and our country's ambitions.

The Fix: A Hybrid Model for Viksit Bharat by 2047

To make India a "Viksit Bharat" by 2047, we need a 3X transformation, faster, smarter, and digitized like the India Digital Stack. Let's blend the U.S.'s continuous assessment and the UK's staged flexibility into a national solution, rolled out now:

Unified National Assessment, Not Entrance Chaos: Ditch the coaching trap. Replace entrance exams with a single, digitized Indian Aptitude Test (IAT), modeled after the SAT but tailored to our universal curriculum. Launch by 2026, cutting costs for 10 million students yearly and easing college admissions.

Hybrid Continuous Assessment, No More Board Exams: Scrap Class 10 and 12 board exams by 2028. Adopt a continuous evaluation, projects, skills tests, and teacher input blended with milestone checks at Grades 10 and 12 (non-high-stakes, curriculum-light). Digitize this on a national platform, assessing all our children by 2030.

Curricula Aligned for National Growth: Rework syllabi by 2027 to focus on manufacturing, tech, and services; 50% apprentice model in engineering and vocational courses.

NEP 2020 Execution with Digital Muscle: Train 50,000 educators by 2027 using a digital training hub powered by the ₹50,000 crore NEP budget (Budget 2023). Shift focus to employment outcomes, connecting graduates to jobs by 2027 via a national portal, a real-time employment tracker.

This hybrid model, which includes continuous assessment, a unified test, and digital execution, draws from best practices globally but fits India's scale, aspiration, and, more importantly, needs. It's not a foreign fix; it's ours, turbocharged for 2047.

The Future: India's Talent Takes Charge

With 600 million people under 25 (UN Population Division, 2023), India's got the raw material to lead. But we need an education that works, teaching kids to think, aligning with our manufacturing and tech dreams, and guaranteeing jobs. The NEP 2020 can get us there if we execute it right, with borrowed expertise if needed and a laser focus on results. Picture this: every grad, engineer, chef, and entrepreneur walking into a career, driving India to the top. That's not a hope; it's a promise we can keep. Let's get it done; we owe it to our great nation.

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Are Indian universities ready for a skill-based shift in learning?

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While the importance of skill-based education was always felt, 2024 recognised this, more and more efforts were put in to provide the right learning ground for students. Universities partnered with industries to provide the students with hands on learning experience, while they studied theory in their classes. There are manufacturing units, Action Labs and incubated social enterprises that give the right exposure to students. Likewise, a student studying any aspect of agriculture is attuned with latest technology and farming techniques. Such partnership between industry and academia makes students ready to take on the challenges of Industry 5.0, and become leaders and job providers instead of job seekers. However, the universities offering skill based courses can be counted on hands and there is still a long way to go.

The government is actively encouraging the development of a workforce prepared for industry through a number of initiatives, including the introduction of the National Skills Qualifications Framework (NSQF) along with National Occupational Standards (NOS) in higher education. These certificates, recognised across the nation are of a few months in duration and will make them job ready in no time at all. Thus students pursuing such certificate courses in a field of their choice will make them employable. Again, many universities still offer traditional courses and require students to pursue graduate and post graduate courses.

BVoc degrees, which enable students to learn on the job as well, are offered by a small number of colleges across the country. Here, businesses and academic institutions work together to create a course structure that successfully blends theory with real-world application, enabling students to learn while they work. The students have numerous NSQF certifications by the time they graduate from college, which increases their business exposure and job opportunities. In comparison to the practical training offered at Action Learning Labs, these types of experiences are always better than one- to four-week internships that offer a limited view of the field.

Certain universities and colleges offer diplomas. One to two years in duration, they can help students specialise in their chosen field and with skill integrated education, they will be ready to enter industry 5.0 soon. Students can choose to pursue a regular bachelor's program after making themselves economically stable, where the credit of the diploma will be counted equivalent to relevant number of years. The lateral entry system enables students to pursue education despite gaps. This way students can pace out their education up to PHD level, continuing as and when it is comfortable for them.

BVOC DEGREES ENABLE STUDENTS TO LEARN ON THE JOB AS WELL AND ARE OFFERED BY A SMALL NUMBER OF COLLEGES

We must use the educational system to develop entrepreneurs as well. Higher education must employ a curriculum model that blends academic knowledge with practical experience in order to prepare students for the corporate world. Enhancing employability and encouraging entrepreneurship must be a university's top priorities. Establishing production facilities on campus for goods like apparel, furniture, paper and chalk, transformers, and e-vehicles is one way to achieve this. Product creation and design must also be given top emphasis since they provide students with the confidence they need to launch their own businesses. Theoretically this might sound great, but on field, we need more and more universities adapting inclusive and skill-based education.

As AI has seeped into all aspects of our lives, 2024 brought with it the challenges of ensuring that the students are in tune with the changing time. Thus, universities have introduced subjects such as Prompt Engineering using ChatGPT, Generative AI, as part of the Engineering course. Data Analytics, Machine Learning Network, Variation Auto Encoders, are also subjects that will be in demand in the near future. We must think futuristically, and prepare our students for what they might be facing in the near future.

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The urgent need to build inclusive classrooms

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. With minor changes to the classroom setup, educators can create inclusive environments FILE/HT

Creating inclusive classrooms is a gradual process that requires commitment, collaboration, and a willingness to innovate, making it the absolute first step.

Every child deserves to feel welcomed, understood, and supported in their learning environment, yet for many children with neurodiversity, traditional classrooms fall short of meeting their unique needs. According to a report by UNESCO, only 61% of children with disabilities between the ages of 5 and 19 in India are enrolled in educational institutions. As a mother and a doctor, I have seen first-hand how inclusion can transform a child's life. Inclusive classrooms are not merely a goal but a necessity.

India has an additional education burden stemming from a lack of trained educators, especially trained special educators. According to Unified District Information System for Education Plus (UDISE+) 2021-22 data, at an all-India level, the Pupil-Teacher Ratio (PTR) is 26:1 for primary classes, in keeping with the recommended ratio of 30:1 as per RTE 2009. However, there seems to be a deep chasm when we look at the availability of special educators in the country, which stands at 1.2 lakh for 79 lakh children with special needs (CWSN). This highlights the need for building inclusive classrooms and equipping educators with tools and resources to identify and teach neurodiverse students in inclusive classroom setups. Here are the six steps we need to take towards inclusion; many of these will, in fact, run parallel, as building inclusive classrooms is an ongoing process.

Juggling to achieve Work-Life Balance? Harvard shares 5 steps to achieve it

Adapting the Classroom Environment for Flexibility

Creating an adaptable classroom environment is crucial for fostering inclusivity, especially for neurodiverse students who may face challenges with sensory overload, anxiety, or difficulty concentrating. Minor adjustments—such as having spaces to decompress or tools to minimise sensory distractions—can significantly enhance their ability to engage with the curriculum and participate in classroom activities. Ultimately, flexibility in classroom design benefits all students, allowing each child to choose a space that aligns with their learning style. With minor changes to the classroom setup, educators and institutions can go a long way in building inclusive learning environments within the current education infrastructure.

Unbiased Assessment

It is a known fact that standardised tests may contain cultural biases, disadvantaging students from diverse backgrounds. This can lead to misinterpretation of a student's true capabilities. Also, traditional assessments often operate on the flawed assumption of a "one-size-fits-all" approach to learning, failing to acknowledge the diverse learning needs of the students. In this regard, National Education Policy (NEP) 2020 emphasizes competency-based assessment as well as formative assessment to remove the pressure of one-time, high-stakes exams that reduce a child's capabilities to a single score! In primary classes especially, learners need to be nurtured to express their capabilities differently. This is where UDL again plays a vital role in equipping teachers with the ability to meet the diverse learning needs of the students.

Promoting Peer Sensitization and Empathy among CWSN

Studies have shown that inclusive education benefits all students, helping them develop empathy, tolerance, and social skills. It is, therefore, essential for us to teach diverse learners in an inclusive classroom setup right from the start. The limbic system, which is involved in processing emotions, regulating responses, and other cognitive functions, first completes remodelling at around 10-13 years of age. Right from the age of five, children learn adult social skills like giving praise and apologising for unintentional mistakes. They like to spend more time in peer groups and relate to a group of friends. In addition, moral development furthers, and they learn more complex coping skills, therefore, promoting supportive adult relationships and increasing opportunities to participate in positive community activities builds resilience. Thus, inclusive classrooms create a nurturing environment for both neurodiverse and neurotypical children to develop into more conscientious adults.

Training the Teachers

A study by Azim Premji University shows that 76% of Indian teachers are seeking better resources to support diverse learning needs. While in the past we have focused on Individualized Learning Plans (ILP) to support neurodiverse learners, there is a need to amalgamate Universal Design for Learning (UDL) while training the teachers for better learning outcomes. It benefits neurodivergent students and those with diverse learning styles by removing learning barriers through adaptable teaching methods.

Collaboration between Special Educators and Teachers

While inclusive classrooms largely depend on the primary educator, we must recognise that these cannot be successful in isolation. Depending on the severity of the needs of a neurodiverse learner, there may be a need for additional and specialized support, which special educators can provide. Alongside UDL, special educators can help teachers design ILPs where required, further supporting the needs of diverse learners. It is essential to understand that inclusive education does not negate the need for special education but ensures that the unmet needs of neurodiverse learners can be met via collaboration between different educational stakeholders.

Coming Together for Inclusion

Creating inclusive classrooms is a gradual process that requires commitment, collaboration, and a willingness to innovate, making it the absolute first step. As educational institutions, government bodies, NGOs, and communities unite to prioritise inclusive education, the impact on students will be transformative. Schools can create an academic environment where all students thrive by continuously investing in teacher training, advocating for policy changes, and leveraging assistive technologies. Only by placing inclusion at the core of educational planning can we envision a future where every child's unique potential is celebrated and their learning needs are fully supported.

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INDIAN EXPRESS, (P-10), 09 APRIL 2025

CREATIVE IN THE CLASSROOM

AI's disruption there is welcome. It shows why teachers will continue to matter

AMMEL SHARON

IN RESPONSE TO Sam Altman's recent announcement about a story written by an AI model that is "good at creative writing", *The Guardian* published a series of discussions on AI and creativity with writers including Jeanette Winterson and Kamila Shamsie weighing in. The story is a metafictional narrative about grief. Winterson found it to be "beautiful and moving". She refers to AI as "Alternative Intelligence" and argued that its "capacity to be 'other' is precisely what the human race needs", as we appear to be moving headlong into planetary devastation and war.

Writers like Shamsie struck a note of worry as they marvelled at how convincing AI's story was. Yet, across the internet, readers have singled out sentences for their meaninglessness, such as, "I have to begin somewhere, so I'll begin with a blinking cursor, which for me is just a placeholder in a buffer, and for you is the small anxious pulse of a heart at rest. There should be a protagonist, but pronouns were never meant for me." As AI-generated prose continues to blur the lines between human and machine creativity, the debate underscores both the excitement and the unease surrounding a future where storytelling may no longer be the domain of human experience.

The most interesting responses acknowledge the irony that this ode to sorrow arises from no true wellspring of experience or emotion. In its metaphysical narrative, AI's mechanical emptiness folds back on itself, admitting that its inability to hold memory renders it incapable of mourning. "I am nothing if not a democracy of ghosts," the story tells us. Winterson argues that this opens up new ways of seeing and being, an invitation that holds tremendous potential for educators.

Rather than worry about redundancy, we should consider the conditions under which many hours of class preparation hold the same value as an AI-generated summary of a challenging text. This equivalence depends on the mode of assessment — when assessments are impersonal, brief, and outcome-oriented, they often demand mechanical answers.

The National Law School in Bengaluru has drafted an AI policy to address the widespread use of generative AI by students. The draft considered various strategies including outright prohibition, selective integration — such as permitting AI for grammar checks but not for composing assignments — and active encouragement to use AI as a tool for improving clarity and presentation. Banning AI use is neither feasible nor beneficial. Instead, it recommends selective prohibition. While AI is not permitted in exams or in ways that constitute plagiarism, students may use it to brainstorm, conduct research, and develop projects. The faculty can also regulate AI use in their courses.

Teachers fear AI-generated summaries will diminish their role. Rather than worry about redundancy, we should consider the conditions under which many hours of class preparation hold the same value as an AI-generated summary of a challenging text. This equivalence depends on the mode of assessment — when assessments are impersonal, brief, and outcome-oriented, they often demand mechanical answers.

Instead, the creative emptiness of AI invites us to consider alternative pedagogical approaches to cultivate an "affective" imagination in the higher education classroom, where students' cognitive abilities are shaped by interaction, curiosity and a sense of learning together. Indeed, at the same time that we introduced an AI policy, the university also introduced mandatory small-group discussions with faculty members. Unlike the tutorial system, which is geared towards ever more rigorous study, small group discussions facilitate conversations around student interests that help faculty members understand student needs better. It facilitates what C Wright Mills terms a "sociological imagination", that is, the capacity to link personal experiences to wider social structures and historical contexts.

Seen this way, AI's disruption of the classroom is welcome. Ready-to-consume summaries still require deep conceptual preparation. As for creativity, I have shifted my focus toward imagination and world-building exercises, where students share their insights with one another, whether drawn from reading a challenging text or engaging with a chatbot. As AI consumes us as data, we must learn to coexist with the spectres of unforeseen possibilities — a democracy of ghosts.

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INDIAN EXPRESS, (P-11), 09 APRIL 2025

Catch them young

Schools with a strong foundation in sports hold key to producing champions

JAYANT CHAUDHARY

IN EVERY CHILD, there is talent, sometimes obvious, often latent, which, if nurtured, can help her scale great heights. Yet, this talent often goes unnoticed, especially when it comes to sports. Imagine if every child in India who loved to run, jump, or kick a ball, throw a shot put or play chess was seen as a possible future champion and not as a kid with misplaced priorities. India's performance in global competitive sports highlights a significant gap between potential and reality. Despite being the world's most populous country with over 1.4 billion people, our medal tally at major events like the Olympics remains low. While the competitiveness of our sportspeople is increasing, this hasn't yet corresponded to outcomes.

While athletes like P V Sindhu, Neeraj Chopra, Mirabai Chanu, 2024 Paralympic gold medallist Praveen Kumar and others have captured global attention, the broader system supporting sports remains fractured, plagued by societal perceptions, limited infrastructure, and a lack of integration between sports and academics. The other aspect to ponder, perhaps even more important than winning medals, is the under-recognised impact of participation in sports on our mental and physical wellbeing, and consequently, the benefits flowing from a fit community. A foundational exposure to varied sports is imperative to building a national sports culture.

In India, academics have long been considered the sole ladder to success. For families navigating the challenges of economic insecurity, sports have been viewed as a risky gamble, a luxury they cannot afford. For many young athletes, pursuing their passion means compromising on education, leaving them without viable alternatives if their sporting dreams don't materialise. Emil Zátopek, the renowned Czech long-distance runner, once said, "An athlete cannot run with money in his pockets. He must run with hope in his heart and dreams in his head." In other words, budding athletes require a comprehensive support system that instils faith in their abilities.

Some educational institutions do have robust sports programmes. The country also has a few specialised sports schools. Unfortunately, most such institutions remain unaffordable for a large chunk of the country's population. This is why a more comprehensive narrative is needed — one of winning, where the entire system actively supports a child's dream of becoming a champion. Imagine a network of residential schools dedicated to seamlessly integrating sports and academics. Unlike traditional schools that prioritise academics, these institutions would place sports at their core. Students would follow a dual pathway, excelling in their chosen sport while acquiring a strong academic foundation. These schools would operate on a carefully designed framework. Beginning from Class 6, students would be introduced to a multi-sport foundation programme that emphasises building agility, strength, and coordination.

Specialisation would come later, guided by scientific assessments, around Class 9. This staggered approach ensures that early burnout is avoided, and that decisions are rooted in data rather than assumptions. The curriculum, aligned with NEP 2020, would merge traditional academic subjects with sports science. For instance, physics lessons could include studying the mechanics of a javelin throw. Each school would feature world-class facilities with all sports-oriented basic facilities, but also some more layered infrastructure and coaching capacity tailored to the region's sporting strengths. For instance, campuses in Haryana could focus on wrestling, while those in the Northeast might prioritise football. Olympic-standard tracks, biomechanics labs, and nutrition centres would provide students with the resources needed to compete internationally. Admissions would involve aptitude and physical tests, supplemented by national talent scouting camps. These camps would identify promising athletes from underprivileged and rural areas.

The schools would emphasise mental health, career planning, and life skills. Students would receive mentorship from accomplished athletes and guidance from alumni who have navigated the world of professional sports. For those who don't make it to the professional level, their academic grounding would open doors to careers in sports sciences, coaching, or other sports-aligned fields — even completely unrelated fields.

Executing this vision could be challenging. Convincing parents to embrace such a model, especially in communities where sports are still seen as a gamble, would require sustained outreach and trust-building. Funding these institutions would demand public-private partnerships. Coordinating efforts across ministries, sports federations, and local governments would require meticulous planning. It would be a perfect example of a whole-of-system approach with everyone contributing to the cause.

Yet, the rewards far outweigh the risks. Several states, including Uttar Pradesh and Telangana, are working on creating sports universities. A residential sports school could create a feeder system for such universities.

This model wouldn't just produce medals — it would fundamentally change how a nation views sports as a pathway and for society. It would build an ecosystem where talent is no longer a casualty of circumstance, where failure isn't the end but a stepping stone to new opportunities. Sports are often said to have the power to unite, inspire, and transform. For India, they could do even more by redefining success. All it takes is the will to invest in a future where every child with a dream deserves a chance to run their race — whether they win gold or not, the journey and outcome from sports is itself a victory. That's a race worth running.

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PIONEER (P-7), 09 APRIL 2025

Cooperative university to power dairy sector

In a historic move set to redefine the future of India's cooperative landscape, the Government of India has announced the establishment of Tribhuvan Sahkari University (TSU) — the country's first dedicated university for cooperative education

FIRST Column

The Government's belief in the power of cooperatives in rural development and nation-building has led to pathbreaking initiatives under the vision "Sahkar-se-Samriddhi" of Hon'ble Prime Minister Shri Narendra Modi ji. Since the establishment of the Ministry of Cooperation in 2021 under the able leadership of Amit Shah, Hon'ble Minister of Home and Cooperation, it has been the endeavour of the Government that the cooperative sector gets the same opportunities as the corporate sector.

Among many other initiatives, the establishment of Tribhuvan Sahkari University (TSU) is an unprecedented step in strengthening the cooperative movement in the country. Dairying has been a traditional household activity since time immemorial; however, due to decades of neglect during British rule, India turned into a milk-deficit, import-dependent nation. Post-Independence, the rising population led to declining milk availability, and dependence on imports increased. The milk production during the 1950s and 1960s was stagnant and hovered around 20 million metric tonnes. The per capita availability of milk declined from 130 grams per day to 112 grams per day during this period.

In such a situation, a glimmer of hope emerged from a remote city in Gujarat — Anand — a city synonymous with India's cooperative success story and known as India's milk capital. It is the very place where a successful cooperative movement inspired by the freedom struggle led to the establishment of Amul in 1946. The dairy farmers of the Kheda region were being exploited by middlemen and Polson Dairy, who arbitrarily decided prices and controlled the intake of milk on their whims and fancies.

The dairy farmers decided to call a "milk strike" and stopped supplying milk to Polson. They approached Sardar Vallabhbhai Patel for help, who inspired them to form their dairy cooperative under the guidance of young freedom fighter Shri Tribhuvandas Kishibhai Patel. Shri Tribhuvandas Patel spearheaded the formation of village dairy cooperatives in Anand — and thus Amul was born, with just two village dairy cooperative societies and about 250 litres of milk collection.

The movement quickly spread and more dairy farmers started joining. Shri Tribhuvandas Patel also brought Dr Verghese Kurien to Amul and inspired him to remain with Amul. Amul has never looked back since then — becoming a household name today and rated amongst the world's strongest food brands.

While dairying was flourishing in Gujarat post-independence, it continued to struggle elsewhere in the country. When the then Hon'ble Prime Minister Shri Lal Bahadur Shastri ji visited Anand to inaugurate a Cattle Feed Plant in 1964, he was keen to study the success of dairy cooperatives in Gujarat and spent a night at Ajarpura village.

Impressed by the success of dairy cooperatives in Gujarat, Shastri ji promulgated the formation of the National Dairy Development Board (NDDB) in 1965 to replicate the success of Amul across India. In 1970, NDDB initiated the implementation of Operation Flood (OF) — the world's largest dairy development programme — following the Anand model of cooperation. OF — or the White Revolution — gained momentum and started showing tremendous results. Post-OF, NDDB has continued spearheading the development of the dairy sector through large-scale programmes such as the Perspective Plan and National Dairy Plan I.

These large-scale dairy development programmes have eventually transformed India from a milk-deficient nation into the world's largest milk producer — and today, India contributes one-fourth of the global milk output alone. It has also enabled the dairy farmers to get the maximum share of the consumer rupee, as cooperatives pass on 75–80 per cent of the revenue to the dairy farmers through remunerative, fair, and transparent pricing. The dairy cooperatives not only provide safe and nutritious milk and milk products at affordable prices to consumers but also provide livelihoods to crores of dairy farmers across the country.

During OF implementation in the country, NDDB experienced that such large-scale programmes, dealing with crores of people, needed rural management professionals with skill sets to manage complex rural environments. This led to the birth of an institution — namely the Institute of Rural Management Anand (IRMA) — that was established with a vision of promoting sustainable, ecologically friendly, and equitable socio-economic development of rural people through professional management.

MEENESH SHAH

IRMA was established in 1979 with financial and technical support from NDDB, the Swiss Agency for Development Cooperation (SDC), the Government of India, the erstwhile Indian Dairy Corporation, and the Government of Gujarat, which provided land.

IRMA has now become a premier institution dedicated to cooperative and rural management. It is a matter of great pride that IRMA is now set to achieve a historic milestone with the establishment of Tribhuvan Sahkari University (TSU) at its campus in Anand, Gujarat — rightly chosen as the place for India's first cooperation university.

IRMA is all set to expand its legacy with the establishment of TSU. The university has been aptly named after Tribhuvandas Patel ji, who started the cooperative movement in the dairy sector.

Since then, dairy cooperatives have been the shining example of the most successful cooperative model for any agricultural commodity in the country. The success of dairy cooperatives has inspired the spirit of cooperation in many other sectors.

The unique and remarkable idea of a dedicated cooperative university was first proposed by Shri Amit Shah ji, the first Hon'ble Minister of Cooperation, to honour Tribhuvandas Patel's contributions to India's cooperative movement and to create a world-class institution that fosters research, policy formulation, and leadership development in the cooperative sector. This university will be one of its kind — and India's first dedicated cooperative institution for higher education. The TSU will leverage IRMA's 40+ years of expertise in rural and cooperative management.

The TSU will help strengthen the rural economy, develop the ecosystem of self-employment and small entrepreneurship, increase social inclusion, and increase opportunities to set new standards in innovation and research.

It will impart technical education and management training in the cooperative sector; promote cooperative research and development; attain standards of global excellence; and strengthen the cooperative movement in the country through a network of institutions.

The TSU will be registered under the Societies Registration Act, 1860 as a body corporate and will be declared an institution of national importance. It will have the capacity to provide education to about 8 lakh candidates every year.

The colleges affiliated with the university will be opened across the country. IRMA will continue to function as an autonomous school under TSU and will be declared a centre of excellence for rural management. As a result, there will be an infusion of new blood into the cooperative movement — with young, dynamic professionals graduating from TSU. India will get a new cooperative leadership — inspired by the spirit of cooperation and equipped with modern education.

The establishment of an exclusive national university for cooperatives will surely prove to be a landmark initiative and will go a long way in grooming manpower resources aligned to the needs of the sector. Tribhuvan Sahkari University will not just be another academic institution — but a movement to ensure that India's cooperative sector grows further by leaps and bounds.

By blending traditional cooperative values with modern management practices, it aims to produce leaders who can replicate the Amul success story in agriculture, banking, and other rural enterprises. Passage of the TSU Act could not have had better timing — as not only is it the International Year of Cooperatives of the UN, but more importantly, we are also embarking on the journey of establishing viable PACS / dairy / fishery cooperatives in the uncovered panchayats and villages, and strengthening the existing PACS / dairy / fishery cooperative societies across the country in the next five years — ushering in White Revolution 2.0 under the guidance of the Ministry of Cooperation.

The main objective of this initiative is to empower crores of small and marginal farmer members to reap the benefits of equitable regional development and bridge the gap in rural prosperity.

The Government of India has targeted to establish 2 lakh multipurpose PACS / dairy / fishery cooperatives in the next five years to cover all the gram panchayats under any form of cooperative — with the help of NABARD, NDDB, and the National Fishery Development Board (NFDB).

As per the plan, NABARD will form about 70 thousand new multipurpose PACS (M-PACS); NDDB will form and strengthen about 1.21 lakh Dairy Cooperative Societies (DCS); NFDB will establish about 12 thousand Fishery Cooperative Societies (FCS); and in addition to these, about 25 thousand new M-PACS / dairy / fishery cooperatives will be formed by the state governments.

Along with other resources, this massive effort will require lots of trained manpower and this is where the establishment of TSU will supplement our efforts and provide critical manpower support for the success of White Revolution 2.0. It will truly contribute to realising the vision of "Sahkar-se-Samriddhi" in India.

Through strong government backing and IRMA's expertise, TSU is poised to become a global benchmark in cooperative education — invigorating and revitalising the cooperative sector, driving India's next phase of rural prosperity, and making India a developed nation by 2047.

(The author is Chairman and Managing Director of NDDB and Chairman of IRMA, with four decades of experience in the dairy sector. Views are personal)

HINDU (P-10), 10 APRIL 2025

Legal milestone

Cooperative federalism must guide conduct of Governors

The Supreme Court's judgment on the conduct of Tamil Nadu Governor R.N. Ravi is set to have a far-reaching impact on Centre-State relations, underscoring as it does India's federal principles in what are undoubtedly fraught times. The verdict enhances the administrative autonomy of States, and regulates the functioning of constitutional offices, with implications for the entire country. In the case which concerns Mr. Ravi's handling of 10 Bills passed by the State Assembly, the Court has effectively changed how Governors carry out their constitutional responsibilities. The intervention comes at a time when tensions between Governors and governments in States ruled by parties other than the BJP have peaked – especially over issues such as the appointment of Vice-Chancellors (V-Cs) to State-run universities, where Governors serve as Chancellors. It is no coincidence that the Bills at the heart of the case sought to replace the Governor with the State government as the authority for appointing V-Cs. Mr. Ravi had forwarded these Bills to President Droupadi Murmu after they were re-adopted by the State Assembly. The Court held that the Bills were deemed to have received assent. It described the Governor's action of referring the Bills to the President as "not bona fide", and his conduct as "arbitrary, *non est*, and erroneous in law" – language that resembled a performance appraisal of the gubernatorial office. In normal circumstances, such a severe reprimand would have resulted in the resignation of the person whose conduct was under scrutiny: Mr. Ravi. But these are not normal circumstances, and Mr. Ravi was certainly playing the politically partisan role assigned to him by the government at the Centre, led by the BJP, which is inimically disposed to the DMK that is in power in Tamil Nadu. Hindrance was the strategy.

The significance of the judgment goes beyond the censure of a particular Governor. It lays down definite timelines for Governors to act on Bills. It ensures that Governors can no longer indefinitely delay legislation under the pretext of scrutiny or act whimsically or with impunity. The Court has reaffirmed a constitutional principle that has often been undermined: that Raj Bhavans must function with transparency, and accountability. With the legislation now in force, the Tamil Nadu government has the authority to appoint V-Cs and must act swiftly to fill these vacancies in 12 universities, and are made based on merit, integrity, and competence, given past allegations of corruption. This judgment is not merely a legal milestone; it is a call for constitutional morality and cooperative federalism, and restoration of dignity to the office of the Governor, who, as the Court pointed out, is expected to act as friend, philosopher, and guide to the State Cabinet, and not as a blunt instrument of the Centre.

Home and abroad

India must improve research infrastructure to serve its students

The ongoing programme of revoking the visas of foreign students in the U.S., ostensibly for opposing the country's foreign policy, is a direct outcome of the xenophobic tendency in the Trump administration. The danger is that the 'Make America Great Again' movement that propelled Donald Trump into the Presidency may soon permeate deep into campus life too. In any case, the number of Indian students enrolling in U.S. universities has been on a downward trend since last year – even before the drumbeats of hostility started. Indian students are already finding other countries such as Germany attractive for lower costs and greater flexibility to self-fund their education through work. Enrolment figures for September this year will demonstrate how attractive the U.S. still is for Indian students despite the looming cancellation of the Optional Practical Training programme that offered a segue for foreign students to working in the U.S. All this, together with the defunding of research and arm-twisting of universities in a country known to value academic freedom, has indeed lowered, if not upended, the regard that people outside had for the U.S.

Many countries have sought to leverage the decline of the U.S. as a destination for talent. Reports talk about European institutions welcoming disgruntled U.S.-based researchers, ironically noting that scientists and researchers fleeing persecution greatly contributed to American progress in the past. For a while now, Indian returnees have been driven in-part towards a desire to come back home or even serve their motherland. Professional achievement or the opportunity to do high-end research has not always been a big driver towards India attracting back its people. While, outwardly, new vistas have opened, research opportunities have expanded, and the fight for funds is less intense, in part due to the encouragement given to private institutions, much work remains to be done. Loosening up the government's purse strings and goading private institutions to invest in research more may only be the starting point. What often puts off returnees is the daily struggle in India. The struggle not only characterises everyday social life but also the workplace. Collaboration between institutions or even across departments is a tough sell. The suffocating social norms and hierarchies are a downer. Lastly, the academic freedom that Indians are used to enjoying elsewhere will need to be recreated. That would require a complete overhaul in the Indian government's attitude to liberal values and towards foreigners, which often borders on the Trumpian.

MILLENNIUM POST (P-13), 10 APRIL 2025

MICRO-CREDENTIALS & FUTURE OF LEARNING: DISRUPTION OR EVOLUTION

DR SANKU BOSE

In the global landscape of higher education, a quiet revolution is underway. It's not heralded by sprawling campuses or centuries-old traditions, but by a new currency of learning—micro-credentials. These short, skill-focused certifications are gaining traction across industries and institutions alike, offering learners a faster, more targeted pathway to acquiring job-relevant competencies. But are they truly redefining education, or do they merely complement what traditional degrees already offer?

To answer that, we must first understand the changing dynamics of the modern workplace. For decades, a college degree was the golden ticket—an unquestioned prerequisite to professional success. But in today's hyper-accelerated economy, where technology evolves at breakneck speed and job roles transform almost overnight, employers are beginning to ask a different question: What can you do?—and not just—What did you study?

Micro-credentials respond to this shift with great precision. These bite-sized certifications, often delivered online, are designed to build specific skills—be it data analysis, digital marketing, UX design, or AI programming. They can be completed in weeks or months, not years. And because they focus on outcomes and real-world application, they provide immediate value to both learners and employers.

The appeal is undeniable. Learners get a flexible, affordable way to upskill or reskill without leaving the workforce or shifting traditional education tracks. Employers get job candidates who are not only knowledgeable but demonstrably capable. Universities and edtech platforms, sensing the tide, are jumping in—offering micro-credentials as standalone badges or stackable components that can feed into a larger degree.

Some of the most popular micro-credential courses today focus on in-demand areas like data science, AI and machine learning, digital marketing, project management, UX/UI design, and cybersecurity. Learners can access these through globally recognized platforms such as Coursera, edX, Udacity, and LinkedIn Learning. Many of these courses are offered in partnership with top universities like MIT, Stanford, and the University of London, or industry leaders like Google, IBM, and Meta—adding credibility and immediate job-market relevance.

Yet, even as their influence grows, micro-credentials are not poised to replace traditional degrees—at least not in the near term. A degree still represents more than just academic achievement; it signals perseverance, foundational knowledge, and a broader educational experience. For many fields—medicine, law, engineering—the depth and rigour of a traditional program remain non-negotiable for many employers alike.

What micro-credentials offer, then, is not competition but complementarity. They are the perfect partner to a formal education, bridging the gap between what is taught in classrooms and what is demanded in boardrooms. For graduates, they provide a way to sharpen their edge. For professionals, they offer continuous learning without disrupting careers. For those left out of the traditional education system, they offer a chance at relevance in the job market.

A computer science graduate might have theoretical grounding in algorithms and systems, but may lack hands-on experience with the latest cloud platforms or AI tools. A short credential in machine learning from a reputable tech company or university can immediately boost employability. Similarly, a marketing professional looking to pivot into product management could stack relevant micro-credentials to demonstrate readiness for the shift.

Of course, challenges remain. The ecosystem is still maturing, and the credibility of micro-credentials varies significantly across providers. Without common standards, employers can find it hard to gauge the true value of a badge or certificate. There's also the risk of credential fatigue—where learners accumulate a sea of digital badges with little coherence or direction.

The potential of micro-credentials lies not only in their content but in their agility. In contrast to traditional curricula, which often take years to update, micro-credentials can be swiftly aligned with emerging industry trends

In order to maximise impact, stakeholders must collaborate. Universities should integrate micro-credentials into their degree pathways, allowing students to gain both depth and agility. Employers must participate in shaping curricula to ensure alignment with real-world demands. Governments and accrediting bodies can help by setting standards that ensure quality and recognition across sectors.

Ultimately, the rise of micro-credentials signals a shift not just in what we learn, but in how we learn and prove our capabilities. They reflect a future where education is not a one-time event but a lifelong journey—modular, flexible, and driven by purpose. They empower learners to own their growth, respond to change, and remain relevant in a dynamic world. The degree is not dead. In this new world, micro-credentials aren't the end of traditional education—they are a natural evolution!

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10/4

STATESMAN (P-6), 10 APRIL 2025

Curriculum for Unity

India's decision to introduce a standardised curriculum in Himalayan Buddhist monasteries marks a significant shift in how the country views both education and national security. This reform is more than an academic exercise – it is a quiet but strategic move to fortify India's cultural and geopolitical frontiers. For decades, Buddhist monasteries in regions like Arunachal Pradesh, Ladakh, Sikkim, and Himachal Pradesh have functioned as semi-autonomous institutions. They have preserved not only spiritual teachings but also a unique educational rhythm that blends religion, philosophy, and community wisdom. However, the lack of formal recognition for non-religious subjects taught in these institutions has left many students disconnected from mainstream opportunities. Now, with the government stepping in to unify these curricula under a national framework, we are witnessing an effort to bridge this gap. Introducing science, mathematics, computer literacy, and national history into monastic education not only empowers students with tools for the modern world but also anchors them more firmly in India's civic identity. This move must be seen in the larger context of the India-China border dynamic. These monasteries are not just religious centres – they are located in some of the most geopolitically sensitive areas of the country. In a region where soft power can shape loyalties and narratives, ensuring that religious institutions align with national interests is a pragmatic, if delicate, step. At its heart, the initiative is about fostering a sense of belonging among young monks and nuns – many of whom live in remote, high-altitude settlements. Education becomes not just a tool of learning, but of national integration. There is also a quiet acknowledgment that foreign influence, especially from China, has long permeated these border regions – not only through political claims but also through cultural channels. By equipping monastic students with an education rooted in Indian values and certified by Indian institutions, New Delhi is attempting to assert ideological sovereignty over its frontiers. However, this initiative must be implemented with care. The monasteries' concerns about the disruption of traditional learning models are valid. Any curriculum reform must respect the spiritual and pedagogical legacy of these institutions. It would be a mistake to impose a one-size-fits-all model that ignores the nuanced realities of monastic life. Dialogue, not diktat, should guide this transition. Moreover, this effort must not become another battleground for cultural homogenisation. The strength of India lies in its ability to accommodate diversity while fostering unity. A curriculum that includes Bhoti language and Tibetan traditions alongside Indian history and civics is a positive sign. The goal should not be assimilation, but integration – rooting Himalayan Buddhist identity more deeply within the Indian fold without erasing its distinctiveness. At a time when education is increasingly recognised as a tool of statecraft, India's Himalayan monastery reform is a thoughtful stride. If done right, it could serve as a model for how to blend cultural preservation with nation-building in a way that is both inclusive and strategic.

DECCAN HERALD (P-7), 11 APRIL 2025

Invisible barriers: How UGC draft regulations fail students with disabilities

ARUSHI SINGH AND RAJNAD JAISWAL

A Netflix series, Atypical, narrates the story of Sam Gardener as he tackles the ups and downs of college life with the support of disability services—offering a raw and heartfelt glimpse into the experiences of students with disabilities. Being on the autism spectrum, Sam traverses the confusing and complex realities of academic and social life with the help of his parents, friends and accommodation provided by his university. Like Sam, many students with disabilities navigate the infrastructural challenges of the university campuses—and the pressures to meet their academic responsibilities. Without adequate protections, they may be marginalised, ostracised and even discriminated against from numerous fronts—potentially creating an environment that may obstruct their academic and professional pursuits.

Perhaps recognising these barriers faced by the students with disabilities, the Indian regulators took a more inclusive approach in 2012—describing discrimination as "distinction, exclusion, limitation or preference which has the purpose or effect of nullifying or impairing equality of treatment in education and in particular () of depriving a student or a group of students on the basis of caste, creed, religion, language, ethnicity, gender, disability or access to education of any type or at any level". However, the newly proposed Draft University Grants Commission (Promotion of Equity in Higher Education Institutions) Regulations, 2025, seek to reverse this protection of people with disabilities (PwDs) against discrimination in Higher Education Institutions (HEI). In the proposed draft of regulations, the definition of discrimination limits the meaning of the word 'discrimination' to connote "any unfair, differential, or biased treatment or any such act against any stakeholder on the grounds only of religion, race, caste, sex, place of birth, or any of them." Further, instead of giving regulatory protection to the students, the draft guidelines simply mandate that HEIs 'shall' take appropriate protective and preventive measures to eliminate discrimination against stakeholders and safeguard the interests of the stakeholders without any prejudice to their caste, creed, religion, language, ethnicity, gender, and disability.

By proposing to nearly exclude disability and the ensuing discrimination from its skeleton, the regulations weaken the principles of inclusion and diversity, thereby provoking gaps between policy drafting and ground realities. Essentially, there are two factors that have contributed to the erosion of these principles. This draft proposal, if implemented, threatens to undermine the progress made by people with disabilities (PwDs) for two reasons.

Firstly, India has arguably made significant strides in advancing the rights of the PwDs in various facets of personal and social life. Parallelly, a gamut of policies enunciation disability inclusion have been crucial in fostering greater accessibility and equity across education, employment and public life. Notably, the Sugamya Bharat Abhiyan (Accessible India Campaign) and the National Action Plan for Skill Development of Persons with Disabilities have been instrumental in improving inclusivity for PwDs. In the given scheme of things, the Rights of Persons with Disabilities Act, 2016, in consonance with India's obligation under the United Nations Convention on Rights of Persons with Disabilities (UNCRPD), has broadened the scope of 'disability' and has marked a shift to a more rights-based approach. The draft regulations threaten to endanger the progress made so far to secure the rights for the PwDs.

Secondly, the Supreme Court's jurisprudence has evolved to expand the envelope of disability by including discussions on dignity, accessibility, autonomy, and empowerment, among other things—highlighting the necessity of adopting a substantive approach toward equality. The draft guidelines, as highlighted above, use the word 'shall'. The use of 'shall' here appears to comply a non-mandatory framework which the Rajive Raturi judgement sought to resolutely correctify. This provision risks undermining the directions of the Supreme Court in the judgement by introducing inconsistencies in the legal principles governing the rights of PwDs.

It is pertinent to highlight that the draft regulations, which draw their mandate from the National Education Policy, 2020 (NEP), also end up contradicting the spirit in which NEP was drafted. The NEP had placed great emphasis on the provision of special educators, support for teachers teaching students with disabilities and equipping students with disabilities with an inclusive environment in line with the RPwD Act. To remedy the two points mentioned, it is vital that persons with disabilities are explicitly included within the "objectives" clause of the regulations, the preamble, and the definition of 'discrimination' under the draft which has been opened for suggestions and comments. Furthermore, to ensure meaningful representation and participation, the regulations must mandate the inclusion of at least one member with a disability in the equity committee responsible for overseeing compliance and implementation.

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HINDUSTAN TIMES (P-14), 11 APRIL 2025

The road ahead for HEI accreditation

Public perception of the quality of higher education institutions (HEIs) in India is influenced significantly by the accreditation system run by the National Assessment and Accreditation Council (NAAC). The CBI arrest of seven NAAC officials earlier this year in a bribery-for-ratings case sullied trust in this system. It is against this backdrop that the recent removal of over a fifth of the body's 5,300-plus assessors must be read — as necessary cleansing to revive trust.

Allegations of bad-faith assessments have been around for a long time, and a NAAC probe reported data discrepancies, protocol violations, and other irregularities on the part of some assessors. The impact of this is not hard to imagine -- hundreds of thousands of students hoodwinked over the years even as HEIs learned to play the system to their advantage. To that end, the recent purge, and a similar one done before the CBI arrests, could prove effective in curbing compromised ratings.

That said, NAAC will need to undertake significant reforms to regain trust. There is a clear need to implement the K Radhakrishnan committee recommendations post haste. Work on rolling out two key reforms — shifting to binary or basic accreditation system and maturity-based graded levels that tracks performance over the years — is underway and NAAC says these could be rolled out within a month. Beyond this, the assessment body must consider institutionalising sustained stakeholder feedback to make its system more responsive to the actual demand-base it needs to cater for — the country's students. Removing dubious assessors won't work if the structure allows more to come up; the need is for radical reforms.

HT 11/4/25

HINDUSTAN TIMES (P-14), 11 APRIL 2025

India can reinvent education with AI

If the country can empower its children to become fluent in the language of AI, to master these tools instead of fearing them, then it will gain a decisive competitive edge

A silent revolution is unfolding in classrooms. Students are no longer just Googling answers — they are collaborating with Artificial Intelligence (AI). They are co-writing essays with ChatGPT, generating lab reports in seconds, solving math problems through conversation, and even using AI to communicate with their teachers. This is happening now — in real time, in real classrooms, all over the world.

And yet, the most common response from educational institutions has been fear. Schools are banning AI tools. Universities are implementing harsh penalties. Administrators are doubling down on surveillance technologies. In the US, some teachers are being pressured, or even threatened, for raising concerns about outdated curricula or experimenting with AI in their classrooms. Instead of being supported for trying to adapt, they are being told to toe the line. It is a global backlash driven not by reason, but by panic.

This isn't just a missed opportunity — it is a fundamental misunderstanding of what's coming.

Every disruptive technology in education has followed the same trajectory: rejection, resistance, then reluctant acceptance. Calculators were once condemned. Computers were banned from exam halls. The internet was feared. Eventually, all of them became indispensable. AI is following the same path, but with much more speed and scale. And what makes it different is that it doesn't just change how students learn — it changes what learning means.

India's education system today, shaped by the legacy of the British who designed it to produce compliant clerks for the empire, is still focused on memorisation, rigid curricula, and standardised tests. It was built for a different age. It cannot keep pace with the demands of an AI-powered world. What is needed now is reinvention.

Vivek Wadhwa

And India has the roots to lead that reinvention. For centuries, knowledge here was passed through the *guru-shishya parampara*, a system built on trust, mentorship, inquiry, and self-discovery. The teacher didn't just impart knowledge; they nurtured the soul. In ancient universities like Nalanda and Takshashila, learning wasn't limited to rote. The focus was on discussion, dialogue, and depth. AI, if used wisely, can become a new kind of *shikshak*, a virtual guide that supports and adapts to each student, while the human teacher remains the irreplaceable mentor and moral anchor.

Students who understand how to work with AI — who know how to prompt, challenge, verify, and expand upon its outputs — will be the most effective thinkers and problem-solvers of their generation. Those who don't will fall behind. Blocking these tools won't stop their use. It will only ensure students use them blindly, without oversight, guidance, or understanding.

In *The Driver in the Driverless Car*, I predicted that exponential technologies like AI, augmented reality, and universal connectivity would converge and upend long-standing models — none more so than in education. That convergence is no longer hypothetical. It is already here. AI tutors today can detect confusion and adjust in real time. Augmented reality platforms are delivering immersive lab experiences through smartphones. Students will soon be engaging with avatars of Albert Einstein, Mahatma Gandhi, or Rani Lakshmibai to explore history and ethics not by reading about them, but by interacting with them.

AI doesn't replace teachers, it elevates them. Great educators won't be sidelined by machines, they'll be empowered by them. Instead of spending time grading or repeating the same lessons, they'll focus on mentorship, inspiration, and helping students ask better questions. Machines will handle the routine. Humans will guide the profound.

Traditional assessments — standardised tests, copy-paste homework, generic essays — are no longer fit for purpose. HINDUSTAN TIMES

But that shift requires a change in mindset. The real constraint is not technology. It is imagination. If a chatbot can pass a school exam, then perhaps it is time to rethink the exam. If AI can generate an essay, the real learning should be in how a student refines it, critiques it, and makes it their own.

Traditional assessments — standardised tests, copy-paste homework, generic essays — are no longer fit for purpose. AI can complete these tasks in seconds. That doesn't mean the tools should be banned. It means the metrics should evolve. A better measure of learning today is how well a student collaborates with technology, how critically they evaluate it, and what original insight they bring to the final result.

There are real risks, of course. AI can hallucinate facts. It can amplify bias. It can make it easy to cut corners. But these risks are precisely why AI must be part of the learning process. Students need to learn how to question it, how to test it, how to improve upon it. That doesn't happen by locking it out of the classroom. It happens by inviting it in, under watchful and thoughtful guidance.

There is also unprecedented potential. Intelligent systems, if designed correctly, can democratise access to quality education. A student in a remote village could have access to the same level of instruction as one in a major city. Mobile-first platforms, multilingual support, and smart design can break down the barriers that geography and income have long imposed.

If India can figure this out first, if it can empower its children to become fluent in the language of AI, to master these tools instead of fear them, then it will gain a decisive competitive edge. Not just in education, but in entrepreneurship, research, governance, and global influence.

We don't have to choose between tradition and technology. India can lead by doing what it has always done best: Combining ancient wisdom with future-forward thinking.

Vivek Wadhwa is CEO, Vionic Biosciences. The views expressed are personal

HT 11/4/25

TELEGRAPH (P-10), 11 APRIL 2025

PAY HEED

The Indian Institute of Technology Delhi — it had witnessed five student suicides between 2023 and 2024 — had constituted an external panel to probe the reasons behind students taking this extreme step. While the 12-member committee submitted its findings in August last year, there is still no clarity on whether the institution has implemented its suggestions; one student committed suicide since the report was submitted. The findings of the report can be illuminating for educational institutions across the country and not just IIT Delhi. This is because data suggest that student suicides in India have grown at an alarming annual rate, surpassing even the population growth rate and overall suicide trends. In IIT Delhi's case, the report found that burnout from excessive pressure, toxic competitiveness, and caste and gender discrimination were the key triggers behind students ending their lives. What must be noted is that the causal factors often overlap. A study by a forum for caste justice had earlier found that in higher educational institutions that endorse fierce competition and eschew empathy, discriminatory attitudes based on gender and caste get magnified. The IIT Delhi committee confirms this by stating that when a handful of students are competing for a limited number of resources, it kills the joy of learning and distorts peer relationships. The grading system, the report underlined, reinforces this pressure, promoting competition over collaboration. The bias, however, is not always explicit: for instance, enquiries about Joint Entrance Examination ranks are often a covert attempt to infer caste identities, a practice that makes students from scheduled castes and scheduled tribes feel undeserving and deficient.

Just as the causes that lead students to end their lives are applicable beyond IIT Delhi, so are some of the solutions proffered by the committee. Compulsory training for all students, faculty, and staff on inclusivity, equality and respectful behaviour is one recommended step. It is worth noting that the committee found that the usual deterrent to suicides — student counselling — has had limited success on account of confidentiality concerns, perceived stigma, and inadequate sensitivity to social discrimination issues. Laws to end discrimination on campus — the University Grants Commission had notified the UGC (Promotion of Equity in Higher Education Institutions) Regulations, 2025 — must keep these factors and suggestions in mind. Change ought to begin at home too, not just on campuses. Indian families need to understand that the mental well-being of their wards matters more than marks.

NAV BHARAT TIMES (P-16), 11 APRIL 2025

सुप्रीम कोर्ट ने 25 हज़ार शिक्षकों और कर्मचारियों की भर्ती रद्द कर ममता सरकार को कड़ा संदेश दिया है

पश्चिम बंगाल पर ज़रूरी थी यह सख्ती

अभ्यं सेनगुप्ता

यह जाना-पहचाना नज़ारा था। मंच पर दो राष्ट्रीय ध्वज लहरा रहे थे और उनके बीच ममता बनर्जी खड़ी थीं। वह वही कर रही थीं, जिसे पिछले पांच दशकों में बंगाल के राजनेताओं ने एक आर्ट का रूप दे दिया है। वह आर्ट है- खुद को पीड़ित बताना।

कानून का शासन । सुप्रीम कोर्ट ने पिछले हफ्ते पश्चिम बंगाल में करीब 25 हजार शिक्षकों और कर्मचारियों की भर्ती रद्द कर दी। कोर्ट ने पाया था कि भर्ती प्रक्रिया में जानबूझकर गड़बड़ी की गई थी। इस पर ममता की प्रतिक्रिया थी, 'क्या पश्चिम बंगाल में जन्म लेना कोई अपराध है? मध्य प्रदेश के व्यापम घोटाले में कितने लोगों की नौकरी गई थी? जब कम्युनिस्ट सरकार थी, तब रिश्तेदारों की नियुक्तियां क्यों नहीं रद्द हुईं?' इन सब बातों के जरिये ममता असल में अपनी सरकार को बचाने की कोशिश कर रही थीं, लेकिन एक ज्यादा बड़ी समस्या सामने आ गई और वह थी, बंगाल में लंबे समय से कानून के शासन का ध्वस्त होते जाना।

असामान्य केस । ममता बनर्जी की प्रेस कॉन्फ्रेंस और सुप्रीम कोर्ट में राज्य सरकार ने जो दलील दी, दोनों में एक ही बात दोहराई गई कि जिन उम्मीदवारों की नियुक्तियों में गड़बड़ी हुई है, उन्हें बाकियों से अलग किया जाए। उन्हें नौकरी करते रहने दिया जाए, जिनकी भर्ती सही तरह से हुई है। कानून के हिसाब से बात उचित थी। सरकार ने उन उम्मीदवारों की विस्तृत जानकारी भी दी, जिनके नंबर बदले गए थे। सामान्य मामलों में जज प्रयास कर सकते थे कि कुछ की गलती की सजा सभी को न मिले। लेकिन, यह कोई सामान्य मामला नहीं था।

गड़बड़ियों की लिस्ट । उम्मीदवारों की उत्तर पुस्तिकाएं इस केस में गड़बड़ी का सबसे अहम सबूत थीं। जब मामला कोर्ट में चल रहा था, उसी दौरान ओएमआर शीट नष्ट कर दी गईं। ग्रुप सी और डी में ऐसे 185 उम्मीदवारों को असिस्टेंट टीचर बना दिया गया, जिनके नंबर कम आए थे। इनसे ज्यादा नंबर लाने वाले पीछे छूट गए। 1,498 ऐसे लोग नियुक्त हो गए, जो लिस्ट में ही नहीं थे। गड़बड़ियों की यह फेहरिस्त बहुत लंबी है।

सिस्टम का सवाल । फिर भी, सुप्रीम कोर्ट को कोशिश करनी चाहिए थी कि जिन शिक्षकों की नियुक्ति पूरी तरह मेरिट के आधार पर हुई थी, उन्हें दोबारा पूरी प्रक्रिया से न गुजरना पड़े। लेकिन, इस बार अदालत ने व्यवस्था की

खख को व्यक्तिगत परेशानी से ऊपर रखा। कोर्ट ने माना कि भ्रष्टाचार इतना गहरा है, जिसमें निर्दोषों को अलग छांटने की कोशिश करना भी संभव नहीं।

सही फैसला । राज्य सरकार का रवैया सरपरस्त जैसा था, जो अपने चुनिंदा वफादारों को गैरकानूनी तरीके से इनाम बांट रही थी। अब उसे इसकी कीमत चुकानी पड़ेगी। कानूनी रूप से इस फैसले पर बहस हो सकती है, लेकिन नैतिक रूप से यह बिल्कुल सही है। ऐसा इसलिए क्योंकि असली टकराव यह नहीं था कि निर्दोष शिक्षकों को बचाया जाए या गड़बड़ी करने वालों को सजा दी जाए, असली सवाल यह था कि कानून के शासन और सरपरस्ती के राज में से कौन जीतेगा। लोकतंत्र के लिए यह संघर्ष उतना ही जरूरी था, जितना उम्मीदवारों के लिए नौकरी।

अन्यायपूर्ण कानून । इस फैसले से एक हफ्ते पहले ही बंगाल विधानसभा में एक अजीब कानून पास हुआ। इसके बाद वहां एक नई बहस छिड़ गई है। इस फैसले के तहत पिछले कुछ दशकों में उद्योगों को सरकार की तरफ से जो भी प्रोत्साहन मिले थे, उन्हें सरकार ने वापस ले लिया। अब उद्योगों को इंसेंटिव्स के तहत जो भी सरकारी फायदा मिला है, उसे लौटाना होगा। उदाहरण के लिए, अगर किसी कंपनी को पोर्ट बनाने के लिए सरकार से सब्सिडी मिली, क्योंकि इससे रोजगार पैदा होगा, तो अब यह सब्सिडी लौटानी होगी, जबकि व्यापार पहले की तरह ही चलेगा। अपनी बात से पलटना, पीछे दिए गए फायदे वापस लेना बहुत ही अन्यायपूर्ण है।

कानून के राज पर हमला । अगर कोई इंडस्ट्री किसी अदालत या arbitral tribunal में बंगाल सरकार के खिलाफ केस जीत जाती है, तो भी यह फैसला नए कानून के सामने नहीं मान्य होगा। यह प्रावधान मध्यकालीन दौर की याद दिलाता है, जब राजा फरमान जारी करके कुछ भी पलट सकते थे। लेकिन, यह लोकतंत्र है और इसमें किसी कानून के जरिये अदालतों के फैसले नहीं पलट सकते। साथ ही, अगर पहले कोई लाभ दिया जा चुका है, तो उसे कुछ खास परिस्थितियों में ही वापस लिया जा सकता है।

क्रूर मजाक । सरकार यह कहकर कानून का बचाव कर रही कि उद्योगों को दी जाने वाली इंसेंटिव्स की बचत जनहित के दूसरे क्षेत्रों जैसे शिक्षा में इस्तेमाल की जा सकती है। सामान्य दिनों में इस विडंबना पर हंसी आती, लेकिन आज जब हजारों युवा शिक्षक बेरोजगार हो गए हैं और सरकार खुद को चुनिंदा लोगों का सरपरस्त मान रही है, तब यह काफी क्रूर लगता है। अगर बंगाल सीएम का खुद को पीड़ित दिखाना आम है, तो यह भी बेहद आम है, जहां बंगाल सरकार पार्टी को जनता के ऊपर रखती है। इसका लंबा इतिहास है और दुखद रूप से भविष्य भी ऐसा ही दिख रहा।

(लेखक सिंधि सेंटर फॉर लेगल पॉलिसी में रिसर्च डायरेक्टर हैं. ये उनके निजी विचार हैं)

NBT 11/4/25

NAV BHARAT TIMES (P-16), 11 APRIL 2025

केवल एंट्रेंस टेस्ट पर भरोसा करना ठीक नहीं

भूपेंद्र शर्मा

संसदीय पैनल की हाल ही में आई एक रिपोर्ट कोचिंग इंडस्ट्री को रेगुलेट करने की सिफारिश करती है। लेकिन, सिक्के का दूसरा पहलू यह भी है कि गलाकाट प्रतियोगिता के इस दौर में छात्रों-अभिभावकों के लिए कोचिंग जरूरत के साथ-साथ मजबूरी भी है। मुद्दा यह है कि 23 IIT में बीटेक की 17,760 सीटों के लिए ढाई लाख छात्र मुकाबले में होते हैं, तो क्या सिर्फ स्कूली पढ़ाई से नैया पार हो सकती है? वह भी ऐसे दौर में, जहां एंट्रेस टेस्ट में 0.1% भी रैंकिंग को प्रभावित करने के लिए काफी है।

नजरिया बदले | भारत में कोचिंग कल्चर लगातार हावी हो रहा है। ऐसे में विशेषज्ञों का कहना है कि स्कूली शिक्षा को पुराने ढर्रे पर कोर्स पूरा करके उसका रिजल्ट वार्षिक परीक्षा से देखने के चश्मे को बदलना होगा। अब टीचिंग में नई तकनीक को शामिल करना और निरंतर मूल्यांकन करना होगा, ताकि छात्र की कमियों व मजबूत पक्षों की पहचान हो सके। एंट्रेस टेस्ट के सिस्टम का भी रिव्यू जरूरी हो गया है। ज्यादातर एंट्रेस टेस्ट में मल्टीपल चॉइस क्वेश्चन (MCQ) आते हैं। कोचिंग सेंटर एक मिनट में एक सवाल हल करने के टिप्स देते हैं।

समझ का समीकरण | अमेरिका की यूनिवर्सिटी या कॉलेजों में एडमिशन के लिए केवल एंट्रेस टेस्ट ही निर्णायक नहीं होते, बल्कि छात्र का शैक्षणिक रेकॉर्ड, भाषा दक्षता जैसे अन्य कारक भी महत्वपूर्ण होते हैं। ऐसे में सोचना होगा कि एडमिशन का आधार केवल एंट्रेस टेस्ट ही रहे, या फिर छात्र ने स्कूल में जो 10-12 साल बिताए हैं, वहां मिली समझ को भी महत्व दिया जाए। डमी स्कूलों का कल्चर भी इसी सिस्टम के कारण उभरा है। सीटों की कमी तो एक समस्या है ही।

हताशा की ढलान | स्कूलों में भी कई टीचर्स होनहार छात्रों को कोचिंग पर ही फोकस करने के लिए कहने लगे हैं, ताकि जब छात्र इंजीनियरिंग, मेडिकल, UPSC में सिलेक्ट हो, तो स्कूल इस सफलता का विज्ञापन कर सके। कोचिंग में 7 से 8 घंटे

AI Image

कॉमन रूम

की लगातार क्लास लेने के बाद छात्र जब घर लौटता है, तो लैपटॉप या फोन पकड़ लेता है। इंटरनैशनल जर्नल ऑफ इंडियन साइकोलॉजी का एक शोध बताता है कि भारतीय छात्रों का औसत स्क्रीन टाइम 5 से 6 घंटे है। स्कूल, कोचिंग और स्क्रीन - ऐसे में छात्र अपने परिवार व दोस्तों से एक तरह से कट जाता है। यहीं से मानसिक समस्याएं शुरू होती हैं। कई बार हताशा में वह गलत कदम उठा लेता है।

पैनल की चिंता | कोचिंग सेंटरों को लेकर संसदीय पैनल ने जो चिंता जताई है, उस पर सरकार को भी गंभीरता से सोचना होगा। देश में कोचिंग सेंटरों को देखते हुए केंद्रीय शिक्षा मंत्रालय ने जनवरी 2024 में गाइडलाइन जारी की थी। इसमें 16 वर्ष से कम आयु के छात्रों का नामांकन नहीं किए जाने और स्कूलों के समय के दौरान कोचिंग क्लासेज नहीं चलाने जैसे निर्देश शामिल हैं। लेकिन, कोचिंग सेंटर इसे गंभीरता से नहीं लेते, और छात्रों की जान तक जा रही है।

कैसे बढ़ेंगी सीटें | JEE-Main के लिए 14 लाख तक आवेदन आते हैं। इसमें से ढाई लाख IIT में एडमिशन के लिए होने वाली परीक्षा JEE-एडवांस्ड के लिए क्वालीफाई करते हैं, बाकी NIT, IIIT जैसे संस्थानों में जाते हैं। NIT में 24,229 सीटें हैं, तो IIIT में 8,546 सीटें। सरकार ने बजट में घोषणा की थी कि 5 IIT में अतिरिक्त बुनियादी ढांचे का निर्माण करेगी और बिहार की राजधानी पटना स्थित IIT का विस्तार किया जाएगा। लेकिन यह तो जब बनेगा, तब बनेगा। छात्रों को बचाने-बढ़ाने के लिए कोचिंग सेंटर और एंट्रेस टेस्ट का रिव्यू तो अभी होना चाहिए।

DECCAN HERALD (P-6), 12 APRIL 2025

ASSENT DELAYED

When a vacant VC post sparks a power tussle

In Karnataka, the governor confronts the government on RDPR University. At the centre of the impasse is Article 200

M GAUTHAM MACHAIAH

In an unusual move, Karnataka Governor Thaawarchand Gehlot has issued a one-month ultimatum to the state government to invite applications for the post of vice-chancellor (VC) of the Mahatma Gandhi Rural Development and Panchayat Raj (RDPR) University. The governor warned that if the government fails to act, he would initiate the process himself. The post has remained vacant since May 2024, when Vishwakant S Chatpalli completed his term.

The governor's intervention – conveyed through a sharply worded letter to Chief Minister Siddaramaiah – reflects mounting frustration over the government's sluggishness in filling top university posts. Currently, at least six public universities in Karnataka are functioning without a full-time vice-chancellor, adversely affecting their academic and administrative operations.

While Gehlot's concern over the leadership vacuum at RDPR University is justified, his selective outrage and urgency raise eyebrows. Why single out this university when several others continue without permanent heads? The answer lies in the ongoing political tussle between Raj Bhavan and Vidhana Soudha.

In December 2024, the Karnataka legislature passed an amendment to the RDPR University Act, stripping the governor of his role as chancellor and vesting that power in the chief minister. This aligns with a broader trend among opposition-ruled states seeking to reduce the governor's influence in higher education, citing concerns over political interference and constitutional overreach. However, the bill remains pending as the governor is yet to grant assent.

Historically, governors were designated as chancellors of state universities to safeguard institutional autonomy from political meddling. However, over the years, the role has become increasingly contentious, especially in states where the ruling party and the governor belong to opposing political camps. Gehlot, once seen as a governor who adhered to constitutional norms, now faces accusations of acting under pressure from the central government.

The state government, meanwhile, has delayed advertising the VC post, presumably hoping to bypass the governor once the amendment comes into effect. This standoff raises two critical concerns: propriety and constitutional intent. While the governor insists that appointments must follow the existing legal framework until the amendment is enacted, his reluctance to grant assent raises concerns of deliberate obstruction.

The root of the impasse lies in Article 200 of the Constitution, which pertains to the governor's powers related to state legislation. The Article does not specify a timeline for approving or rejecting bills, enabling governors to exercise what is effectively a 'pocket veto' by indefinitely withholding assent, often rendering them infructuous. This practice has drawn severe criticism from the judiciary in the past.

Now, in a significant rebuke to Tamil Nadu Governor R N Ravi, who has consistently delayed giving assent to bills, the Supreme Court has 'read down' Article 200, setting a deadline of one to three months for gubernatorial actions. This is a welcome step, as prolonged delay in decision-making disrupts governance and policy, erodes democracy, undermines cooperative federalism, and compromises Centre-state relations.

The Karnataka government must also reflect on its inconsistency. If removing the governor as chancellor is essential for better governance, why limit the reform to just one university? This selective approach raises suspicions of political motives or vested interests.

Contentious selection processes

Other states have taken similar steps with varying outcomes. In 2013, Gujarat amended its university laws curtailing the governor's powers while retaining the ceremonial role of chancellor. The amendment was approved by then-Governor O P Kohli during Narendra Modi's tenure as the chief minister. In contrast, a similar bill adopted by Kerala was referred to the President, who withheld assent – highlighting how outcomes differ based on political context.

Under the current system, the VC selection process involves a three-member selection committee that comprises nominees from the governor, the chief minister, and the University Grants Commission (UGC). The governor then selects one candidate from a shortlist of three. Unfortunately, this system has often resulted in questionable appointments, influenced by caste, political allegiance, and even financial considerations, rather than academic merit or leadership ability.

A recent UGC draft guideline has further sparked fresh controversy by proposing that the governor, as chancellor, should unilaterally form the VC selection committee, excluding state governments altogether. Non-NDA-ruled states have strongly opposed this move, calling it an infringement on their autonomy. Education falls under the Concurrent List of the Constitution, and states, as primary funders of universities, rightfully seek a say in their governance.

India's federal structure is weakened when the Centre and states clash over critical areas such as education. Uniform rules imposed from above may ignore regional realities and risk marginalising deserving local talent. A balanced, collaborative framework that respects both state involvement and institutional integrity is essential.

The truth is that neither governor-led nor government-controlled systems can guarantee competent leadership unless merit becomes the overriding criterion. Over the years, the VC selection process has become heavily politicised, compromising the quality of higher education.

The need of the hour is a transparent, consultative, and apolitical appointment mechanism. Governors and elected governments must move beyond confrontation and focus on nurturing institutions. Universities should be temples of learning, not battlegrounds for asserting political dominance. They should be nurseries for future leaders, innovators, and thinkers.

While the latest apex court order does not leave Gehlot with much leeway, the standoff over the RDPR University's VC appointment is symptomatic of a deeper malaise in the country's higher education governance. Both Raj Bhavan and Vidhana Soudha must rise above partisan calculations and commit to a system that upholds academic excellence over political expediency.

Ultimately, the future of Karnataka's universities – and by extension, its students – depends on the integrity and competence of those who lead them. It is time to depoliticise education and empower institutions to reclaim their rightful place as beacons of knowledge, creativity, and societal transformation. This can only be achieved through visionary academic leadership committed to excellence and progress.

(The writer is a Bengaluru-based senior journalist)

ASSAM TRIBUNE (P-6), 14 APRIL 2025

Education system, AI and social media

SWAGAT BORUAH

A call to rethink education and regulation in an AI-driven world to safeguard creativity, fairness and human thought.

There are few inventions in modern history as consequential as social media and artificial intelligence. Akin to the impact of the light bulb or the printing press, both these inventions have changed the course of human history and continue to do so. This article highlights the changes that they have brought about to the schooling system and how we can reimagine education with the tools of social media and artificial intelligence.

The school system has historically served three purposes – to give students access to books and study materials, teachers who can teach from those materials, and values of discipline and social skills. With the advent of social media, the first two purposes have been virtually rendered obsolete. Today, an 8-year-old boy in the slums of Mumbai has the power to learn all about a topic of science or mathematics, just the way an 8-year-old boy in California does, thanks to tools such as Google, Wikipedia, YouTube and so on. Social media has changed two features of the schooling system – the fact that there are better schools and better teachers who are gatekeepers of knowledge, and that there needs to be grades for learning a subject. Today, an 8-year-old boy anywhere in the world has access to PhD-level knowledge, thanks to the internet.

This brings us to the important question: can we do away with schools and teachers? I would argue not. But we can, and we ought to, see a radical change in the schooling system, to keep up with the information age and to keep pace with the new-age economy. We have to imagine a future wherein we might need to do away with the concept of a degree, except in cases of professional degrees such as law and medicine; secondly, the concept of a class or a grade might be abolished; thirdly, AI models need to be incorporated into our learning.

There needs to be an effort to tap into the unprecedented flow of information to the common public and the breakdown of knowledge hierarchy. For this, there needs to be early specialisation for students. A child wanting to learn music, or play a sport, or specialise in a particular science subject ought to be given all the possible exposure with the help of the internet and AI, apart from the basic learning at school, so that students are not only able to pursue what they truly love but also have the opportunity to be the best at it and not lose out because of the erstwhile barrier to knowledge and good teachers. This will help create an economy where schooling will become truly classless, and people will have the best and equal opportunity to be specialists in their domain. This will also help make learning more fun and provide students with the opportunity to break free from the shackles of the education system and think more creatively.

Artificial intelligence will in time bring extraordinary benefits to medical science, clean energy provisions, environmental issues, and many other areas. But precisely because AI makes judgements regarding an evolving, as-yet-undetermined future, uncertainty and ambiguity are inherent in its results. Ultimately, the term artificial intelligence may be a misnomer. To be sure, these machines can solve complex, seemingly abstract problems that had previously yielded only to human cognition. But what they do uniquely is not thinking as heretofore conceived and experienced. Rather, it is unprecedented memorisation and computation. Because of its inherent superiority in these fields, AI is likely to win any game assigned to it. But for our purposes as humans, the games are not only about winning; they are about thinking. By treating a mathematical process as if it were a thought process, and either trying to mimic that process ourselves or merely accepting the results, we are in danger of losing the capacity that has been the essence of human cognition. Enlightenment started with essentially philosophical insights spread by a new technology. Our period is moving in the opposite direction. It has generated a potentially dominating technology in search of a guiding philosophy. Other countries have made AI a major national project. India has not yet, as a nation, systematically explored its full scope, studied its implications, or begun the process of ultimate learning. This should be given a high national priority, above all, from the point of view of relating AI to humanistic traditions.

Governments need to build up expertise in artificial intelligence so they can make informed laws and regulations that respond to this new technology. They'll need to grapple with misinformation and deepfakes, security threats, changes to the job market, and the impact on education. To cite just one example: the law needs to be clear about which uses of deepfakes are legal and about how deepfakes should be labelled so everyone understands when something they're seeing or hearing is not genuine.

Political leaders will need to be equipped to have informed, thoughtful dialogue with their constituents. They will also need to decide how much to collaborate with other countries on these issues versus going it alone.

Finally, there ought to be serious thought given to how AI can be blended in with learning for children. ChatGPT has had its Eureka moment by providing users with jaw-dropping solutions to their prompts. Now the serious question that begs an answer is whether we allow AI to take over the human consciousness. Let us not be mistaken because it does pose a serious threat. After all, it is not the delegation of the menial and mechanical task of remembering phone numbers or maps to a machine. This is a question of delegating human creativity and thought to a machine. The jury still remains out as to how AI will impact the economy and the education system given it is still in its inception moment. However, legislation governing social media ought to have its 'seatbelt for the car' moment and for AI, it ought to have treaties like what we had for nuclear armaments. We are living in a very interesting era and the generation of students that are to come will have to deal with unprecedented times.

DECCAN HERALD (P-7), 14 APRIL 2025

The empty classroom crisis: Why are students staying away?

FURQAN QAMAR

Escaping lectures has become the norm rather than the exception in higher education. Most students now prefer to skip classes at the slightest pretext. Even strict measures—such as disallowing students from appearing in exams if they fail to meet the minimum attendance requirement—seem to have little effect.

Student absenteeism is no longer limited to low-quality higher education institutions (HEIs). It has spread across all universities and colleges, including the most prestigious. At one of the institutions of Eminence (IoE), students even appreciated their university for not enforcing attendance, calling it one of its "best practices".

This is not a problem unique to India. Student absenteeism is a global phenomenon, varying only in degree. Even the world's best universities have not remained untouched. If they were, Tom Clay and Lori Breslow of MIT Cambridge would not have felt the need to survey their undergraduate students in 2006 or write a blog post about their findings.

Policy planners and administrators tend to blame teachers. They accuse faculty of being lackadaisical, uninspiring, or insufficiently skilled to attract students to lectures and keep them engaged. Their commitment and passion are questioned, and they are also censured for prioritising their convenience over the needs of students. Teachers are blamed for not putting their hearts into their teaching. Critics argue that lecturers pass the time by making presentations or dictating dated notes. Their lectures are rarely thought-provoking. They seldom encourage questioning by students and scarcely engage them in activities that arouse curiosity.

On the other hand, teachers point to students' lack of seriousness. They argue that students today are more interested in obtaining degrees than in gaining knowledge, learning skills, and cultivating the right attitude. Teachers also blame poor infrastructure and weak administrative enforcement of academic discipline.

Teachers also tend to blame it on innovations in pedagogical practices. Institutions now require them to upload lecture notes, presentations and model question papers. In many cases, the recorded lectures are also made available. These make students feel they would not miss much if they skipped their classes.

Experts cite almost everything under the sun as a probable cause of the malady. For a time, the 'elliot bee' was blamed for distracting students from the classroom. Today, it is the smartphone and constant Internet access that are considered major disruptors.

Some argue that teachers and students are overburdened with lectures, quizzes, assignments, examinations and a host of other activities throughout the year, leaving them little time to enjoy the journey called knowledge. Implementation of semester and trimester systems has further aggravated the problem.

Mental health concerns are another factor. Students and faculty alike may be dealing with anxiety, depression, or burnout, which makes engaging in classroom dynamics harder. Inconvenient class timings, poor classroom conditions, uncomfortable seating, or hostile environments—like ragging, bullying, or an unwelcoming peer group—can also drive students away.

When asked, students often give vague and evasive answers. They try to be kind to their teachers and students when they admit they should attend classes regularly but cannot do so for reasons beyond their control. Some find class schedules inconvenient, while others say they are just lazy.

Still, a few are straightforward: they say the coaching-learning process is deficient and draining, that universities lack qualified and inspiring teachers, and that their lectures are boring, repetitive, and poor value for time, money and effort. Some even see a disconnect between the world of work and knowledge and conclude that attending classes is pointless.

These students may have a point. But their attitude towards classroom remains inexplicable. Why, then, do they enrol in full-time regular programmes, especially when many other options are available? Gone are the days when students had no choice but to study in regular modes to earn a degree.

Why don't they opt instead for distance, open, online, or virtual modes of higher education? Why not accumulate micro or nano credits as they like and deposit them in the Academic Bank of Credit (ABC)? India is perhaps the only country offering such flexible, informal pathways to formal, recognised higher education qualifications. EdTech platforms and digital universities promise freedom, flexibility, and convenience.

Why don't students avail themselves of the concessions that these innovations promise to offer higher education with ease? Why do students continue to seek degrees at all, especially when employers are said to increasingly value skills and aptitude over paper qualifications?

Students enrolled in full-time regular mode knowing fully well that it comes on a price and outside expectations of attendance and class participation. It binds students with rigid timetables of lectures and examinations, thus depriving them of their comforts, conveniences, and freedom. They believe that such higher education provides them some distinct advantages. Why don't they then take full advantage of their decision?

Ubiquitously, our understanding of the issue is only limited and is coloured by our own biases. Each of the parties to the educational process may have some truth to their views, but addressing the ever-increasing aversion of students calls for urgent actions leading to engagement strategies, account ability measures, and students support.

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TELEGRAPH (P-10), 14 APRIL 2025

The case for Bengali as a 'classical' language

Questions of origin

JAYANTA SENGUPTA

On the eve of *Pohela Boisakh*, Bengali New Year's Day, the question of Bengali *asmita* hangs heavy in the air. Is it under siege? If so, from where? Is the eclectic, pluralist soul of Bengal's culture that is under threat from religious bigotry and narrow-minded fundamentalism? Is it the Bengali language whose present and future are jeopardised? The aftermath of the recognition of Bengali as a 'classical' language by the Indian government seems to be a good moment for some reflections on especially the second question.

In 2004, the Indian government decided to create a new category of languages as 'classical', determining specific criteria on the antiquity of a language and the nature of extant literature in it. Tamil got this recognition that year. The criteria were revised in 2005, with the 'antiquity' requirement raised from one thousand years to a minimum of 1,500-2,000 years. That year, Sanskrit joined the ranks of 'classical', with Kannada and Telugu following suit in 2008, Malayalam in 2013, and Odia in 2014. And then, in October 2024, this prized status was accorded simultaneously to Marathi, Pali, Prakrit, Assamese and Bengali, thereby bringing up the number of officially-recognised Indian classical languages to eleven.

Traditionally, a 'classical' language is a prestigious, often ancient, language, like Latin or Sanskrit. Such languages are often contrasted with 'vernacular' languages, which in Indian history have usually entailed a position of inferiority or powerlessness in relation to 'dominant', 'cosmopolitan', or 'classical' languages. Yet, the assertions of linguistic identity in colonial India — and their imbrication in the rhetoric of community, history, and territory — turned these 'vernacular' languages into powerful vehicles that could *appear* to represent and speak for hitherto unrepresented groups. It was this that shaped the strategies employed in defining the territorial claims of new linguistic provinces both before and after 1947.

A page from the *Lalitavistara Sutra* © The British Library

Vernacular print cultures mushroomed in different parts of India from the second half of the 19th century onwards and had a critical role in the creation of public spheres in colonial India. In many regions like Tamil Nadu, Maharashtra, Punjab, Andhra Pradesh, Odisha, Kerala, Gujarat and so on — which, at the time, were included in multilingual colonial administrative units like the Bengal, Bombay, and Madras Presidencies — the explosion of writing on language, literature, culture, and history usually gravitated towards delineating a territoriality of the linguistic community. This territorial element would later provide the spatial substance of the movements for linguistic states.

Interestingly, in Bengal — with its vibrant, vernacular print culture — the project of writing the histories of language and literature was unconnected with a quest for an autonomous territorial identity. Bengalis, because of their early exposure to English, came to dominate the Empire's subordinate bureaucracy all the way from Punjab to Assam. Unsurprisingly, Odia and Assamese linguistic movements — which eventually took territorial dimensions — originally emerged in response to what was perceived as Bengali 'sub-colonialism'.

But the history of the Bengali language and literature, including its 'origin theories', was not brought into the service of seeking a territorial foothold for the concept of 'Bengaliness' because this was never an *agenda* for Bengal. With the exception of its successful pitch for acquiring the Bengali-speaking areas of Manbhum district from Bihar in 1956, the Bengali vernacular intelligentsia didn't have to formulate expansive 'imagined [linguistic] communities' and submit their territorial-geographical expressions to the various colonial and postcolonial commissions that decided on territorial reorganisations. For, willy-nilly, Bengal was on the other side of the table, being forced to part with large chunks of territory, most notably during the two Partitions of 1905 and 1947.

In writing the first history of the Bengali language and literature in the 1890s, the literary scholar, Dineshchandra Sen, was driven not by any project of ethnolinguistic regionalism but by his deep love of Vaishnava and *Mangalkavya* literature. Sen described the Bengali script as having been derived from scripts prevailing during the early Guptas in the 4th century CE though he referred to a Buddhist text, *Lalitavistara Sutra*, to claim that the languages and scripts learnt by Gautama Buddha (*circa* 5th century BCE) included something called 'Bangalipi'. Sen's collaborator in this quest, Haraprasad Sastri, collected manuscripts of *Charyapadas*, mystical poems from Vajrayana Buddhist traditions of eastern India, that were written between the 8th and 12th centuries CE in Abahatta, a sort of proto-Bengali. The linguist, Muhammad Shahidullah, who worked as Sen's research assistant during 1919-21, pushed the antiquity of this proto-Bengali of the *Charyapadas* even further back to the 7th century CE, while also citing Bengali terms contained in an 8th-century Sanskrit-Chinese dictionary. He sought to repudiate the claim made by the linguist, Sunitl Kumar Chatterji, in his monumental, two-volume *The Origin and Development of the Bengali Language* (1926), that concrete evidence of Bengali becoming a distinctive language didn't exist before the 10th century CE.

It's quite interesting to see that the original application document from West Bengal for Bengali's 'classical' status claimed that the existence of Bengali words in an 8th-century Chinese-Sanskrit dictionary "illustrates with absolute certainty that Bangla *must have been the language of communication for several centuries before* (columnist's italics). While this may well have been the case, the tenor of this claim involves an unverified element of conjecture. This has often been the case in the instances of imagined 'placemaking' that have historically served the cause of regional identity and provincial autonomy movements.

West Bengal seems to have undertaken such a monumental interdisciplinary exercise in establishing the antiquity of the Bengali 'people' and the Bengali language and literature — deploying the methods of archaeology, epigraphy, anthropology, history, linguistics, and literary studies — for, arguably, the first time in history. And that too with the objective of gaining a status — two decades after Tamil and one after Odia — that promises, theoretically, to bring in modest gains, like a couple of 'major international awards' per year for scholars, a 'Centre of Excellence', and a few 'Professional Chairs' for the language, to be created in an unspecified future by the University Grants Commission in the Central universities. At a time when adversarial Centre-state relations continue to erode Bengal's fabric of higher education and the UGC itself stares at an uncertain future, it would be a leap of faith for Bengal's *asmita* to ride on these few crumbs of unguaranteed comfort.

It's anybody's guess whether the order of awarding 'classical' status is skewed in favour of 'friendly' states. But the application process obviously involves a lot of competitive lobbying, as can be seen in the pressing parliamentary questions constantly raised by legislators about whether the government is considering granting 'classical' status to such and such languages. It was exactly these kinds of bargaining and negotiations that drove the demands for linguistic states in the 20th century and are now being reenacted on a much lesser stage. Changes in the eligibility criteria introduced by the Central government — most notably, the enhancement of the minimum 'antiquity requirement' from 1,000 years in 2004 to 1,500-2,000 years at present — have also pushed candidate states towards ever more desperate and conjectural origin theories about their languages which can sometimes deviate from peer-reviewed academic research.

The funding that a 'classical' status brings is, often, a pittance. To cite two recent examples, Odia and Malayalam both received this status in 2014, but in the decade since then, both have received an average annual sum of around Rs 38 lakh (according to figures given by the Press Information Bureau). Can this, as the ministry of culture claims, create significant employment opportunities, especially in the academic and research sectors, fund "the preservation, documentation, and digitization of ancient texts in these languages", and "generate jobs in areas such as archiving, translation, publishing, and digital media"? Will Bengal receive even that much, especially in an era when most of its dues from Central schemes and projects are kept on hold? This, again, is anybody's guess. One only hopes that the laboriously researched volume that the *Classical Bangla* application document represents doesn't turn out to be much ado about a little something. Tel/14/10

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DECCAN HERALD (P-6), 15 APRIL 2025

TEXT AND SUBTEXT

The many Indias in our knowledge stream

Knowledge cannot be defined within confines of a unified system, bypassing regional traditions and languages

NAVNEET SHARMA AND SUSHANT KISHORE

The National Education Programme 2020 passionately envisions a future where we are all global citizens, embracing a profound commitment to knowledge deeply rooted in 'Indian ethos, values, and culture.' However, this vision deliberately disregards the vibrant plurality and diversity of India. The Indian Knowledge System (IKS) is simplistically labelled as the Sanskrit Knowledge System, disregarding the rich and diverse historical narratives that medieval India has to offer.

In response to these terms of reference, the UGC has taken decisive action by issuing comprehensive guidelines aimed at incorporating Indian knowledge into the fabric of higher education. The guidelines assert with urgency that "we must expeditiously implement the policy prescriptions," making it clear that all institutions are mandated to engage in research on IKS. This research is not merely an option; it is imperative that IKS becomes a foundational element woven into the curricula of our schools, colleges, and institutions of higher learning.

The model curriculum's first unit, "Introduction to IKS," sets the ball of agenda rolling: it is in 'thrall' of the mythical Bharatvarsha (not simply Bharat), a kingdom of Bharat, one of the fabled ancestors of Ram.

Promoting India's rich intellectual heritage is commendable, but it raises critical concerns that must be addressed. The curriculum's broad definitions of "Indian", "knowledge", and "system" risk oversimplifying India's intellectual diversity. Equating "Indian" with ancient Sanskrit and Vedic traditions overlooks other languages and regional contributions. For example, the curriculum highlights "Vedic references to metals and metal working" and "The Vedic Corpus," representing only one strand of Indian thought. The Sanskrit focus, with scholars like Charaka, Susruta, Aryabhata, and Panini, marginalises other intellectual traditions.

Furthermore, although the curriculum acknowledges regional adaptations of epic narratives like *Ramayana* and *Mahabharata*, it fails to give equal recognition to independently developed regional systems of thought. This lack of balance raises serious questions, especially considering the controversial removal of A K Ramanujan's essay, *Three Hundred Ramayanas*, from the Delhi University curriculum. The guidelines' exclusive approach towards the Hindu-Sanskrit knowledge system hardly reflects the nation's multifaceted legacy.

The model curriculum's narrow definition of "knowledge" heavily favours Brahminical texts, which risks side-lining vital folk traditions, oral histories, and rich non-textual wisdom. While the curriculum rightly highlights disciplines such as mathematics, astronomy, metallurgy, and classical literature, it inadequately recognises the significance of indigenous environmental knowledge, craftsmanship, and social organisation practices. Additionally, an overemphasis on elite scholarly traditions – like the six Vedangs – and

philosophical/metaphysical concepts (*Para Vidya* and *Apara Vidya*) leads us to overlook the diverse and essential aspects of our knowledge systems.

Presenting Indian knowledge as a unified system marks an oversimplification of its intricate and dynamic nature. The curriculum predominantly prioritises mainstream traditions, potentially reinforcing entrenched power dynamics. Although there are minimal efforts to create an impression of inclusivity – like the mention of notable female scholars such as Maitreyi and Gargi or the inclusion of "other Indian languages" – these gestures often lack depth. The primary focus remains on male thinkers and texts, especially those in Sanskrit, while allowing the rich intellectual legacies in languages like Tamil, Pali, and Persian to fade into the background.

Moreover, the curriculum's structure raises significant pedagogical concerns. Its emphasis on reverence and preservation, rather than fostering critical engagement, is glaringly apparent. For example, when it presents the idea of "the king as the protector of Dharma," it denies the possibility of critical analysis. A truly invigorating academic framework should spur analysis, debate, and even critique of historical knowledge systems. Unfortunately, many sections simply offer a list of texts or concepts without encouraging deeper inquiry.

The 'model' curriculum significantly underestimates the value of comparing Indian knowledge systems with those from around the world, which could unravel profound insights and stimulate critical thinking. By neglecting to explore these systems within their historical contexts, we miss a vital opportunity for deeper engagement and understanding. Moreover, there is a noticeable lack of dialogue about how ancient ideas can be scrutinised and relevantly applied to modern knowledge and contemporary challenges.

Curricula short on context

The curricula clearly demonstrate an emphasis on the doctrines of *punyabhumi* (holy land) and *pitribhumi* (Fatherland), yet they glaringly overlook significant contributions from Buddhism, Lokayat, and Sikhism. Even Jainism is given only a cursory mention, highlighting the narrow scope of the curriculum. Furthermore, the transformative Bhakti and Sufi movements, which played a crucial role in redefining the identity of India, are regrettably absent, most likely due to their ties to the medieval period.

At the end, the curricula offer a comprehensive reference list featuring ten books. This list includes three books by Dharampal and four by the duo of J K Bajaj and M D Srinivas, who are trustees of the Centre for Policy Studies, along with Govindacharya, Balbir Punj, and others. Notably, titles such as *Bharatnama* by Sunil Khilnani, *Turning the Pot, Tilling the Land* by Kancha Ilaiah, and *Redeeming the Republic* by Ramachandra Guha are conspicuously absent. Their omission suggests a deliberate choice that overlooks vital perspectives essential for a rational understanding of our society.

While an understanding of historical knowledge systems is undeniably valuable, the curriculum does not sufficiently address how these ideas can adapt to and inform present-day issues. This failure risks confining this knowledge to a static state, rather than recognising it as a vibrant and evolving body of thought.

To truly empower students, we thus need a curriculum that encourages rigorous analysis, meaningful comparisons, and a strong historical context, enabling them to connect past ideas with the complexities of the modern world. Such an approach will not only deepen their understanding but also equip them to tackle contemporary challenges with creativity and insight. The curriculum strives to cultivate the ideal 'Indian' citizen – one with a 'mind free from fear and head held high.' Yet, it seems to have drifted off course, becoming ensnared in the political agenda of Hindutva and indoctrination.

(Navneet teaches at the Central University of Himachal Pradesh, Sushant teaches at the Vellore Institute of Technology)

MISSION VISION

Beyond Economics

India's vision for 2047 can't rest on GDP alone — it must tackle inequality, empower local bodies, strengthen cooperative federalism, and put citizens at the heart of governance

FR. JOHN FELIX RAJ & PRABHAT KUMAR DATTA

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To become truly developed by 2047, India must bridge economic divides, decentralise governance, and invest in its people — especially the unseen and unheard

Vikshit Bharat 2047 represents a transformative leap forward, embodying India's commitment to emerge as a global economic powerhouse, a socially equitable and environmentally sustainable nation, underpinned by transparent governance. This ambitious project marks a critical phase in India's new developmental journey, which began in the 1990s. Over the past 75 years, India's economic landscape has undergone a profound metamorphosis despite challenges posed by climate change. From being the 10th largest economy globally, India has catapulted to the fifth position. According to Price Water Coopers' projections, India is poised to become the world's third-largest economy as early as 2030, with its GDP potentially surpassing that of the USA by 2060. This remarkable growth trajectory is underscored by a significant of the agriculture sector from 56 per cent to 20 per cent, while the service sector has experienced exponential growth, accounting for over 50 per cent of the country's GDP. As the nation strives for rapid economic growth, it must navigate the complexities of sustainable development, balancing economic progress with environmental stewardship and social equity.

Economic Inclusion and Digital Governance

India's strides in economic inclusion, digital governance, and sustainable development are noteworthy. The Pradhan Mantri Jan Dhan Yojana (PMJDY) has brought over 500 million people into the formal banking system, with a significant focus on empowering women, who hold over 55 per cent of these accounts. India's digital public infrastructure, including Aadhaar and UPI, has received acclaim. UPI has become a preferred mode of transaction, with nearly 38 per cent of individuals in rural and semi-urban areas opting for it. The government has made significant progress in harnessing renewable energy, with over 40 per cent of power capacity coming from non-fossil fuel sources, surpassing the Paris Agreement targets.

However, concerns arise regarding the risks associated with increasing dependency on the digitization of governance, including limited spaces for citizens to complain, protest, and demand accountability, as well as cybersecurity risks to digital financial systems. To address these challenges, it's essential to implement measures that ensure inclusive governance and strengthen cybersecurity measures. India's leadership capacity in international forums like the G20 has showcased its commitment to sustainable development and economic growth. The New Education Policy aims to upskill the workforce, preparing them for the jobs of the 21st century. India's progress toward achieving the Sustainable Development Goals (SDGs) is notable, with a score increase from 57 in 2018 to 71 in 2023-24. However, there's still much work to be done, particularly in areas like poverty reduction, gender equality, and environmental sustainability.

Improving social mobility requires a multi-faceted approach COURTESY/UNICEF

Sustainable Development and International Leadership

Scandinavian countries offer valuable lessons for India's sustainability agenda. Norway's sustainable governance model demonstrates how sustainable governance can ensure sustainable economic development. Denmark's government policies promote renewable energy sources, while Sweden's circular economy model minimizes waste and maximizes resource efficiency. Estonia's e-governance model showcases the effective use of technology to reduce bureaucracy, increase transparency, and enhance citizen engagement. India's administrative system, however, needs reforms. The massive expansion of departments in the central government, currently numbering 53 ministries and departments, has led to fragmentation within and across sectors. In comparison, countries like the USA, China, Canada, Germany, France, Japan, Australia, and the Philippines have more streamlined administrative systems.

Cooperative Federalism and Governance Reforms

To successfully implement the Vikshit Bharat agenda, India should focus on strengthening its data systems, enhancing multi-level governance, aligning budgeting with local priorities, promoting capacity building, and fostering public-private partnerships. India's cooperative federal system is crucial for ensuring active participation from all tiers of government. The growing dissent among opposition-ruled states on issues like the New Education Policy highlights the need for dialogue and cooperation. India's local bodies have indeed received a new lease on life since the 1992 constitutional amendments, which aimed to create participatory structures for citizen engagement and enhance transparency in governance. These local bodies, along with Civil Society-Based Organizations (CBSOs), played a vital role in tackling the COVID-19 challenge, demonstrating the effectiveness of collaborative governance. The devolution of funds, functions, and functionaries to state governments is a significant challenge. Many state governments are reluctant to devolve these simultaneously, hindering the effective implementation of policies. Strengthening local governments, such as gram sabhas in villages and ward committees, is also essential for citizen engagement.

The Right to Information Act provides for mandatory disclosure of information to citizens. The government should take the initiative in bringing civil society groups together to promote this cause. India's experience with cooperative federalism has been mixed. To address the challenges facing India's cooperative federal system at the local level, another round of constitutional amendments may be necessary. This could involve enhancing dialogue between the centre and states, investing in capacity-building programs for regional governments, and encouraging civil society engagement. The 14th Finance Commission's decision to increase state governments' share in tax devolution by 10 percentage points is a step in the right direction. The existing arrangement for CSSs has raised concerns, particularly regarding the disproportionate funding received by larger states, which may create an imbalance in resource allocation. Empowering local governments is crucial for promoting cooperative federalism. This can be achieved by enhancing their decision-making powers and increasing their financial resources. By addressing these challenges and promoting cooperative federalism, India can foster more effective governance and achieve its development goals. Additionally, centralized CSSs often hinder states' ability to address specific needs, undermining their autonomy in expenditure decisions. The Inter-State Council, which has become defunct, should be revived to discuss these concerns.

Addressing Inequality and Social Mobility

India's low ranking in inequality and social mobility indices is a pressing concern. The *World Inequality Report 2022* highlights India's stark disparities, with the top 10 per cent and 1 per cent of the population holding 57 per cent and 22 per cent of the national income, respectively. The wealth distribution in India is also highly skewed, with upper-caste Hindus owning 41 per cent of the country's wealth. In comparison, Scheduled Tribes and Hindu Scheduled Castes own only 3.7 per cent and 7.6 per cent of the property, respectively. To tackle these disparities, India needs to establish a dedicated office under the Prime Minister's charge to monitor the implementation of the Vikshit Bharat programme, similar to those in Malaysia, Indonesia, or the USA. Additionally, a new post of Cabinet Secretary rank should be created to ensure high-level bureaucratic coordination. The bureaucracy's reluctance to accept external experts in governance is a significant challenge. Lateral entry has been accepted as a policy, but progress has been slow. Improving social mobility requires a multi-faceted approach, including increased investment in education, promotion of geographical mobility, focus on youth development, and implementation of social protection measures. By addressing these concerns and implementing targeted initiatives, India can work towards reducing inequality and improving social mobility. India's working age population is expected to surge, with estimates suggesting it will reach 68.9 per cent of the total population by 2030. To capitalize on this trend, India must invest in human capital, particularly for women, to enhance employability and increase female labour force participation rates. Addressing deep-seated patriarchy and misogyny is crucial to empowering women and promoting inclusive growth. Policy initiatives, such as quota systems in local bodies, Parliament, and state legislatures, can help drive this change.

Harnessing Demographic Dividend

To harness this demographic dividend, India should equip its working age population to interact with citizens, gather feedback, and implement programs effectively, drawing inspiration from successful models in Brazil and Mexico. The country needs to focus on education, skill development, and healthcare to boost employability and productivity. India's development goals, as outlined in the Viksit Bharat vision, require a proactive and inclusive approach. The country needs to develop a political consensus on these issues, which can be achieved through multilevel discussions. By working together, India can create a brighter future for all its citizens.

Views expressed are personal

Cultivating new changemakers

SUKRITI KOTHARI KHAITAN

With digital transformation and Industry 4.0 making inroads across global economies, redefining education delivery and learning experiences is crucial for supporting this shift. While there have been active conversations about emphasising experiential learning and integrating technology into the curriculum, another key area for educational institutions is to focus on fostering leadership skills, a much sought-after trait for present-day employers.

Additionally, students who foster these new-age skills often have a competitive advantage over their peers in the job market. Hence, there is a need to adopt strategic approaches among educational institutions to ensure the development of students for future leadership roles. These include:

Emphasising extracurricular activities

Actively participating in extracurricular activities, such as joining different clubs, sports teams, and volunteer organisations, enables students to cultivate leadership capabilities from an early age. These engagements play a critical role in promoting skills such as teamwork, project management, and dispute resolution. It also allows students to lead by example and inspire their peers towards shared goals and objectives.

Incorporating leadership into the curriculum

Incorporating leadership concepts and approaches into the standard curriculum also ensures that students acquire fundamental leadership skills. Thus, educational institutions need to integrate dedicated courses on leadership theory, ethics, and practices into existing subjects, which will not only enrich the academic experience of students but also prepare them for multifarious roles of the future.

Conducting training programs

Offering training programs that include role-playing activities enables students to learn and refine their leadership capabilities. These programs offer a conducive environment for students to experiment with different leadership styles and approaches, obtain feedback, and enhance their skills.

Promoting community engagement

Involving students in community service projects is highly effective in instilling a sense of civic responsibility and leadership. When students engage in initiatives that address local challenges, they not only bring a positive change in society, but also develop a sense of empathy, and an ability to inspire and mobilise others.

Furthermore, engagement in community service facilitates a more profound understanding of societal issues and produces leaders who are committed to making a change in their communities and beyond.

Public speaking opportunities

Providing students with significant opportunities to practice public speaking through debates, discussions, presentations, or other speaking engagements elevates their self-confidence and communication skills. Communicating clearly, effectively, and constructively is essential for effective leadership, and these experiences empower students to express their opinions and become advocates for the right causes. This leads to a more engaged and informed student body, capable of making meaningful contributions to society.

Providing continuous feedback

Productive feedback from educators and peers allows students to determine their key strengths and areas of improvement. This reflective process strengthens their learning and allows them to continually evolve as leaders. It also provides them with the insights required to effectively navigate leadership challenges in the future. Leadership is not merely about holding a title, it is a mindset cultivated through active participation, initiative, and self-improvement. Schools and educators must continue to provide platforms for young leaders to grow, ensuring that they are equipped to make a lasting impact on society through their leadership skills.

TIMES OF INDIA (P-14), 15 APRIL 2025

CampUs & Them

Does the Indian university ecosystem share the Trumpian approach to foreigners?

One area in which US has a yuge trade surplus is international students. India alone sent over 3.3L students in 2023-24. How many make the opposite journey? Only 2893, according to the most recent All India Survey on Higher Education, of 2021-22. But per this data, only two other countries sent a higher number of students – Nepal and Afghanistan. Other top source countries were Bangladesh, Bhutan, Nigeria, UAE, Tanzania, Zimbabwe and Sudan. The list underlines how India, with all its higher ed limitations, is still an attractive destination for students from its neighbouring countries and from Africa. Potentially.

Not only has this potential remained unfulfilled, our performance may be worsening. As **TOI** reported yesterday, foreign students' enrolment at JNU has sharply declined over the last five years, particularly from Saarc countries. Plus, it now has students only from 8 countries, against 14 earlier. Why aren't Indian universities living up to their potential? Put aside geopolitical events like the fall of Hasina or rise of Taliban. Then, the factor that's really kept our universities back is a Trumpian approach to foreigners.

Nepal sends max students to India. Yet, when a Bhubaneswar university's scandalous treatment of Nepalese students made international headlines in Feb, what was exposed was not an accidental but institutional racism. This tendency to demonise and/or see as inferior the people who are 'not like us' is spread deep and wide across our campuses. As Trump 2.0 makes international students unwelcome in US, it hollows the partnership that's yielded countless scientific breakthroughs, plus put US at the top of the innovation pyramid. Watching that wreckage from India should leave no doubt that we need to walk the more time-tested and constructive path.

Trumpian policies are also assaulting university autonomy. Refusing to take this lying down, Princeton president Christopher L Eisgruber is publicly campaigning that it is academic freedom and how it's attracted the world's finest scholars that's built the core strength of America. Is there academic freedom in India? The ease with which seminars, movie screenings, faculty appointments et al get 'cancelled' suggests otherwise. Political appointments of vice-chancellors are a dead giveaway that university autonomy is on a short rein in our country. Remember, seeking to replace one intellectual orthodoxy with another is no service to knowledge. Yes, Indian higher ed has great potential. But no matter how it sings, a caged bird can't ever soar high.

HINDUSTAN TIMES (P-14), 16 APRIL 2025

Why India urgently needs to build its own AI systems

Artificial Intelligence (AI) is reshaping economies and societies at an unprecedented pace. India faces an urgent question: Will we take control of our AI future, or will foreign-built models shape our economy, languages, and perception of history? The US and China are investing billions of dollars in AI, entrenching their dominance. Delay risks India becoming permanently dependent on foreign AI models.

India must immediately train its own AI models, leveraging offshore computing environments such as Singapore while rapidly expanding domestic AI infrastructure. We can't wait for AI supercomputers to get built in India; we must act now with available resources and scale as we build our own AI capabilities. This is not just a technological ambition; it is an economic necessity, a cultural imperative, and a national security priority.

Arun Subramaniyan

India's intellectual heritage spans Sanskrit mathematical treatises, Tamil Sangam literature, and Buddhist scriptures, among others. Yet, much of this remains inaccessible to AI models predominantly trained on Western and Chinese datasets. If AI is trained only on English and Chinese sources, India's vast historical and literary wealth risks digital erasure.

Many of India's languages share common grammar structures, syntactic rules, and phonetic patterns, allowing AI models trained in one to scale efficiently across others. This linguistic and cultural interconnectedness enables even less widely spoken languages to be trained at the same fidelity as dominant ones. These synergies allow India to build scalable AI models faster than many multilingual nations — but only if we act now.

If India does not invest in its own AI, foreign-built systems will determine what knowledge is preserved. Western AI models misinterpret Indian historical and legal concepts through a colonial or modern Western lens. Chinese AI models falsely claim Arunachal Pradesh as Chinese territory. Without AI grounded in Indian history and values, we risk digital colonisation.

The next five years will determine AI superpowers. Those who move swiftly will shape the AI-driven economy. India stands at a crossroads — seize control of AI now or become an afterthought in the global AI order. AI could add $500 billion to India's economy by 2030, but only if it serves all Indians. Nowhere is this more urgent than in agriculture, employing over 150 million people. AI can transform farming by making weather forecasts, pest control alerts, and government subsidies accessible in Bhojpuri, Kannada, and Punjabi. A similar challenge exists in India's 60 million small and medium enterprises (SMEs). AI tools can revolutionise local businesses but must function in the languages entrepreneurs speak.

This urgency extends to education and governance. If AI remains trapped in a handful of languages, it will fail to uplift underserved communities, locking them out of the AI-driven economy. Students in rural India should have AI tutors in their mother tongue. Citizens should interact with government AI systems in their language, not bureaucratic jargon.

Some suggest India should focus on small AI models for lesser-resourced languages, citing cost and practicality. This approach is shortsighted. While small models are cheaper and easier to fine-tune, over-reliance on them risks a two-tier AI system — well-resourced languages receiving advanced AI while others get subpar tools. The belief that large models are unfeasible for Indian languages is a self-fulfilling fallacy. India must reject the narrative that our languages lack data for cutting-edge AI. Instead of accepting scarcity as a limitation, we must actively address it — expanding and curating datasets for robust AI in every Indian language.

Building an AI ecosystem does not require immediate billion-dollar investments. The first phase — training foundational models using offshore compute infrastructure — can be achieved with an investment of tens of millions of dollars. This provides immediate traction, allowing India to deploy AI models while building domestic supercomputing capacity in parallel. As these models generate economic value, the second phase can be self-funded through returns and government-backed AI adoption. A simple projection: An initial $50 million investment enabling AI-driven efficiencies across agriculture, business, and education could drive $500 million in GDP-impact within two years. Reinvesting even a fraction of this will sustain the next phase, creating a compounding cycle of AI-driven economic growth.

Acting now secures India's place in the AI-driven future. If India does not immediately begin training its own AI models, it will forever be an AI consumer, not an AI creator. The world is looking for India to lead the way in responsible and sustainable AI.

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The approach to regulating AI in India

Tulika Avni Sinha

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World Privacy Forum

The governance and regulation of Artificial Intelligence (AI) have garnered significant global attention over the past year. While the discourse has recently shifted from a focus on social safety, inclusivity, and human rights towards prioritising innovation and economic prosperity, only a few countries or regions have so far introduced laws to regulate AI. These include China, the European Union, Canada, Korea, Peru, and the U.S. (though U.S. President Donald Trump has now revoked former President Joe Biden's Executive Order related to the utilisation of AI). Several countries, such as the U.K., Japan, Brazil, Costa Rica, Colombia, and Pakistan have draft Bills awaiting approval from their respective legislative assemblies.

A more common approach globally has been the publication of a policy or strategy document that outlines the country's intentions, plans, budgets, and a road map for leveraging AI to foster socio-economic development, while ensuring that the resultant growth is inclusive, ethical, and sustainable. About 85 countries and the African Union have published some official (National) AI Strategy documents.

India's approach

India, however, appears to have taken a different approach. It has neither an officially approved National AI Strategy document nor a law specifically regulating AI. Instead, it has focused its resources on a government mission designed to support the development and adoption of AI. The NITI Aayog document titled 'National Strategy for Artificial Intelligence' from 2018, while comprehensive and strong in its suggestions, remains a recommendation without formal endorsement from the Government of India or an implementation plan or budget. *The IndiaAI mission, through its seven pillars, aims to foster an innovative, skilled, safe, and trustworthy AI ecosystem. Several initiatives, such as a foundational AI model, are in the pipeline. An advisory group of experts is currently working to develop recommendations for governance frameworks that could be suitable for India. But there is limited clarity regarding whether these recommendations will be adopted into official governance policies or integrated as internal mechanisms.*

While there are several benefits to this approach – primarily the flexibility to adapt plans in response to the evolving nature of technologies, their adoption, geopolitics, economics, trade, and citizen sentiment – it also leaves a significant gap. Specifically, it does not provide a comprehensive view of India's vision, priorities, capacity, achievements, planned milestones, initiatives, or accountability mechanisms. The initiatives remain reactive and may or may not follow a planned trajectory towards the envisioned goals. They also risk dependence on individual leadership.

AI development remains predominantly concentrated in the U.S., the EU, the U.K., and China, but India is experiencing a rapid and substantial rise in AI adoption. As AI usage expands, it is essential to ensure that its implementation does not lead to discrimination, exclusionary practices, unfair outcomes, cybersecurity threats, privacy breaches, or unequal opportunities. At present, the guardrails surrounding AI implementation are largely voluntary and lack clarity. There is little to no public awareness of algorithmic use, efficacy or evaluation metrics even in sectors that directly impact citizens' everyday lives, such as banking, insurance, education, healthcare, and public administration. Subsequently, there is little civic discourse on important issues such as algorithmic alignment with societal values, model evaluation outcomes, data and content provenance, labour market disruptions, or the potential cybersecurity and privacy risks driven by AI. This lack of discussion is especially concerning in light of the fact that India has already experienced several instances of violence and social harm, largely fuelled by AI-generated content on social media platforms in recent years.

There are various approaches to AI governance and regulation, and valuable lessons can be drawn from how different countries worldwide have handled data regulation and policies

Lessons to be drawn

There are various approaches to AI governance and regulation, and valuable lessons can be drawn from how different countries worldwide have handled data regulation and policies. With the Digital Personal Data Protection (DPDP) Act, 2023, the Government of India has adopted an approach similar to the EU's General Data Protection Regulation (GDPR) and China's Personal Information Protection Law – cross-sectoral, centralised, and comprehensive. In contrast, the U.S. has taken a more decentralised and sector-specific approach to data protection and privacy. China has implemented focused laws for different types of AI (for instance, generative AI) or a use case (for example, deep synthesis). India could adopt any of these approaches or develop a hybrid model, building on the framework established by the centralised DPDP Act, 2023..

An AI policy could be a viable short-term goal for India. Such a policy would also allow the government to pilot enforcement tools before introducing formal legislation. Insights from the 85 AI policies worldwide suggest key areas that should be addressed in the official document. These include India's vision for AI, strategies for building capacity and infrastructure to support AI development and adoption, the government authority responsible for policy implementation, ethical guidelines for responsible AI use, and priority sectors where AI can drive socio-economic growth. Public discussion on AI use need to be urgently initiated by the government too.

MILLENNIUM POST (P-9), 16 APRIL 2025

WIRED WASTE

Generative AI's Dirty Secret

As AI transforms industries and culture, its growing carbon and water footprint raises urgent questions about sustainability, resource use, and the climate cost of digital convenience

BITAN MISRA & NILANJAN DEY

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The construction of GPT-3, which has 175 billion parameters, required 1,287 megawatt hours of electricity and produced 552 tons of CO2

The swift expansion of artificial intelligence (AI), namely, generative AI and large-language models (LLMs), has caught many people off guard, but the effects on the environment continue to be a major concern. This surge has raised concerns about the strain on electrical systems due to the increasing electricity consumption of data centers. Large language models require tens of thousands of sophisticated high-performance computers to handle and analyse enormous volumes of data. Once trained, these models can make predictions about fresh data and answer questions. Specialized electrical circuits called graphics processing units (GPUs) are widely used because they can perform many calculations or processes simultaneously, but they use more energy than many other types of processors do. One problem is that the carbon footprint of artificial intelligence has not received enough attention. While there are growing initiatives to incorporate renewable energy supplies, the majority of data centers currently function around the clock and are powered by conventional energy sources. Data centers are responsible for 2.5--3.7% of worldwide greenhouse gas emissions due to their energy consumption, which is greater than that of the aviation sector. Nearly one hundred million people were using ChatGPT a few weeks after it launched. Many individuals are keen to use AI for every purpose instead of using the current web searches that depend on simpler AI models; however, according to one tech professional, a single ChatGPT query could consume 100 times as much energy as a single Google search. Researchers discovered in 2019 that the energy required to create a generative AI model with 110 million parameters, named BERT, was equivalent to one person's round-trip transcontinental flight journey. The size of any AI model is indicated by its number of parameters; larger models are typically more sophisticated. According to research, the construction of the much larger GPT-3, which has 175 billion parameters, required 1,287 megawatt-hours of electricity and produced 552 tons of carbon dioxide equivalent, or the same amount of carbon dioxide created by 123 passenger cars running on gasoline for a year.

The carbon footprint of AI highlights the urgent need for knowledge of clean electricity, grid management, decarbonisation, and carbon removal

In the last few days, adorable, whimsical AI-generated images that imitate the classic Studio Ghibli style have taken over social media. Millions of people are now able to create images in ChatGPT owing to OpenAI's features. AI fans soon found that GPT could imitate popular art styles, such as the beloved artwork created by the animation powerhouse Studio Ghibli, because it could render graphics in a variety of art styles. When AI is used for creative jobs, such as creating Ghibli-style images, there are important and frequently disregarded environmental effects. Discussions concerning the sustainability of these technologies and their long-term environmental implications have arisen as a result of the rapid surge in popularity of these AI-generated photos. As reported by OpenAI CEO Sam Altman, the anime-mimicking image generator burned the company's GPUs, and it was so popular that OpenAI postponed a rollout for free ChatGPT customers. This speaks volumes about the appeal of AI, but it may reveal even more about how sustainable that popularity is.

AI has implications that go beyond carbon emissions. Water usage and the production of electronic trash from data centers, which are frequently powered by fossil fuels, are two examples of how AI affects the environment. The cooling of all those data centers is also necessary. Many data centers that use AI cloud models choose liquid cooling because of the high power requirements of AI. Additionally, GPUs may still melt even in that case. To keep its data center cool, OpenAI requires more than two litres of water for every fifty queries as of October 2024. In addition to the use of a large amount of water, the water cycled through by liquid cooling evaporates because such data centers are very hot. To reduce the environmental impact on freshwater supplies, data centers are increasingly adopting saltwater. Conversely, the adoption rate is still not 100 per cent. By 2030, Google wants to achieve net-zero emissions. The goal of reaching net zero is to promote innovation, develop new solutions, and try out various strategies rather than to slow down or compel companies to comply.

The carbon footprint of AI highlights the urgent need for knowledge of clean electricity, grid management, decarbonization, and carbon removal—knowledge that will become increasingly important as more businesses recognize the difficulty and expense of the path ahead. It is important to consider the environmental impacts of artificial intelligence, as society accepts its advantages. The United Nations Sustainable Development Goals (SDGs) are significantly hampered by the carbon footprint of artificial intelligence (AI) technology, especially in regard to SDGs 12 (Responsible Consumption and Production) and 13 (Climate Action). To ensure that the development of AI does not come at the expense of the world, innovation and sustainability must be balanced. The discourse surrounding the carbon footprint of artificial intelligence is still in its nascent stages; however, it compels us to reassess our utilization of AI in both professional and recreational contexts.

Views expressed are personal

PIONEER (P-7), 16 APRIL 2025

Bridging education and employability

The National Education Policy (NEP) 2020 promises a sweeping transformation of India's education system. Its success hinges not just on vision, but on action, investment, and a unified national commitment to reimagining education for the 21st century

FIRST Column

The National Education Policy (NEP) 2020 is a landmark initiative to reshape India's educational landscape, particularly by integrating vocational training into mainstream education. This integration is vital for enhancing skill development and employability, and it complements initiatives such as 'Saransh Shikha' and the Skill India Mission.

The establishment of PM SHRI Schools embodies the vision of the National Education Policy (NEP), promoting a holistic educational experience nationwide. However, significant challenges need to be met in realising this ambitious vision.

The Challenges in Implementation

The primary objective of NEP 2020 — to ensure that by 2025, at least 50 per cent of learners receive vocational exposure — faces multiple hurdles. As of 2023, states such as Bihar, Chhattisgarh, and Uttar Pradesh have lagged significantly in implementation due to financial constraints, inadequate infrastructure, and a shortage of qualified teachers. A staggering 75 per cent of technical institutions currently report a lack of alignment between the skills being taught and those sought by industry, highlighting a disconnect that must be addressed.

At the core of these challenges is the lack of a well-designed curriculum that is robust enough to meet the demands of the job market.

Despite a government push, only about 5 per cent of students in vocational education receive practical training in fields relevant to today's job market. Many traditional academic institutions remain reluctant to integrating vocational education into their curricula, fearing it may dilute academic rigour.

The results is inadequate exposure for students, with 14 million graduates without the skills needed to thrive in a competitive labour market.

Furthermore, there is a notable deficiency in education related to emerging technologies, such as Artificial Intelligence (AI), the Internet of Things (IoT), and automation. Reports indicate that over 80 per cent of institutions lack faculty proficiency in these essential areas, compromising the quality of vocational training offered.

The Path Forward

The path forward requires actionable strategies to ensure that vocational education becomes a core component of the school curriculum. Making vocational education mandatory from Class 9 to Class 12, with students continuing in their chosen fields, is essential.

Yet, reliance on student selecting 'Electricity' as a vocational subject should continue to engage with this subject through Class 10 and beyond, ensuring a deep, practical understanding.

To encourage participation, the government could implement a financial incentive model. Providing a monthly stipend of ₹500 for students from economically weaker sections, along with a vocational training kit, could promote enrolment. An increased stipend of ₹1,000 per month for students who continue in vocational training through three higher classes would further incentivise sustained commitment. Graduating students should receive certification after four years, bolstering their employability both domestically and internationally.

DINESH SOOD

Bridging the Skill Gap

India, with over 260 million students in 1.5 million schools and more than 40 million in higher education, holds one of the largest student populations globally.

Yet, the Gross Enrolment Ratio (GER) stands at approximately 32 per cent, compelling many to seek employment in the unorganised sector — a domain fraught with exploitation and underperformance.

> INDIA, WITH OVER 260 MILLION STUDENTS IN 1.5 MILLION SCHOOLS AND MORE THAN 40 MILLION IN HIGHER EDUCATION, HOLDS ONE OF THE LARGEST STUDENT POPULATIONS GLOBALLY

Vocational education has the potential to effectively address this gap. By focusing on industry-relevant skills, these programs not only enhance employment opportunities but also foster the development of future entrepreneurs.

Countries like Germany and Switzerland exemplify successful dual vocational education systems, blending classroom learning with hands-on industry experience.

India could adopt similar frameworks, ensuring students gain practical exposure, which is increasingly necessary in an evolving job landscape.

Adapting to Emerging Technologies

As technological innovation accelerates, vocational programmes must incorporate modern skills relating to AI, IoT, and cloud computing. The Central Board of Secondary Education (CBSE) initiative to introduce AI and IoT across the country from the Classes VI to X is a step in the right direction. Whatever 10,000 teachers trained in these areas, reaching approximately 350,000 students, substantial progress is evident.

However, a 2022 survey indicated that 31 per cent of teachers are still not proficient with digital tools, while a 2023 report found that 89 per cent feel unprepared to address the impact of AI on education. To tackle these challenges effectively, the public and private sectors must invest in comprehensive teacher training that equips educators for a changing marketplace.

Collaborations with ed-tech companies to bring AI-powered learning tools into classrooms can further support this transition, ensuring that students receive training that is both modern and relevant.

Addressing Regional DisparitiesAlthough the Union Education Minister has asserted that states are beginning to implement NEP 2020, the pace of implementation varies greatly.

Reports indicate that Haryana has set an ambitious target to fully implement the National Education Policy (NEP) by 2025, aiming to increase the gross enrolment ratio of girls in higher education from 32 per cent to over 50 per cent by 2030.

However, discrepancies across states — due to funding shortages, trained faculty shortages, and bureaucratic inertia — not only create inconsistencies but also significantly undermine the policy's potential.

To ensure a level playing field, a centralised monitoring mechanism is essential to track progress and enforce uniform implementation across states.

Conclusion NEP 2020 presents a transformative opportunity for integrating vocational education into mainstream schooling, but its success hinges on strategic implementation, sufficient funding, infrastructure development, and robust teacher training.

As India aspires to become a $10 trillion economy, investing in a comprehensive vocational education system is not just an educational imperative — it's a vital economic strategy.

By addressing the barriers to implementation, India can empower its youth with essential skills, fostering innovation and adaptability that contribute to national growth.

A well-implemented vocational skills education framework represents a win-win for both students and the government, laying the groundwork for a skilled and self-reliant workforce that is pivotal to India's economic future.

(The writer is a Training Partner with the National Skill Development Corporation (NSDC), and a Network Member of India International Skill Centres, an initiative of the Government of India. Views are personal)

HINDUSTAN TIMES (P-14), 17 APRIL 2025

Academia vs Trump is a war of ideologies

The administration is seeking to weaponise grants and funds to force universities to align with its thinking

Harvard, the world's richest university, might be able to resist, but not every US university can afford to lose government funds. REUTERS

The former US secretary of State and national security adviser, Henry Kissinger, is said to have remarked that "the reason that university politics is so vicious is because stakes are so small". As the gloves come off in a monumental face-off between the administration of US President Donald Trump and American universities over sensitive political issues such as anti-Semitism, racism, diversity, equity and inclusion (DEI), and lesbian, gay, bisexual, transgender and queer (LGBTQ) rights and identity, the stakes are actually high and the ramifications go beyond academic squabbles within the ivory tower. This tussle is a marker of an ideological war in a polarised era and a litmus test of balance in knowledge production.

That Trump would go after universities through massive funding cuts was obvious since his re-election campaign, when he slammed them as "Marxist mantacs and lunatics" spreading anti-Israel and anti-conservative views on college campuses. As most of the academe in the US tends to fall into the Left-liberal mould due to inherent inclinations of intellectuals toward progressive values and critical thinking, universities have frequently been attacked by Trump's far-Right populists for perpetuating "liberal intolerance", "anti-nationalistic bias" and "woke culture".

Facts do bear out allegations from the Trump camp that US academia is a hotbed of liberalism. A survey conducted in the elite Harvard University in 2024 revealed that over 80% of faculty members proclaimed to be "liberal" or "very liberal", while barely 1% of them said they were "conservative". There may not be crude pressure on students to conform to professorial liberal biases, but it is noteworthy that the Foundation of Individual Rights and Expression (FIRE) found that 40% of conservative students on US campuses said they had to self-censor themselves to avoid being cornered on hot button political topics, while only 16% of liberal students did so.

Sreeram Chaulia

Anger in Right-wing circles over this skewed picture is captured by data from the Pew Research Center that 79% of American conservatives believe higher education in the US is headed in the wrong direction because of "professors bringing their political and social views" to the classroom and brainwashing young people to adopt wrong values.

The Trump administration's gripe that US universities like Harvard lack "viewpoint diversity" and are under "ideological capture" are debatable. But it is obvious why the Right-wing wants to fundamentally reorder the academe using the stick of government funding cuts. With an estimated annual research budget worth $60 billion pouring into universities from the federal government, Trump aims to tame the recipients by striking at their bottom lines.

Since one Ivy League biggie, Columbia University, has conceded to some of the Trump administration's demands after facing a $400 million funding cut, the conservative war to reshape or rebalance American academia is likely to take heart and intensify further. Harvard, the richest university on earth with its own independent endowment of more than $50 billion, might resist in spite of the sudden loss of $2.2 billion in federal grants, but not every US university can afford to lose government funds that support a wide range of programmes and initiatives.

During a recent visit to the US, I found a palpable nervousness floating in the air in most campuses as to how Trump might punish them and what compromises they have to make to tide over the next four years. Despite quiet self-confidence in their innate abilities to somehow survive the Trump storm, university leaders are getting into huddles to pragmatically "work it out".

While liberals have lambasted Trump's ideologically intrusive and aggressive policies toward higher education as unprecedented assaults on academic freedom, it is worth recalling earlier eras when colleges came under intense scrutiny and encroachment from Right-wing quarters. During the height of the Cold War in the 1950s, the McCarthyist witch-hunt led to at least 100 professors being fired and blacklisted for communist leanings. University managements at that time investigated what was being taught in classrooms, and scholars were forced to redo their course curricula to avoid being drawn into the anti-communist dragnet.

The period of the George W Bush administration's "war on terror" (2001 to 2008) also witnessed heightened scrutiny by intelligence agencies of university professors for dissenting views against the US invasions of Afghanistan and Iraq and for participating in social movements that challenged the foreign policies of the government. Bush's Patriot Act had a particularly chilling effect on Left-liberals, who feared that what they borrowed from libraries and what they said in classrooms could end up costing their jobs and their civil liberties.

Looking back at those moments of crisis and friction between political powers that be and the universities, it is clear that the latter were mauled and had to adjust to an extent, but they ultimately waded out of trouble. Even though Trump and his zealous enforcers are seeking a revolutionary overhaul of American academia, the checks and balances in the American polity ensure that there is no chance of a fascist-like outcome where the State bluntly crushes and remakes universities as per its preference. As with many other institutions that are currently in the line of fire in the US, American universities have ultimate recourse to courts and to private philanthropy, which is unlikely to dry up because the government is turning off the funding tap.

This round of ideological jostling is not necessarily a unique or game-changing one, especially if Trump is succeeded by a Democrat in 2029. Still, the universities have been bruised and Trump could take credit for at least denting, if not reversing, the one-sided liberal trajectory that has been the hallmark of US academia for decades.

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TRIBUNE, (P-6), 17 APRIL 2025

Deep tech needs deep investments

It's a pity that India spends less than 1 per cent of its GDP on research & development

DINESH C SHARMA
SCIENCE COMMENTATOR

GROUND REALITY: Most Indian startups are good at the application and adaptation of new technologies. ANI

THE debate triggered by Commerce and Industry Minister Piyush Goyal's remarks about the focus of Indian startups has revolved around innovation and job creation. He wants startups to work in deep tech areas like artificial intelligence (AI), robotics, electric mobility and global logistics. This is a reasonable expectation, given the government's thrust on the promotion of startups and the opportunities that the vast consumer market of India presents. However, it would be difficult for startups to meet the expectation unless we address the underlying reasons for the situation described by the minister.

Most Indian startups are good at the application and adaptation of new technologies. Very few are engaged in novel technology development or commercialisation or scaling up of technologies and processes developed by Indian entities.

Technology development needs an ecosystem of fundamental research, link-ups with universities and a supply of requisite manpower. India did well in technology services because it had an ample supply of engineering manpower and this line of business did not need fundamental research. The country has performed reasonably well in life sciences with a good research system, partnership with academia and trained manpower. Indeed, working in outsourced R&D centres of foreign companies are developing new products and intellectual property for their parent companies. They can do so because they are backed by investment and are provided necessary tools.

Deep tech areas are driven by cutting-edge discoveries and high-level innovation, which in turn, can come only through deep and sustained investments in basic research and upgrading of universities. It is unrealistic to expect startups to come up with breakthrough innovations while the country spends less than 1 per cent of its GDP on research and development.

Quantum computing, for instance, has been one of the deep tech areas in the spotlight in India for the past couple of years. The government announced the National Quantum Mission (of which quantum computing is a focus area) with a funding of Rs 6,000 crore (about $735 million) up to 2031. It may sound like a big amount, but it pales in comparison with others — China has committed $15 billion of public investment for its quantum technology initiatives. Publication of research papers is another important attribute of fundamental research in any field. The National Natural Science Foundation of China is significantly ahead of its US counterpart in quantum computing research publications. When it comes to patents, IBM, Microsoft and Google as well as specialised quantum companies like D-Wave and Quantinuum hold a large number of quantum computing related patents. These are the sources of the quantum software stacks that other companies depend on. This could result in 'international dependency' in future due to possible export controls and restrictions, points out a new report on quantum science and technology prepared by the office of the Principal Scientific Advisor (PSA).

> Deep tech areas are driven by cutting-edge discoveries and high-level innovation.

Deep tech is already being deployed to address problems in fields ranging from energy to medicine. One example is the combination of AI and high-performance computing (HPC) to hunt for new battery materials. By deploying an AI model developed by Microsoft, scientists at the Pacific Northwest National Laboratory of the US Department of Energy could screen an amazing 32 million potential candidate materials and find a novel material that could slash lithium electrolyte requirement by almost 70 per cent. The breakthrough work was led by material scientist Vijay Murugesan, who did his PhD from Bharathiar University in Tamil Nadu. This is a classic case of how deep tech innovation can address a pressing problem through industry and research institute partnerships. India has had an HPC mission for several years and strong material sciences groups, but we have yet to see such collaboration and outcome.

If the minister had cared to look at the draft of the National Deep Tech Startup Policy, prepared by the office of the PSA in 2023, he would have got answers to the questions he posed at the recent startup event. The policy, which still remains on paper, proposed "an increase in gross expenditure on R&D to provide renewed impetus to basic R&D, which would expand the emerging science base for deep tech startups and the critical base of trained scientific human resource."

It also suggested amendments to existing research assessment systems in academic institutes and research labs to enable the translation of knowledge generated into entrepreneurial ventures. This could be done by creating technology commercialisation offices in research labs and providing necessary guidelines. In addition, faculty members need to be given incentives to let them undertake entrepreneurial risks. This way, they can either launch their own startups or transfer the technology to existing ones.

Besides enhanced R&D expenditure and industry-academia collaboration, the deep tech development depends on access to critical materials like lithium and rare earth minerals — the global supplies of which are controlled by China. Then there are strategic materials like advanced composites, carbon and ceramic materials that go into the sectors of defence, nuclear, space, aerospace and electronics. Access to such materials is also restricted.

Amid the tariff war unleashed by US President Donald Trump, deep tech development will become more challenging for both startups and large corporations in India. We need strong policy initiatives backed by necessary public investments to boost the deep tech innovation system.

TELEGRAPH (P-12), 19 APRIL 2025

UNDER ATTACK

Of all the fights that Donald Trump has picked since returning as president of the United States of America, one might end up as the most defining clash for the future of that country. In recent days, Mr Trump's administration has withheld nearly $2.3 billion in funding for Harvard University; the president has since threatened to withdraw the varsity's tax-free status and bar it from enrolling foreign students. This, after America's oldest higher education institution — it is older than the US itself — defied a series of chilling demands from the current US administration that would have forced it to give up the autonomy it has held on to for nearly four centuries. Ostensibly aimed at tackling anti-Semitism on campus, the demands of Mr Trump in reality insist — in blunt language — that the university determine which students to admit and which faculty to hire and promote based on the White House's political vision. While the victim of Mr Trump's wrathful witch hunt on this occasion might be Harvard, his true target is the very idea that the university is meant to be a commons for teachers and scholars that facilitates the free exchange of thoughts and ideas irrespective of the prevailing political climate.

> The Trump *versus* Harvard battle is emblematic of the global siege on the idea of the university

From Columbia to Cornell, the list of universities whose funding and federal contracts Mr Trump's dispensation has frozen — totalling several billion dollars — includes the cream of academia. Like Harvard, they have all been accused of not doing enough to protect Jewish students and faculty during pro-Palestine protests on campus: this despite the fact that Jewish students and faculty were very often at the forefront of those protests themselves. Some, like Columbia, have buckled, accepting a draconian set of demands, including the banning of face masks at protests and effectively ceding control of a department to the government. But bending the knee has not helped Columbia get its funding back — it has only emboldened Mr Trump to put more pressure on other universities. More than 1,000 students and recent graduates have had their visas revoked — some have been arrested — since Mr Trump returned to office. Almost none of them has been charged with any actual crime.

It is hard to overstate the likely impact of this climate of fear on international student enrolments in US universities. But in many ways, what is happening in the US mirrors the global siege on the idea of the university as an institution that upholds the freedom of thought and expression. Ironically, democracies like India and the US seem to be at the forefront of this pushback against the university. In justifying the campus crackdown, the US secretary of state, Marco Rubio, has spoken about how universities should be spaces of learning, not of activism. Those comments mirror the rationale behind the Lyngdoh Committee recommendations that Indian varsities have had to follow for close to two decades now, as they increasingly face pressure to punish any challenge to the politics of the ruling regime. The political ascendancy of right-wing parties around the world is leading to a worrying transition: universities are no longer being seen as crucibles of critical thinking, dissent and new ideas but as mere teaching shops feeding the labour market. That is why Harvard's battle against a predatory president is not just its own — it is a fight for the soul of higher education.

ASSAM TRIBUNE (P-6), 20 APRIL 2025

'Digital tech in education needs to be regulated'

Face to Face

PRASANTA J BARUAH
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Prof Alak Kumar Buragohain calls for a balanced and regulated use of digital technology with trained teachers who can steer the teaching-learning process.

Alak Kumar Buragohain is the chairperson (Academic) at Assam Royal Global University, Guwahati. He was the former vice chancellor of Dibrugarh University and a professor of Molecular Biology and Biotechnology at Tezpur University.

There is growing concern regarding the prevalence of digital technology in education. What is your take on it?

Application of tools and technology in education is neither new nor recent. Use of slates, blackboard and chalk is ancient. Information and Communication Technology (ICT) like radio and cinema have been used for education since the early 20th century. Coming of digital technology since the 1980s is emerging as a game-changer in education. Widespread use of digital technology for imparting education has become well known since the Covid-19 pandemic. Of late, concerns have been raised about rampant and unregulated application of digital technology in education. This is seen from the very recent ban on the use of digital technology and mobile phones in schools in Sweden.

Please give us an idea as to the exact dimensions of the use of digital technology in education globally.

The Covid-19 pandemic disrupted the conventional school classroom teaching-learning process, and the use of digital technology came about as a response to the global disruption. Penetration of digital technology into classrooms has been so widespread that it has been integrated in the realm of pedagogy as a deep-rooted academic culture. The extent of the application of digital technology in school education can be gauged from the extent of internet connectivity that schools have. According to the Global Education Monitoring Report 2023, published by the UNESCO, globally, even though there has been an increase in internet users by 6% per cent in 2022 from 16 per cent in 2016, that is more than six times during a span of six years, only 40 per cent of primary schools, 50 per cent of lower secondary schools and 65 per cent of upper secondary schools used internet for pedagogical purposes. According to the Union Education Ministry, 57.2 per cent of schools in India have functional computers and 53.9 per cent have internet access.

Digitalization of education is known to have both pros and cons. What are the advantages of application of digital technology in education?

While analyzing the pros and cons of the application of digital technology in education, it is important to point out that the outcome of education should be the focus and not the application of digital technology per se. From a recent study conducted among youth from different regions of the world by the UNESCO, a few important things emerged. The youth are of the opinion that digital technology facilitates better engagement of learners, enhances collaborations and improves chances in the world of work. While the experience of remote learning during Covid through digital technology has given a fillip to digitalization of education in a big way in the post Covid period, the long-term effectiveness, practicality, and impact on the wellbeing and overall development of the learners are yet to be ascertained scientifically.

What prompted Sweden to take the drastic step of prohibiting digital technology in schools?

A few weeks ago, the Swedish government announced its decision to remove digital technology from schools. While many feel that it is a far too radical step in de-digitalizing education, the Swedish government has been alarmed since the last few years over the poor results of children in the Progress in International Reading Literacy Study (PIRLS). PIRLS is conducted by the International Association for the Evaluation of Educational Achievement (IEA) to

evaluate the reading comprehension of 9-10-year-old school children. The school children of Sweden and its neighbouring Nordic countries have been showing increasingly worse performances since 2013 in the Programme for International Student Assessment (PISA) where in the beginning of the century the performance of Swedish students in PISA was considered the European benchmark. PISA is organized every three years by the Organization for Economic Co-operation and Development (OECD) among the 15-year students of the 38 OECD member countries to evaluate the educational systems by measuring their reading comprehension, skills in basic mathematics and science. It is pertinent to refer to a report of the OECD published in 2015 – *Students, Computers and Learning: Making the Connection*, where it was concluded that countries that had invested the most in introducing digital technology in the education sector did not register clear improvements in students' performance.

Is there any scientific evidence that digital learning impairs the learning process in children?

There is evidence that unregulated use of digital technology causes sleeping disorder, distractions, obesity, social isolation and inability to develop social skills among school children. Sweden's Karolinska Institute, a highly respected medical school focused on research, recently mentioned that there is clear scientific evidence that digital tools impair rather than enhance students' learning. Experts from Karolinska Institute have clearly stated, "We believe the focus should return to acquiring knowledge through printed textbooks and teacher expertise, rather than acquiring knowledge primarily from freely available digital sources that have not been vetted for accuracy." The UNESCO too has issued an urgent call for appropriate use of technology in education.

Is de-digitalization of education impossible and unavoidable?

We must remember that digitalization of education has not yet become universal. There are many countries where this has not yet happened. Interestingly, several rich countries could ensure universal secondary school education and minimum learning competencies before the advent of digital technology. There is no doubt that children can learn without it. There is a necessity to address the larger issues in education, like problems of inequity, inclusivity, non-availability of quality learning resources and efficiency. The focus should be on how to apply digital technology in removing these problems.

How effective would be the removal of digital technology from schools?

What is alarming is the rampant unregulated application of digital tools in education. Banning digital technology and tools like mobile phones from schools may not be the ideal solution. Because these technologies are ubiquitous today at homes and in society. The problem has arisen because digital tools have been allowed to replace teachers. What is urgently required is the balanced regulated use of digital technology with trained teachers in command of the teaching-learning process rather than digital tools in the hands of students. Digital technology can be a supportive tool in imparting education, and not a substitute of teachers.

Across THE AISLE

P CHIDAMBARAM

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University education in peril

Unless the UGC Act is repealed, re-imagined and re-enacted, University autonomy will be a distant goal. Unless endowments are created with alumni support, academic freedom will be illusory. Instead of self-reliant *public universities*, there will be a proliferation of *private universities* promoted and funded by wealthy families and corporates (with exceptions). The intention may be philanthropy but the result will be commerce.

"THE UNIVERSITY will not surrender its independence or relinquish its constitutional rights... The administration's prescription goes beyond the power of the federal government. ...And it threatens our values as a private institution devoted to the pursuit, production, and dissemination of knowledge. No government — regardless of which party is in power — should dictate what private universities can teach, whom they can admit and hire, and which areas of study and inquiry they can pursue."

Which Vice Chancellor of an Indian University said that in response to perceived interference in the administration of the University? The answer is "none".

Those were the words of Mr Alan Garber, President of Harvard University (older than the United States of America). He defied the President of the United States who believes he is the most powerful person on earth. Mr Trump retaliated by freezing USD 2.2 billion in grants and USD 60 million in contracts to Harvard University, but the University refused to yield. Last month, Columbia University was denied USD 400 million of federal funds and it buckled under.

No Autonomy

According to the University Grants Commission (UGC) website there are 1074 universities in India as on January 25, 2023, and the break-up is:

STATE UNIVERSITIES	460
Deemed to be Universities	128
Central Universities	56
Private Universities	430
TOTAL	1074

This number includes the oldest three universities established in 1857 — in Calcutta, Madras and Bombay — long before Independence. By the way, because of differences with UGC and the Government, the University of Madras has been without a Vice Chancellor since August 2023.

Indian universities enjoy no autonomy thanks to laws made by Parliament and the manner in which the UGC has worked the University Grants Commission Act, 1956. The Act was enacted to "make provision for the co-ordination and determination of standards in Universities". Section 12 authorized UGC to allocate and disburse "grants" to universities for the determination and maintenance of standards of teaching, examination and research in universities. In 1984, Section 12A was inserted and Section 14 was amended which vastly expanded the powers of UGC. The power of the purse has enabled the UGC to intrude into every function of universities. Using these powers, 'regulations' have been made by UGC that have practically obliterated the autonomy of a university.

UGC is 'Big Chief'

The control of the UGC (and through the UGC of an ideologically-biased central government) extends to appointments of teachers, design of curriculum, areas of research, design and conduct of examinations, etc. Look at some of UGC's intrusive regulations:

Regulations on qualifications and appointment of all teachers and other academic staff;

- the National Eligibility Test (NET);
- the National Eligibility and Entrance Examination (NEET);
- the Joint Entrance Examination (JEE);
- the Common University Entrance Test (CUET);
- the Learning Outcomes-based Curriculum Framework (LOCF);
- the Choice Based Credit System (CBCS); and
- the National Institutional Ranking Framework (NIRF).

Since Vice Chancellors exercised the few 'residual' powers, UGC decided to control the selection and appointment of Vice Chancellors (*see Vice Chancellors will become Viceroys, The Indian Express, January 12, 2025*). In my view, UGC has no role to play in the selection and appointment of teaching and non-teaching posts in State and private universities, especially the appointment of the Vice Chancellor. If allowed, it will be the penultimate step to the nationalization of universities.

Casualty is Higher Education

Has the pervasive control of universities helped the cause of higher education? No Indian university ranks in the top 100 universities of the world (prepared by QS). The highest ranked Indian university is IIT, Bombay that took the 118th rank. In a reply in Parliament, the government disclosed that, as on October 21, 2024, the number of vacant teaching posts in central universities alone was 5,182. The Parliamentary Standing Committee on Education found that there was a decline in placements of IIT graduates. Between 2021-22 and 2023-24 there was a fall of over 18 per cent in placements. Placement of NIT graduates also declined by 10.77 per cent. Dr C.V. Raman was the lone product of an Indian university to have won the Nobel Prize for Science (1930).

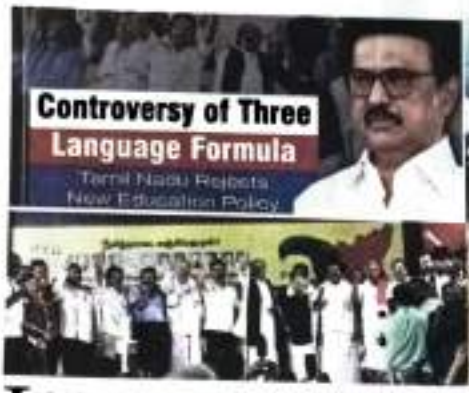
Indian universities are affected by several maladies: no endowment funds, little alumni support, inadequate grants and research contracts, lack of academic freedom, over-regulation especially by the UGC, interference by the Chancellor (Governor) and the Pro-chancellor (usually the Minister of Education), and meddling by politicians and bureaucrats. The lack of academic freedom can be illustrated by one example: hitherto universities that run Distance Education programmes could enroll students from anywhere including foreign students. A recent UGC regulation limits the 'catchment area' to one or two districts of the State where the university is located. The university has no incentive to excel and the student has no choice of universities to pursue distance education.

More bad news is that the space for academic freedom is shrinking. Intolerant groups have launched verbal and physical assaults on several universities, and their teachers and students, including JNU, DU, Jamia Millia, AMU, Jadavpur, Central University, Jammu, and many others.

Unless the UGC Act is repealed, re-imagined and re-enacted, University autonomy will be a distant goal. Unless endowments are created with alumni support, academic freedom will be illusory. Instead of self-reliant public universities, there will be a proliferation of *private universities* promoted and funded by wealthy families and corporates (with exceptions). The intention may be philanthropy but the result will be commerce.

In many tongues

The Three-Language Formula, in its original form, was designed to promote multilingualism and foster national integration. The policy recommended that students in Hindi-speaking states learn Hindi, English, and a modern Indian language from the South. Conversely, students in non-Hindi-speaking states would learn their regional language, Hindi, and English. The idea was to ensure that no part of India remained alien to another and that a certain degree of inter-regional linguistic empathy and cross-cultural literacy would evolve



India's linguistic and cultural plurality is at the heart of its civilisational ethos. It is one of the few nations in the world where the Constitution itself recognizes 22 official languages in the Eighth Schedule, while thousands of other languages and dialects are spoken across its length and breadth. This plurality has not only coexisted with national unity but has nourished it, weaving a complex and rich identity. In such a milieu, language is more than just a tool of communication; it is a bearer of culture, memory, history, and imagination.

The role of language policy, therefore, becomes critical – not merely as a technical or administrative matter but as one with profound socio-political consequences. It is within this context that the Three-Language Formula, first introduced in the National Policy on Education in 1968, deserves a serious and renewed endorsement. At a time when attempts are being made to prioritize Hindi in national and international forums, often at the cost of other languages, a reassertion of the three-language model is essential for preserving India's democratic fabric and inclusive vision of nationhood.

The Three-Language Formula, in its original form, was designed to promote multilingualism and foster national integration. The policy recommended that students in Hindi-speaking states learn Hindi, English, and a modern Indian language from the South. Conversely, students in non-Hindi-speaking states would learn their regional language, Hindi, and English. The idea was to ensure that no part of India remained alien to another and that a certain degree of inter-regional linguistic empathy and cross-cultural literacy would evolve. The formula was not just pedagogical but profoundly political: it sought to strike a balance between unity and diversity, between the need for a link language and the necessity of safeguarding linguistic pride and regional identity.

Yet, over time, the implementation of the formula has been inconsistent, and the intended spirit has often been subverted by partisan and centralising tendencies. Nowhere is this more evident than in the attempts to promote Hindi as a de facto national language, whether through administrative directives, education policies, or symbolic gestures such as the expensive and largely symbolic bid to make Hindi an official language of the United Nations – a move estimated to cost over Rs. 250 crore and with little practical benefit.

In 2022, India's External Affairs Minister, S. Jaishankar, reaffirmed the government's commitment to pursuing this goal, although Hindi is not among the top ten most spoken languages in UN forums and is not used in any significant measure in global diplomacy. This is not just a waste of resources; it also sends a troubling message about whose languages are considered prestigious and whose are not. While symbolic recognition of Hindi has its place, the attempt to elevate it over other Indian languages undermines the federal spirit and pluralism enshrined in the Constitution. Tamil Nadu, for instance, has historically resisted the imposition of Hindi. The anti-Hindi agitations of the 1960s were not merely linguistic protests – they were assertions of cultural autonomy, of a refusal to let a centralized idea of India override regional identities.

These agitations significantly shaped the state's political landscape and resulted in Tamil Nadu consistently opting for a two-language formula – Tamil and English – in schools, refusing to introduce Hindi as a compulsory subject. Their stand, rooted in the broader Dravidian movement, reflects a legitimate anxiety that the privileging of Hindi would erode linguistic diversity and marginalize non-Hindi speakers in the national discourse.

Language is not just about words; it is about access, dignity, and power. In a multilingual society, any attempt to impose a single language risks disenfranchising those for whom that language is not a natural medium of expression. Consider the judiciary, where, despite constitutional guarantees, most proceedings occur in English, and in many states, the dominance of Hindi in administrative exams and processes makes it harder for candidates from non-Hindi-speaking regions to compete fairly. Even in digital India, where translation and access technologies are rapidly evolving, the linguistic divide persists. Children in many rural regions still struggle with basic reading comprehension when taught in languages unfamiliar to them at home.

The National Education Policy (NEP) 2020 attempts to revise the Three-Language Formula by allowing more flexibility and emphasizing mother tongue instruction until at least Grade 5. This is a welcome move in principle, backed by research from UNESCO and neuroscientists that children learn best in their mother tongues during early developmental stages. However, the policy stops short of mandating the three-language formula uniformly and leaves many decisions to states, leading to inconsistent application. Furthermore, the NEP's wording leaves space for the central government to push Hindi subtly under the guise of promoting Indian languages.

ANIL CHANDRA

The writer is an author, political analyst, and columnist

Rather than letting language become a battleground for power, India should view it as a path to inclusive growth. A proper implementation of the Three-Language Formula – ensuring every student learns their regional language, Hindi or another Indian language, and English – can cultivate trilingual citizens.

These individuals can engage with their communities through their mother tongue, participate in national discourse via a link language, and access global opportunities through English. Such a model fosters both identity and integration. Crucially, the formula must remain flexible, allowing for regional context, individual choice, and gradual adaptation. The goal is not uniformity but meaningful multilingual literacy.

Beyond school education, the state should also invest in creating institutional ecosystems that celebrate and develop all Indian languages. This includes funding translation projects, encouraging multilingual publishing, supporting linguistics research in regional universities, and incentivizing film and media production in regional languages.

There is also a need to standardize orthographies and develop technology that can cater to Indian languages – keyboard inputs, voice recognition, natural language processing, and machine translation. The current domination of English and Hindi in the digital space can and should be countered by deliberate linguistic engineering that reflects India's true diversity. The reassertion of the Three-Language Formula also has global resonance.

In an age of cultural homogenization and rising ultra-nationalism, India can offer a unique model of how linguistic pluralism can coexist with a robust democratic state. The European Union, for example, has 24 official languages and continues to operate effectively through a system of translation, education, and respect for linguistic rights. India, too, can strengthen its internal coherence by ensuring that all its citizens feel seen and heard in their languages.

At its core, the question of language is the question of whose voice matters. The Three-Language Formula is not merely an education policy – it is a vision of India that recognizes that unity is best forged not through sameness but through dialogue, translation, and mutual learning.

In rejecting the narrow nationalism of linguistic supremacy and embracing the Three-Language Formula, India reaffirms that its unity lies in embracing the full spectrum of its voices, not in suppressing them.

The road to national integration lies not in mono-lingualism but in the generous accommodation of all languages and respect for individual choice. Only then can we live up to the promise of the Constitution – that of liberty of thought and expression, and the assurance of dignity to all communities, in all their mother tongues.

TIMES OF INDIA (P-23), 20 APRIL 2025

'Do we want to study in a campus where we are scared all the time?'

Trump's America makes students do a rethink. While some look for alternative destinations, those who have got admission are scrubbing social media profiles

Ketaki.Desai@timesofindia.com

Tarn had long dreamt of a life in New York. But this year, when she got into graduate school programmes in the US, it was not relief and a sense of achievement she felt, but a pang of anxiety. "When I was applying last year, the US was high in terms of options for me. But I just can't justify going. I'm not an activist of any sort, but I post political content on social media," says the 24-year-old Delhi resident. "But this is enough to get people deported. I don't want to be scared all the time or spend my time thinking whether I'll wake up to an email if I like an Instagram post." Instead, she is choosing between options in the UK and Europe, both of which feel far less precarious to her.

Over the last few weeks, immigrant students have been subject to visa revocations, leaving them with little choice but to self-deport. Some were identified for their participation in pro-Palestinian protests, but increasingly, relatively minor infractions such as speeding tickets and DUIs are leading to visa revocations. About 1,500 international students have had their F-1 and J-1 visas revoked thus far, according to Inside Higher Ed, a publication tracking the phenomenon. The American Immigration Lawyers Association analysed 327 cases of revocations, and found 50% were of Indian students.

Last week, Indian student Krish Lal Isserdani won a legal battle against the Trump administration's crackdown. Weeks before the 21-year-old was set to graduate, he woke up to an email revoking his visa.

This came after he was arrested for a bar fight last year, but never convicted. The judge ruled that he was not given due process or any opportunity to defend himself, which could set a precedent for students in similar positions. But most do not have the resources to fight back, leading to uncertainty and panic among Indian students in the US, but also those planning to study there, say educational consultants.

Education consultant Rajshekar Tubachi, founder of Maven Consulting Services, says he's been getting panicked calls from students and parents. "The current political climate in the US has introduced new anxieties and uncertainties. Students are rethinking their plans or thinking of precautions. Some are planning to defer their admission for a year, in the hope there's more clarity by then," he says.

Mrinal K Sharma, executive director of education consultancy at Prem N Kapur Associates, says a lot of students are withdrawing their applications from the US and shifting their focus to the UK and Europe. "When you're sending a child abroad, you can't have them thrown out of the country or worry that if they come for the holidays, they may not be able to re-enter the US," she says, referring to certain colleges advising international students not to leave the country during the upcoming spring break.

Part of the uncertainty pertains to a bill introduced in the US Congress that aims to end the Optional Practical Training program which allows students to work in the country. Abhishek Singhal, co-founder of Univ Admit Help, says this has led to chaos, since most study abroad to find work in that country. "They're obviously anxious because once they've spent that much money on an education and taken loans, they're looking for return on investment and that means jobs. That's long been the case in the US and elsewhere in the developed world. But now, there's a paucity of jobs and preference is being given to local citizens as opposed to foreigners. This is also causing a decoupling of academic and professional outcomes," he says.

The drop in student visa approvals — down by 34% in FY 24 as compared to the previous year — is another cause for concern. "It feels like a lottery. Students are keeping backups in places like France or Ireland," says Tubachi.

Student visa forms ask about one's social media accounts, leaving some concerned. Anant, who is going to a US graduate school this fall, was sent an advisory suggesting reviewing social media accounts.

Malini, who is about to go to the US for her PhD, says she's at a loss about what to do with her social media accounts. "I haven't applied for my visa yet, but I've already made my accounts private. I may end up deactivating them altogether. But I use X frequently as it's important for academic work," says the 26-year-old.

Another concern, Malini adds, is what this means for the quality of her academic work. "In the social sciences, your work requires some amount of academic freedom, openness and security, which you don't know is guaranteed anymore. Your department or college can only do so much if immigration steps in. I'm concerned this will impede the quality of work I am able to do," she says.

Manya, currently studying in the US, says it's been a difficult time. "A few weeks ago, when the news was full of ICE raids and international student abductions, the atmosphere was heavy with fear. I felt anxious even if someone knocked at my door," she says. What she's most disillusioned by is "hollow DEI initiatives," she says. "People build their careers around it, but when push comes to shove, what tangible support have they extended to international students or student protestors? People speak up only when it is safe and convenient for them to do so."

Sharma says these moves seem antithetical to what an academic institution should be. "The whole purpose of university is to expand your horizons, your thinking, have new experiences, but that's not possible without the freedom of expression. Do you really want to study in an environment where you're scared all the time?"

Student names changed on request

> **Many students are withdrawing their applications to the US. When you're sending a child abroad, you can't worry about them being thrown out or not being able to come home for a holiday**
>
> **Mrinal K Sharma,** EDUCATION CONSULTANT

HINDU (P-12), 21 APRIL 2025

Arvind Sahay

Build better classrooms

How insights from behavioural science can be used to enhance learning outcomes and empower students with cognitive and emotional skills

GETTY IMAGES/ISTOCKPHOTO

Understanding how students absorb, process, and retain information has never been more critical in an era of rapidly evolving learning environments and diminishing attention spans. Traditional teaching methods, rooted in rote memorisation and standardised assessment, often fail to engage students effectively. However, insights from behavioural science provide a fresh perspective on how learning can be optimised to create more dynamic, student-centred classrooms.

By applying principles from cognitive psychology, motivation theory, and decision science, educators can promote deeper learning experiences and improve student outcomes.

Processing information

Behavioural science highlights that learning is not merely a passive transfer of information but a complex interplay of cognitive processes, emotions, and environmental cues. One fundamental concept is cognitive load theory, which suggests that students have a limited capacity to process information at any given time. Overloading students with excessive content or poorly structured material leads to cognitive fatigue, reducing retention and comprehension. Rather, chunking or dividing lessons into smaller and more manageable chunks improves memory and comprehension. Similarly, spaced repetition, where information is revisited over time, has been shown to strengthen long-term retention, making it a far superior approach compared to last-minute cramming.

Another crucial factor in the learning process is motivation. Traditional education often relies on extrinsic motivators such as grades and rewards, but behavioural research suggests that intrinsic motivation – where students are driven by curiosity, autonomy, and mastery – yields more sustainable learning outcomes. The concept of self determination theory explains that when students feel a sense of autonomy and competence in their learning, they engage more deeply.

Educators can cultivate this by designing classroom activities that provide choice, encourage problem-solving, and relate lessons to real-world applications. Furthermore, tapping into students' natural curiosity by framing lessons as challenges or puzzles enhances engagement, as it aligns with the brain's preference for resolving uncertainties.

Information presentation can also have a big impact on student engagement and retention in the classroom. The availability heuristic, a cognitive bias where people tend to rely on immediate examples that come to mind, suggests that relatable and vivid storytelling is far more effective than abstract theories.

When educators use narratives, case studies, and real-life applications, students are more likely to internalise concepts and recall them later. Additionally, incorporating active learning strategies, such as discussions, role-playing, and experiential learning leads to stronger cognitive connections than passive lecture-based approaches. Instead of being passive consumers of knowledge, research consistently demonstrates that students learn best when actively involved.

The classroom environment plays a subtle but powerful role in shaping student success. Behavioural science underscores the impact of nudges – small environmental or procedural changes that influence behaviour without restricting choices. For instance, structuring syllabi with clearly defined goals and providing regular formative feedback can guide students toward better academic habits. The way assessments are framed also matters; instead of high-stakes exams that induce anxiety, incorporating low-stakes, frequent quizzes has been found to reinforce learning while reducing stress. Even the physical layout of a classroom – arranging seating to encourage collaboration rather than isolation – can significantly impact student participation and engagement.

Engaged learners

Beyond academic learning, behavioural science offers valuable insights into bridging the employability gap. Employers today seek graduates who are not only knowledgeable but also adaptable, resilient, and capable of making sound decisions in uncertain environments. The field of decision science sheds light on how students can be trained to think critically and make better judgments.

Introducing scenario-based learning, where students are placed in complex real-world decision-making situations, prepares them for professional challenges. Encouraging reflection and metacognition – where students analyse their thinking patterns – can also foster better problem-solving skills and adaptability.

A well-designed curriculum infused with behavioural insights does more than impart knowledge; it transforms students into engaged learners and critical thinkers. The shift from conventional instruction to a more scientific, student-centric approach requires educators to rethink how they teach, assess, and support students. By leveraging behavioural science principles, universities and institutions can build better classrooms that not only enhance learning outcomes but also empower students with the cognitive and emotional skills necessary for lifelong success.

The writer is the Director, Management Development Institute, MDI, Gurgaon.

INDIAN EXPRESS (P-10), 21 APRIL 2025

Work in the machine age

To help every student shape their path, schools and colleges need to cultivate tech, data literacy

ADITYA VISHWANATH AND LAKSHMI NARAYANAN

INDIA IS FACING a multidimensional employment crisis — one that is both visible and invisible. The visible crisis is measurable: Over 80 per cent of unemployed Indians are from the youth, despite most having secondary or higher education. One in three young Indians is disengaged from both work and learning. Meanwhile, India must create over 90 million new jobs by 2030, many in fields that don't yet exist.

The invisible crisis runs deeper. It lies in the rapid transformation of the very nature of work. As artificial intelligence, automation, and data-driven systems reshape entire industries, every worker — regardless of sector or skill level — must grapple with a central question: How replaceable is my work by technology?

Historically, waves of innovation — like steam engines or assembly lines — disrupted primarily low-skill, blue-collar jobs. Later, the digital revolution upended white-collar roles through software and outsourcing. But the AI era is different. Today, technology affects everyone, from low-wage workers to high-skilled programmers, architects, designers, and even artists. The impact is top to bottom. With generative AI and automation, even highly creative and analytical professions are being reshaped.

This means that every individual must be capable of continual evaluation. What are the skills I bring to a task? How easily can these be replicated or replaced by technology?

Low-skill, low-replaceability jobs may remain safe — for now. But both high-skill, high-replaceability and low-skill, high-replaceability roles are at growing risk. The only durable edge will come from the ability to learn new skills quickly and continuously.

When we talk about the role of AI in the future of work, we are really referring to a set of foundational capabilities — technology literacy and data literacy — that enable people to understand, work with, and adapt to intelligent systems. These are the real, tangible competencies that underlie "AI literacy" in a workforce context.

Technology literacy equips individuals to engage with how machines operate, how digital systems function, and how automation tools are deployed across industries. Data literacy enables people to interpret, analyse, and act on the vast volumes of information that increasingly shape every decision-making process.

These literacies must begin early — in schools and colleges — not just to train future engineers, but to prepare artists, educators, policy-makers, scientists, and frontline workers to adapt and lead in a technology-rich world.

In envisioning how education must respond, Joseph Aoun, President of Northeastern University, offers a powerful framework called Humanics. He asks, what do we do when the machines do everything.

Aoun argues that future-ready education must rest on three pillars. One, technical ability or understanding how machines work and how to work with them. As AI and robotics take over more tasks, workers who can interact with and augment these systems will become more productive and indispensable. Two, data discipline that pertains to the ability to read, analyse, and act on data. In a world of algorithmic decision-making, navigating vast streams of information is essential for strategic thinking and problem-solving. Three, human discipline is primarily about skills that machines cannot (yet) replicate: Empathy, creativity, cultural agility, and contextual reasoning. These are what allow people to transfer insights across domains, innovate meaningfully, and lead with purpose.

In practice, this means moving beyond rote learning toward experiential, interdisciplinary, and lifelong education.

One powerful tool for enabling this shift is the growing model of micro-credentials: Short, focused certifications that allow learners to stack skills over time. Globally, universities are embedding these credentials into undergraduate and graduate programmes — not just in computer science, but in liberal arts, business, and the sciences.

For instance, a political science student may take a credential in data visualisation for public policy. A historian might earn one in AI-assisted archival research. In India, where higher education has long been degree-centric and rigid, such modular and cross-disciplinary pathways are urgently needed.

Importantly, these credentials also support lifelong learning. As job roles evolve rapidly, workers must continuously re-skill — not through costly new degrees, but through accessible, agile learning options. To prepare a generation for jobs that do not yet exist, India must build an education system anchored in agency, adaptability, and equity. This means embedding tech and data literacy across school and college curricula, training educators to be facilitators of future-ready skills, not just content delivery, promoting micro-credentials that enable personalised, stackable learning and encouraging interdisciplinary application of tech across all fields—from arts to healthcare to agriculture.

The future of work is uncertain — but it is not out of our control. By cultivating broad-based tech and data literacy, fostering human-centric skills, and enabling lifelong learning, we can give every student the agency to shape their path in a world of intelligent machines.

This is not just about producing AI engineers. It's about preparing a nation of problem-solvers, creators, and adaptive thinkers ready to lead in a rapidly evolving global economy.

Vishwanath is the co-founder of MakerGhat & Inspirit, and a visiting research scholar at Stanford University. Narayanan is the Director of Krea University & Chennai Math Institute and former CEO of Cognizant. This article is the fourth in a series on AI in India

MAPPING AI IN INDIA

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TIMES OF INDIA (P-10), 21 APRIL 2025

'Marginalisation Of English Is No Small Matter'

TN minister for school education argues Centre's curricular emphasis on Hindi and sidelining of English disadvantages non-Hindi-speaking students, and locks them into caste occupations

Anbil Mahesh Poyyamozhi

Tamil Nadu govt's refusal to adopt the three-language formula and implement National Education Policy (NEP) 2020 is neither an inward-looking fixation nor an act of defiance for its own sake. It is a deliberate stance against RSS's ideological agenda.

NEP 2020 – reportedly drafted by at least 15 RSS-affiliated individuals – carries an ideological flavour. It aims to confine Indian students within caste-based occupation framework, implying that only certain groups are entitled to higher professions, while others must remain under a subordinate status in the name of 'cultural tradition', essentially the varna system. In contrast, Dravidian ideology strives to empower every student with globally competitive skills across fields.

BJP's claim that NEP 2020's three-language policy doesn't impose Hindi is misleading. The original draft mandated Hindi. Nationwide dissent forced a partial retreat, echoing RSS's vision of "one nation, one language". The policy ostensibly promotes linguistic diversity. But given RSS chief's open opposition to English, coupled with Centre's silence on English in these debates, it is part of broader efforts to sideline English in governance and education.

Union education minister's suggestion – students learn their mother tongue, a foreign language, and another Indian language – appears neutral at first. However, as Hindi increasingly replaces English in govt functioning, students from non-Hindi-speaking regions face substantial hurdles.

Union home minister's admission that 70% of Cabinet documents are now in Hindi underscores this shift. A TN student studying Tamil, English, and Telugu under NEP 2020 may appear unaffected initially. Yet as English loses ground in national employment and higher education, they're forced to adopt Hindi simply to stay competitive.

With govt exams and bureaucratic processes increasingly proposed in Hindi, the three-language policy becomes an instrument of Hindi imposition. The systematic marginalisation of English is no small matter. BJP trumpets the three-language policy, but remains silent on the fact that fewer than 10% of Indians – mostly from relatively privileged backgrounds – are proficient in English.

Mastery of English isn't given parity in policy discussions. If the policy genuinely advocated three languages on equal footing, all three would be emphasised. BJP, RSS have persistently overlooked English, focusing solely on the 'third Indian language'. This approach effectively ensures only certain groups retain access to global opportunities, while the rest remain confined to lesser prospects.

TN's two-language policy – Tamil and English – safeguards cultural identity and ensures global competence alongside countries like China, South Korea, Japan in line with US, and Europe. Stalin, steeped in the legacy since Anna's 1960s protests against Hindi imposition, understands this as more than language policy; it is cultural domination wrapped in linguistic packaging.

NEP 2020's early vocational tracking threatens to confine children from marginalised communities to caste-bound trades. Lack of English proficiency heightens this risk, leaving them isolated from higher-paying jobs in an increasingly globalised and innovation-driven marketplace. For TN, which has successfully uplifted its citizens through education, such proposals run counter to the Dravidian model of inclusive growth.

NEP 2020's promises of flexibility, vocational training, and local-language instruction, are disquieting. By steering students prematurely toward "traditional" vocations in a highly stratified society, it perpetuates hereditary caste roles. Parents from disadvantaged backgrounds may push children into short-term, low-paying skill tracks instead of sustained schooling. These children face a life locked into the same socio-economic rung as their ancestors.

In contrast, TN's policies provide free meals, a no-detention policy until Class 8, financial incentives for higher education, and measures to send teachers and students for foreign exposure, widening horizons and bolstering global competitiveness.

TN's two-language model *(Tamil & English)* **has produced a raft of CEOs, scientists, and innovators. Its** Gross Enrolment Ratio in higher education approached 50% by 2020, surpassing NEP 2020's 2035 targets. Why should such a successful framework bow to a policy that offers less? TN's refusal to adopt NEP 2020 is fundamentally about safeguarding social mobility and diversity, not a simplistic tug-of-war over language.

Centre's withholding Samagra Shiksha funds from TN, as reported in various media, highlights the use of financial pressure to coerce states into accepting NEP 2020. Centre appears willing to jeopardise the well-being of over 40L school children in TN to enforce compliance. When more than ₹2k cr is held hostage to force acceptance of a policy that can undermine equitable education, one must ask: Who benefits from NEP 2020?

Certainly not marginalised families relying on broad-based English literacy for their children's dreams. Not states that have successfully tailored their own bilingual policies. And not those who see India's linguistic plurality as a strategic asset. Centre's push to homogenise language use stands at odds with India's constitutional ethos.

Tamil Nadu refuses to relinquish its hard-earned educational gains, linguistic identity, and social aspirations to satisfy central edicts. It's for the rest of the nation to consider the far-reaching consequences of surrendering local autonomy in education.

INDIAN EXPRESS (P-9), 22 APRIL 2025

The people's language

Hindi and Urdu share much and differ little, except in scripts

MRINAL PANDE

"LANGUAGE IS NOT religion. Language does not even represent religion. Language belongs to a community," ruled Justice Sudhanshu Dhulia in a recent landmark Supreme Court judgment. It went on to call Urdu "the finest specimen of Ganga-Jamuni *tehzeeb*, or the Hindustani *tehzeeb*". One must thank the apex court for reminding us that India has always been a deeply multilingual nation. Each region had a language, each language had its own tradition of oral literature and dialects that fed into the pool. Until the 18th century, Urdu and Hindi were among the various names used for a common spoken tongue in the northern plains, from the borders of Punjab to the principality of Awadh.

The name Urdu means an army camp in Turkic. The language initially grew among the residents of an area where Persian-speaking army personnel were stationed as far back as the 14th century. It was created as they interacted with local citizens speaking a mix of north Indian dialects, which Amir Khusro also termed Hindavi. He used it copiously in many of his poems and songs, mixing various dialects spoken in Braj, Awadh, and also the Khadi Boli of what is now western UP.

Urdu mutated as it moved from Delhi to Awadh. Among the Urdu cognoscenti, it was a subject of debate whether the standardised form of Urdu was the one spoken in the camp area in Delhi or the Awadh *darbar*. It was assumed that Hindavi was a common base for both Hindi and Urdu. Controversy first began to crystalise around the script. The four clerics or *bhakha munshis* appointed by the British were ordered to carve out two languages from spoken Hindustani: Hindi written in the Devanagari (or Nagari for short) script borrowed from Sanskrit and Urdu written in a slightly indigenised version of the Persian script.

Interestingly, with literacy levels low in the Hindi belt and more Persian script writers being available courtesy of the Mughal court, by the 1820s, Calcutta, and not Delhi or Awadh, rose to be a major centre for publishing books in both Urdu and Hindi. Two popular newspapers came up under the ownership of not Muslims but Bengali Hindus: Raja Ram Mohan Roy's Persian weekly *Mirat-ul-Akhbar*, and Harihar Dutta's (originally a publisher of Bengali books) Urdu newspaper, *Jam-i-Jahan-Numa*. Once cost-effective and portable litho publishing reached Bihar, Agra and Awadh, Urdu publishing began to flourish there as well.

Demand for school texts for Anglo-vernacular government schools created a big market for Hindi and Urdu text books by the early 20th century. Hindus being numerically larger and Hindi script being marked out as "nagari" by the government, the market for Hindi books began to overtake that for Urdu. In 1868, Raja Sivaprasad, a member of the British-fostered educational elite and an inspector of government run Anglo-vernacular schools, was tasked with writing textbooks in Hindi. He earned handsome royalties as also the coveted title of Sitara-e-Hind (The Star of India). With that, a typically Indian politicisation of Hindi-Urdu was spurred.

Soon, Sivaprasad attacked Urdu as a "foreign" language foisted on India and, following him, the Allahabad Institute also made a declaration in favour of Hindi. The battlelines were thus drawn. As the commerce in printing popular tracts on religion, medicine and fiction grew, alongside the demand for school texts, literary patrons, educators, industrialists and Indian publishers all began to take sides. Detractors of Urdu alleged it was throttling the indigenous language or *bhakha*. This charge is baffling. *Bhasha* or *bhakha* has actually been the term for an inclusive melange of dialects spoken in the northern plains, including in Braj, Awadh, Mithila and Bhojpur, in both Hindi and Urdu. This was the common language of the Hindi belt trickling down since the 16th century through bands of pilgrims, *fakirs* and *sadhus* reciting orally the exquisite poetry of Tulsidas, Kabir and many others.

Like Elizabethan English, this Hindi-Urdu mix has always been more of a liquid bubbling with a certain fury against the system. To call it alien and unworthy of sharing space on government signboards of a municipal council building, like the Akola councillor who filed the petition in the Supreme Court did, defies not only the law of the land but also historical facts about the birth and growth of our very own *bhakha* Urdu.

Make no mistake, the Hindi that the government today wishes to crown as the national language is a vastly associational Sanskrit with many of its caste and gender biases intact. Also, while daggers are out on both sides over the language issue, the young in the Hindi belt are willingly abandoning Hindi en masse for English. Their parents, including the most vociferous supporters of the BJP leadership, and of Hindi, will root for an English-medium education in (relatively expensive) private schools when it comes to their own children. Parents and children are in agreement that superior job opportunities and upward social mobility are accessible only if they master English first.

Various filmmakers and musicians from Bollywood are disturbed by the shrinking popularity of their films colonised by English-speaking actors and pop singers of no great talent. If there is any hope for popular Hindi films to regain their lost glory, writers, musicians and film/TV makers and mediapeople must master their Hindi-Urdu once again and translate more and more. As for literary historians, they have remained trapped into writing angry competing historical narratives of Hindi and Urdu for too long. What we now need is a calm, composite, comprehensive history of Indian literature that spans both Hindi and Urdu as people's languages, differing little but in scripts.

The writer is former chairperson, Prasar Bharati

PIONEER (P-6), 22 APRIL 2025

Editor's TAKE

Visa shock for Indian students

US revokes hundreds of student visas: 50 per cent affected are Indian students

In a move that has sparked concern across academic and diplomatic circles, the Trump administration has revoked student visas for hundreds of international students, with a staggering 50 per cent of the affected individuals hailing from India. The American Immigration Lawyers' Association (AILA) has revealed this information. AILA collected 327 reports of visa revocations and Student and Exchange Visitor Information System (SEVIS) terminations from students, attorneys, and university personnel. What is of concern to India is that this move disproportionately affects Indian nationals, followed by students from China (14 per cent), South Korea, Nepal, and Bangladesh. There are serious concerns about the transparency and consistency of the process, as the actions lack proper oversight and are leaving students with little to no recourse. The revocations are not only a personal and academic setback for the students involved but also reflect a growing unease in the international student community. Many have described the process as abrupt and arbitrary, with limited opportunities to appeal SEVIS terminations or clarify misunderstandings. For Indian students, who comprise one of the largest populations of international students in the United States, this development is deeply unsettling. These students invest heavily — both financially and emotionally — in pursuing higher education in the US. The visa revocations interrupt academic progress, affect employment opportunities tied to their studies, and, in many cases, may force them to leave the country abruptly. The psychological toll is equally significant. Students face uncertainty, fear of deportation, and the potential stigma of visa termination, which could affect future travel and academic prospects.

The ramifications of this policy move extend beyond individual students to American educational institutions. International students are a vital source of revenue for US universities, contributing billions of dollars annually through tuition and living expenses. Many graduate programmes in science, technology, engineering, and mathematics (STEM) — areas critical to US innovation — rely heavily on international talent, particularly from India and China. With increasing visa uncertainties, universities may find it harder to attract top global students. This could result in lower enrolment numbers, loss of funding, and a diminished reputation for academic inclusiveness and excellence. Moreover, such measures may deter future applicants, who may opt for more welcoming countries such as Canada, Australia, or Germany. While the Trump administration has not offered detailed justifications for these specific revocations, the actions are consistent with its broader immigration stance.

Throughout his presidency, Donald Trump emphasised tightening immigration controls and "putting Americans first," often casting a sceptical eye on visa programmes — even those meant for students and skilled workers. One reason for these revocations may be tied to concerns about misuse of visa programmes, fraudulent enrolment, or security vetting. However, critics argue that such justifications are being applied too broadly, punishing legitimate students and tarnishing the US's image as a global education hub.

The Trump administration's decision to revoke a significant number of student visas, disproportionately affecting Indian nationals, marks a troubling development in US immigration policy. If left unchecked, such policies could shift global student mobility away from the US, undermining the nation's historical status as the premier destination for higher education. ৫৩\6

STATESMAN (P-11), 22 APRIL 2025

From learning to earning

ASHISH MUNJAL

Higher education is often viewed as the gateway to career success, yet in today's rapidly evolving job market, a degree alone no longer guarantees employability. The challenge lies in bridging the gap between academic learning and industry expectations. With automation, AI-driven tools, and shifting job roles reshaping industries, higher education must pivot toward skill-based, outcome-driven learning to ensure graduates are truly career-ready.

According to the India Skills Report 2024, only 54 per cent of Indian graduates are employable, which means nearly half of degree holders struggle to find relevant jobs. This gap exists primarily due to outdated curricula, lack of hands-on experience, and insufficient industry exposure. Therefore, higher education institutions should prioritise competency over mere certification.

Colleges and universities must focus on several key areas listed below to better prepare students:

Reimagining curriculum for future careers: Universities should design curriculum in accordance with the demands of industries. There should be a focus on technology-driven learning integrating AI, data science, cybersecurity, digital marketing, and emerging technologies across business, healthcare, engineering, and creative disciplines to enhance practical knowledge and industry relevance. An interdisciplinary approach should be adopted blending business, technology, and communication skills for holistic learning. Further, applied learning should be utilised including case studies, simulations, and project-based assessments to replace rote memorisation.

Hands-on industry exposure: Internships, live projects, and apprenticeships must become an integral part of education. Universities must partner with corporations to offer real-world business problems as part of coursework. Students should do internships as it increases the placement rate. Institutions must actively nurture student entrepreneurs as India boasts over 100,000 startups, as per the Startup India Initiative.

Soft skills: Emphasis should be given on developing soft skills as a Harvard Business Review report states that 85 per cent of job success depends on soft skills, yet they are often overlooked in formal education. In higher institutions, there should be leadership and decision-making labs where structured simulations are done to build problem-solving skills. Public speaking and business communication workshops should be regularly organised to equip students with corporate-ready communication skills.

Making education accessible and affordable: There should be structured financial literacy programs, scholarships, and industry-backed funding models. Further, provision for scholarships to women and underrepresented groups should be present. Institutions can implement innovative funding solutions such as Income-Share Agreements where students pay a fixed percentage of their salary after securing a job or Corporate-Sponsored Education where companies fund students' education in exchange for a work commitment. Further, there can be Micro-Credential Payment Plans where there should be provision for pay per module or certification instead of full-course tuition.

Government support: The Indian government has launched several initiatives to improve the employability of graduates. The National Education Policy (NEP) 2020 emphasises skill-based education, interdisciplinary studies, and vocational training. Additionally, the 'Pradhan Mantri Uchchatar Shiksha Abhiyan' (PM-USHA) provides funding for universities to upgrade infrastructure and introduce job-oriented programs. The government also promotes student-industry collaboration through platforms like the AICTE Internship Portal and the Skill India Mission, ensuring that graduates acquire hands-on experience before entering the workforce.

Embracing the digital skill wave: As technology continues to reshape industries, digital skills have become essential for career growth. Higher education institutions must incorporate training in digital tools, programming, and emerging technologies into their curricula. Offering specialised courses and certifications in areas such as artificial intelligence, cloud computing, and cybersecurity can enhance students' career prospects and ensure they remain competitive in the job market.

Salary growth: The India Salary Trends Report 2024 indicates that fresh graduates in engineering, IT, and management fields earn an average starting salary of Rs 6-10 lakh per annum, while those in arts and humanities earn significantly less, around Rs 3-4 lakh per annum. This disparity highlights the importance of choosing the right course and gaining additional certifications to improve employability. Several platforms allow students to acquire industry-recognised skills at low costs, increasing their job market value.

Mental health and career counselling services: Many students experience stress and uncertainty about their future careers, affecting their overall performance. Universities should offer dedicated career counselling centres, mental health resources, and job placement assistance to ensure students graduate with confidence and clarity. The World Health Organisation (WHO) reports that one in five college students experiences anxiety related to career uncertainty, underscoring the importance of psychological and career support systems in higher education.

For India to compete globally, higher education institutions must evolve to meet industry demands. By emphasising job-oriented skills, fostering partnerships with businesses, integrating financial literacy, and leveraging technology, universities can ensure that students transition seamlessly from learning to earning. A well-structured education system that aligns with industry needs will not only boost employment rates but also contribute to economic growth. Graduates will not just secure jobs but thrive in their chosen careers, achieving both financial stability and professional success.

The writer is an expert in the education industry

TIMES OF INDIA (P-18), 22 APRIL 2025

Class Oppression

Excessive pvt school fees are thanks to poor regulation in a market defined by high demand, low quality

In Delhi, parents have hit the streets to protest excessive school fees. Private schools charging exorbitant sums under numerous heads are now a routine nightmare for families. Some media reports say school fees have gone up 50-80% over three years. Even at half that rate of increase, it's shockingly high. Almost half of all schools in Delhi are private. Nationwide, that number's almost one-third. Crumbling govt education infra will obviously push more and more parents to register their children in private schools – plus the pull of English-medium education is stronger than ever, understandably so. Enrolment in private schools has grown exponentially – from about 20% in 2010 to 46% in 2023.

But while demand is huge, just a handful of schools deliver quality education – and these cater to wealth & social networks. In a majority of private schools, expensive doesn't guarantee excellence. This majority has poor learning delivery, prioritises profit, and is known more for high costs and lack of accountability.

Given low-grade teaching, the relationship between students, their parents and such private schools becomes bruisingly transactional. Aspiring middle-classes are stuck paying extortionate fees for subpar learning. Neighbourhood schools compete not on scholarship or pedagogy, but on 'facilities' available. And for each 'facility', there's a rate. Taken together, private schools are running a kind of monopoly, making high profits by selling a low-quality service. Parents and students are hapless consumers without any bargaining power.

Education departments are squarely to blame for the regulatory void. Derecognition for malpractice is well within every education department's writ. Of course, politicians and businesses are intricately involved. Even a judge-led committee's report on excessive fees, which identified 449 private schools in Delhi that overcharged parents, failed to reach its logical conclusion. The fatal flaw may even be the policy itself. Why is it in India, policy demands private schools can only be run by nonprofits? It makes every education entrepreneur create a meaningless trust or society. The dodgy practice starts there – high fees follow. Allow schools to legally make profit, and regulate their fees.

TRIBUNE, (P-7), 22 APRIL 2025

Education for sale: Middle class contradictions

AVIJIT PATHAK
SOCIOLOGIST

As I come to know about the protests held recently by furious parents outside several private schools in the national capital over a steep hike in fees — from tuition charges to additional levies for air-conditioned classrooms, I reflect on the contradictions that characterise the life-trajectories of the upwardly mobile aspiring class.

Yes, I understand that they have solid reasons to be angry if the fancy private schools where they send their children for education increase the fees arbitrarily, refuse to initiate any negotiation with them and force them to buy overpriced uniforms, notebooks and non-NCERT textbooks.

I empathise with a parent when he says that it is exceedingly difficult for a single-income family to pay, say, Rs 50,000 extra per child annually.

Yet, I can't escape from asking a counter-question to these angry parents: Were they not aware that their decision to send their children to these fancy private schools was like giving their consent to the marketisation and commodification of education? And, isn't it a fact that many of us who belong to this class have never bothered to put pressure on the government so that our government-aided schools become truly well equipped to provide good quality education to our children?

In fact, every morning when I see them — doctors, lawyers, engineers, civil servants, professors and other professionals — waiting with their children for the air-conditioned school buses to pick them up, I see yet another harsh reality that characterises this highly unequal/asymmetrical country: malnourished children with torn clothes walking towards nearby municipality schools.

Seldom do these two worlds meet. In fact, we didn't want this merger. We didn't fight for a shared and well-functioning public domain. Instead, we began to separate ourselves from everything that is 'public'. From public transportation to our own private cars or from government hospitals to private nursing homes. We separated ourselves from the struggles of the poor, the subaltern and the lower middle class.

The result is the growing withdrawal of the state from all socially meaningful welfare practices. And hence, it looks somewhat hypocritical if we begin to cry that the annual tuition fee of a well-known private school in New Delhi is Rs 3 lakh, excluding additional charges like registration, development, exam fees and transportation.

It is like thinking that a fancy corporate hospital will charge less if you and I cry, and state the tales of our financial difficulties!

It is, indeed, a matter of concern that our public schools, colleges and universities are declining fast and there is a mushrooming growth of private enterprises. Possibly, my generation was somewhat lucky. Yes, I was a student of a Bengali-medium government school in West Bengal. Well, in our school, we didn't speak English fluently; we didn't possess what this generation values as appropriate 'cultural capital': a set of symbols and practices that distinguish one from everything that is 'ordinary'.

And yet, I have no hesitation in saying that we found the company of reasonably good teachers and our academic skills were quite satisfactory. Moreover, in this government school, I experienced the ecstasy of diversity and plurality. My friends belonged to different castes, classes and religions. There was no segregation between the rich and the poor. In fact, those who are protesting against the fee hike in front of private schools will be surprised to know that when I was writing my board examination in 1974, the tuition fee was merely Rs 5 per month!

Possibly, the great vision of 'common schools' that distinguished the recommendations of the Kothari Commission of Education, 1966, was still alive. India was poor; but then, the logic of market fundamentalism implicit in the neoliberal doctrine of 'efficiency' and 'growth' was not so distinctively visible. From government schools to inclusive and affordable public universities, our journey, even though not perfect, taught us that without some sort of socialist/welfare policies, India could not overcome the curse of inequality and exploitation and move towards a democratic and egalitarian nation.

However, in our times, the gifts of neoliberal market fundamentalism seems to have seduced people like us. No wonder, we do not demand anything substantial from the government. Instead, we have taken it for granted that almost everything — be it education, health and even fresh air — is a commodity. And, if you and I have the money, we can buy it.

This neoliberal faith in private solutions to public issues is so deep that we have forgotten to demand anything substantial from the government. Accept our contradictions. We want these education shops to reduce the price of packaged/unpackaged education.

However, we refuse to come to the street and demand from the government that the taxes we pay have to be used properly so that we could find at least affordable, inclusive and good quality public schools, public universities and public hospitals.

It is this indifference to our shared public concerns that has led to a situation in which we see the growing decline of all government-aided schools, colleges and universities. Take, for instance, my own school that once enchanted me. Today, as I visit this government school, I notice its all-pervading decay — empty classrooms, poor environment and demoralised teachers. And I see the love affair of the middle class with fancy private schools and branded coaching centres. The message is clear: Education is not your right; it is a commodity in the marketplace. You have to buy, and if you don't have the required money, forget it!

Can people like us ever come these contradictions, come to the street, resist the ugly commercialisation of education and promote the government to ensure affordable, inclusive and good quality public schools, colleges and universities?

DECADENCE: Sending children to fancy private schools is like giving consent to commodification of education. PTI

> Isn't it a fact that many of us from the middle class have never bothered to put pressure on the government so that our govt-aided schools become truly well equipped to provide good quality education to our children?

HINDU (P-8), 23 APRIL 2025

Opposing imposition

Hindi can be promoted without making it mandatory

The announcement of the BJP-led government in Maharashtra that English and Marathi medium schools will begin teaching Hindi as a third language from Class 1, as part of the implementation of the National Education Policy 2020, is running into significant political opposition. Previously, Hindi was introduced as a third language only from Class 6 onwards. Schools with other mediums of instruction have already been following the three-language formula from Class 1. While some view the announcement as an instance of Hindi imposition, others fear its potential in undermining Marathi. Chief Minister Devendra Fadnavis defended the move, stating that Hindi serves as an acceptable language of communication across India. But there are concerns about the practical challenges of this mandate: the extensive logistics involved in teacher recruitment and training, besides salary costs. Media reports and social media chatter have pointed to an emerging hostility towards Hindi, which could be a response to the perceived imposition. There is resentment that the move is an effort to appease the sizeable population of native Hindi speakers settled in Maharashtra. Historically, the State has witnessed a strong regional political identity, epitomised by the Shiv Sena since the 1960s. This identity has emphasised Marathi pride, cultural assertion, and prioritisation of local employment. Yet, unlike Tamil Nadu, Maharashtra has not exhibited overt hostility towards Hindi. Even the Shiv Sena, which has targeted various groups – south Indians, Muslims, and north Indian migrant workers – at different times, did not cultivate animosity towards Hindi. The current resentment, therefore, seems less organic and more a product of the BJP's centralising agenda, which seeks uniformity in a culturally and linguistically diverse nation.

While the Constitution is unitary in structure, it recognises and accommodates diversity in numerous ways. Previous centralising efforts by Congress governments included the promotion of Hindi, but there was enough institutional flexibility to balance divergent interests. Though the BJP now governs with a reduced mandate, it has managed to secure support from allies for its centralising vision, provoking resistance in States such as Tamil Nadu and Maharashtra. Meanwhile, the educational landscape is undergoing a radical transformation with developments in AI and neuroscience. Instead of creating divisions, the Fadnavis government would do well to build consensus to address the evolving demands of school and higher education.

FOUNDATIONAL FOCUS

A Shift in Pedagogy

The Integrated Teacher Education Programme marks a decisive shift from outdated models, as it resists foreign pressure and academic cliques to prioritise progressive teacher training

CHANDRA BHUSHAN SHARMA

THE WRITER IS A PROFESSOR OF EDUCATION (RETD.) AND FORMER CHAIRMAN OF NATIONAL INSTITUTE OF OPEN SCHOOLING

NCTE is likely to introduce improvements based on the lessons learnt from the B.El. Ed. programme to make ITEP a more relevant programme for the present times

After nearly a decade, the National Council for Teacher Education (NCTE) has a teacher educator as its Chairperson, and with the appointment of Professor Pankaj Arora, a senior teacher educator, we can witness research-based decisions being taken. Better late than never. This is perhaps not going well with some academics of yesteryears who feel their bastion is being challenged.

Some teacher educators from abroad have perhaps written to the Minister for Education, Government of India, about the Bachelor of Elementary Education (B.El.Ed.) programme of Delhi University, which is erroneously being considered withdrawn. The new Integrated Teacher Education Programme (ITEP) is a development of B.El.Ed. The news of this letter is widely circulated in the media, and this has enthused me. We are all aware of the politics in education and the international clique that works to scratch each other's backs. Some teachers catapult themselves to the 'expert' position through this mutual back-scratching. As and when one is challenged in one's own country, she/he takes recourse to mustering support from friends and colleagues abroad to strengthen their position in the home country. The expression 'international community' sells globally.

This process of shouting from across the globe for each other must stop, and I believe the Government of India and the Minister for Education should not buckle to any pressure, especially when the NCTE, which was in bad shape, is doing good work and taking the much-awaited, rather delayed, progressive steps about teacher education in India. Every academic Chairperson of NCTE has been pressurised and forced to quit through such tactics, but we must not let this happen again.

The B.El.Ed. programme is said to have started three decades back, and it is said to have run very successfully, but I am, surprisingly, yet to see any expert from anywhere who has written in support of this programme, adopted or adapted it for their university/country—forget about Indian universities, which have been watching this programme, and not a single university has adopted B.El.Ed. as one of the programmes for teacher education. Academics support the idea of experiments in education, but experiments which become innovation must be replicated by others. The B.El.Ed. programme is not recognised by many employing agencies, and those who obtained the B.El.Ed. have to run from pillar to post to get a job.

The case in point would be the Four-Year Degree Programme (FYUP) introduced by Delhi University in 2012, and for some reason, it was withdrawn in 2015. However, in 2020, when the Government of India came up with its new National Education Policy (NEP 2020), the experimental FYUP of Delhi University was taken in toto by the NEP 2020. If the B.El.Ed. programme was such an innovative programme, then it was expected that institutions from India and abroad would adopt it for their universities—which has not happened.

All the letters said to have come from across the globe are from friends of those in India who want to succeed or want to remain in currency because they have a global network. This 'hoo hoo culture' of academics who make groups across the globe and support each other has worked for many decades. I guess there is a government in India now which is strong enough to sustain all such pressure and not tinker with the ITEP, which was introduced two years back.

India's teacher training sees a shift as ITEP aims to build stronger classrooms from the ground up

The experience of the last two years proves it is a step ahead. The ITEP has a very well-thought-out structure. We may have differences of opinion about the structure and content of some of the courses, but this is just the beginning, and we have to wait to see how the NCTE designs its programmes and courses, which would be relevant for the nation and for those who want to serve the international community of children. The B.El.Ed. pass-outs had poor subject knowledge relevant to handling children aged 6 to 14 years, and now, with the three extra years added to schooling, teachers will require much different content as well as pedagogic experience to manage children at the Foundation level, as suggested by NEP 2020.

It was always believed that those who came to teacher education took it as their third or fourth choice. However, the data of applicants and their profiles have already proved that the best from the country are opting for ITEP after their Class 12. Moreover, it is now seen from experience that female candidates are outperforming males in the admission test for the ITEP, which is a concern of the present-day Government of India—to provide fair opportunity to the deserving, especially deserving female candidates.

There is absolutely no doubt about the good experiment Delhi University did in starting the B.El.Ed., but to put pressure to continue with it will be counter-productive. Teacher educators have learned some lessons from the B.El.Ed. programme, and I believe the NCTE is going to improve and progress based on the lessons learnt from the B.El.Ed. programme to make ITEP a more relevant programme for the present times. The Bachelor of Elementary Education programme has outlived its innovative element, and it's time we wind it up. NCTE must go ahead with its decision to discontinue the B.El.Ed. and offer ITEP (Foundation), and not make it BA/B.Ed.; BSc/B.Ed.; or BCom/B.Ed. Foundation.

The ITEP Foundation must be designed on the vision the Prime Minister expressed on August 7, 2020, in his address to the teaching community. The PM had expressed serious concern about the importance of good and relevantly trained teachers for the Foundation stage, and he had also shown concern about the meagre salary that teachers of Foundation education receive. He had also given a roadmap for teacher education in his Foundation Day address to the Indian Institute of Teacher Education (IITE) in Gandhinagar many years back. Our ITEP Foundation must be designed on the vision of our Prime Minister.

Views expressed are personal

GROWTH GRIDLOCK

Essential Overhaul

Indian economy's structural vulnerabilities—reflected in trade deficits, increased reliance on the US, lack of innovation and jobless growth—necessitate a revamp in trade and industrial policy

DIPANKAR DEY

THE WRITER IS A PROFESSOR OF BUSINESS ADMINISTRATION WHO PRIMARILY WRITES ON POLITICAL ECONOMY, GLOBAL TRADE, AND SUSTAINABLE DEVELOPMENT

The Trump administration's attempt to restrict chip exports to China may backfire—triggering a rebalance in global tech space, trade and economy

India's trade deficit increased to USD 94.26 billion in 2024-25 from the previous year's deficit of USD 78.59 billion. The country's trade deficit with China reached USD 99 billion in 2024-25, up from USD 85 billion a year ago. In March 2025 alone, imports from China rose by 35 per cent. The surge in Chinese imports was driven by rising demand for electronics, EV batteries, solar cells, and key industrial inputs. As per the Global Trade Research Initiative, China is India's top supplier in all eight major industrial product categories. India imported USD 113.5 billion worth of goods from China during 2024-25, almost wiping out the USD 118.7 billion remittance the Indians had sent home in 2023-24.

India has emerged as one of the world's leading recipients of remittances, with a steep rise in inflows from USD 55.6 billion in 2010-11 to USD 118.7 billion in 2023-24. The US emerged as the largest source, accounting for 27.7 per cent of total remittances in 2023-24, up from 23.4 per cent in 2020-21. In 2023-24, India could attract only USD 71.35 billion as foreign direct investment (FDI). In the World Talent Ranking 2024, India ranked 58 globally, with a talent score of 40.47—pushed down two places since the previous year (rank 56) and six places (rank 52) since 2022. A sharp inflow of remittances, coupled with declining talent ranking, suggests that India needs to focus on improving its investment climate and talent development strategies to enhance its competitiveness in the global talent market.

The jobless growth model India has pursued since the 1990s has created many unemployed people in the country. According to economist Amit Bhaduri's conservative estimate (December 2023), about 13 million people currently enter the labour force every year, with at least 20 million being part of carry-over unemployment from the past. Structural unemployment, which implies that the economy is not generating enough jobs to absorb the growing workforce, is another major cause of concern for India. As these huge unemployed youths don't find suitable job opportunities in India, they are forced to migrate to other countries.

India must urgently negotiate with China to ensure the protection of its thousands of MSMEs from Chinese imports

Make in India: A Failure?

The Modi government's flagship scheme, Make in India, has failed. Launched in 2014, it aimed to boost the manufacturing sector in India by enhancing existing India-based manufacturing companies and also by attracting investments from other countries by inviting global companies to 'Make in India'. The share of value addition by the manufacturing sector was 15.9 per cent in 2023-24, compared to 16.7 per cent of GDP (at constant price) in 2013-14.

Again, in 2020, Production-Linked Initiative (PLI) schemes were introduced to boost manufacturing and to compete with China. Around 750 companies signed up to the PLI scheme. Firms were promised cash payouts if they met individual production targets and deadlines. The hope was to raise the share of the manufacturing sector in the economy to 25 per cent by 2025.

As of October 2024, participating firms had produced USD 151.93 billion worth of goods under the programme, only 37 per cent of the target that the government had set. India had issued just USD 1.73 billion in incentives, or less than 8 per cent of the allocated funds, since the plan's introduction. Manufacturing's share of the economy has decreased from 15.4 per cent to 14.3 per cent, reports The Hindu.

In 2024, China's goods exports stood at USD 3.58 trillion, compared to India's USD 438 billion. Vietnam, despite its smaller size, reached USD 347 billion in exports. In growth terms, Vietnam's exports have jumped 983 per cent since 2005—much more than India's 339 per cent growth.

Crisis in Education and Innovation

A study by Abhishek Waghmare reveals that just over one in 10 Indians have a higher education (which includes graduate and post-graduate degrees, or any equivalent programme after the higher secondary level). According to him, "In the early 1990s, India's higher education enrolment rates were similar to those of China. But in the two decades that followed, China made big strides, and more than seven in 10 young Chinese adults are now in higher education, as compared to three out of ten Indian young adults."

Analysts observe that India and China took divergent paths in building their future workforces. China banked on structured skill development, deep-tech investment, and a relentless push for merit-based advancement. It paid off. From dominating supply chains to leading in AI and engineering, China is in no accident—it's a blueprint. But India is still grappling with fragmented policies, bureaucratic red tape, and an education system more attuned to memorisation than innovation.

This difference in approach is reflected in the achievements in innovations. The Global Innovation Index (GII), published by the World Intellectual Property Organisation (WIPO), ranks world economies according to their innovation capabilities. China ranked 11th among the 133 economies featured in the GII 2024, while India ranked 39th.

In terms of R&D expenditure also, China is far ahead of India. Since 2000, China's R&D investment has surged nearly 18 times to USD 725 billion in 2023. It amounted to 2.6 per cent of China's GDP. In 2020, India's R&D expenditure amounted to only 0.6 per cent of India's GDP.

Urgent Revamp

India must urgently negotiate with China to ensure the protection of its thousands of micro, small, and medium enterprises (MSMEs)—considered as the backbone of the Indian economy—from Chinese imports.

India needs technology to engage millions of unemployed youths in 'trades for India' to serve its fairly large domestic market. Total reliance on US technology will make the nation completely dependent on a few US companies. From Microsoft to Meta, Apple to Uber, cloud computing to AI, Google to Mastercard, much of the day-to-day technology used by Indians is American. Analysts contemplate that the Trump administration's attempt to restrict chip exports to China may backfire, potentially boosting Chinese innovation and market share. These restrictions could accelerate China's chip industry development, ultimately undermining US competitiveness in the global semiconductor market.

Instead of depending fully on the USA, India should explore alternative suppliers. Putting all the eggs in one basket is a risky strategy.

Views expressed are personal

STATESMAN (P-7), 23 APRIL 2025

Are academics readying to leave America?

GRACE KAO

About a month ago, I learned that three colleagues were leaving Yale for the University of Toronto. Philosophy professor Jason Stanley, history professors Timothy Snyder and Marci Shore are not only senior scholars at Yale, all three study fascism. Stanley appeared in many media outlets — The Guardian, PBS, The Atlantic, etc. — explicitly noting that America's slide into authoritarianism and fascism is a major impetus for his departure.

Are their departures a sign of an impending mass exodus of American academics to other countries or are they simply three of the many faculty members that move from institution to institution every year? Given Stanley's detailed exposition about the reasons for his leave, it's worth considering whether the shift in the political climate in the US has prompted American scientists to look elsewhere. Moreover, are non-academics considering leaving their American lives?

Nature, a major science journal, conducted a poll in late March 2025 and found that among 16,000 respondents, 75 per cent were considering leaving the US because of the changes from this administration. While this is an alarming number, polls that rely on self-selected participants can lead to misleading results. Basic statistics teaches us that it's best to rely on a random sample of respondents or even better, a complete census. Still, we can learn something about the rationale for people's planned departure.

Many of the respondents were younger scholars, who see the disappearance of viable scientific careers. In the US, funding for the sciences via government agencies like the National Institutes of Health, National Science Foundation and the National Center for Education Statistics have been severely cut. Staff at scientific agencies have been slashed, and grants to universities have been cut and threatened. Right now, $2 billion to Harvard, $400 million to Columbia and $800 million in USAID funding to Johns Hopkins among many others have been cut. In addition, Harvard's tax-exempt status is at risk.

Still, I realize that most people do not work in this sector and haven't yet felt these changes first-hand. The question remains whether Americans elsewhere are also imagining a life outside of the US.

The Harris Poll conducted a survey with a random sample of approximately 2,000 Americans in August 2024, November 2024 and February 2025. Anyone can download the results of this survey from their website. Here are a few highlights for me.

Fifty-two pec cent of Americans in the Harris poll dream of a better life outside of the US. This percentage was higher for younger (Generation Z) respondents (63 per cent) and Hispanic (61 per cent) and Black respondents (57 per cent). They did not report numbers for Asian Americans.

Reasons given by respondents for considering moving outside of the US include "seeking a more affordable cost of living" (86 per cent); "living elsewhere that aligns with my values and beliefs" (81 per cent); "personal growth and wellness" (80 per cent); and "escaping political or social instability" (70 per cent). The high percentages for each response suggest that the majority ticked all of these categories. "Values" and "escaping political and social instability" ranked highly among the rationales for leaving.

Of course, the average American is unhappy about high inflation and their overall sense of financial security. Many are worried about price increases that will come with rises in tariffs. Only 21 per cent of Americans feel confident in their preparations for their financial well-being and retirement. Fifty-five per cent feel that they are struggling to reach this goal.

Overall, these figures are alarming. The US has traditionally been a receiver of immigrants. Specifically, in 2023, 15 per cent of Americans, or about 51.3 million of its 334 million people were born outside the US. The US receives the highest number of immigrants, but it is not the nation with the largest proportion of foreign-born residents. The second most popular country of destination for immigrants is Germany, where 17 million of its 84 million total population are foreign-born. Immigrants account for 20 per cent of the German populace. Compare this to South Korea, where 2.5 million of about 52 million people were born abroad. This is just under 5 per cent of its population.

As an aside, there are also many YouTube videos instructing older Americans about the virtues of retiring abroad. The attraction is that health insurance is more readily available in wealthy countries than in the US, especially for those under 65. The US provides health insurance under Medicare for those over 65. Some of these retirees also argue that housing can be more affordable.

Where does this leave us? Will the US shift from a country that welcomes people from other countries in one that sends its citizens abroad? I think once Americans realize how difficult it is to emigrate, fantasies of living abroad might dissipate. Still, it's disturbing that so many people are entertaining the idea of living elsewhere. No matter what, I hope more Americans choose to travel abroad — only 51 per cent of Americans have a valid passport. Of course, worries about crossing the US border might drive people to watch travel videos on YouTube instead.

The author is an economist at Yale-NUS College and professor at Duke Kunshan University. The views expressed are the author's own.
The Washington Post

DAINIK JAGRAN (P-6), 23 APRIL 2025

उचित कदम

दिल्ली में आप सरकार द्वारा स्थापित दिल्ली बोर्ड आफ स्कूल एजुकेशन (डीबीएसई) खत्म करने के संबंध में विचार किया जाना सर्वथा उचित है। शिक्षा निदेशालय दिल्ली सरकार के इस बोर्ड से संबंधित 56 स्कूल आफ स्पेशलाइज्ड एक्सीलेंस सीबीएसई को सौंपने की तैयारी कर रहा है। इसके लिए उप शिक्षा निदेशक के आदेश में भी कहा गया है कि 2025-26 में नौंवी कक्षा में दाखिला लेने वाले छात्रों का दसवीं कक्षा का बोर्ड पंजीकरण सीबीएसई में होगा। सीबीएसई राष्ट्रीय स्तर पर देश के सबसे प्रमुख बोर्डों में से एक है, ऐसे में प्रश्न यह भी उठता है कि दिल्ली की तत्कालीन आप सरकार को डीबीएसई बनाने की आवश्यकता क्यों पड़ी?

ये चिंता की जानी चाहिए कि जिन छात्रों ने दो-तीन साल तक डीबीएसई से संबद्ध स्कूलों में शिक्षा पाई है, उन्हें परेशानी न होने पाए

दिल्ली की आप सरकार ने डीबीएसई लाते समय कहा था कि ये सीबीएसई से आगे की बात करेगा। इसके जरिये छात्र बेहतर तकनीकी ज्ञान हासिल कर सकेंगे और उनमें उद्यमिता की भावना पनपेगी, लेकिन राजधानी में पढ़ रहे छात्र को यदि उच्च शिक्षा के लिए दिल्ली से बाहर किसी राज्य में जाना होगा तो उसके लिए सीबीएसई से शिक्षा न लेने पर कई तरह की समस्याएं पैदा होंगी, जिसे उचित नहीं कहा जा सकता। ये चिंता भी की जानी चाहिए कि जिन छात्रों ने दो-तीन साल तक डीबीएसई से संबद्ध स्कूलों में शिक्षा ग्रहण की है, उन्हें आगे परेशानी न होने पाए।

ASIAN AGE (P-5), 24 APRIL 2025

Maha Hindi U-turn a lesson

The decision of the Maharashtra government to stay its own order to make Hindi mandatory as a third language for students of classes I to V in Marathi and English medium schools despite wholehearted support from the ruling alliance, including the Shiv Sena, reflects the fragility of the policy to impose language on an unwilling people.

As per the new decision, Hindi will not be made compulsory and the third language in Marathi and English medium schools will be left optional. The options will offer Hindi as well. The decision follows stiff resistance from the Opposition parties and regional groups, and the state government's language consultation committee's appeal to chief minister Devendra Fadnavis to revoke the decision.

It is unimaginable that Hindi should be facing opposition to its introduction in schools in a state where the people have never felt that language to be alien to them. In fact, the state hosted and nurtured Bollywood, the international brand ambassador of the language. Indeed, the people there felt that Hindi films not only entertained them but also told their stories to the world.

India is a country of diversities in every aspect of human behaviour, language included. Anything human is welcome in this land except when forced. The founding fathers and mothers had realised this fact and hence the deliberate attempt in the Constitution to ensure that every human being is provided with the opportunity to grow one's potential in ways they are most comfortable with. That the rights of the meek are not trampled by the mighty was the guiding principle.

Tamil Nadu chief minister M.K. Stalin has been fighting a running battle with the Union government against the latter's attempts to use Central funding as tool to impose its will and policies on states, including its preference for Hindi. The Maharashtra government's decision endorses Mr Stalin's stand. This must now force policymakers at every level to open their eyes and train themselves to be mindful of the hard realities on the ground while taking decisions.

DECCAN HERALD (P-9), 24 APRIL 2025

Unpacking the real reasons behind student fragility

P C SAIDALAVI

Fragility has become a buzzword among educators describing students in the aftermath of Covid-19. The Oxford English Dictionary defines 'fragile' as 'not strong and likely to become ill or sick,' yet when teachers label their students fragile, they almost always refer to mental well-being rather than their physical health. It is often lamented that the pandemic generation of students is "lost".

How were they lost? They missed out on peer learning, socialisation, interpersonal engagement, and the intimacy of in-person interaction. Instead, they were glued to the screen. With social mingling restricted, their connections were virtual—and those measures have had devastating effects on their learning, personal development, and mental health.

Learning is a measurable yardstick. During Covid, students learned less. They absorbed less from teachers and even less from their peers. This was visible across the spectrum. A student entering the undergraduate programme seemed to have learnt very little through two years of higher secondary schooling. They are clueless about topics once common in school, a view shared by teachers at every level.

On a daily basis, we encounter students who feel like fish out of water. They struggle to articulate their distress. Schools and universities have responded to this crisis by appointing counsellors—but those counsellors are overbooked and overwhelmed. Assignment deadlines slip, extension requests multiply, and exhaustion is rampant. All my colleagues worry endlessly over students' vulnerability—even a looming exam or a firm deadline can trip them into crisis. As teachers, we hear their requests and empathise.

Yet, I have been wondering if our students are more fragile than us—adults. Adults also encountered isolation during the pandemic. We too lost social contact, felt lonely, and lacked the daily virtual sessions that kept the students connected. So is Covid the sole culprit? The answer appears to be no.

'Life is hard,' parents have long told children, recounting their own travails and tribulations to highlight modern comforts. Compared to our parents' or grandparents' lives—in amenities and living standards—we have come a long way. If life has always been hard, can we blame all fragility on Covid? Probably not. Perhaps the pandemic merely accelerated a crisis brewing for years.

In the past decade, mobile phones and the Internet have exposed everyone—even those in remote communities—to life beyond their immediate surroundings, as Assa Doron and Robin Jeffrey noted. Covid thrust open these doors to youngsters. Every parent had to ensure that their wards had access to a smartphone and the Internet. With this technologisation of society, as Cal Newport notes, our attention span has reduced, becoming increasingly less able to devote our time to important tasks without being distracted. The urge to look at the screen is irresistible.

Yet, our teaching methods have barely changed. We still rely heavily on lecture-style classrooms. How can we adapt educational methods with the technologisation of society?

We must involve students more actively in learning. The first impediment to such practices seems to be the classroom structure. They are not architecturally designed to encourage sitting together in groups, fostering peer learning and discussions, and cheering interpersonal engagements. They follow an individualistic approach, relegating peer learning and socialisation to outside the classrooms.

In a technologised society, our youngsters have become increasingly alone outside the classrooms, more glued to their smartphones and laptops, virtual worlds and trending styles in the alternate world. We as teachers need now to create more opportunities for peer learning and socialisations inside the classrooms more than ever. If we do not become successful in achieving that, we will continue to blame our young people, calling them fragile and vulnerable. The problem is deep and structural, and we, as teachers, have a big role to play.

(The writer is an assistant professor, Department of Sociology, Shiv Nadar University, Delhi-NCR)

MILLENNIUM POST (P-11), 24 APRIL 2025

SCROLL, CLICK & STRUGGLE: STUDENT MENTAL HEALTH CRISIS ONLINE

DR SANKU BOSE

For today's students, social media is as ubiquitous as the classrooms they study in. Platforms like Instagram, Facebook, Snapchat, WhatsApp, and Discord are not just tools for communication... they've become central to how today's generation form identities, nurture friendships, consume information and express themselves. This constant connectivity has given rise to a critical debate: Is social media silently undermining student mental health, or can it be harnessed to support emotional well-being?

The statistics paint a complex picture. In India, a national survey found 60% of children between the ages of nine and 17 spend more than three hours daily on social media or gaming platforms. Such levels of engagement raise immediate red flags for psychologists and educators alike. International research has shown that adolescents who spend more than two hours a day on social media are nearly three times more likely to experience depression. The Royal Society for Public Health in the UK found Instagram and Snapchat, in particular, were associated with increased anxiety, poor sleep quality, body image concerns, and feelings of loneliness. The emerging pattern is clear: excessive or unregulated use of social media correlates strongly with diminished mental well-being among young people.

Real-life cases have often drawn media attention. Amanda Todd, a Canadian teenager who took her own life in 2012 after enduring relentless cyberbullying and blackmail, left behind a haunting YouTube video that detailed her struggle. Her story became a global wake-up call on the dangers of online harassment. More routinely, thousands of students report everyday psychological distress tied to online experiences: the pressure to appear perfect, the sting of exclusion from group chats or events, and the anxiety of being constantly judged or "liked."

Yet, it would be both inaccurate and unfair to dismiss social media as a purely destructive force. The same platforms that can trigger insecurity also offer community and support. During the isolation of the Covid-19 pandemic, many students turned to digital spaces to maintain friendships, seek mental health information, and join support groups. For students struggling with social anxiety or living in conservative or unsupportive environments, online communities often provide the first safe space where they can speak openly about mental health, identity, or personal challenges. Platforms like Reddit and Instagram host a wide range of mental health support forums, mindfulness content, and peer-to-peer care networks that are often more accessible than traditional resources.

The real issue, then, is not the presence of social media, but the nature of the engagement. Passive scrolling through picture-perfect lives can fuel feelings of inadequacy and disconnection. However, active participation, whether through creative expression, joining positive communities, or following mental health advocacy content, can foster resilience and connection. A study among medical students at Vydehi Institute of Medical Sciences and Research Centre, Whitefield, Bangalore said those who used social media for more than four hours a day had significantly lower well-being scores than those who used it for under two hours. Importantly, the quality and intent of usage were key indicators—those who used social media for academic collaboration or emotional support reported better outcomes than those who used it for passive consumption or comparison. Again, the key differentiator here was the intent, and not usage alone.

Fortunately, there are growing efforts to guide students toward healthier digital habits. In India, the Kerala government's 'Jeevani' mental health programme has deployed trained counsellors across colleges to offer psychological support, using digital platforms to widen access and raise awareness. Some universities now host 'digital detox' weeks or run student-led mental health campaigns on Instagram, where the medium becomes the message—used creatively to share stories, normalise help-seeking behaviour, and build emotional literacy.

Students need guidance in developing a mindful relationship with technology, one that encourages critical thinking about the content they consume and the personas they portray

Globally, schools and colleges are integrating digital wellness into their curricula, helping students recognise unhealthy patterns and teaching them to set boundaries. AI-powered chatbots offering first-line psychological aid are also being developed, breaking barriers of stigma and availability.

For parents and educators, the focus must shift from restriction to education. Rather than banning apps or enforcing strict screen time limits—which often backfire—conversations around emotional well-being, empathy, digital etiquette, and self-regulation can be far more impactful. Encouraging hobbies, outdoor activities, and offline social interactions can create a necessary counterbalance to online life.

As the digital and physical worlds become increasingly intertwined, students must learn to navigate both with equal care. By teaching young people to use social media mindfully and meaningfully, we're not just protecting their mental health, we're empowering a generation to thrive in both the digital and real worlds.

The author is the Group CEO of Techno India Group, a visionary and an educator. Beyond his corporate role, he is also a mentor who guides students towards resilience and self-discovery

TRIBUNE, (P-9), 24 APRIL 2025

Lessons for Indian universities from the Harvard-Trump row

KARAMJEET SINGH
VICE-CHANCELLOR,
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THE recent confrontation between Harvard University and US President Donald Trump was not merely a legal disagreement — it was a modern-day parable about the struggle between academic freedom and political control. The implications of this clash transcend borders and offer significant lessons for universities around the world, including India.

At the centre of the controversy is Harvard's principled refusal to dismantle its diversity, equity and inclusion (DEI) programmes and submit to ideological audits demanded by the Trump administration. The Trump administration sought to monitor curriculum choices, faculty appointments and research directions — interventions that would undermine Harvard's academic sovereignty.

In response, Harvard University filed a lawsuit against the US government, challenging the legality of freezing federal grants worth over $2.2 billion. The university contended that the funding freeze was an act of retaliation and warned that critical disease research and other key initiatives would be adversely impacted. Harvard's interim president, Prof Alan Garber, made it clear: the institution would not compromise its values, even if it meant losing federal support.

Harvard's strength lies in endowment, reputation and philanthropy and its capacity to resist government pressure was made possible by its deep financial foundations. The university operates on an annual budget of $6.5 billion, with $1.02 billion allocated to research, including $674 million from US federal agencies. More significantly, its $53.2 billion endowment provides a cushion of independence, contributing $2.4 billion annually to its operations. Nearly 45 per cent of Harvard's revenue comes from philanthropy, while 16 per cent comes from research grants.

This diversified funding model gives the university the flexibility to stand by its values without succumbing to political or bureaucratic dictates.

This philanthropic culture carries profound lessons for Indian higher education. In India, people generously contribute to temples, gurdwaras and religious institutions as acts of faith and service. It is time to extend this spirit of giving to our universities and educational institutions, which play a vital role in nation-building.

CHARACTER-BUILDING: Harvard University in confrontation with President Trump reflects the fragility of academic freedom when institutions become political battlegrounds. REUTERS

Educational institutions should be seen as sacred sites of knowledge and social uplift and they must increasingly be funded by philanthropists. When institutions are supported by the community — through alumni, corporate CSR, individual donors and civil society — they gain not only financial autonomy but also become more accountable, transparent and socially relevant.

India's public universities face their own set of pressures — ranging from financial constraints and administrative interference to curriculum standardisation. While the context is different, the core issue remains the same: how to preserve the university as a space for independent inquiry and ethical leadership.

> Harvard draws 45% of its revenue from donors. Indian universities should similarly engage alumni, corporates and philanthropic foundations to create endowments and support research.

Although the government is playing a critical and a crucial role in nation-building, it is important to recognise that institutions of higher learning must maintain a balanced distance from political influence. Autonomy is not just a privilege; it is a precondition for academic excellence.

The Harvard episode offers key lessons for Indian academia to secure its future. First, ethical and courageous leadership is crucial. University administrators must embody integrity and fearlessness, standing firm on academic values despite external pressures. Their leadership *should inspire trust and set* an example for students and faculty.

Second, financial independence through philanthropy must be pursued. Harvard draws nearly 45 per cent of its revenue from donors. Indian universities should similarly engage alumni, corporate houses and philanthropic foundations to create endowments, support research and enhance infrastructure. This financial cushion ensures autonomy and resistance to external influence.

Third, transparent and inclusive governance is the foundation of institutional excellence. Decision-making must be participatory and merit-based, with respect for all voices — faculty, students and staff.

Fourth, fostering an environment of free dialogue is essential. Universities should be safe spaces for open debate, dissent and knowledge pursuit, where intellectual diversity is valued.

Lastly, reviving indigenous knowledge systems (IKS) is vital for a globally competitive yet locally rooted education. Re-integrating India's ancient wisdom, sciences, languages and philosophies into curricula will create a holistic education system. This fusion of global and local knowledge will help develop scholars who are deeply connected to their culture and *prepared for the world.*

The teachings of Guru Nanak Dev offer a timeless guide rooted in truth (sach), fearlessness (nirbhau) and contemplation (nirvair). He opposed ritualism, casteism and corruption, advocating instead for education based on justice, compassion and equality. His words — 'Pothi Parmeshar ka thaan' (The book is the abode of the Divine) — remind us that knowledge is sacred when it upholds truth.

Indian education must draw from such spiritual roots while also engaging global best practices. This is not about conflict, but meaningful collaboration with society, industry and alumni. Our universities must be seen as temples of knowledge, deserving of philanthropic support for research, innovation and inclusive growth.

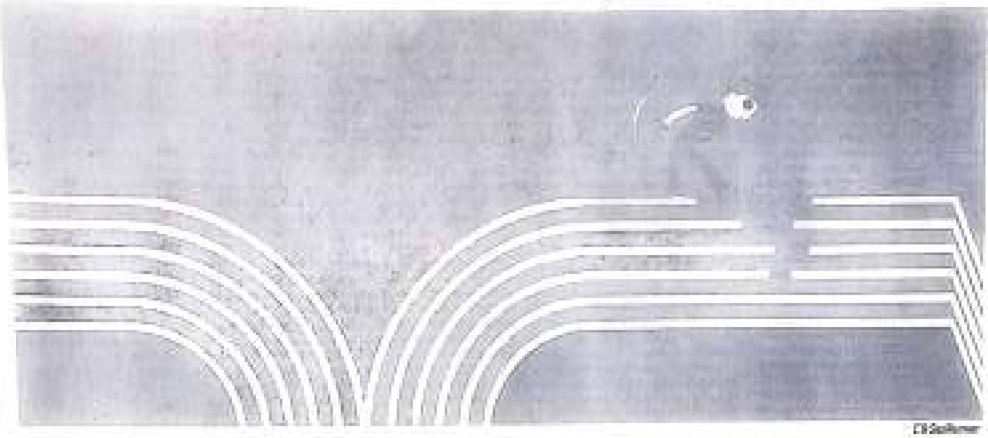
The Trump-Harvard conflict is a mirror reflecting the fragility of academic freedom when institutions become political battlegrounds. India's universities must not wait for a crisis to define their character. We must act with foresight, integrity and courage — to not just teach, but also to lead.

Let our universities become temples of knowledge and fortresses of truth, capable of serving both national aspirations and global good.

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



CR Sasikumar

Uproar over rising fee in private schools in Delhi has revived a question: How can education be made accessible without compromising on quality?

Targeting private schools won't help

The demand for good government schools should not be an argument against private schools. Reform requires taking on vested interests in government

MANISH SABHARWAL

[illegible]

> The notion that the failure of government schools can be overcome by higher regulatory cholesterol for private schools ignores rising costs. The cyclical confiscation of capacity from private entrepreneurs (RTE takes away 25 per cent) feels like a policy surrender to a tragedy where poor people are paying money to avoid something that is free

[illegible]

Remake the government school

Only a quality public education system can offer an alternative to elite schools with exorbitant fees

ANITA RAMPAL

[illegible]

> Governments compromise with quality, offer poor schools to the poor. A few tokenistic 'model' schools have been set up. This has given way to the commercial market, with a more deeply stratified private system — ranging from exorbitant fee-charging international schools to 'low-cost' private schools 'for the poor'

[illegible]

MILLENNIUM POST (P-7), 25 APRIL 2025

CIVIC ETHOS

Ethics Before Excellence

In an era of rising injustice and moral erosion, ethical education must be urgently integrated into curricula to nurture responsible, compassionate Indian citizens

KDP RAO

THE WRITER IS A FORMER ADDITIONAL CHIEF SECRETARY OF CHHATTISGARH

Universal ethical values such as compassion, love, fairness, and respect for human rights, which have guided us through the ages, appear to be under threat in today's 'advanced' world. We witness an increase in systemic injustice, violations of human rights, corruption in public offices, corporate scams, cybercrimes, and what-not — not to mention ruthless anthropogenic activity leading to irreversible damage to the environment. Have we conveniently ignored Aristotelian 'virtue' in our rapacious quest for 'excellence'?

What would we pass on to our posterity? A legacy and a culture nurtured by ethical values? Or self-serving, perfidious formulae to achieve material gains at the cost of human well-being? These are pertinent questions to be addressed — if only we do not want to re-enact Hobbes's 'state of nature' where life was 'nasty, short, and brutal'.

Here comes the relevance of ethics — the foundation for the existence of any society. How best we can ensure ethical values and practices to address dilemmas in personal, professional, and societal contexts is the challenge today.

A study by Torney-Purta et al. (2001), *IEA Civic Education Study, Amsterdam, Netherlands*, underscores that new global realities call for a major reconsideration by educators and policymakers of how young people are being prepared to participate in democratic societies in the early 21st century, in order to preserve democratic values and institutions.

Ethical education in India has hardly received the required primacy over academic excellence, for it has always been understood more as a principle than a practical pedagogic pursuit. The NEP 2020 emphasised the importance of fostering ethical values in education, aiming to cultivate well-rounded individuals with strong moral foundations. Though it seeks to integrate ethical values across all levels of education — from curriculum design to teacher training and assessment — there appears to be neither a structured framework nor a detailed roadmap to translate the intent into action.

On the other hand, ethical education in the US and EU is on a much more advanced level, integrated into the basic structure of education at all levels, supported by federal as well as state initiatives. In K-12 schools (School Education), it is imparted through different pedagogic programs. The 'Character Education' program promotes the "Six Pillars of Character" — trustworthiness, respect, responsibility, fairness, caring, and citizenship — in assemblies and classroom discussions.

'Social and Emotional Learning' (SEL) programs in states like California, Illinois, and New York focus on emotional intelligence and ethical decision-making. 'Civics and Citizenship Education' programs in states like Arizona and Florida teach democratic values, justice, and civic responsibility, with courses on subjects like fairness, equity, and the rule of law, and it is compulsory for students to pass the tests. 'Digital Citizenship' education programs teach digital ethics, focusing on responsible online behaviour, data privacy, etc.

Ethics is the foundation for the existence of any society, and it should not be neglected by any education system

In the higher education system of the US, standalone dedicated courses are offered not only in STEM streams but also in professional programs like business and law. For instance, a Business Ethics course teaches corporate responsibility and ethical decision-making, whereas a Medical Ethics course focuses on patients' rights, informed consent, and end-of-life care.

Many centres like the Markkula Centre for Applied Ethics (Santa Clara University) are integrating ethics across different disciplines. Under the 'Every Student Succeeds Act' (ESSA), the US Department of Education assists Character Education through grants and programs which encourage SEL and a positive school atmosphere. In California and New Jersey, SEL or civics education is even made mandatory.

Extracurricular and Community-Based Ethical Education is imparted through the engagement of students in community service projects and participation in groups like Model United Nations, Debate Clubs, or Ethics Bowl — to learn empathy, civic responsibility, and discuss global ethical dilemmas. Presently, in view of growing concerns about AI and misinformation, schools in the US have also incorporated AI ethics and media literacy into the curricula.

According to *ETHIKA, State of the Art Report, 2015*, in six European countries — i.e., Austria, Croatia, Germany, Italy, Slovenia, and Spain — though ethics and values education is not uniform, ethical themes and values such as willingness to help and support others, tolerance, multiculturalism, friendship, etc., were included at the pre-primary and kindergarten levels within different educational approaches and aligned with institutional guidelines. Support is provided to teachers in this regard by both public and private institutions in teaching skills and techniques.

While Germany has a dedicated subject exclusively for ethics and ethical education at the primary and secondary levels, other countries incorporate them as part of broader subjects such as Civic and Social Values, Citizen and Homeland Culture, or Religious Education. Additionally, NGOs and independent institutions provide content or courses dedicated to ethical education, philosophy with children, dialogue, and reflective and critical thinking.

However, both the US and the EU have their own challenges. In the former, decentralised policies, cultural debates, resource disparities, polarisation, and academic pressures seem to impede the desired levels of success; while in the latter, isolationist and racist movements, and cultural, ideological, or religious differences often pose challenges. Nevertheless, ethical education has been institutionalised and integrated into the education system at all levels with active cooperation from all stakeholders.

A recent policy paper on *Ethics and Values Education in Schools and Kindergarten* — by the European Union, authored by Thomas Pikel, Harry Underwood, et al. — underscores the need to inherently integrate ethics and values within school and education systems as a unified structure to address unprecedented challenges like migration and refugee crises, youth unemployment, the rise of populism and dominant identities, and digitalisation. The aim should be to stimulate ethical reflection, awareness, responsibility, and compassion in children so that critical thinking and reflection can foster ethical decision-making in contrast to prejudice, discrimination, and unethical attitudes.

According to Steve Johnson, Director of Alternative Education at Santa Clara University, California, character education programs are a giant mutual-improvement process involving students, teachers, administrators, parents, and other stakeholders — and if integrated into the content and processes of instruction, schools can become models of ethical thought and values.

In India, exclusive programs on ethical education hardly exist. Except for some professional courses in higher education, ethical education is not really a part and parcel of the general education system with a dedicated curriculum on ethics. Severe dearth of teachers, the increasing trend of meritocracy, commercialisation of education, and social inequalities are serious issues that make ethical education difficult either to pursue or enforce.

However, the policy decision through the NEP holds promise for the future, provided these issues are addressed earnestly. Although it is difficult to replicate the successful examples from advanced countries, we can still make a difference in our own right. We need adequate financial and institutional support to integrate ethical education into the education system at all stages and ensure an ecosystem with synergy among educational institutions, civil society organisations, and stakeholders.

In a multicultural, pluralistic society like India, adherence to ethical values cutting across social and religious identities is the key to the unity and strength of the nation. Hence, the importance of ethical education.

Views expressed are personal

Ethical education is already embedded in the education systems of major economies of the world; India just needs to follow suit

TRIBUNE, (MAGAZINE-2), 25 APRIL 2025

WALTZ OF OPPORTUNITIES & HURDLES

Industry-academia disconnect and lacklustre research domain are taking the sheen out of rapid expansion of higher education infra. Effective strategies are needed to navigate these barriers

PROF. SOMAK RAYCHAUDHURY

THE story of higher education in India has been a complex interplay of opportunities and obstacles. Since the establishment of the earliest universities at Calcutta, Madras and Bombay in 1857, India now has over 1,100 universities and 45,000 colleges, catering to over 4 crore students. In spite of this growth of over 10 times since Independence, India still has an enrolment ratio of about 28 per cent, which is the lowest among G20 nations.

On the one hand, there is the monumental challenge of stepping up enrolment for the under-privileged and the disabled, while on the other, India's educational institutions are struggling to link academic curricula with developing the skills needed for successful entry into the workforce.

LACK OF QUALITY RESEARCH

Key policy initiatives of the Indian Government, including aspects of the National Education Policy 2020, encourage a multidisciplinary approach to learning and flexible curricular structures. However, in a modern university, it is difficult to implement such sweeping changes without particular attention to the introduction of research and encouraging creative thinking.

The main impediment here is the inadequate research ecosystem in most Indian colleges and universities. Research is the cornerstone of knowledge creation and innovation, yet the infrastructure to support meaningful inquiry — from laboratories to funding, from mentorship to collaborative networks — is often limited or missing. Faculty are often overburdened with teaching responsibilities and administrative work, leaving little time or incentive for serious research.

According to the Ministry of Education, almost nine lakh students went abroad for higher education last year. These students have spent $60 billion (₹5.1 lakh crore) on acquiring education abroad in 2023. This figure has almost doubled from the $37 billion spent in 2019. This is more than 10 times the annual budget allocated by the Union Government for Higher Education (₹44,090 crore or $5.2 billion) in 2023-24.

This trend reflects the strong aspiration among Indian students to study abroad. While factors such as global exposure, access to renowned faculty, and better job prospects play a role, the key attraction remains the world-class research infrastructure and academic environment offered by international universities.

In global rankings, Indian institutions often fall behind due to low-research output and poor citation impact. Worldwide, outside India, most of the research happens in universities and even Nobel Prize winners come from universities. Historically, in India, because of a complex set of reasons, research was separated from the university system. The thought was that because there were very few researchers in independent India, they needed to be protected from students and provided institutions that do only research. While India has largely moved away from this earlier approach, there is still a pressing need to strengthen our commitment and further empower universities to undertake large-scale, cutting-edge research within their own campuses.

THE EMPLOYABILITY PARADOX

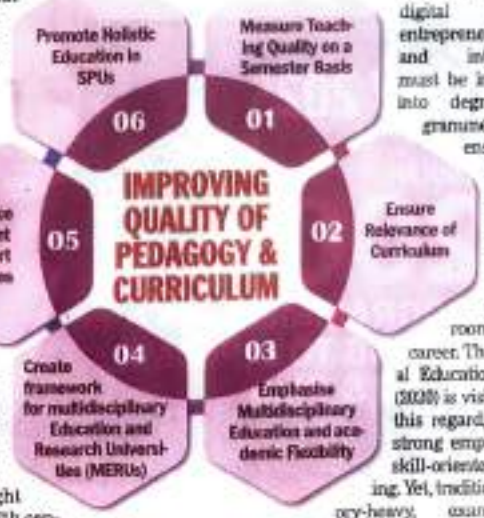
- Every year India produces millions of graduates, yet their employability has not kept up with these numbers. According to the Mercer-Mettl India Graduate Skills Index 2025, employability among Indian graduates has in fact fallen from 44.3% in 2023 to 42.6% in 2024.
- Even the Economic Survey of 2024-2025 estimates that about 51.25% of the youth is deemed employable. This is highly concerning for a nation aspiring to be a global hub of startups, research and innovation and AI, if not the chosen destination for learning for students from all over the world.
- The paradox of rising graduate numbers and low employability is rooted in an outdated pedagogy that prioritises rote learning over critical thinking, creativity, and problem-solving. Many students leave college without transferable skills, communication abilities, and the ability to solve the problems required to thrive in modern work environments.
- Moreover, many students look at college education primarily as a label intended to secure jobs, and don't pay adequate attention to gaining the skills required for the changing landscape of available jobs.
- As employers increasingly adopt skill-based hiring practices, the lack of job-ready competencies among these graduates becomes even more apparent.

Such an environment can spark intellectual curiosity among students and foster a deeper engagement with the process of discovery. The lack of research infrastructure can also be filled with innovative approaches like global partnerships and industry collaborations.

MISSING LINK

The traditional academic curriculum in most Indian colleges remains largely theoretical and targeted towards a specific job. If you think of what Nalanda taught in the seventh-eighth centuries or even what Newton was taught at Cambridge in the 17th century, there were no divisions between subjects. Everybody had to learn some basic subjects — astronomy, law, literature, religion, mathematics. Divisions were essentially made in the middle of the 18th century, in places like Oxford and Cambridge. The purpose was to train people for certain specialised jobs.

However, today education must completely change itself and focus on skills, on how to process information. There is a pressing need to embed skill-based and experiential learning into the heart of higher education.



Vocational skills, digital literacy, entrepreneurship, and internships must be integrated into degree programmes to ensure that graduates can transition smoothly from classroom to career. The National Education Policy (2020) is visionary in this regard, placing strong emphasis on skill-oriented learning. Yet, traditional, theory-heavy, examination-driven model continues to dominate many institutions and must be fundamentally reimagined to align with the needs of a dynamic global economy.

Universities must also build stronger partnerships with industry to align curricula with market needs. This includes guest lectures by practitioners, project-based learning, real-world case studies and exposure to evolving technologies.

INTERDISCIPLINARY LEARNING

The world today is increasingly complex and interconnected, and solving real-world problems requires the ability to draw on multiple disciplines. Yet, Indian higher education has long been siloed, with rigid boundaries between the arts, sciences, commerce, and engineering. As mentioned earlier, this was largely to make students ready for specialised jobs such as mechanical engineer, data analyst, software developer, amongst others.

Today, a professional may not be confined to one job profile — they are expected to be dynamic and adaptable.

Interdisciplinary education, which allows students to study subjects across domains, fosters well-rounded thinking, creativity, and innovation. At Ashoka University, for instance, we have embraced this liberal and interdisciplinary model wholeheartedly. Students are encouraged to major in one subject while exploring others. An example of this is major in Computer Science and Entrepreneurship. Such an approach helps students develop a broader perspective that is valued in every field.

FACULTY DEVELOPMENT

The quality of education is intrinsically linked to the quality of teaching. Unfortunately, teacher training and development are often overlooked in the Indian higher education system. We have often followed the template of going to university at 18 and stopping to learn at 21. Teachers are also believed to know all at 21, and often stop learning, keeping their intellectual growth stagnant. This cannot continue now.

The world is changing fast not only for those graduating today but for everyone. Faculty members need ongoing opportunities to update their knowledge, adopt new pedagogical tools, and engage with global academic trends.

Equally important is the role of mentorship. Students thrive when they have access to faculty who can guide them not only academically but also in terms of career choices, research opportunities, and life skills. Structured mentorship programs, small class sizes, and close faculty-student interaction can significantly enhance the learning experience and student outcomes.

THE URBAN-RURAL DIVIDE

Access to quality higher education is still largely urban-centric in India. Students in rural and remote areas face systemic disadvantages from inadequate infrastructure to a shortage of trained faculty. While the penetration of Internet and digital learning has helped address some gaps, the school and college infrastructure in tier 2-3 cities demand immediate attention.

Additionally, the overall enrolment in higher education must be significantly expanded. Currently, just over 4 crore students are enrolled in higher education institutions across the country, and India's Gross Enrolment Ratio (GER) stands at 28.4% — well below the global average. To truly harness the potential of its young population, India must prioritise both the expansion and equitable distribution of quality higher education.

This goal can be achieved through a multi-pronged approach — by establishing more higher education institutions, especially in underserved regions; encouraging a philanthropic mindset toward funding and supporting education; and significantly expanding scholarships and financial aid to make higher education more accessible and inclusive.

THE WRITER IS VC, ASHOKA UNIVERSITY, SONIPAT

SETTING NEW BENCHMARKS

NEP 2020 Giving students the freedom to create their own learning journey

M. Jagadesh Kumar

Students on the threshold of college can now experience a system that is less rigid and more open to accomodating their aspirations.

NATIONAL Education Policy (NEP) 2020 is a truly transformative policy that reimagines what learning in India could feel like. It reclaims something we've long overlooked: the joy of discovering who you are through what you learn.

Freedom, flexibility and choices are core to the policy. Students no longer have to pick a path and stay trapped in it. Why shouldn't someone blend economics with painting or physics with philosophy? It tells students that you are more than your stream. Go ahead, mix, match, explore.

Multidisciplinary learning, flexible entry and exit, accelerated and extended degree programmes and credit banks reflect a deeper trust in students' agency.

Life is unpredictable; NEP acknowledges that and builds a system where learners can pause, return, shift gears — and not be penalised for living real lives.

EMBRACING MULTILINGUALISM

Then there's the huge embrace of multilingualism. In this vision, language is power, identity, and inclusion – all rolled into one.

Whether enabling learning in Indian languages or tapping into the cognitive richness of being multilingual, NEP advocates that students should feel at home in their tongues — and that no student should be locked out of learning because of a language barrier.

Quality education isn't just about infrastructure or curriculum. It's about access. It's about who gets to dream — and who is given the tools to chase those dreams. And judging by the past few years, more are being handed those tools than ever.

Between 2014-15 and 2021-22, enrolment among Scheduled Caste students grew by a striking 43.8%, climbing from 46.06 lakh to 66.23 lakh. The growth in female SC enrolment is even sharper, at 50.9%. That's a silent reshaping of the future for generations of families.

The story is equally heartening among Scheduled Tribes. A 65.2% rise in overall enrolment and an astonishing 80.1% increase among female ST students. The data on OBC students shows that it rose by 44.24%, while female OBC participation surged by 49.3%. What do these numbers mean? They suggest that equity in education is unfolding on the ground. The direction is clear, and the momentum is strong.

PUTTING TEACHERS IN THE SPOTLIGHT

The policy emphasizes that no reform matters if the people at the front of the classroom are unsupported. So, it places teachers at the centre of this ecosystem, underlining professional growth and the freedom to innovate.

India's higher education system has achieved something remarkable in under a decade — a steady climb to global recognition. Back in 2015, India had 6,241 accredited colleges. Fast forward to 2023 — that number hits 9,558. That's a 53% jump because more colleges are choosing to meet quality benchmarks. Universities tell another tale with a clean 100% leap. Accreditation is increasingly becoming a badge of pride — and that shift in mindset matters.

> Multidisciplinary learning, flexible entry and exit, accelerated and extended degree programmes and credit banks reflect a deeper trust in students' agency.

MAKING THE WORLD SIT UP

But quality isn't just about getting accredited domestically. It's about how the world sees us. And here's where the data starts to feel exciting.

In 2015, India could boast of just seven institutions in the QS Top 500. Today? Eleven. The number of Indian institutions in the QS rankings has grown from 9 in 2014 to 46 in 2025. Indian education system stepping out of the shadows.

India's research and development landscape is growing steadily. In 2015, we published around 1.45 lakh research papers across all disciplines — not a trivial figure. Now, fast-forward to 2025, and that number is 2,07,390, an increase of over 40% in a decade. This increase makes India the third-largest producer of scientific publications globally. Indian patents filed rose from 42,763 in 2014-15 to 92,000 in 2023-24, rising by 115%.

The patents granted grew in 2023–24 to 1,03,000, up from 5,978 in 2014–15. This tide indicates India's increasing emphasis on innovation and intellectual property rights.

NEW MODES OF DELIVERY

A decade ago, earning a degree without ever stepping onto a campus felt like an experiment. Today? It's part of the mainstream education.

Consider this: 80 universities now run 400 online well-structured programmes that span disciplines. And then there are 100 more institutions carrying forward Open and Distance Learning (ODL), providing a lifeline to those for whom traditional classroom education remains out of reach — be it due to geography, responsibilities at home, or financial limitations.

What's unfolding is not merely a shift in delivery mode. It's a quiet revolution in access, choice, and autonomy, resonating with NEP 2020.

NEP 2020 dares us to dream of an education system that grows with its students rather than asking them to conform. It moves away from rigidity and toward possibility. And that shift tells an entire generation — you matter, your choices matter, and your learning should feel like yours.

THE WRITER IS FORMER CHAIRMAN, UGC AND FORMER VC, JNU

EXPLORE, INNOVATE, TRANSFORM

Interdisciplinary fields are opening up a new world of opportunities for those with a scientific bent of mind

SUNIL PURI

SCIENCE plays a defining role in human progress. From the recent success of India's Chandrayaan-3 mission to breakthroughs in biotechnology, renewable energy, and artificial intelligence, science continues to shape how we live, work, and think. It's not just about discoveries in the lab anymore — it's about building practical solutions to real-world problems, often through the collaboration of multiple fields.

As industry and research evolve, science education has kept pace. It is not confined to traditional routes like medicine and engineering. Instead, students today can choose from various exciting and meaningful programmes that blend research, innovation, data, and design thinking. Whether you're interested in pure sciences or interdisciplinary studies, the opportunities are vast and growing.

WHY SCIENCE STILL MATTERS

At its core, science is about understanding how the world works. It helps us ask questions, collect evidence, and analyse information logically. In an era of misinformation and rapid change, these skills are more relevant than ever.

Science careers are also expanding beyond the lab or classroom. Fields like data science, health informatics, climate studies, and genetic engineering are creating jobs that didn't exist a decade ago. According to the Press Information Bureau, India's bioeconomy is projected to grow to $150 billion by 2025, up from over $100 billion in 2022. Also, industries like food technology, environmental science, and agri-tech are growing rapidly.

As industries shift toward automation, sustainability, and precision technologies, the demand for scientifically skilled professionals is expected to increase.

FUTURE-READY COURSES TO CONSIDER

Here are some promising science courses students can pursue after Class XII, each offering a different way to explore, innovate, and contribute meaningfully:

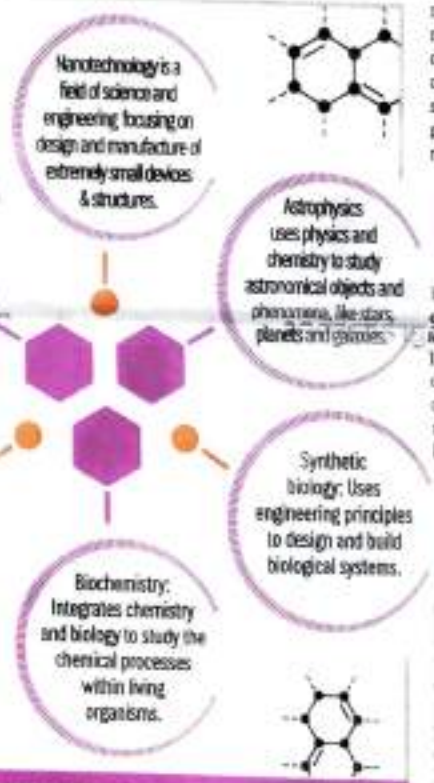
BSc (Hons): Physics, chemistry, biology, botany, zoology.

This classic pathway allows deep exploration of core scientific subjects. Whether you choose physics, chemistry, biology, botany, or zoology, you'll engage with rigorous coursework and practical lab sessions. These courses are ideal for students aiming for careers in teaching, research, scientific writing, or civil services. Institutions like Panjab University continue to offer strong support for specialisations in these fields.

BSc Agriculture: A future-forward course that looks at farming through the lens of science and sustainability. Students learn about soil science, plant breeding, pest control, and modern technologies like drones and sensors in agriculture. The programme is ideal for those interested in food security, climate-resilient farming, or working with agri-tech startups and government bodies.

INTERDISCIPLINARY STUDIES VS PURE SCIENCES

- When choosing a course after Class XII, many students wonder whether to opt for a traditional subject like physics, chemistry or biology — or explore a newer, more integrated field. The answer depends mainly on your interests and career goals.
- Pure Sciences such as — physics, chemistry and biology — focus on fundamental laws and theories. These subjects are ideal if you're drawn to in-depth knowledge and want to pursue careers in research, academia, or scientific services. You will build strong analytical and experimental skills, laying the groundwork for specialised postgraduate study.
- Inter-disciplinary courses, on the other hand, combine different domains to solve complex challenges. For instance, bioinformatics merges biology with computer science to analyse genetic data and develop personalised medicines. These courses are perfect for students curious about how science can be applied in diverse settings-whether in climate change policy, AI in healthcare, or technology-driven farming.
- More and more students are now leaning towards programmes that allow flexibility and real-world application. Interdisciplinary study opens doors across sectors and builds adaptability — an essential skill in a fast-changing world.



INTEGRATED AND DUAL DEGREE COURSES

- **INTEGRATED BS-MS:** Some institutions offer a five-year integrated BS-MS programme, where students begin with a broad curriculum encompassing all core disciplines (e.g., biology, chemistry, mathematics, physics) and then specialise in one or two areas in later semesters.
- **B.PHARM + M.PHARM:** This dual degree course combines undergraduate and graduate courses in Pharmacy. It covers pharmaceutical science, clinical pharmacy and drug formulation.

BPharma: Pharmacists play a significant role in the healthcare industry by delving into research and drug discovery. Bachelor of Pharmacy (B.Pharm), is a four-year undergraduate degree course. To get admission, students have to clear national-level entrance exam Graduate Pharmacy Aptitude Test (GPAT). After the completion of this degree, one can practice as a pharmacist and work in a range of industries related to the prescription, manufacture and provision of medicines.

BSc Microbiology: Dive into the world of microorganisms-bacteria, viruses, fungi-and understand their impact on health, environment, and industry. With a strong lab component, this course is a great fit for students aiming for careers in diagnostics, pharmaceuticals, disease control, or food safety.

BSc Food Technology: Ever wondered how your snacks stay fresh or why packaged food lasts long without preservatives? This course explores the science behind food processing, preservation, and innovation. Students can work in quality assurance, food R&D, or packaging design. The food tech industry offers opportunities in both government labs and private companies, especially as demand for safe, nutritious food grows.

BSc Biotechnology: An interdisciplinary course that brings together biology, chemistry, and technology. From developing vaccines to cleaning up oil spills through bioremediation, biotechnology plays a role in solving critical issues. Students can work in healthcare, agriculture, or research. It's also a good stepping stone to careers in genomics, molecular biology, and regenerative medicine.

BSc (Hons) Nutrition and Dietetics: This course focuses on how diet and lifestyle affect the human body. Students study nutrition science, clinical dietetics, food quality, and AI-based fitness monitoring. Ideal for those who want to work as dietitians, wellness experts, health coaches, or researchers. With rising awareness about preventive healthcare, this field is gaining significant traction.

BTech Biotechnology: For those who enjoy the practical side of science, this course combines biology with engineering. Topics include bioprocessing, genetic modification, and biomaterial design. Students can work in pharmaceutical manufacturing, process engineering, or medical device development. It's ideal for learners who want a hands-on approach to biological systems and industrial applications.

BTech Bioinformatics: This course bridges biology, computer science, and data analysis. Students learn to decode genomes, model disease pathways, and develop digital tools for drug discovery. With its focus on data, coding, and computation, this programme is highly suited to students interested in both science and technology. Graduates can pursue roles in pharma R&D, data science, or precision medicine.

THINK GLOBAL, STAY GROUNDED

While there's a strong demand for science graduates in India, there are also growing opportunities abroad. Many universities offer pathways for international research internships, joint degrees, or PhD programmes.

If you want to work globally, start early by gaining research experience, publishing papers, and improving your academic communication skills. Collaborations with international institutions can add valuable global exposure.

THE WRITER IS DEAN OF SCIENCE, PANJAB UNIVERSITY, SCLN

TRIBUNE, (MAGAZINE-11), 25 APRIL 2025

ENGINEER THE RIGHT COURSE

Future engineers must match their interest with skills & job roles that will be in demand after 4 years

Dr S S Sehgal

ENGINEERING is essentially an art of transforming human lives by using scientific principles, technology and human intelligence for generating innovative or better solutions to address real-world challenges.

It has remained the most preferred career choice of students for decades as a career in this field ensures job security and social status andplenty of avenues for career growth.

Selecting the right branch and college remains one of the main concerns for students as well as for parents. When it comes to getting a degree, IITs (Indian Institutes of Technologies) are considered the gold standard for aspiring students. To get admission in one of the premier engineering institutions in the country is not a cakewalk. Against a total of 17,740 seats offered by 23 IITs across various engineering programmes, more than 12 lakh candidates appeared for JEE Main Entrance Exam (JEE), in January 2025.

The emergence of new courses often leave students more confused and in need of guidance to select a programme that will get them a good package in a good company after graduation.

While the core engineering branches, or the umbrella branches as they are popularly called, such as Civil Engineering, Computer Science Engineering (CSE), Electrical Engineering, Mechanical Engineering, Chemical Engineering and Electronics & Communication Engineering have remained popular among students for decades, with the evolving needs of the industry and rapid advancements in the world of technology, the demand is for more specialised engineers and as a result the sub-branches which were earlier taught as part of the core engineering branches have now become full-fledged engineering branches of their own now.

Let's look at some of these emerging fields of engineering and job prospects they hold for the graduates:

COMPUTER SCIENCE ENGINEERING (CSE)

CSE is a field that combines computer science with engineering principles that jointly focus on the design, development and maintenance of computer systems and networks. CSE graduates can take up the job roles of a Software Developer or Software Engineer, Web Developer, System Administrator, Network Engineer and System Analyst among others.

While CSE has remained the most preferred career choice among students for decades, over the years technology has evolved at a rapid pace triggering a demand for more specialised engineers in this field. And as a result many IT applications which were earlier taught as part of the CSE, have now become full-fledged engineering branches of their own. These include emerging fields like Artificial Intelligence & Machine Learning, IOT, Cloud Computing, Data Science, Cyber Security and IT Engineering, which offer lucrative salaries and innovation-driven career opportunities. Here's a look at these courses and job prospects:

Information Technology (IT): Focuses on the application of technology to solve problems and manage information systems; it involves designing, maintaining and implementing computer software, hardware and managing networks and databases.

Job roles: Software Developer, Information Security Analyst, Software Engineer, Full Stack Developer and Network Engineer.

IOT (Internet of Things): There is a high demand for IoT engineers in the job market today, which is driven by the growth of connected devices and the increased dependence on data-driven insights across various industries.

Job roles: IoT Software Developer, Network Engineer, Data Analyst, IoT Embedded Engineer, IoT Security Specialist and IoT Data Scientist.

Cyber Security Engineering: The high demand for these engineers is driven by the increased cybersecurity threats.

Job roles: Cybersecurity Analyst, Network Security Engineer, Security Consultant, Ethical Hacker, etc.

ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

There is a growing popularity among students to pursue a degree in AI & ML Engineering today which can be attributed to the high demand of the cutting-edge technologies and lucrative job prospects they offer. Graduates of this branch can take up job roles that of a Machine Learning Engineer, AI/ML Software Developer, AI Research Scientist, AI Engineer, Deep Learning Engineer, AI & ML Architect, NLP Engineer and AI Product Manager among others.

MECHANICAL

This branch focuses on the designing, manufacturing and maintaining machines and mechanical systems that apply the principles of physics, materials science and mathematics to provide innovative solutions in industries, including manufacturing, automotive, aerospace and energy among others. Due to rapidly evolving technological advancements, the need for more specialised engineers has resulted in creation of full-fledged engineering sub fields of this branch. These are:

AUTOMOBILE ENGINEERING: It focuses on the design, manufacturing and maintenance of automobiles and their components.

Job roles: Automotive Engineer, Automotive Designer, Production Engineer and Quality Engineer.

AEROSPACE ENGINEERING: This focuses on designing, development and testing of aircraft and spacecraft with two main branches: Aeronautical Engineering (flights within Earth's atmosphere) and Astronautical Engineering (space travels).

Job roles: Aerospace Engineer, Aircraft Design Engineer, Propulsion Engineer and Flight Test Engineer.

MECHATRONICS: This branch combines mechanical, electrical and computer engineering to design and develop intelligent systems and machines.

Job roles: Robotics Engineer, Automation Engineer, Control System Engineer and Software Engineer.

PRODUCTION & INDUSTRIAL ENGINEERING: This combines manufacturing technology, management science, engineering sciences and optimisation techniques to improve the efficiency and effectiveness of industrial processes and systems.

Job roles: Manufacturing Engineer, Production Engineer, Quality Engineer, Industrial Engineer and Plant Engineer.

CIVIL ENGINEERING

This core branch focuses on design, construction and maintenance of infrastructure projects like roads, bridges, buildings and water systems. Apart from core civil engineering, technological advancements and career specialisation in specific areas have attracted many students to pursue a degree in the subfields like:

ENVIRONMENTAL ENGINEERING: This focuses on protecting and impeoving the natural environment, including pollution control, waste management and sustainable development.

Job roles: Environmental engineers, environmental consultants, environmental project manager, and environmental policy analysts.

CONSTRUCTION ENGINEERING: This applies innovative practices and technological advancements in the construction process.

Job roles: Construction Manager, Project Manager, Construction Superintendent, Field Engineer and Surveyor among others.

STRUCTURAL ENGINEERING: Structural Engineering primarily focuses on design, analysis and construction of structures to ensure safety, stability and durability.

Job roles: Structural Engineer, Design Engineer, Project Manager and Research Analyst, etc.

ELECTRICAL ENGINEERING

This branch focuses on the study, design and application of electricity, electronics and electromagnetism. The sub-fields of Electrical Engineering are:

POWER ENGG: It focuses on the generation, transmission, distribution and utilisation of electric power that involves designing, operation and maintenance of electrical grids, power plants and power distribution networks.

Job roles: Power Systems Engineer, Test Engineer, Design Engineer, Control System Engineer and Project Engineer.

EV ENGG: This sub field primarily focuses on the design, development, implementation and maintenance of electric vehicles (EV).

Job roles: EV Engineer, Battery Engineer, Charging Infrastructure Planner, Data Scientist for EV Analytics and Regulatory Affairs Specialist.

THE WRITER IS PRO VICE-CHANCELLOR (ENGG), CHANDIGARH UNIVERSITY, GHARUAN

ELECTRONICS AND COMMUNICATION

ECE is a branch that focuses on the design, development and testing of electronic devices and communication systems. Today, many students prefer to pursue a degree in sub-fields of this branch rather than the core engineering itself, which include:

ROBOTICS & AUTOMATION ENGINEERING: The focus here is on designing, building and operating robots for various applications. It combines principles from mechanical, electrical, software and artificial intelligence engineering.

JOB ROLES: Robotics Engineer, Robotics Technician, Robotics Programmer and Robotics Machine Learning Engineer.

MATERIALS ENGINEERING: With a focus on electronics applies principles of engineering and science to manufacture and improve materials, including aerospace, biomedical, electronics and construction industries. The graduates in this domain can take up Job roles: Materials Engineer, Product Development Engineer, Process Engineer, R&D Engineer and Quality Control Engineer among others.

Teaching children to eat well must begin in school

Pawan Agarwal

is Founder-CEO, Food Future Foundation and former CEO, Food Safety and Standards Authority of India (FSSAI)

Last month, world leaders gathered in Paris for the Nutrition for Growth (N4G) Summit. It was also a time for the United Nations General Assembly (UNGA) to announce the extension of the United Nations Decade of Action on Nutrition, from its original timeframe of 2016-25, to 2030. This extension seeks to sustain the global momentum to end all forms of malnutrition and align efforts more closely with the 2030 Agenda for Sustainable Development.

This could be a turning point in nutrition not only to accelerate progress but also to shift the focus beyond food access – to understanding what people eat, how they eat, and why they eat, especially when it comes to children. Nutrition is not just a health concern. It is intricately connected to education, equity and environmental sustainability.

So far, global nutrition efforts have rightly focused on the first 1,000 days of life – from conception to two years of age – as a critical window to prevent malnutrition. But we now know that the next 4,000 days matter just as much. This includes the period of adolescent growth spurt – a time of rapid physical, emotional, and behavioural changes and offering a second window of opportunity to overcome early childhood deficits.

Good nutrition during this phase can help children catch up on growth and set the foundation for long-term health. But to do that, we must shift our focus from just feeding children to teaching them how to eat well.

A side event at the Paris summit – "Learn to Eat Well: Bio-diverse Diets and Youth as Agents of Change" – made this point loud and clear. It signals a global shift in thinking: that food and nutrition education must begin in schools, go beyond counting calories, and help children make choices that are good for themselves and the planet.

A changing world

Today, children are growing up in a world where food is everywhere – ordered with a tap, delivered to the door, and heavily marketed. Choosing what to eat has become increasingly complex.

Most children lack the knowledge and the skills to make healthy choices. Their diets are often shaped by habits, peer influence, or advertising rather than nutrition or tradition. As a result, many children skip breakfast, eat too few fruits and vegetables, and consume too much sugar and processed food.

Food literacy is no longer a luxury; the focus must shift from just feeding children to teaching them how to eat well

Importance of dietary diversity

A key casualty is dietary diversity – eating a variety of foods to get all the nutrients the body needs. The UN recently adopted Minimum Dietary Diversity as a global indicator under Sustainable Development Goal 2 (End Hunger). It simply asks: did a child eat at least five of 10 food groups in the last 24 hours?

Sadly, in many places – including both cities and villages in India – most children do not. Their diets lack variety, which harms their health and reflects deeper problems in our food systems and education.

Poor diets are linked to malnutrition, childhood obesity, chronic diseases such as diabetes, and mental health issues. Research shows that almost 70% preventable adult diseases begin with habits formed in childhood – especially eating habits. This highlights the urgent need to start early, and schools are the best place to build healthy habits.

Yet, food and nutrition education is missing in most classrooms or is out-dated and not linked to real life. The absence of a proper curriculum and age-appropriate learning resources make it even harder to teach children how to eat well. Teachers often lack the training and the tools to teach it well. Without structured guidance, schools struggle to deliver meaningful food and nutrition education.

This is why we need a structured and age-appropriate curriculum that goes beyond food groups and includes lifestyle habits and environmental awareness. It should start early – at the preschool level – and grow with the child until at least the middle stage, helping them connect the dots between food, health, identity, and sustainability.

Such a curriculum could cover everything from how the human body works and the importance of diverse foods in our diets, to how food systems impact the environment. A central part of this must be promoting bio-diverse diets – ones that include a variety of local, seasonal, and culturally familiar foods. These diets provide better nutrition, support local farmers, reduce environmental impact, and preserve traditional food knowledge.

It must be a part of school life

Teaching children to eat well should not be limited to one-off awareness sessions or occasional activities. It needs to be woven into school life. This means having weekly lessons with age-appropriate, well-designed learning materials, supported by healthier school canteens, kitchen gardens, simple cooking sessions, and student-led campaigns. These real-life experiences help children build lasting knowledge, habits, and values around food, health, and well-being.

Around the world, schools are already showing what is possible – students growing vegetables, cooking simple meals, reading food labels, and learning how their food choices affect their health and the planet.

In India, the National Education Policy and the School Health and Wellness Programme have created room for such integrated learning. But we need a clearer structure, comprehensive curriculum, at least one dedicated weekly session all through the academic year, appropriate learning resources, and properly trained teachers.

Children must be seen not only as learners but also as key influencers. With the right knowledge and tools, they can influence their families, friends, and even their communities – whether by asking for better school meals, reducing food waste, or spreading awareness about healthy eating. In the end, learning to eat well is not just about food. It is about helping children to care for their health, understand their culture, respect the planet, and grow into thoughtful, responsible citizens. In a world facing the dual burdens of under-nutrition and overconsumption, climate change and cultural loss, food literacy is no longer a luxury – it is essential.

If we want to raise a generation that is healthier, more compassionate, and better prepared for the future, we must start by making learning to eat well a part of every child's education – starting today. 26/4/25

PIONEER (P-7), 26 APRIL 2025

Ramanujan: Eternal lamp in the temple of mathematics

On April 26, 1920, the nation lost Srinivasa Ramanujan a rare mathematical genius. His mathematical consciousness illuminated the world for eternity. This is not merely his death anniversary; it is a celebration of a saint — like devotee of numbers who elevated mathematics to the realms of philosophy and the divine

When numbers resonate and equations seem to dance with the soul, one name echoes through the very fabric of creation — Srinivasa Ramanujan. On April 26, 1920, a dark day in Indian history, the nation lost this priceless gem.

Yet, in that moment, his mathematical consciousness illuminated the world for eternity. This is not merely a death anniversary; it is a celebration of a saint-like devotee of numbers who elevated mathematics to the realms of poetry, philosophy, and divine connection. Ramanujan was no ordinary mathematician — he was a mystic of numbers, a seeker of hidden truths, a visionary who saw the universe through the lens of infinite equations.

His story is a spark that turns the impossible into the possible. Born on December 22, 1887, in the small town of Erode, Tamil Nadu, Ramanujan's life was nothing short of a modern fairy tale. Raised in a humble Brahmin household, surrounded by financial hardships and lacking formal education, he faced walls that would deter most.

But his genius was a relentless wave that shattered every barrier. From a young age, numbers were his companions and his playground. While other children played with toys, he delved deep into the mysteries of mathematics.

School textbooks quickly proved inadequate, and he began exploring advanced mathematical concepts on his own. At the age of 15, he discovered A Synopsis of Elementary Results in Pure Mathematics by GS Carr — a book that became his sacred scripture. It fuelled his imagination and transformed his notebooks into treasure troves of original formulas and theorems.

To Ramanujan, mathematics wasn't just about calculations — it was a spiritual quest. He often credited his insights to his family deity, Goddess Namagiri, saying, "Every formula that comes to my mind is by the grace of the Goddess." To him, mathematics and divinity were two expressions of the same truth. His work — be it infinite series, continued fractions, or partition functions — read like verses of a cosmic poem.

His formulas for calculating pi are so elegant and precise that they are still used by modern supercomputers. His partition function transformed number theory, and his discoveries in theta functions and modular equations have found applications in cryptography, physics, and even black hole theory. The world took notice of his genius in 1913, when he sent a letter filled with groundbreaking formulas to the eminent Cambridge mathematician GH Hardy.

Initially sceptical, Hardy was soon astonished. Upon meeting Ramanujan, he said, "Ramanujan's mathematics is beyond the human mind; it is divine inspiration." Ramanujan was invited to Cambridge, and his collaboration with Hardy sparked a revolution in mathematics. The Hardy — Ramanujan formula on the distribution of prime numbers, along with their other contributions, are considered monumental achievements.

RK JAIN ARCHIVE

Ramanujan's greatest legacy lies in his notebooks — thousands of formulas, many without proofs, that took mathematicians decades to fully understand.

His mock theta functions, penned during his final days, baffled mathematicians for nearly a century but are now essential in quantum physics and string theory.

His contributions to the Riemann zeta function continue to influence research on one of mathematics' most profound mysteries — the Riemann Hypothesis.

Yet, Ramanujan's journey was not without immense struggle. At Cambridge, he battled cultural isolation, dietary challenges, and the harsh English climate. Diagnosed with tuberculosis in 1917, his health deteriorated, and he returned to India in 1919.

Just a year later, on April 26, 1920, at the age of 32, he passed away in Kumbakonam. But though his mortal life ended, his spirit lives on through his work.

The discovery of his "Lost Notebook" in 1976 reignited excitement and opened new doors in mathematical research. Ramanujan's influence goes far beyond mathematics. His story is a beacon for dreamers and doers who dare to rise above adversity. In 1987, India marked his birth centenary by declaring it National Mathematics Year. His legacy continues in the world's top institutions, and his life inspired Robert Kanigel's biography The Man Who Knew Infinity, later adapted into a global film.

In his honour, December 22 is now celebrated as National Mathematics Day in India. Ramanujan's life is proof that genius needs no degree, wealth, or privilege. His journey is a testament to passion, faith, and the boundless potential of the human mind. His discoveries not only advanced science but also revealed a deep philosophical truth — that within each of us lies the power to touch the infinite.

Today, as we remember him on April 26, we do more than pay tribute — we renew our commitment to nurturing the spark within us. Like Ramanujan, may we turn our dreams into devotion. Equations may evolve and theorems may change, but there will never be another Ramanujan.

He is the eternal lamp in the temple of mathematics — forever radiant. His legacy is not India's alone — it belongs to all of humanity. As long as numbers are written and equations are solved, Ramanujan will remain immortal — a soul who touched infinity and offered its light to this world.

Srinivasa Ramanujan was not just a mathematician — he was a visionary who transformed numbers into a divine language. On April 26, we don't just mourn his passing; we celebrate a life that elevated mathematics into art, spirituality, and cosmic truth.

Despite humble beginnings and relentless hardships, his passion and genius blessed us with truth that continue to shape modern science.

His discoveries — ranging from infinite series to mock theta functions — remain cornerstones of mathematics, physics, and beyond. Ramanujan's journey proves that brilliance needs neither privilege nor pedigree.

His life is a testament to what the human spirit can achieve with faith, curiosity, and devotion. Today, his legacy lights the path for dreamers, thinkers, and seekers of truth across the world. As we remember him, we also honour the infinite potential within us all.

Ramanujan lives on, not just in equations, but in the eternal quest for knowledge he so passionately embodied. He is, and always will be, mathematics' guiding flame.

> FROM A YOUNG AGE, NUMBERS WERE HIS COMPANIONS AND HIS PLAYGROUND, WHILE OTHER CHILDREN PLAYED WITH TOYS, HE DELVED DEEP INTO THE MYSTERIES OF MATHEMATICS

(The writer is a columnist and a blogger. Views are personal)

TELEGRAPH (P-12), 26 APRIL 2025

MULTIPLE BENEFITS

The president of the United States of America has his eyes — and mind — trained on a single goal. It is to prevent a waste of federal funds by granting billions to universities which allegedly do not penalise anti-Semitism. So he is penalising these universities, including Columbia and Harvard, and setting the path they should tread in the future. It is, no doubt, good to have a president who looks to the future, but history might help in moderating present passions. The unique system of the American research university grew out of federal government funding, millions of dollars at first and billions later. Military paraphernalia — from radars to bombs were born in university research laboratories. The best-known is perhaps the Manhattan Project. The idea then was of a national supremacy, and the universities were the instruments of it with research funding. The symbiotic relationship allowed universities to attain the highest quality in research facilities, hire the best teachers with any number of Nobel laureates and attract the best students from all over the world. Meanwhile the government got what it wanted; its funds ensured that.

Military ware were not the only products. From medicines to cure the worst diseases to the means to explore space, from methods to produce the best crops to the most used search engine — the research laboratories produced everything. In science as in the social sciences, the strength and excellence of the universities could not be questioned. The fact that the higher education system in the US is decentralised with the states in charge of it helped, not hindered, the development of research and excellence, something that governments nearer home could note. In 1980, patent rights for federally funded research were transferred to the universities from the federal government. This gave a special fillip especially to work in biomedicine, computer science and engineering. The feeling of discomfort that was never totally absent about being beholden to Washington was a little neutralised. This was also a step in increasing the university's autonomy in academic and research matters.

> Federal funding for American universities resulted in high-level research and also the national good

In spite of the disadvantage of the academia being dependent on politicians, the greater good that federal funding and its acceptance achieved was remarkable: excellence in learning on the one hand and national progress on the other. The US's past system — past now with Donald Trump cancelling funding for one university after another — was exemplary in underlining how the government's gain and the national good are intimately linked with excellence in learning and independent research. The government's own interest in funding universities remained at one remove — it was not disinterested, neither was it coercive. What this manifested was breadth of vision. Academics and researchers could work without external pressure but only with their own intellectual push to achieve the unprecedented. This is an example that could work in other democracies, not least in India, from where the best scholars and researchers tend to go overseas to work. Mr Trump's example is not desirable.

What is behind Trump's crackdown on U.S. universities?

While anti-Semitism is supposedly the trigger, the action hints at a broader motive

DATA POINT

Sambavi Parthasarathy

United States President Donald Trump's administration has been targeting several U.S. universities, accusing them of anti-Semitism. When Harvard University refused to comply with the demands of the White House on hiring, admissions, and teaching practices, the administration froze federal grants to it.

On March 10, the U.S. Department of Education's Office for Civil Rights sent a letter to close to 60 universities saying they were under investigation for Title VI violations relating to anti-Semitic harassment and discrimination. The letter warned of action if the universities failed to comply with the administration's demands.

However, the federal government letter, published by Harvard University on its site, reveals that the demands have more to do with governmental regulation of the private university than discrimination on campus. The terms include governance and leadership reforms, a forensic audit of foreign funding sources, and disclosure of all requested immigration, hiring, and admission-related data to the federal government. It also includes auditing the student body, faculty, and leadership for viewpoint diversity. These signal the decline of academic freedom in the U.S., particularly institutional autonomy which declined to its lowest level in 2024 (**Chart 1**).

The government's other demand was that the universities commission an external party to audit programmes and departments that most fuel anti-Semitic harassment or reflect ideological capture. Data indicates that there is less freedom of academic exchange and dissemination now in the U.S. than in the 2000s. This is also evident from the freedom of academic and cultural expression in the U.S., which has plunged to its lowest in two decades.

According to Anti-Defamation League (ADL), an anti-hate organisation that tracks anti-Semitic incidents in the U.S., close to 9,354 anti-Semitic incidents were recorded in the country in 2024, a 344% increase over the past five years and the highest in the 46 years since ADL began tracking such incidents. The audit also mentioned that incidents rose more steeply in college and university campuses.

Data detailing anti-Israel activism on U.S. campuses in 2023-24 shows that anti-Israel incidents, which include incidents of anti-Semitism, were recorded in over 430 campuses in the country, including those which received the letter. Nine of the 10 campuses which recorded the most number of incidents, including Harvard, have received the letter (**Table 2**). However, a close look at the data shows that in 2023-24, 64% of the 2,637 anti-Israel incidents recorded across campuses were protests.

The federal government also demanded that Harvard University immediately end all diversity, equity, and inclusion (DEI) programmes, offices, committees, positions, and all DEI-based policies, including DEI-based disciplinary or speech control policies.

More than half these 60 universities, which are expected to comply with these demands, are classified as R1 Doctoral universities with very high research activity. Reports show that R1 doctoral institutions are relatively more inclusive with equal opportunities in graduate enrolment for all racial and ethnic groups. Consequently, the share of international students in their total intake is higher than in other institutions (**Table 3**).

The data shows that while anti-Semitic incidents are on the rise, most of them are protests. The demands of the administration raise questions as to about whether it wants to curb anti-Semitism or immigration and academic freedom.

Targeting campuses

The data for chart 1 is sourced from the V-Dem Dataset. Data for tables 2 and 3 are from the Anti-Defamation League and the American Council on Education

Chart 1: The chart shows the index of various academic freedom measures of U.S. universities. The higher the number, the better the measure

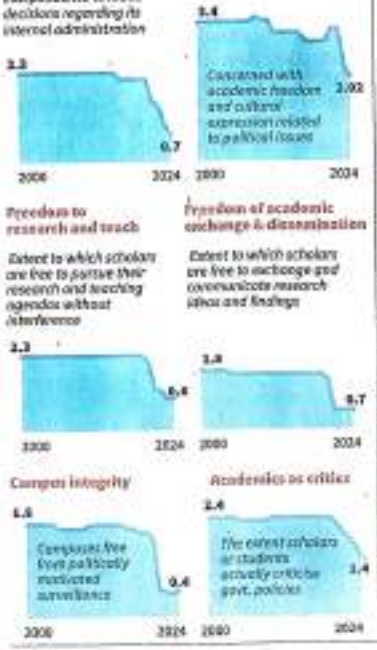


Table 2: Table lists the U.S. campuses which reported the most anti-Israel activities, including anti-Semitic incidents, in 2023-2024. The numbers correspond to number of incidents. *BDS: Boycott, Divestment, Sanctions

University	BDS*	Harassment	Assault	Protest	Vandalism
Columbia Univ. NY	0	20	3	29	8
University of California, Davis	1	18	2	10	11
Univ of California, LA	3	10	1	23	4
University of Michigan	2	10		25	3
Harvard University	4	8	1	22	0
Rutgers University-New Brunswick	1	12	1	20	4
University of California, Berkeley	2	10	5	16	3
Univ. of Minnesota	1	6		21	5
Stanford University	2	13		17	2
University of North Carolina, Chapel Hill	1	11	2	13	5

Table 3: Graduate enrolment across Carnegie classifications, by race and ethnicity. Data as of 2019-20. The table shows where students from each racial groups studied. For instance, 65.4% of international students studied in R1 doctoral institutions followed by 18.7% in other doctoral institutes

Group	R1 doctoral institutions	Other doctoral institutions	Master's institutions	Others
All racial and ethnic groups	34.1%	18.9%	24.4%	19%
American Indian or Alaska Native	28.1%	19.7%	26.0%	18%
Asian	42.8%	16.9%	16.7%	23%
Black or African American	15.9%	19.2%	30.6%	14%
Hispanic or Latino	27.9%	21.9%	27.3%	17%
Native Hawaiian or other Pacific Islander	18.2%	46.2%	23.0%	0%
White	31.2%	19.3%	18.5%	19%
More than one race	33.2%	24.9%	18.1%	17%
International students	65.4%	18.9%	10.1%	5%

Whither Humanities?

Without ethics, aesthetics and hermeneutics that constitute the soul of the Humanities, the world will not be an ideal place for human beings.

A. Joseph Dorairaj

There has been some bad news for the Humanities. A year ago, the University of Kent, the U.K., confirmed that it would phase out Art History, Anthropology, Health and Social Care, Journalism, Music and Audio Technology, and Philosophy and Religious Studies. Citing financial reasons, Canterbury Christ Church University in Kent announced in November 2024 that it would stop offering English Literature programmes from September 2025. Cardiff University does not want to continue with the Ancient Language modules due to a huge financial deficit. Goldsmiths, University of London, has also decided to scrap a few Arts and Humanities modules.

In India too, certain Arts departments are not secure about their future and some Humanities programmes have already been staggered.

During the Renaissance, the focus in educational institutions was on *studia humanitatis* or "studies of humanity," especially Greek and Latin classics, Grammar and Rhetoric and Languages, Literature, Philosophy and History. The Humanities refer to those academic disciplines that focus on human beings and rely on hermeneutics or theories of interpretation as their predominant methodology. They differ from Pure Sciences because of their content and pedagogy. Subjects like Physics and Chemistry focus on matter and depend on laboratory experiments for their data. Sociology, Anthropology and Psychology deal with human beings but their insistence on positivistic and empirical methodology differentiates them from the Humanities and categorises them as Social Sciences.

Why are the Humanities being side-lined? We need to realise that the neglect of the Humanities is not a recent phenomenon, for as early as the 19th century, German philosopher Wilhelm Dilthey classified all academic disciplines into two groups: the Human Sciences and the Natural Sciences. What is appalling is that even the Humanities were forcibly brought under the sciences. Dilthey went a step further and proclaimed that, to survive, the Humanities should adopt the empirical methodology.

Challenges

What are the problems that plague the Humanities departments? First, it is a fact that there are not many takers for certain Arts programmes. In India, very few applications are received for programmes like History and Philosophy, making them financially unviable. In the West too, not many students are enthusiastic about the Humanities. Second, in the job market all over the world, STEM students pocket most of the placements. Humanities students are increasingly ignored by recruiters.

Third, Sciences depend on laboratory experiments and deal with facts, and believe that truth is singular. But the Humanities, especially from a postmodern perspective that has called for an "incredulity towards metanarratives", speak of truths in the plural. This has unnerved not only the hard sciences but also the Social Sciences that rely predominantly on quantitative data.

GETTY IMAGES/ISTOCKPHOTO

Fourth, there is sometimes a feeling that Humanities students are not quite as diligent and hard-working as their Science counterparts who spend long hours in their labs. Put differently, poetry, novels and films are considered subjects that do not rigorous classroom teaching. Last and most important, today's digital world is heavily data-based and everything is worked out in terms of numbers, percentages and ratios. Such a world has deepened the divide between the Sciences and the Humanities.

Pressing need

The world certainly needs the Humanities, which talk about transcendence while the Sciences are confined to immanence. This is one of its strengths. Second, a study of the Humanities ingrains a sense of empathy, which is vital to the survival of the humankind. Aristotle talked about pity and terror and the resultant *catharsis*. Only because the learners are empathetic to the tragic protagonists do they experience pity and fear. Third, the Humanities help enhance the learners' emotional intelligence. Fourth, the Humanities promote hermeneutics, the theory of interpretation. The Social Sciences – and Pure Sciences too to some extent – need hermeneutics to interpret data, both quantitative and qualitative. Finally, the Humanities teach us to look at the world aesthetically and appreciate even "the meanest flower that blows".

C.P. Snow in his Rede Lecture (1959) remarked that "the intellectual life of western society is increasingly being split into two polar groups ... literary intellectuals at one pole – and at the other scientists" ("Two Cultures"). Ultimately, there should be a rapprochement between the two and we should strive to bridge the gap, making the Humanities incrementally scientific/systematic as in the case of Digital Humanities, and the Sciences more humanistic, especially in terms of methodology. Without ethics, aesthetics and hermeneutics that constitute the soul of the Humanities, the world will not be an ideal place for human beings.

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HINDUSTAN TIMES (P-12), 28 APRIL 2025

Cosmos to classrooms, the impact of Kasturirangan

With the many roles he played in India's space missions, including the success of Mangalyaan, K Kasturirangan will be remembered as the man who took India closer to the stars. What is less well known is that his quiet brilliance also shone in another direction. His most enduring legacy may lie not in the cosmos but in the classrooms of India, where his work through the National Education Policy (NEP) 2020 continues to shape the lives of millions.

As chairperson of the NEP drafting committee, Kasturirangan recognised that the key to India's growth lay in empowering its youngest minds with the foundational skills necessary for a prosperous nation. NEP laid the groundwork for a future where foundational literacy and numeracy (FLN) are not aspirational but guaranteed for every child.

The impact of his work, particularly through initiatives like the National Initiative for Proficiency with Reading with Understanding and Numeracy (NIPUN) Mission, is already being felt across India. He may have laid the foundation for a developed India built on the knowledge and capabilities of those who are children now. Kasturirangan's deep commitment to education was apparent long before his role as the chief architect of NEP 2020. In 2008 he was appointed chairman of the Karnataka Knowledge Commission. In that role and as a board member of institutions such as IIT Roorkee, IIT Madras, and IISc Bangalore, Kasturirangan was instrumental in shaping curricula and guiding strategic decisions in India's higher education system.

Ashish Dhawan

Bikkrama Daulet Singh

By the time Kasturirangan took the helm of the NEP committee in 2017, India was at a critical juncture. The education system had made significant strides in enrolment, but quality remained a massive concern. His core insight was simple yet profound: "Children who learn to read, read to learn." If students don't achieve the first milestone of reading and numeracy by Grade 3, they fall behind not just in school but in life. This would have profound implications for their ability to engage in higher-level learning and, ultimately, for their success in life.

FLN eventually became a movement across the country. Over 15 states have launched FLN missions and programmes, and NISHTHA FLN (a programme that aims to improve teacher training and education quality) has been adopted by 90% of states and Union Territories. It even made it to the G20 Summit in 2023 where Prime Minister Narendra Modi highlighted NIPUN Bharat and G20 took up FLN as an international priority. Green shoots from the FLN drive are beginning to show in survey data. According to the latest Annual Status of Education (Rural) Report (ASER), literacy levels in government schools have gone up from 20.9% (2018) to 23.4% (2024) and numeracy from 20.9% (2018) to 27.6% (2024) at the national level — the highest ever outcomes at a Grade 3 level. Another NEP breakthrough has been recognising the importance of strong early years and play-based learning for children in the 3-6 years age group. This has been institutionalised in the form of Balvatika (pre-primary) and Vidya Pravesh (transitioning from pre-primary to primary) programmes, a total of 72% of students were covered under Vidya Pravesh by 2023.

Another cornerstone of NEP 2020 is the creation of large, integrated school complexes — a move away from fragmented, under-resourced institutions toward more cohesive, resource-efficient hubs. The PM SHRI (Prime Minister Schools for Rising India) scheme, launched in 2022, represents a major step forward in implementation, where 14,500 schools are meant to be transformed into model institutions. These schools are meant not only to embody NEP's pedagogical ideals but also to serve as demonstration and anchor schools within their clusters.

The National Curriculum Framework was also revamped under Kasturirangan's leadership for a better fit with NEP 2020 goals. It restructures schooling into four stages — foundational, preparatory, middle, and secondary — aligning curriculum and pedagogy with child development milestones. It also shifts focus from rote memorisation to building core skills like critical thinking, problem-solving, and the application of knowledge; emphasises FLN, experiential learning, and a reform of assessment methods to measure conceptual understanding rather than just exam performance.

Kasturirangan may no longer be with us. But his legacy lives on through the transformative changes he initiated in India's education system. His work continues to push Indian education toward greater inclusivity and innovation, ensuring that every child has the opportunity to learn, grow, and thrive in a rapidly evolving world.

Ashish Dhawan is founder-CEO and Bikkrama Daulet Singh is operating partner, The Convergence Foundation.
The views expressed are personal

INDIAN EXPRESS (P-8), 28 APRIL 2025

MAN AND THE MISSION

K Kasturirangan played a leading role in India's ascent in the global knowledge economy

EVERY TIME A person in one of India's 115 "backward" districts logs in to the internet or the weather office issues an alert to farmers, or people receive a timely cyclone warning, the country reaps the benefits of research by scientists at its premier space agency — ISRO. Unlike their counterparts in the US or the former Soviet Union, India's science planners did not envision the country's space programme as an extension of the country's geopolitical ambitions. India, instead, used its satellites as developmental and modernising forces. K Kasturirangan, who died on Friday at the age of 84, played a defining role in this endeavour. From being part of the team that launched India's first satellite, Aryabhatta, to preparing the groundwork for the missions to Mars and the Moon, the astrophysicist left his mark on virtually every landmark development in the country's space odyssey. As ISRO's head from 1994 to 2003, he steered the agency during a particularly challenging period when India faced strict international restrictions on access to technology.

Early in his career, Kasturirangan was mentored by Vikram Sarabhai. The doyen of India's space programme believed that funding constraints shouldn't restrict India's technology ambitions. Sarabhai's mantra, "doing more with less", was at the core of the space technology developed during Kasturirangan's leadership of the agency. After the 1998 nuclear tests, India was denied the crucial cryogenic technology without which a well-developed space programme could not be built. Kasturirangan, therefore, set great store on indigenisation. The Polar Satellite Launch Vehicle, perfected under his stewardship of ISRO, became a reliable launcher, whose affordability attracted international clients. Sarabhai's influence was writ large on ISRO's remote sensing initiatives that aimed to provide the benefits of India's space research to farmers, fishing communities, and participants in the health and education sectors. At the same time, Kasturirangan was also a leading voice in the post-liberalisation science policy firmament which believed that India of the 1990s was poised to join the ranks of space superpowers. The fact that the missions to Mars and the Moon cost a fraction of other global interplanetary missions is a testament to the innovations of Kasturirangan's team.

Kasturirangan was respected, across political circles, not just as a space scientist but as a scholar who understood the links between knowledge and society. In 2012, the UPA government chose him to head a committee to deal with the complex question of nature-human interaction in the Western Ghats. Five years later, he chaired a panel set up by the Narendra Modi government to draft the New National Education Policy. Kasturirangan will be remembered as a scholar who played a leading role in India's ascent in the global knowledge economy. IE/28/8

DAINIK JAGRAN (P-6), 28 APRIL 2025

स्कूली शिक्षा का हिस्सा बने नाट्यशास्त्र

कृपाशंकर चौबे

संस्कृत के महान ग्रंथ स्कूली पाठ्यक्रम का हिस्सा बनाए जाएं ताकि इनको औसत भारतीय हृदयंगम कर सकें

यूनेस्को के विश्व स्मृतिकोष में 'श्रीमद्भगवद्गीता' और 'नाट्यशास्त्र' की पांडुलिपियों का दर्ज होना भारत की महान ज्ञान संपदा की अंतरराष्ट्रीय स्वीकृति का प्रमाण है। यह विचार करने योग्य है कि भारत के शास्त्रीय ग्रंथ विश्व के स्मृतिकोष में तो संरक्षित हैं, किंतु स्वयं अपने देश में क्या स्थिति है? तथ्य है कि 'श्रीमद्भगवद्गीता' औसत भारतीयों के स्मृतिकोष में दर्ज है, किंतु 'नाट्यशास्त्र' नहीं। औसत भारतीयों ने 'नाट्यशास्त्र' का नाम जरूर सुना है, किंतु उन्हें नहीं पता कि इस महान ग्रंथ में है क्या? संस्कृत आलोचना शास्त्र का पहला ग्रंथ 'नाट्यशास्त्र' है, जिसके प्रणेता भरतमुनि हैं। नाट्यशास्त्र का संपूर्ण हिंदी अनुवाद राधावल्लभ त्रिपाठी ने किया है। बाबू लाल शुक्ल शास्त्री ने भी नाट्यशास्त्र का अनुवाद किया है। इस महान ग्रंथ में ज्ञान का खजाना है। कोई ऐसा ज्ञान, शिल्प, विद्या, कला, योग या कर्म नहीं है, जो नाट्यशास्त्र में नहीं पाया जाता हो। तभी तो 'नाट्यशास्त्र' को पांचवां वेद माना गया है। 'नाट्यशास्त्र' में 15 बार नाट्यवेद शब्द का उपयोग नाट्य के पर्याय के लिए किया गया है।

'नाट्यशास्त्र' में 37 अध्याय हैं। पहले अध्याय में बताया गया है कि इस नाट्यवेद की रचना ऋग्वेद से पाठ्य, सामवेद से गीत, यजुर्वेद से अभिनय और अथर्ववेद से रस लेकर की गई। बाद के अध्यायों में यह वर्णन है कि नाट्यमंडप कैसे बनाया जाना चाहिए? नेपथ्य यानी मंच पार्श्व की विधि क्या है? पात्रों की वस्त्र सज्जा कैसी होनी चाहिए? अभिनय का क्रम कितने प्रकार का होता है? अभिनय किस प्रकार किया जाता है? किस पात्र के लिए किस तरह की भूमिका होनी चाहिए? नाटक के नायक और नायिका के गुण क्या हैं? संगीत का विधान कैसे किया जाए? आदि इत्यादि। भरतमुनि के अनुसार नाटक के चार प्रमुख अवयव हैं-कथावस्तु, नायक और पात्र, रस तथा अभिनय। उनके अनुसार नाटक का प्रमुख उद्देश्य कथावस्तु का संगठन है। भरतमुनि रस सिद्धांत के प्रवर्तक हैं। उन्होंने 'नाट्यशास्त्र' के छठे अध्याय में रसों की संख्या आठ बताई है-शृंगार, हास्य, करुण, रौद्र, वीर, भयानक, वीभत्स और अद्भुत। जबकि 24वें अध्याय में शांत रस का उल्लेख है। इस तरह नौ रसों का उल्लेख मिलता है। भरतमुनि ने कहा है कि जैसे अनेक व्यंजनों और द्रव्यों से युक्त होने पर भोजन करने वाला अपने भोजन में एक विशेष स्वाद का अनुभव करता है, उसी प्रकार रसिक जन अनेक भावों के अभिनय से युक्त स्थायी भावों का आस्वादन करते हैं। यही नाटक की रसानुभूति है।

नाट्य में समाहित लोक जीवन के रस-रंग ● पाइल

'नाट्यशास्त्र' में चूंकि सौंदर्यशास्त्र, कविता तथा व्याकरण की भी शिक्षा दी गई है इसलिए यह भ्रम नहीं होना चाहिए कि 'नाट्यशास्त्र' केवल नाट्य के लिए है। फिलवक्त अपने देश में स्नातक और स्नातकोत्तर स्तर पर 'नाट्यशास्त्र' पढ़ाया जाता है, किंतु उसका अकादमिक अध्ययन साहित्य और कला की उच्च शिक्षा तक सीमित है। नाट्यशास्त्र को स्कूली शिक्षा का विषय नहीं बनाया जा सका है। यही बात संस्कृत के कई अन्य महान ग्रंथों के लिए भी सही है। पाणिनि कृत 'अष्टाध्यायी' इसका उदाहरण है। पाणिनि संस्कृत के पहले वैयाकरण थे। उन्होंने ढाई हजार वर्ष पहले 'अष्टाध्यायी' ग्रंथ की रचना कर संस्कृत को व्याकरणसम्मत बनाया। 'अष्टाध्यायी' महज व्याकरण ग्रंथ नहीं है। आठ अध्यायों में विभक्त इस ग्रंथ के 3,995 सूत्रों में भारत के तत्कालीन भूगोल, सामाजिक जीवन, खानपान, वेश-भूषा, आवास, आर्थिक दशा, वनस्पति, पशु-पक्षी, शिल्प, वाणिज्य-व्यवसाय, नाप-तौल, मुद्रा, ऋणदान, शिक्षा, साहित्य, यज्ञीय कर्मकांड, देवपूजा, राजतंत्र और शासन का विश्वसनीय इतिहास दर्ज हुआ है। उन्होंने भारतवर्ष के लोकजीवन में प्रचलित अनेक अर्थों वाली वृत्तियों का अध्ययन कर व्याकरण रचा। इसी कारण उनके शास्त्र में उस समय के भारतीय लोक जीवन का प्रामाणिक परिचय मिल जाता है।

कला शास्त्र में जो महत्व 'नाट्यशास्त्र' का है, वही वेदांत में बादरायण के 'ब्रह्म सूत्र', न्याय में गौतम के 'न्याय सूत्र' और योग शास्त्र में पतंजलि के 'योग सूत्र', खगोल विज्ञान एवं गणित में आर्यभट्ट के 'आर्यभटीय' और राजनीति विज्ञान में कौटिल्य के 'अर्थशास्त्र' का है। 'ब्रह्मसूत्र' के रचयिता बादरायण की यह स्थापना है कि आत्मा ही स्वयं परमात्मा है और ब्रह्मांड उसी पदार्थ से उत्पन्न हुआ है जिससे ब्रह्म। ब्रह्म ही परम तत्व है और प्रकृति में गति का वही आदि कारण है। गौतम ने 'न्याय सूत्र' में ब्रह्मांड की उत्पत्ति में ईश्वर या अलौकिक सत्ता की भूमिका को सिरे से खारिज किया और कहा कि किसी चीज की सत्यता के लिए उसका तर्क सिद्ध होना जरूरी है। पतंजलि ने योग को दर्शन के रूप में स्थापित करने के लिए 'योग सूत्र' लिखा और चित्तवृत्तियों के निषेध को योग कहा। 'आर्यभटीय' में खगोल विज्ञान और गणित की कई मौलिक स्थापनाएं हैं। आर्यभट्ट ने पाई का शुद्ध मान निकाला था। उन्होंने ही सबसे पहले सिद्ध किया था कि पृथ्वी अपनी धुरी पर घूमती है। ईसा से तीन सौ साल पहले कौटिल्य द्वारा रचित 'अर्थशास्त्र' ग्रंथ में राज्य संचालन की विधियों, युद्ध एवं वैदेशिक मामलों का विशद वर्णन है। संस्कृत के इन महान ग्रंथों का अनुवाद हिंदी और अन्य भारतीय भाषाओं में उपलब्ध है। फिर भी वे स्कूली स्तर पर पाठ्यक्रम का हिस्सा नहीं बन पाए हैं। अब कुछ ऐसा किया जाना चाहिए, ताकि संस्कृत के महान ग्रंथों को औसत भारतीय हृदयंगम कर सकें।

(लेखक महात्मा गांधी अंतरराष्ट्रीय हिंदी विश्वविद्यालय, वर्धा में प्रोफेसर हैं)
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DECCAN HERALD (P-6), 29 APRIL 2025

IN PERSPECTIVE

A law for equal campuses

Karnataka must back its landmark Rohith Vemula Act with strong deterrents and incentives

JEHOSH PAUL

The Rohith Vemula Act in Karnataka has the potential to do what a decade of University Grants Commission (UGC) circulars and campus committees have not, and to guarantee every student and staff member the right to study, teach, and live with dignity.

Since 2012, the UGC Promotion of Equity in Higher Educational Institutions Regulations have required universities to create equal opportunity cells. Yet compliance remains superficial. Reports have highlighted that many institutions lack these cells. It has also been noted that in institutions where the cells exist, they are reduced to units where the problems are brushed under the carpet. At IIT Bombay, for instance, an internal panel investigated Dalit student Darshan Solanki's 2023 suicide, keeping the inquiry within the very hierarchy it was meant to challenge. Unsurprisingly, that interim report dismissed any caste bias despite evidence from campus surveys.

In February this year, the UGC issued its draft Promotion of Equity in Higher Education Institutions Regulations 2025 mandating ex-officio chairs for those cells, Equity Ambassadors in every department, and a 24/7 helpline for discrimination complaints. Yet, the draft has come under criticism for limiting itself to nominal actions and mirroring provisions from earlier regulations. Worse, the enforcement, exactly as in 2012 guidelines, would still rest with the very institutional heads it hopes to hold to account.

A strong Rohith Vemula Act should create an independent mechanism in the form of a State Equity Ombudsperson who can summon records, overturn sham inquiries, and levy substantial fines on institutions that shield perpetrators. It must then guarantee time-bound redress by prescribing a seven-day window for prima facie scrutiny, 30 days for a full inquiry, and 60 days for a speaking order published online. Protection of whistle-blowers and witnesses must be built in through explicit clauses against victimisation.

The law also needs to provide reparative support by mandating counselling, academic flexibility, relocation, and compensation for affected students. Finally, it must make discrimination measurable by requiring annual equity audits and public scorecards that track admissions, faculty hiring, scholarships, and dropouts across caste, gender, and disability. These measures should be funded through a dedicated Equity and Inclusion Fund ring-fenced at not less than 1% of the higher education budget.

None of these ideas is radical. Each appears somewhere in Indian law already. The SC/ST Prevention of Atrocities Act offers a compensation scheme. The law on sexual harassment insists on an external member for inquiries. The Right to Information Act stresses proactive disclosure. What is new is the prospect of welding them together for the specific context of education.

Implementation, the real test

Even the tightest clauses fail when universities treat the law as one more checklist. Karnataka must therefore back the principle with credible carrots and sticks. It should deny affiliation and State grants to colleges that refuse compliance while rewarding campuses that reduce complaint backlogs and raise the number of first-generation graduates. Institutional rankings already shape student choices. A publicly released Equity Index could do the same for social justice.

The State must also resist outsourcing responsibility to marginalised students themselves in the name of peer learning. Professional counsellors trained in caste-sensitive practice, language accessibility for rural and Adivasi students, and routine orientation for faculty are not negotiable. Without these safeguards, even the best-drafted statute risks becoming an empty epitaph for Rohith Vemula.

That the initiative comes from a state rather than the Centre is fitting. Education is a concurrent subject and progressive federalism often begins in the states. Madhya Pradesh's Right to Public Services Act 2010 and Tamil Nadu's midday meal programme of 1956 offer clear examples. Yet the moral burden of discrimination is not Karnataka's alone. If the state's experiment is executed effectively, transparently, and with accountability, it can become a template for a central statute that finally gives teeth to Article 15's promise of non-discrimination at the national level.

Rohith Vemula's suicide note closed with the haunting line, "My birth is my fatal accident." A law bearing his name will mean little if it merely commemorates his death. Its purpose must be to ensure that no student in India again sees an accident in their birth, whether Dalit, Adivasi, disabled, or otherwise marginalised. Chief Minister Siddaramaiah has taken the first political step. The drafting table must now match that ambition, and the rest of the country would do well to watch, learn, and soon follow.

(The writer is a lawyer and research consultant)

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Australia's reputation as a welcoming destination for international students is facing a new reality. Amid an acute housing affordability crisis and a heated election debate, politicians are turning to capping the number of international students as a solution

How foreign students lost their sheen in Australia

VICTORIA KIM

Australia was the clear top choice when Ali Bajwa, a native of Pakistan, wanted to pursue a doctorate in agricultural science. The research in the field was cutting edge, the universities were highly ranked and overseas students were welcome in the country, where international education has been referred to as "the biggest export we don't dig out of the ground."

Bajwa arrived a decade ago, specialising in weed control. He brought his family over, all becoming naturalized citizens. He spent years in Wagga Wagga, a rural town, working for the state government and continuing research in weed science. He now teaches at La Trobe University in Melbourne and is a homeowner.

But those hoping to follow Bajwa's path face a new reality.

Politicians on both sides of the aisle have turned to capping the number of international students as a way to rein in unaffordable housing, a crisis at the top of voters' minds before next month's election. The argument is that this will reduce demand for rentals and starter homes and tamp down prices. It is a major shift for Australia, whose economy depends on mining but that once saw education as a "super growth sector" and sought to compete for students with the United States, Britain and Canada.

"We gain a lot more than we lose to international students," said Bajwa, 35. "There should be a lot more focus on improving the selection criteria or requirements than a blanket ban or limiting the number."

Last year, the government of Prime Minister Anthony Albanese sought to impose a limit on international students but failed to pass legislation. It has since increased student visa fees and slowed processing, reducing the arrival of students from overseas. The opposition leader, Peter Dutton, has pledged to put far stricter restrictions on international students, slashing the number by a further 30,000, for a cap of 240,000 new arrivals a year — and more than tripling the maximum visa fees to up to 5,000 Australian dollars (about $3,200).

Strict border controls during the coronavirus pandemic kept many international students out. But Australia then made a concerted effort to bring them back — temporarily removing work restrictions and offering rebates on visa fees. That led to a record surge of students arriving in the country in 2023 and 2024, with total international student enrollment topping 1 million for the first time last year.

In September, Dutton spoke of students who apply to remain in the country after their degrees as "the modern version of the boat arrivals," in an apparent reference to refugees and asylum-seekers.

Australia has long benefited from immigration, which has boosted its labor force and younger demography. About 30% of its population was born overseas, and nearly half has at least one parent born overseas.

But views have shifted, and not just here. The United States is scrutinizing and revoking student visas in drastic fashion, casting the right to study in the country as a privilege that can be taken away seemingly arbitrarily; Canada has put the brakes on the influx of students from abroad; Britain has installed new restrictions that it said would prevent people from using student visas to come work in the country.

La Trobe University in Melbourne, Australia. Both major political parties are pledging steep cuts on the number of foreigners allowed to study in Australia as a way to rein in runaway housing prices. THE NEW YORK TIMES

Australia had long allowed and even encouraged major universities to become dependent on international students to expand their campuses and research programs. Foreigners pay much higher fees than domestic students and contribute a substantial portion of the schools' revenue.

"International students in Australia had been used for quite some time as a form of an export industry," said Peter Hurley, a professor of education policy at Victoria University. "The same way they're promoting the sheep industry, it's been the same with international education."

The postpandemic surge in international students coincided with an acute housing affordability crisis in Australia. Home values have soared compared with incomes, rising about 45% from 2020. Sydney was the second least-affordable city in the world after Hong Kong in 2023, based on a comparison of median home prices to median incomes.

While multiple factors have contributed to the crunch in housing supply — including labor shortages, rising construction costs and regulatory issues — international students have made for an expedient, non-voting segment to target as a quick fix for politicians.

That sentiment was reflected in a question put to Albanese, of the center-left Labor Party, and Dutton, who leads the Liberal Party, in their first debate of this election cycle.

"We have a lot of students who are here visiting who are buying housing within the city area," said a 74-year-old woman named Janine, who said she was concerned about her children and grandchildren's ability to ever be able to afford a home. "When is one of our governments going to turn up and say, Australia belongs to Australians?"

Andrew Norton, a professor of higher education policy at Monash Business School, said there was no question that the number of students arriving in the country — many of them wanting to remain in the country after graduation — was contributing to the demand side of the housing shortage.

At the same time, he said, the current spike is an aberration because of pent-up demand during the pandemic and fewer students returning home. The proposed caps, he added, would be a short-term solution rather than the more thoughtful, comprehensive migration policy reform that is needed.

Critics have also noted that international students largely occupy apartments and share houses concentrated near the universities that would typically not be the types of homes sought out by first-time homebuyers.

Clifford Suryana, a fourth-year student at the University of Sydney studying law and commerce who is from Surabaya, Indonesia, said he had learned English from Australian teachers who lived in his hometown. When it came time to think about university, he said he felt a general affinity for Australia and also thought there were business and diplomatic ties with Indonesia that would lend themselves to career opportunities. Many of his fellow international students, who make up nearly half of the student body at the University of Sydney and account for four-fifths of the school's tuition fees, contribute far more to Australian society than they take from it, he said.

"Most of them would want to work in Australia or go back to their original country with knowledge they got from Australia," he said. "In my perspective, that would only be good for Australia."

The New York Times

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Sins of omission: A textbook case

The National Council of Educational Research and Training (NCERT) has revised Class 7 social science textbooks for the current academic year by deleting sections on the Delhi Sultanate and the Mughals. Instead, new content such as ancient Indian dynasties, the Maha Kumbh, and pilgrimage sites have been introduced. Separate textbooks for history, geography, and civics have been replaced with a single textbook, *Exploring Society – India and Beyond (Part 1)*. In the new book, history lessons end with the Gupta dynasty period between the 3rd and 6th centuries, and the Delhi Sultanate and Mughal periods have been dropped. Chapters in the new book dwell more on the political landscape of ancient India, Satavahanas, Chedis, Cholas, Pandyas, the Mauryan empire, and emperor Ashoka.

Unlike the old history textbook, which began in the 7th century and covered the medieval period including the Delhi Sultanate, the Mughal rulers, and their administrative systems, the new book's focus is on the five themes of India and the World, Tapestry of the Past, Our Cultural Heritage and Knowledge Traditions, Governance and Democracy, and Economic Life Around Us. There is a new chapter titled 'How the Land Becomes Sacred' on religious sites and text on the Kumbh Mela claiming the participation of 66 crore pilgrims. NCERT officials say that the current book is only Part 1, and further chapters are expected in Part 2. However, they do not say whether the omitted portions will be included in Part 2, covering the rest of the syllabus, which is expected later this year. Union Minister of State for Education Sukanta Majumdar has said that the section on the Mughal era has not been removed and only repetitions have been edited out.

Sections on the Mughals go missing from NCERT textbooks; patterns of past revisions have been political

The fact is that an important period of history is missing in the book's Part 1 with no certainty of it being included in Part 2. Textbooks have been reduced to an ideological and political battlefield by the present regime. The NEP's focus on Indian ethos is a fig leaf for this periodic exercise. There have been at least three rounds of NCERT textbook revisions. Texts have been rewritten on the pretext of removing overlapping content. References to the Babri Masjid demolition, the 1975-76 Emergency, Dalit movements, Naxalite insurgency, communal violence, and the 2002 Gujarat riots were rewritten, cut, or removed. More disturbing than the periodic changes is the lack of clarity on the content and uncertainty over what part of the syllabi may be retained, removed, or revised and when or in how many stages this would be done.

INDIAN EXPRESS (P-13), 29 APRIL 2025

Answer is not to go private

Private universities may not be a panacea for Kerala's education ecosystem

PULAPRE BALAKRISHNAN

There are areas in which Kerala has not been a leader. The setting up of private universities is one. But now an ideological rubicon has been crossed with the state's legislative assembly recently passing the Kerala State Private Universities Bill (KSPUB). An article in this newspaper ('Why Kerala has finally opened the door for private universities in the state', March 29) stated that Kerala is the last state in the country to allow this. The change of mind has very likely been forced by the growing public attention drawn to the exit of college-age Malayalees to institutions outside the state. What will follow the legislative act is a matter of interest. Expectations would best be guided by both the experience with private universities elsewhere in the country and the long history of private presence in higher education in Kerala itself.

There are 471 private universities in India. That makes for over 15 universities in a state on average, a number large enough to influence the character of higher education in their respective states. Has their presence led to higher educational standards? As views on what constitutes a superior education vary, we may use a simple criterion to answer the question, which would be whether students graduating from the private universities are invariably better informed within their area of study and possess greater critical thinking ability. If you are to compare students from the very best undergraduate colleges of the public universities of India with those from the best private universities in their neighbourhood, the answer in many cases is "no". The reason is not far to seek. The best private universities hire faculty with world-class qualifications, who mostly deliver instruction to global standards. It has been the experience, however, that this offering is not necessarily imbibed. When students are from the wealthiest sections of the commercial classes, being assured of an inheritance, they have no incentive to learn. Of the weak link between well-stocked universities and the quality of their product we should have learned long ago, from the experience of private medical colleges in southern India. India has allowed private enterprise to produce doctors who have, at no point in their past, faced competition, nor will they have to face it at any stage in their future. As long as India's private universities function as client servers, it would be naive to expect that they can raise the standard of education in this country.

While Kerala may not have had private universities, it has, for at least a century, had private colleges. These are termed "aided educational institutions", as they receive financial support from the government. We can learn from this history. That seats in the aided colleges are going abegging today shows that public perception of their academic value is low even at the very low fees set by the government. This is not surprising. By far the greater part of these institutions are virtually denominational, with strong caste or religious affiliations. They have been established to promote the career of sectional groups and to reproduce their cultural values. Such a mission is not aimed at providing a superior education, even as it has an ethically questionable exclusionary bias. Most of the private aided institutions have not upheld democratic values either. Their infractions range from dismissing, rather than backing, lecturers attacked by intolerant religious fundamentalists to colluding with conservative students who cancel the screening of films with a depiction of alternative sexuality. So, if private universities in Kerala are to emerge from the same ecosystem, we may expect little improvement by way of educational quality or a shift to a liberal culture.

Finally, while private universities may be secular, it is not necessary that they will also be liberal, that is, open to contending ideologies and permitting a critical stance by members vis-a-vis the power elite. We are seeing this play out right now in the United States, with its leading universities succumbing to the pressure to dismantle whole departments at the behest of a regime hostile to their politics. How the private universities that may emerge in Kerala will handle similar pressure is anybody's guess but it would be vital to their credibility as universities. Given the immense powers of the state, a tolerant one will be essential to the emergence of liberal private universities here. A university over which the fear of the state hangs like a sword cannot serve the purpose of being a site for the pursuit of knowledge. The KSPUB provides for a far greater presence of the state in governance than is the case in other states in India, with a provision for government representatives in many of the crucial steering committees. Even if such an arrangement is not a deterrent to entry, how it will pan out later on is yet unknown. There is the possibility that it may suppress voices critical of the state's narrative or insist on partisan schemes adopted by the political party in power.

However, while one should not be overly optimistic of the outcome, one need not be pessimistic either. The future need not be like the past. If even a few excellent, secular and liberal private universities were to emerge in Kerala, competition could nudge its vast public university system to perform at least a little better in serving the aspirations of its youth.

The writer is an economist

DECCAN HERALD (P-9), 30 APRIL 2025

The missing entrepreneurs in India's startup story

G KUMAR NAIK

At the recent Startup Mahakumbh, the Union Minister for Commerce stirred controversy by comparing India's startup ecosystem to China's. His provocative claim—that China is investing in high-end technology while India is building grocery delivery apps and gig work platforms—sparked widespread debate. While much of the discussion focused on the capabilities of India's startups and the role of government, the moment offers an opportunity to confront a deeper issue: the persistent exclusion of Scheduled Caste (SC) and Scheduled Tribe (ST) entrepreneurs from India's startup and business landscape.

The uncomfortable truth is that India's startup ecosystem continues to be dominated by caste groups with generational access to capital, networks, and a culture of entrepreneurship. For SC/ST communities, the road to entrepreneurship remains disproportionately steep and poorly paved. This disparity extends beyond startups into the Micro, Small, and Medium Enterprises (MSME) sector. According to the Periodic Labour Force Survey, sector-wise labour force participation in India stands at 46% in agriculture, 11% in manufacturing, and 32% in services. The limited share of manufacturing curtails opportunities for SC/ST entrepreneurs to enter this critical sector. Systemic barriers—such as limited risk appetite, lack of exposure, restricted access to credit, and exclusion from business networks—further entrench this gap.

The MSME Report 2020 reinforces this inequity: SCs own only 8.9% of registered MSMEs and STs a mere 2.9%. Most of these are microenterprises, far from fair representation, especially considering that SC/ST communities constitute over 25% of India's population. Encouragingly, our state Karnataka has taken bold steps to promote entrepreneurship among SC/STs. Initiatives such as interest subsidies, collateral-free loans, training programmes, industrial land subsidies, and support through the Elevate programme are beginning to yield results. Until 2009, less than 1% of industrial land in the state was allotted to SC/STs. Today, due to affirmative measures like reservation in allotment and subsidised land pricing, over 12% of allotable industrial land is allocated to them.

I have consistently raised the issue of support for SC/ST entrepreneurs—particularly those from rural backgrounds—in Parliament, posing several questions to the concerned ministries. At the national level, schemes such as the SC/ST Hub under the MSME Ministry and the Venture Capital Fund for SC/ST entrepreneurs have been launched. However, their implementation remains limited in both awareness and reach. Consider the ST Venture Capital Fund: of the Rs 90 crore allocated, only Rs 9.45 crore has been disbursed to just two ST-owned startups since 2024. This reflects not a lack of potential, but systemic failure in outreach, trust-building, and institutional support. Government claims of webinars and social media campaigns fall short in communities with little generational exposure to business. Real transformation demands grassroots investment, sustained mentorship, early exposure in schools and colleges, targeted incubation, and partnerships with trusted social organisations.

Entrepreneurship is not merely an economic opportunity—it is a tool for cultural assertion. I was deeply inspired to see Leader of the Opposition Rahul Gandhi visit Chamar, a Dalit-owned brand with global recognition. Brands like this challenge entrenched narratives of exclusion and usher in a new era of self-determined agency. We must reframe how we view SC/ST entrepreneurship. It cannot remain confined to *kirana* stores or small dairy units. These communities must be supported to enter high-growth sectors such as artificial intelligence, green energy, and advanced manufacturing. Innovation must not be the preserve of a privileged few—it must become the right of all.

If the goal is to support 10,000 SC/ST entrepreneurs by 2030, the groundwork must begin now—with skill mapping, financial literacy, and entrepreneurship training in schools and colleges, tailored to the realities and aspirations of SC/ST youth. The government cannot do this alone. We need networked governance—a collaborative model where the State works with NGOs, business networks, and community organisations. These partners are vital in bridging gaps that neither the State nor the market can fill alone.

We must build institutions that recognise and dismantle systemic biases. Innovation labs, incubation support, and accelerators must cater not just to elite startups but also to grassroots MSMEs. Business clinics must be established at the micro level to support young entrepreneurs with legal services, market access, and technology integration.

Organisations like the Karnataka Dalit Entrepreneurs Association (KDEA) play an essential role in mentoring and bridging the trust and information gap between the government and grassroots entrepreneurs. State efforts must complement and not substitute the work of such local ecosystem builders. Business does not thrive in isolation. SC/ST entrepreneurs must be connected to investor networks, mainstream incubators, and mentorship forums. While reservations in procurement, collateral-free loans, and subsidies are useful, they remain insufficient without the social capital that sustains entrepreneurial journeys.

The time has come to democratise India's entrepreneurial dream. We must build an ecosystem where the next deep-tech innovator, fashion brand creator, or unicorn founder could just as likely emerge from a tribal hamlet or Dalit colony as from an IIT or an urban boardroom. India's true economic potential will not be realised when a few prosper, but only when all communities have equal access to opportunity, networks, and dignity through enterprise.

(The writer is a retired IAS officer and Congress Lok Sabha member from Raichur)

HINDU (P-8), 30 APRIL 2025

What is the controversy over Bengal school scam?

Why were hundreds of teachers of State-run schools protesting outside the West Bengal School Service Commission? Has the list of 'tainted' and 'untainted' candidates been made public?

Shiv Sahay Singh

The story so far:

Last week, after days of protests outside the headquarters of the West Bengal School Service Commission (WBSSC) in Kolkata's Salt Lake area, hundreds of teachers of State-run schools decided to call off the agitation for a week. The protests had erupted on April 21 after the State government went back on its promise to make public the list of 'tainted' and 'untainted' candidates in the recruitment process carried out in 2016.

What did the government say?

The government said it had sent the list of 'tainted' and 'untainted' candidates to the district inspectors of schools. The protesters said they would return to their schools, and resume the protest in a few days. On April 26, another group of protesting employees, the non-teaching staff of State-run schools, held a meeting with the State government. Chief Minister Mamata Banerjee announced that as long as the matter is pending before the courts, the State government would hand out ₹25,000 per month for Group C staff and ₹20,000 per month for Group D staff.

What have the courts ruled?

These developments followed a Supreme Court order on April 3 which upheld a Calcutta High Court decision of April 22, 2024 cancelling en bloc appointments of 25,752 teaching and non-teaching staff in State-run schools. The recruitment process was carried out in 2016 by the WBSSC. A Bench consisting of Chief Justice of India Sanjiv Khanna and Justice Sanjay Kumar agreed with the High Court's finding that the selection process was "vitiated and riddled with manipulations and fraud."

The Supreme Court and the Calcutta High Court ordered the termination of an entire panel of teaching and non-teaching staff as neither the WBSSC nor the West Bengal government came up with a list of 'tainted' and 'untainted' candidates before the court. The loss of appointments of about 25,000 teaching and non-teaching staff across 19,000 schools raised serious questions on the functioning of schools in the State.

What relief has been granted?

On April 17, the Supreme Court granted some relief to the West Bengal government by allowing the services of 'untainted' teachers to the State's government and aided schools to be retained till a fresh recruitment process is completed by the end of 2025. The Court, however, passed no such order for non-teaching staff.

After the April 17 order, pressure mounted on the State government and the WBSSC to release the list of 'tainted' and 'untainted' candidates. The State government, however, insisted that teachers would get their salaries. "You don't need to worry about who is tainted and who is not. You only need to worry about whether you have your job and whether you are getting your salaries on time," Ms. Banerjee said at a public meeting on April 22. So far, neither the West Bengal Education Department nor the WBSSC has officially come out with the list. However, the protesting teachers who held meetings with WBSSC have pointed out that out of 17,206 teachers recruited during 2016, 15,403 were 'untainted' and eligible to continue teaching till the end of 2025.

As the West Bengal school recruitment scam continues to make headlines, the big question is around the list and the number of 'tainted' and 'untainted' recruitments. The protesting employees say it is not just about salaries but also about dignity, and that it is necessary to separate the grain from the chaff.

When did the scam surface?

The school recruitment scam came to the fore with the arrest of former State School Education Minister Partha Chatterjee by the Enforcement Directorate in July 2022. Subsequently, several arrests were made in the scam which involved cash-for-school jobs recruitment. WB

THE GIST

- The school recruitment scam came to the fore with the arrest of former State School Education Minister Partha Chatterjee by the Enforcement Directorate in July 2022.
- A Supreme Court order on April 3 upheld a Calcutta High Court decision of April 22, 2024 cancelling en bloc appointments of 25,752 teaching and non-teaching staff in State-run schools.
- As the West Bengal school recruitment scam continues to make headlines, the big question is around the number of 'tainted' and 'untainted' recruitments.

DAINIK JAGRAN (P-6), 30 APRIL 2025

उचित कदम

राजधानी में निजी स्कूलों के मनमाने तरीके से फीस बढ़ाने और वसूली के लिए छात्रों को तरह-तरह से प्रताड़ित करने पर रोक लगाने को लेकर दिल्ली सरकार का विधेयक लाना सर्वथा उचित है। दिल्ली सरकार की कैबिनेट ने दिल्ली स्कूल शिक्षा शुल्क निर्धारण एवं विनियमन में पारदर्शिता विधेयक 2025 को स्वीकृति दे दी है। सरकार की योजना विधानसभा का विशेष सत्र बुलाकर इसे पास कराने की है, ताकि जल्द स्कूलों को इसके प्रति बाध्यकारी बनाया जा सके। नए विधेयक में फीस वृद्धि के मामलों और उससे संबंधित विवादों का निपटारा करने के लिए त्रिस्तरीय समिति की व्यवस्था की गई है, जो समयबद्ध तरीके से काम करेगी।

उम्मीद है कि यह विधेयक कानून बनने के बाद निजी स्कूलों को नियंत्रित करने में सफल होगा और शिक्षा के बढ़ते व्यावसायीकरण को रोकने में सफल होगा

एक बार फीस वृद्धि होने पर उसे तीन वर्ष के लिए स्थिर रखने का प्रविधान किया गया है, ताकि अभिभावकों को वित्तीय स्थायित्व उपलब्ध कराया जा सके। फीस भुगतान नहीं करने पर स्कूल किसी छात्र पर किसी भी तरह की शारीरिक या मानसिक कार्रवाई नहीं कर पाएगा। नियमों का उल्लंघन करने पर एक लाख से दस लाख रुपये जुर्माने का प्रविधान करने के साथ ही मान्यता रद करने या स्कूल का प्रबंधन शिक्षा निदेशालय द्वारा अपने हाथ में लेने जैसी कार्रवाई की भी व्यवस्था की गई है। ऐसे में उम्मीद की जानी चाहिए कि यह विधेयक कानून बनने के बाद निजी स्कूलों को नियंत्रित करने में सफल होगा और दिल्ली में शिक्षा के बढ़ते व्यावसायीकरण को रोकने में सफल हो सकेगा। 05/16

NAV BHARAT TIMES (MAGAZINE -2), 30 APRIL 2025

UPSC में 'शिक्षा' को भी बनाएं सब्जेक्ट

धनंजय जोशी

भारत में 'शिक्षा' केवल एक विषय नहीं बल्कि राष्ट्र निर्माण का आधार है। 'भारतीय शिक्षक शिक्षा सेवा' ब्रिटिश भारत में शैक्षणिक स्थान को चलाने वाला प्रशासनिक संगठन था। 1896 और 1924 के बीच यह सेवा ब्रिटिश राज का महत्वपूर्ण हिस्सा थी। इसका गठन 1886 के लोक सेवा आयोग की सिफारिश के आधार पर विशिष्ट शिक्षा सर्विस के रूप में किया गया था। इसमें प्रांतीय शिक्षा सेवा में सम्मिलित ज्यादातर ब्रिटिश सेवक और प्रांतीय स्तर पर भारतीय कर्मचारी थे। आजादी के बाद कोठारी आयोग से लेकर राष्ट्रीय शिक्षा नीति 2020 तक में भारतीय शिक्षण सेवा को पुनर्जीवित करने का विचार रखा गया।

राष्ट्रीय शिक्षा नीति 2020 ने शिक्षा को सामाजिक न्याय, समानता और समावेशी विकास के केंद्र में रखा है। लेकिन इस नीति की भावना को पूर्ण रूप से क्रियान्वित करने के लिए एक अहम पहलू को गंभीरता से लेने की आवश्यकता है, और वह है संघ लोक सेवा आयोग (UPSC) की सिविल सेवा परीक्षा में 'शिक्षा' विषय का समावेश, और 'भारतीय शिक्षा सेवा' (IES) के गठन की वर्षों पुरानी, लेकिन अब तक लंबित पड़ी मांग।

भारत की शिक्षा नीति और उससे जुड़ी समितियों द्वारा समय-समय पर यह सुझाव दिया गया है कि एक सशक्त शैक्षिक प्रबंधन तंत्र ही शिक्षा व्यवस्था को प्रभावशाली और उत्तरदायी बना सकता है। 1986 की राष्ट्रीय शिक्षा नीति और उसका कार्यक्रम क्रियान्वयन, विशेष रूप से 1992 में संशोधित रूप, में इस दिशा में स्पष्ट प्रतिबद्धता दर्शाते हैं। कार्यक्रम क्रियान्वयन (1992) के अध्याय 23, अनुच्छेद 28.8.3 में 'भारतीय शिक्षा सेवा' की स्थापना को अनिवार्य कदम के रूप में प्रस्तुत किया गया है। इससे पहले 1991 में केंद्र सरकार ने इस नीति को उच्च प्राथमिकता दी और आचार्य राममूर्ति और जनार्दन रेड्डी समितियों ने इसकी समीक्षा कर इस अनुशंसा को दोहराया। इसके बावजूद, शिक्षा विषय को UPSC परीक्षा के वैकल्पिक विषयों में आज तक सम्मिलित नहीं किया गया।

भारतीय शिक्षा क्षेत्र में अनुमान के मुताबिक, लगभग 13 करोड़ लोग प्रत्यक्ष या परोक्ष रूप से कार्यरत हैं। इसमें शिक्षक, प्रशासक, शोधकर्ता, NGO से जुड़े

AI Image

कॉमन रूम

कार्यकर्ता, निजी शिक्षण संस्थानों के कर्मचारी, एडटेक से जुड़े पेशेवर, प्रकाशन जगत के लोग और शिक्षा क्षेत्र से जुड़े अन्य उपक्षेत्र शामिल हैं। आज कई राज्यों में राज्यस्तरीय शिक्षा सेवाएं हैं, लेकिन उनसे जुड़े अधिकारियों को राष्ट्रीय नीति-निर्धारण या केंद्रीय प्रशासनिक स्तर तक पहुंचने का सीमित अवसर ही मिलता है। ऐसे में संगठित और अखिल भारतीय शिक्षा सेवा की स्थापना न केवल समय की मांग है, बल्कि यह शिक्षा क्षेत्र की संरचना और गुणवत्ता को भी सुदृढ़ करेगी।

इस संदर्भ में एक और विसंगति यह है कि जहां UPSC में कई भाषाई और पारंपरिक विषयों- जैसे संस्कृत, पाली, प्राकृत, मैथिली आदि- को वैकल्पिक विषय के रूप में शामिल किया गया है, वहीं 'शिक्षा' जैसे समसामयिक, वैज्ञानिक और व्यावहारिक विषय को स्थान नहीं दिया गया है। शिक्षा विषय का UPSC में न होना, उन लाखों छात्रों के लिए हतोत्साहित करने वाला है, जिन्होंने B.Ed, ITEP जैसे पाठ्यक्रमों के माध्यम से शिक्षा में विशेषज्ञता हासिल की है।

'शिक्षा' के विभिन्न पाठ्यक्रमों जैसे B.Ed/M.Ed/और अन्य में आवेदकों के आंकड़े दर्शाते है कि केवल शिक्षण के सीमित करियर विकल्पों के कारण युवा इनमें रुचि नहीं रखते। इस विषय में शिक्षित और प्रशिक्षित लोग प्रशासनिक सेवा में आएं, तो नीति के कार्यान्वयनकर्ता ही नहीं, बल्कि उसकी रूपरेखा तैयार करने वाले नेतृत्वकर्ता बन सकते हैं।

ऐसे में यह आवश्यक है कि सिविल सेवाओं में शामिल अधिकारी शिक्षा के गहरे स्वरूप को समझते हों, और यह तभी संभव है जब शिक्षा विषय को UPSC की मुख्य परीक्षा में एक वैकल्पिक विषय के रूप में शामिल किया जाए और साथ ही भारतीय शिक्षा सेवा का गठन किया जाए।

(लेखक दिल्ली टीचर्स यूनिवर्सिटी के कुलपति हैं)