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CONTENT

RAISE THE BAR

India's advocates: What missing numbers reveal

Withholding caste, gender, and language data of bar exam candidates hinders policy and progress

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Last year, a Right to Information (RTI) application revealed that 51% of the candidates failed the All India Bar Exam (AIBE) 18. This makes one wonder about the pass percentages in the previous exams and raises questions about causes of the high failure rate, background of the failing or passing candidates – who, really, becomes an advocate in the country. The answers lie in the data preserved by the Bar Council of India (BCI). However, multiple RTIs and appeals could elicit only partial answers from the BCI.

Since the introduction of the AIBE in 2011, 7,44,160 candidates have cleared the exam with an average pass percentage of 75.38% and become advocates. However, what is missing in these statistics is the crucial data on who these successful candidates are. The RTI application sought details on the caste, gender, and language preferences of candidates who passed or failed, but these questions were left unanswered. In the appeal against the unanswered questions, the BCI evaded these queries, claiming that such information fell outside the scope of 'information' under the Right to Information Act, 2005. Citing the Supreme Court judgement in the Central Board of Secondary Education and Anr. vs. Aditya Bandopadhyay and Ors., the BCI claimed it was not obligated to provide data requiring "inferences or assumptions". The AIBE applicants are required to provide details about their caste, gender and language mandatorily. Therefore, these details are hard facts that must be recorded in the BCI's records rather than being inferred or assumed information.

Consequently, this refusal raises two questions: Is it an attempt by the BCI to restrict the information from public scrutiny or is it a symptom of bureaucratic inertia? The implications of withholding such data are profound. In a world where data drives policymaking and societal progress, the refusal to share such crucial data perpetuates opacity. Such opacity erodes public trust in institutions and their motives and sparks apprehensions that they operate to maintain established hierarchies. One may also suspect that data is being hidden to avoid acknowledging the systemic inequalities.

Focusing on the caste composition within the Indian legal community, it is evident that the majority of judges belong to upper caste groups, though less apparent is the fact that most lawyers are as well. There is, and always has been, a chronic under-representation of lower castes in the Indian legal system, including the law schools. This trend can be observed at every level of the system. For instance, a disproportionately large number of Supreme Court Judges have been upper caste.

Embedded biases

The socio-legal and legal theories are primarily built on the patterns of

knowledge and ignorance of those people of privilege and serve to maintain the domination and hierarchy of the dominant castes rather than demolish it. Charles Mills described this process as follows: the structures of domination and subordination in any given society result in a conceptual apparatus shaped by the biases of the dominant groups. Such an apparatus will not only exclude caste considerations, at its worst, because of the necessity to maintain the hierarchy, it might also be actively harmful. This theory precisely explains the modus operandi of the caste system in the Indian institutions, including the legal system, and the civil society.

The male-dominated nature of the bar can also be viewed through this lens. Even without specific figures, it is evident that women and other marginalised genders are not proportionately represented in the legal populace compared to their share in the national population. The gap persists because the legal system which has been tasked with abolishing the patriarchal hierarchy to prevent and punish human rights violations against women and other marginalised genders actually upholds and preserves it. Therefore, it goes without saying that patriarchy will prevail disguised in the language of legality. At this juncture, the denial of data about the gender of the AIBE candidates by the BCI further exacerbates the questions and concerns about the inequality and under-representation of women and other marginalised genders in the Indian legal populace.

Finally, language is a factor that causes inequality in the representation of different communities in the bar. The issue of language domination can allow us to analyse fundamentally the political outlook of the judiciary. The higher judiciary, particularly the Supreme Court, operates mostly in English. The knowledge of English in India has largely been a privilege of the urban elite who can afford to study at private schools. CLAT, the entrance examination candidates must clear to gain admission into national law universities, is also held only in English. There are no courses offered at these institutions designed to cater to students from different social and economic strata of the multilingual Indian society and with differing levels of English language competence.

While the AIBE offers language options, the effectiveness of this provision remains unclear due to the lack of data. Are students facing challenges because the bare acts (required for the AIBE open book exam) are not readily available in regional languages? Should the BCI mandate the availability of translated bare acts for the AIBE? Is there a disparity in the passing rates between students who take the exam in English and those who opt for regional languages? These critical questions remain unanswered.

Clearly, the system is designed to make it difficult for non-English speaking and lower-class lawyers. In a profession that serves as the backbone of justice, ensuring equity and representation among advocates is not just desirable – it is imperative. Without transparency, policymakers and activists are left navigating blind spots, unable to design interventions that reflect the needs of communities oppressed on the basis of caste, gender, and language. The least the BCI could do is increase data transparency. Greater diversity and removal of barriers to entry are necessary to increase the number of lawyers who do not benefit from the status quo.

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2025: Year Of Quantum Science

UN has proclaimed 2025 the International Year of Quantum Science and Technology, celebrating quantum advancements shaping innovations and fostering sustainable development, global awareness, and equitable education in this transformative field

SHOVANLAL CHAKRABORTY

> This year marks the centenary of the development of quantum mechanics, which explains the behaviour of matter and energy at atomic and subatomic levels

Werner Heisenberg will have celebrated a century since he published his seminal paper on quantum mechanics, which laid the foundation for the field

The United Nations(UN) has declared 2025 as the International Year of Quantum Science and Technology (IYQ 2025). This declaration followed a draft resolution moved by Ghana, co-sponsored by six other countries, and supported by more than 70 nations. This year marks the centenary of the development of quantum mechanics, which explains the behaviour of matter and energy at atomic and subatomic levels. Quantum science and technology have enabled innovations like MRI (magnetic resonance imaging), lasers, solar cells and computer chips, fundamentally transforming physics and technology.

The UN aims to acknowledge these contributions, raise awareness about their role in sustainable development and ensure equal access to quantum science education and its benefits. Numerous global events and initiatives are being planned at the regional, national and international levels throughout 2025. The development of quantum science made extraordinary scientific advances possible, upturning centuries-old notions about nature. It revealed that particles can be treated as point-like or wave-like, depending on observation, and their behaviour is inherently probabilistic. Quantum mechanics, which began as a purely theoretical field a century ago, is now a central theory governing our universe.

It explains virtually everything, from the behaviour of subatomic particles to the distribution of galaxies. For example, it elucidates how the sun shines and how solar panels capture its energy on Earth. Understanding the universe's building blocks enables us to uncover underground structures, map the sea floor and detect bodily changes beyond existing medical scanners. Quantum science has led to breakthroughs like integrated circuits, lasers, modern batteries and LEDs, revolutionising communication, medicine and lighting efficiency. Recent advancements in quantum information processing and computing are critical for modelling complex systems and mitigating climate change. Quantum theory has revolutionised physics, chemistry, biology, engineering, electronics and communications, leading to inventions like transistors, lasers, LEDs and MRI. While conventional computers use binary 'bits' (1 and 0), quantum computing uses qubits that exist in the superposition of states to process information and promises to transform electronics, clean energy and pharmaceuticals by enabling faster computations for cryptography, logistics optimisation and drug discovery.

Additionally, quantum communication offers uniquely secure information transmission. Future quantum research can revolutionise computing, communications, materials, drugs, and cybersecurity, which are crucial for global challenges like renewable energy, health, and UN SDGs, accelerating progress toward a sustainable and equitable world. An important aspect of the IYQ 2025 is to motivate young people in developing nations as well as students from across the globe to become the next-generation torch-bearers in this field and use quantum science to make a positive impact on the lives of others. It also provides a golden opportunity for young students and inquisitive people of all ages to learn and understand this science, which can drive technological innovation, influence government policies, impact the global economy and enrich art and culture. The declaration provides a forum for educational institutions, research bodies, organisations and governments to promote quantum science and technology awareness. More efforts are needed, and lawmakers, technical experts, people involved in science and technology, and universities across various states should take proactive steps in raising awareness about IYQ 2025. Extension lectures, exhibitions, workshops and conferences should be organised in educational institutions to inspire young minds and raise awareness about this scientific field.

Similar to initiatives in universities abroad, urgent steps should be taken to establish a quantum institute in our country by involving stakeholders and preparing a roadmap for IYQ 2025 to ensure that the country benefits from quantum advancements. Sensing the importance of this new technology, India launched the National Quantum Mission in April 2023, with a budget of around Rs 6,000 crore for eight years (2023-31). India has become the seventh country in the world to have a dedicated quantum mission, which aims to advance research related to quantum technologies in communication, sensing, metrology, materials, devices and quantum computing. Under this mission, four hubs in the domains of quantum computing, quantum communication, quantum science and metrology, and quantum materials and devices are being set up to generate knowledge and promote ideas in these areas.

The mission aims to develop quantum computers with 50-1,000 physical qubits within eight years, alongside establishing quantum communications between ground stations spanning distances of up to 2000 km. Quantum science and technology is set to become a pivotal field in this century, significantly impacting the UN's 2030 Sustainable Development Goals (SDGs) across energy, climate, environment, agriculture, health, food security and safety, clean drinking water and industrial development. Thus, quantum mechanics is a prime example of the practical impact that an abstract physical theory can have on human life. It can play a key role in advancing the UN's SDGs through improved medical imaging and diagnostics, vaccine and drug development, environmental monitoring and enhanced climate models. Additionally, quantum advancements contribute to developing new materials, energy-efficient technologies, economic growth and secure infrastructure, while promoting societal equity and accessibility through open access and gender equity in education and research.

Views expressed are personal

H1-B Dilemma

The H1-B visa debate has reignited, bringing to light the conflicting views on skilled immigration to the US among prominent figures and political factions. Tech billionaire Elon Musk, former Republican presidential candidate Vivek Ramaswamy, and President-elect Donald Trump are at the centre of this heated discourse, each shaping the conversation in distinct ways. Mr Musk, a vocal advocate for H1-B visas, recently escalated the controversy by threatening to "go to war on this issue the likes of which you can't comprehend." His fiery defence of the programme stemmed from personal and professional stakes – he himself immigrated to the US and attributes much of his success, as well as the growth of his companies, SpaceX and Tesla, to the contributions of H1-B visa holders. Mr Musk has argued that the programme is indispensable for attracting top-tier talent, especially in fields like artificial intelligence and engineering. However, he has since tempered his tone, acknowledging criticisms of the system's misuse and proposing reforms to address them. Mr Musk's suggestion to raise the minimum salary for H1-B workers and impose annual costs on employers could make it prohibitively expensive for Silicon Valley to hire foreign workers over Americans, signaling a shift towards addressing the programme's vulnerabilities. Mr Ramaswamy, another staunch defender of skilled immigration, has emphasised the economic and innovative benefits of H1-B visas. He has argued that the programme's meritocratic foundation should be preserved, ensuring that only the most qualified individuals are granted access. However, his critique of American culture – claiming it undervalues intellectual achievement in favour of athletic prowess – has drawn mixed reactions. While his rhetoric underscores the importance of skilled immigration, it also points to broader societal challenges, such as the need to elevate STEM education and workforce development in the US. Mr Trump's position on the H1-B programme reflects his broader balancing act on immigration policy. During his first administration, he tightened restrictions on the programme. His latest remarks suggest an approach backing the programme while advocating for reforms that prioritise American workers. Mr Trump's evolving stance underscores the political complexities of the issue, as he seeks to reconcile the economic benefits of skilled immigration with the nationalist leanings of his MAGA base. The H1-B debate has also exposed rifts within conservative circles, particularly among hardliners who view the programme as exploitative. Critics argue that companies use H1-B visas to hire cheaper foreign labour, placing American workers at a disadvantage. Mr Musk's acknowledgment of these concerns, along with his call for reforms, highlights the need for a balanced approach that addresses systemic flaws without undermining innovation. Ultimately, the path forward requires thoughtful reform. By ensuring that the H1-B programme serves its intended purpose – attracting top global talent while protecting domestic workers – the US can maintain its competitive edge and uphold principles of fairness and opportunity.

School dropout rates go from bad to worse in Bihar and Assam

Dropout rates in Karnataka, Rajasthan, Gujarat and Haryana are also concerning

DATA POINT

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There has been a marked improvement in the share of students continuing education into higher grades in 2024 compared to 2019, across India, without dropping out of school. Overall, of every 100 girls who started schooling, over 80 completed their secondary education without dropping out in 2024 compared to just 73.5 in 2019. Among boys, the corresponding numbers were 77.2 and 72.4 in 2024 and 2019 respectively, showing an increase, though to a lesser degree.

However, despite this improvement at an all-India level, certain major States such as Karnataka and Rajasthan have recorded significant spikes in students dropping out of upper primary and secondary schools. In Bihar and Assam — States where the dropout rates were already concerning in 2019 — the rates have slipped further in 2024.

For instance, in Karnataka, of the 100 girls who started schooling only 76.5 completed secondary education without dropping out in 2024 compared to 79.3 in 2019. Similarly, for boys, the ratio declined to 70.7 from 73.6. In Bihar, the ratio slipped from bad to worse in the same period. Of the 100 girls who started schooling only 40.3 completed secondary education without dropping out in 2024 compared to 51.6 of them in 2019. Similarly, for boys, the ratio declined to 38.8 from 51.2.

Table 1 shows the number of students of every 100 who completed upper primary and secondary education in 2024 and 2019. The data is provided for all major States across both genders. In direct contrast to States such as Bihar and Assam, where the situation went from bad to worse, in States such as Kerala and Tamil Na-

du, the figures improved from good to excellent.

For instance, in Kerala, of the 100 boys who started schooling, 99.6 completed upper primary in 2019, which improved further to 100 in 2024. The number remained at 100 among girls for both years. Similarly, of the 100 boys who started schooling, 88.3 completed secondary education in 2019, which improved to 95.7 in 2024. The corresponding numbers among girls were 93.2 and 97.5.

Similarly, in Tamil Nadu, of the 100 boys who started schooling, 99 completed upper primary in 2019, which improved to 100 in 2024. Among girls, the number improved from 97.5 to 100. In secondary schooling, among boys, the number improved from 83.3 to 89.2, and among girls, it improved from 89.4 to 95.6.

While the absolute increase or decrease in the share of school students who pass on to higher grades without getting dropped out is one facet of the story, analysing the degree of increase or decrease brings out further nuances. To arrive at the degree of increase or decrease, the States were ranked as shown in **Table 2.**

For instance, in 2019, of the 100 girls who started schooling in Maharashtra, 83.5 completed secondary education, a figure similar to that of Uttarakhand that year. In 2024, Maharashtra's figures improved to 90.5, however, Uttarakhand's numbers increased even further to 92.8. While both States improved, the degree of rise was steeper for Uttarakhand.

Because of this, in **Table 2**, Uttarakhand's rankings improved from 11th to 4th (for secondary girls) while Maharashtra's rankings improved from 12th to 7th.

States such as Gujarat have remained stagnant at the bottom of the ranking table in both years. Haryana has recorded massive drops in its rankings. The State was part of the top 10 list in all school levels across genders in 2019 and moved out of the list in 2024.

Falling attendance

The figures in the tables are The Hindu's calculations based on data sourced from UDISE+

Table 1: Table shows the number of students out of every 100 who completed upper primary and secondary education in 2024 ('24) and 2019 ('19). Upper primary: Class VI to VIII, Secondary: Class IX and X

• In Kerala, of the 100 boys who started schooling, 99.6 completed upper primary in 2019, which improved further to 100 in 2024

State	Upper primary Boys '19	Boys '24	Girls '19	Girls '24	Secondary Boys '19	Boys '24	Girls '19	Girls '24
Kerala	99.6	100	100	100	88.3	95.7	93.2	97.5
MP					90.7	93.5	92.5	95.6
Tamil Nadu	99	100	97.5	100	83.3	89.2	89.4	95.6
Punjab					82.7	90	86.2	92.8
Uttarakhand	93.2		83.1		79.9	88.5	83.6	92.8
Goa					85.4	87.8	91.2	92.3
Maharashtra					83.4	88.3	83.5	90.5
Telangana					79.9	86.6	83.6	90.5
Delhi					82.6	87.8	85.5	90.3
Andhra					81.2	84.2	83.5	88.5
Odisha	92.3		91.3		80.4	83.7	83.9	87
UP	87.3	85.2	81.7	85.5	71.8	85.4	66.1	86.2
Tripura	91.4	94.7	93.5	96.1	61	86	64.2	86
West Bengal	92.4	100	97.1		73	78.5	77.5	85.9
Haryana		93	97.7	95.6	82.6	77.3	84	84.2
J&K	87.8	94.9	86.1	95.4	69.9	80.8	68.4	82.8
Chhattisgarh	88.3	91.8	90.2	94.2	64.7	71.6	74.6	81.6
Nagaland	82	88.8	86	90.8	56.3	76.6	63.5	79.5
Manipur	89	91.6	92.1	92.6	76.1	76	78.9	77.6
Mizoram	88.2	85.6	90.6	91.8	77	74.4	80.5	77.6
MP	91.3	91.8	90.2	92.8	65.7	72.2	66.2	77.3
Sikkim	92.2	90.8	94.8	94.3	65.9	69.6	73.5	77.1
Rajasthan	91.2	84.8	92.8	86.6	78.6	72.6	78	76.9
Gujarat	91.5		89	95	65.7	73	67.8	76.7
Karnataka	100	85.2	93.3		73.6	70.7	79.3	76.5
Jharkhand	83.1	89.5	85.7	90.8				
Arunachal	79.2	87.1	79.9	88.4	42.3		44.9	
Assam	93.4	82.6		88.7				
Meghalaya	70.7	77.8	78.5	82.2		34.5	54.2	
Bihar	78.6	65	81.1	65.4	51.2	38.8	51.6	40.3
INDIA	91.1	92.7	90.6	93	72.4	77.2	73.5	80.4

• In Bihar, of the 100 girls who started schooling, only 40.3 completed secondary education in 2024 compared to 51.6 of them in 2019

Table 2: The table ranks the States across each column based on the figures given in table 1. For instance, Karnataka was ranked number 1 in the first column as all the 100 boys who started schooling completed upper primary education in 2019

State	Upper primary Boys '19	Boys '24	Girls '19	Girls '24	Secondary Boys '19	Boys '24	Girls '19	Girls '24
Kerala	2	1	1	1	2	1	1	1
MP	3	8	3	5	1	2	2	2
Tamil Nadu	4	1	7	1	8	4	4	2
Punjab	10	12	13	11	5	3	5	4
Uttarakhand	14	11	16	10	11	5	11	4
Goa	8	9	8	10	3	8	3	6
Maharashtra	9	6	11	6	4	6	12	7
Telangana	11	4	13	1	11	9	10	7
Delhi	5	3	7	6	6	7	6	9
Andhra	5	8	5	8	9	11	8	10
Odisha				9	10	13	9	
UP			17	20			23	
Tripura							25	19
West Bengal		1	9	1				
Haryana	7		6		6		7	
J&K								
Chhattisgarh								
Nagaland		25	25	27		25		
Manipur								
Mizoram								
MP								
Sikkim								
Rajasthan				28				
Gujarat								
Karnataka	1		2					
Jharkhand		24	16	24		17		
Arunachal	28		25	27	30		29	
Assam	12		10	26				
Meghalaya	30		26	25	25		31	19
Bihar	25	30	18	30	16	30	23	30

• In the first column, Meghalaya is ranked last as 30th as out of the 100 boys who started schooling, only 70.6 completed upper primary in 2019, the least among all States

कौशल विकास

देश भर के उच्च शिक्षण संस्थानों में कौशल आधारित पाठ्यक्रम शुरू करने की तैयारी समय की मांग है। सच तो यह है कि ऐसे पाठ्यक्रम अब तक शुरू कर दिए जाने चाहिए थे, क्योंकि एक बड़ी संख्या में उच्च शिक्षा संस्थान ऐसी डिग्रियां देने में लगे हुए हैं, जो आज के समय में उपयोगी नहीं साबित हो रही हैं। इसी कारण देश में डिग्री धारक युवाओं की फौज तो तैयार हो रही है, लेकिन वह ऐसे किसी कौशल से लैस नहीं, जिनकी उद्योग-धंधों में मांग है। इसी कारण कारोबार जगत के प्रतिनिधि यह शिकायत करते रहे हैं कि उन्हें उनकी आवश्यकता के हिसाब से हुनरमंद युवा नहीं मिल पाते। अब जब विश्वविद्यालय अनुदान आयोग की पहल पर नए सत्र से कौशल आधारित पाठ्यक्रम शुरू होने जा रहे हैं, तब फिर यह भी देखा जाना चाहिए कि वे कारोबार जगत की जरूरत को पूरा करने में समर्थ बनेंगे या नहीं? उचित यह होगा कि कौशल आधारित पाठ्यक्रम उद्योग व्यापार जगत के प्रतिनिधियों के साथ व्यापक विचार-विमर्श से ही तैयार किए जाएं। ऐसे पाठ्यक्रमों की निरंतर समीक्षा भी होती रहनी चाहिए और उनमें समय के हिसाब से बदलाव की व्यवस्था भी की जानी चाहिए, क्योंकि आज के तकनीकी युग में चीजें तेजी से बदल रही हैं। यह समझा जाना चाहिए कि समय के साथ नए तरह के कौशल की आवश्यकता बढ़ती जा रही है। आज युवाओं को ऐसे कौशल से लैस करने की जरूरत है, जिससे वे आर्टिफिशियल इंटेलिजेंस, डाटा एनालिटिक्स, डिजिटल बैंकिंग, ई-कामर्स आदि क्षेत्रों में आसानी से काम पा सकें।

कौशल विकास के पाठ्यक्रम एक ओर जहां स्थानीय जरूरत और मांग को ध्यान में रखकर तैयार किए जाने चाहिए, वहीं दूसरी ओर इस दृष्टि से भी कि हमारे युवा दूसरे देशों में भी आसानी से रोजगार पा सकें। इससे ही उच्च शिक्षा संस्थान और विशेष रूप से डिग्री कालेज कौशल विकास के केंद्र बन सकेंगे। कौशल विकास आधारित पाठ्यक्रम केवल उच्च शिक्षा संस्थानों में ही नहीं पढ़ाए जाने चाहिए, बल्कि उनका समावेश स्कूली शिक्षा में भी किया जाना चाहिए, क्योंकि एक बड़ी संख्या में युवा इंटरमीडिएट के बाद ही रोजगार की तलाश शुरू कर देते हैं। इनमें से अनेक केवल इसलिए उच्च शिक्षा संस्थानों में प्रवेश ले लेते हैं ताकि कोई न कोई डिग्री हासिल कर सकें। यह किसी से छिपा नहीं कि प्रायः उनकी डिग्री उन्हें रोजगार दिलाने में सहायक नहीं हो पाती और इस तरह उनकी गिनती पढ़े-लिखे, किंतु बेरोजगार युवाओं में होने लगती है। यह समझा जाना चाहिए कि ऐसे युवाओं की बढ़ती संख्या के लिए वे पाठ्यक्रम जिम्मेदार हैं, जिनमें कौशल विकास को प्राथमिकता नहीं दी जाती। इसकी भी अनदेखी नहीं की जानी चाहिए कि विशेष कौशल वाले कई काम ऐसे हैं, जिनकी कोई विधिवत पढ़ाई नहीं होती। इस समस्या का भी निदान होना चाहिए।

BPSC से जुड़े ताज़ा विवाद को समय रहते रोका जा सकता था, पर इसे आंदोलन बनने दिया गया

बिहार में क्यों भड़का छात्रों का आंदोलन

प्रियरंजन भारती

बिहार में इस साल सात विधानसभा चुनाव होंगे, इसलिए मुद्दों को गरमाने के जतन किए जा रहे हैं। बिहार लोक सेवा आयोग (BPSC) भी इसे वजह से निशाने पर है। 70वीं प्रारंभिक परीक्षा को लेकर परीक्षार्थियों ने आंदोलन की राह पकड़ ली है। उनकी मांग है पूरी पेंडी परीक्षा रद्द करने की। उनका कहना है कि एक एग्जाम हो और एक साथ नतीजे आएं।

स्टूडेंट्स वोटबैंक | कड़के की सर्दी में धरना-प्रदर्शन करते BPSC अभ्यर्थियों पर लाठीचार्ज के मुद्दे को मिले गरमाहट राजनीतिक दलों को रास आ रही है। बीते मंगलवार को विपक्षी विधायकों का राजभवन मार्च रास्ते में रोक दिया गया तो वे राज्यपाल से मिलने पर अड़ गए। चुनावों से पहले छात्रों-युवाओं की सहानुभूति का लाभ चुना लिया जाए। ऐसे इसलिए क्योंकि स्टूडेंट्स के इस आंदोलन का नेतृत्व किसी एक हाथ में नहीं है।

हंगामे की शुरुआत | पेपर लीक होने की अफवाह बापू सेंटर से उठी थी। परीक्षार्थियों को पेपर बंडे अंतराल पर दो बार में बंटे गए। दरअसल, वहां कुछ पेपर कम पड़ गए थे, ऐसे में दूसरे केंद्र से मंगवाने पड़े। इसे बात को आधार बनाकर कुछ परीक्षार्थियों ने पेपर लीक की अफवाह फैला दी और परीक्षा का बहिष्कार करते हुए हंगामा करने लगे। इसी हंगामे के दौरान पटना डीएम ने एक परीक्षार्थी को थप्पड़ जड़ दिया। हंगामे के चलते बापू सेंटर की परीक्षा रद्द कर दी गई। यहां से मांग उठी कि पूरी पीटी परीक्षा ही रद्द की जाए। सरकार यह करना नहीं चाहती।

फायदा उठाने की कोशिश | परीक्षा के पहले आयोग कार्यालय पर छात्रों का नॉर्मलाइजेशन के खिलाफ प्रदर्शन हो इस बात का प्रमाण है कि परीक्षा को मुद्दा बनाया जा रहा है। आयोग की ओर से पहले ही मत दिया गया था कि नॉर्मलाइजेशन नहीं किया

भर्ती परीक्षा विवाद

- एक सेंटर से शुरू हुआ पूरा मामला
- नेताओं में समर्थन देने की होड़ मची
- सरकार ने कदम उठाने में देर कर दी

गया। पी. चश्मदीपों को लेकर तब विरोध-प्रदर्शन किया गया और तब पुलिस को लाठियां प्रदर्शनकारी छात्रों पर बरसी। फिर पेपर लीक की अफवाह और हंगामा। इसके बाद एक-एक कर राजनेताओं की एंट्री। प्रशांत किशोर से लेकर तेजस्वी यादव तक ने प्रदर्शनकारियों का समर्थन

किया। NDA में रहते हुए चिराग पासवान ने ट्वीट कर उनका हौसला बढ़ाया। सारी बातों से साफ होता है कि आंदोलन खड़ा कर घटना उठाने की कोशिश चल रही है।

सरकार की चूक | राज्य सरकार ने भी इन हाथों को पलपने का

मौका दिया है। स्टूडेंट्स पर पुलिसिया कार्रवाई यह कहती है कि सरकार में बैठे लोगों का पुलिस तंत्र पर नियंत्रण नहीं रह गया है। स्थिति ऐसी नहीं थी कि लाठी चलाने की नौबत आती। इससे यह समझने में देर नहीं लगनी चाहिए कि जानबूझकर ऐसा कराया गया और इसे लोग तंत्र पर हावी हैं, जो इस मुद्दे को तूल देना चाहते हैं। सरकार

चाहती तो शुरुआत में ही समाधान का इरादा जताकर आंदोलन भड़कने से रोक सकती थी। जब समस्या सिर नहीं, तब परीक्षार्थियों के प्रतिनिधियों की मुख्य सचिव से वार्ता हुई। फिर उपमुख्यमंत्री सम्राट चौधरी ने बातचीत के बाद बयान में मुख्यमंत्री सरकार जल्दी ही समाधान निकाल लेगी। सम्राट चौधरी का यह कहना भी मुख्य बनाजे अभियान का हिस्सा है कि NDA सरकार आयोग की स्वायत्तता में दखल नहीं देती।

विवादों से नाता | BPSC का विवादों से पुराना रिश्ता रहा है। 2023 में भी प्रारंभिक परीक्षा के पेपर लीक होने का मामला प्रकाश में आया था। 56वीं और 59वीं परीक्षा में भी गड़बड़झाले हुए थे। तब भूर लेकर DSP बनने का केस खुला था और मुकदमा दर्ज किया गया था। BJP के विधान पार्षद रहे आयोग के सदस्य रामकिशोर सिंह 30 लाख रुपये लेकर नौकरी देने के मामले में घिरे थे। 2017 में सेक्शन की बहाली में खूब अनियमितता हुई। यहां तक कि इंटरव्यू नहीं देने वाले भी सिलेक्ट हो गए थे।

घोटाले ही घोटाले | BPSC के

साथ जुड़े विवादों की लिस्ट यहीं नहीं थमती। 2003 हो या 2005- गलत चयन, घोटाले और अनियमितता के मामले सामने आते रहे। आयोग के पूर्व अध्यक्ष रजिया तबस्सुम समेत 13 अधिकारियों पर आरोप लगे हुए थे। एक अध्यक्ष रामसिंह आसन सिंह को भी विवादों के चलते पद से हटाया गया था। उत्तर पुस्तिकाओं से छेड़छाड़, कंप्यूटर से दस्तावेज मिटाने और पैसे के लेन-देन के प्रमाण मिले। साल 1996 में तो इंजिनियरिंग कॉलेजों में एडमिशन का बड़ा घोटाला हुआ था। तब जांच की आंच तत्कालीन विज्ञान व प्रौद्योगिकी मंत्री वृशिशहरी प्रसाद तक पहुंची थी।

दागदार छवि | सच कहा जाए तो BPSC सरकारी संरक्षण में नौकरी बेचने वाले एक गिरोह तंत्र की नायिक काम करने के लिए कुख्यात रहा है। आज भी आयोग धरना-प्रदर्शन का अड्डा बना हुआ है। शायद ही कोई बहाली और परीक्षा परिणाम बिना विवाद के रहे हों। नीतीश कुमार बेशक भ्रष्टाचार पर जीरो टॉलरेंस का नारा दें, लेकिन लोक सेवा आयोग की सच्चाई इसे झुठला देती है। ताज़ा विवाद भले मुद्दे निर्णय का हो, लेकिन इसे पलपने तो नीतीश सरकार ने ही दिया।

(लेखक वरिष्ठ पत्रकार हैं)

YOUNG AND HOPELESS

BPSC exam row in Bihar points to a systemic distortion and lack of accountability that is taking a high toll across states

IN THE RUN-UP to the 2024 Lok Sabha election, countering the Opposition parties' pitch on the caste census, Prime Minister Narendra Modi had said that, for him, there are only four castes: Poor, farmers, women — and youth. The emphasis on youth, an underlining of their issues and concerns, could also be found in the manifestos of parties and leaders' speeches. However, in 2024, like many years before it, across states, the young were let down by leaders and parties who turned an unseeing eye to a recurring pattern — paper leaks and allegations of cheating and foul play leading to exam cancellations and students' protests, to no avail. The controversy over the Bihar Public Service Commission (BPSC) preliminary examination held on December 13 is only the latest in a dismal series.

One of the centres in Patna saw a disruption — it was alleged that the question paper had been leaked. Soon after, reports of irregularities poured in from other centres, sparking students' protests. On December 19, the Commission decided to conduct a re-examination only for one centre. As the protests intensified, leaders like Prashant Kishor, founder of the state's fledgling Jan Suraaj Party, along with several educators, put their weight behind the students' demands; RJD's Tejashwi Yadav asked the Commission to conduct fresh prelims across the state. The BPSC controversy, however, is just one more in a long list of such irregularities. The year 2024 saw the NEET-UG fracas, followed by the cancellation of the NET and NEET-PG exams. Exams conducted for state government recruitments in UP, Rajasthan, Maharashtra, and Tamil Nadu faced similar controversies. The Centre introduced the Public Examinations (Prevention of Unfair Means) Act (2024) to lay down guardrails.

But is it enough to pass a law? Ever since the uproar over the Vyapam scam in Madhya Pradesh in 2013 — its ghosts are still to be laid to rest — few political parties have made it a political or electoral issue. For the aspirants, many of whom belong to marginalised castes and classes, these exams are a way to achieve social mobility, against daunting odds. In a country of large economic disparities, and when job creation is not picking up in the private sector, they represent a possibility of empowerment for millions. Crammed into general compartments of trains and in overcrowded buses, they reach the exam centres armed only with their aspiration — between 2014 and 2022, for instance, only 0.33 per cent of the applicants got government jobs. The voices of the students in Bihar, and other states, must be heard and heeded. In a country of the young, one that is on the move, much is at stake.

Crowdfunding can transform science research funding

BIJU DHARMAPALAN

By connecting directly with the public, crowdfunding offers researchers an opportunity to explore bold ideas fueled by passion

The conventional research funding model, which is primarily dependent on government grants and institutional allocations, is currently under increasing scrutiny. Scientists and innovators frequently find themselves facing competition for a diminishing pool of resources as budgets tighten and priorities shift in numerous regions of the globe.

A novel paradigm is emerging, one that is influenced by the digital economy: crowdfunding for research. Is it possible that this community-driven, decentralised approach could revolutionise the way we finance science? Government funding has been a cornerstone of scientific research across the globe, particularly in the domain of basic research. This funding plays a vital role in driving innovation, supporting the exploration of fundamental scientific principles, and fostering advancements that often serve as the foundation for applied research and technological development. Despite its critical importance, accessing government research grants presents sig-

nificant challenges for scientists and institutions, making it a complex and often time-consuming endeavour.

The exhaustive application process is one of the foremost difficulties in securing government funding. Researchers must navigate hectic administrative paperwork, including filling out detailed forms, providing extensive documentation, and adhering to strict procedural guidelines. This bureaucratic overhead often becomes a distraction, diverting researchers' time and energy away from their primary focus—scientific discovery.

Writing and refining grant proposals, ensuring compliance with submission requirements, and coordinating with institutional administrators

consume weeks or even months. This process can be overwhelming for many scientists, particularly those involved with teaching responsibilities or other professional commitments.

Another challenge is the influence of governmental policy on funding priorities. The allocation of research funds is often tied to the strategic objectives of the ruling government. This means that researchers must tailor their proposals to align with themes or areas of focus deemed significant by policymakers.

As a result, projects that do not align with government priorities may struggle to find financial support, even if they hold substantial scientific or societal value. Moreover, the eligibility criteria for government funding further restrict access. Typically, government grants are available only to individuals holding doctoral degrees and those affiliated with recognised academic or research institutions, and some agencies restrict people from private institutions.

Crowdfunding is emerging as a revolutionary alternative to

overcome these hurdles. Crowdfunding involves gathering financial support for a project or venture by soliciting small contributions from a large group of people, typically through online platforms.

It offers a direct, democratic, and flexible solution, empowering researchers to pursue their ideas with fewer constraints while promoting passion-driven inquiry. Crowdfunding allows researchers to connect directly with the public, garnering financial support for projects that resonate with a broader audience. Platforms like Kickstarter, Indiegogo, FundRazr, Hoope, GoFundMe, etc. have already successfully funded creative projects and their application in scientific research is growing. Crowdfunding science projects require researchers to dedicate considerable time and effort to campaign management, diverting resources away from their core research work.

(The writer is an adjunct faculty at the National Institute of Advanced Studies; views are personal)

From vision to reality: How good governance is transforming education in India

Vajpayee's vision of a 'New India,' anchored in democratic principles and citizen-centric governance remains a guiding force

TUHIN A SINHA

Ten years ago, Prime Minister Narendra Modi set forth his vision of sushasan (good governance), calling it "the key to a nation's progress." He declared December 25, former PM Atal Bihari Vajpayee's birth anniversary, as Good Governance Day. Vajpayee had envisioned a 'New India' where the government would embody the principles of democracy and development, emphasising citizen-centric decision-making, transparency, and public participation.

Put simply, good governance means that the day-to-day functioning of the government is effective, transparent, and accountable, which in the modern age naturally includes e-governance and digital empowerment. In fact, in the context of a welfare government functioning in a vastly unequal society, good governance is fundamental for ensuring sustainable development, social justice, and the protection of human rights.

In 2019, India also adopted a metric called the Good Governance Index (GGI) to track and compare governance among the states and union territories across ten key sectors. The 11th Good Governance Day presents an apt moment to pause and reflect on the state of governance in one of the most critical sectors—education. Even though Human Resource Development, composed of indicators like "quality of education" and "elementary school retention rate," is one of the ten key sectors covered by the GGI, a close look at India's education governance reveals substantial room for improvement, particularly at the school level.

Vajpayee's commitment to education was evident during his tenure as Prime Minister—he pioneered the landmark Sarva Shiksha Abhiyan (SSA) in 2002, which emphasised universal school enrolment and went on to form the cornerstone of the Right to Education (RTE) Act, 2009. Building decisively on this foundation, Prime Minister Modi's leadership has elevated education to new heights through bold reforms. The introduction of the National Education Policy (NEP) 2020, along with the NIPUN Bharat Mission, has revolutionised the approach to foundational learning. This shift is being carefully monitored through multiple assessment initiatives - states have implemented third-party evaluations, while programs like CBSE's SAFAL, the National Achievement Survey, and Gujarat's groundbreaking Vidya Samiksha Kendra (VSK) use cutting-edge technology to track progress systematically. These assessment systems have revealed both progress and persistent challenges in our education system.

The data highlights critical areas that need attention, particularly in learning outcomes. Various learning surveys show that over 5 crore elementary-grade students lack foundational literacy and numeracy skills. Learning gaps for these children only keep widening as they progress through grades with a weak foundation. It is then unsurprising that almost 55 per cent of Grade VIII students are unable to read simple sentences or do basic arithmetic.

Recognizing these challenges, PM Modi's administration has taken a step through the State School Standards Authority (SSSA), recommended in the NEP 2020, which emerges as a pivotal reform to enhance India's school governance standards. The proposed SSSA would be an independent quality regulator for all schools, both public and private. One of the key functions of the SA is to ensure public disclosure of school performance data for all schools through a digital portal.

With all schools being held to clear and uniform quality standards and policymakers being informed by data-driven insights, educational resources will be used more efficiently. The SA can create a culture of transparency where parents are active participants in their children's education.

With its emphasis on streamlining bureaucracy, focusing on outcomes rather than inputs, and integrating technology to reduce administrative burdens, not only does it embody Prime Minister Modi's ideal of "minimum government, maximum governance". A pertinent example is the set of eight principles of good governance recommended by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)—participation, rule of law, transparency, accountability, equity, effectiveness, consensus, and responsiveness. As the nation observes Good Governance Day, the call to action is clear: states must embrace the SA to realise the shared vision of a 'New India,' where quality education is a right, not a privilege.

(The writer is National Spokesperson, BJP; views are personal)

Missing learners

Concerning drop in school enrolment

THE Unified District Information System for Education Plus (UDISE+) 2023-24 data paints a concerning picture for India's school education sector. A decline of 37 lakh students in school enrolment, dropping from 25.17 crore in 2022-23 to 24.80 crore, demands introspection and action. While some of this reduction reflects enhanced accuracy due to the Aadhaar-linked unique IDs, it exposes systemic challenges that go beyond data adjustments.

Alarmingly, the data reveals a sharp decline in girl enrolment and a persistent underrepresentation of minority and marginalised communities. States like Bihar, Uttar Pradesh and Maharashtra have witnessed the steepest enrolment drops, reflecting entrenched socio-economic barriers. Transition points, particularly from middle to secondary education, exacerbate dropout rates — rising from 5.2 per cent in middle school to 10.9 per cent at the secondary level. This is compounded by retention rates plummeting from 85.4 per cent to a mere 45.6 per cent. Infrastructure deficiencies further hinder progress. High-enrolment states such as West Bengal and Punjab face critical gaps. Plus, technological readiness is abysmal, with only about 57 per cent of schools equipped with functional computers. The digital divide continues to marginalise the most vulnerable students, undermining efforts for equitable education.

Despite these challenges, there are silver linings. The introduction of unique educational IDs facilitates precise tracking of dropouts and better targeting of schemes like Samagra Shiksha. However, progress demands more than data — it requires transformative policy action. Investments in teacher training, digital infrastructure and community outreach are vital. As the National Education Policy (NEP) 2020 aspires for universal education by 2030, India must ensure inclusivity and accessibility for all. The future of millions of young learners depends on bridging the gap between aspiration and implementation.

थोड़ी ख़ुशी, थोड़ा ग़म

स्कूली शिक्षा और साक्षरता विभाग की ओर से संचालित डेटा एग्रीगेशन प्लेटफॉर्म यूनिफाइड डिस्ट्रिक्ट इन्फॉर्मेशन सिस्टम फॉर एजुकेशन (UDISE) प्लस की ताजा रिपोर्ट देश के स्कूली इन्फ्रास्ट्रक्चर में हुए सुधार के साथ ही उन अहम दिक्कतों की भी झलक देती है, जिन्हें दूर किया जाना बाकी है।

डिजिटल डिवाइड | बुनियादी सुविधाओं की स्थिति बेहतर हुई है। करीब 90% स्कूलों में बिजली और जेंडर स्पेसिफिक टॉयलेट जैसी सुविधाएं हैं। लेकिन अगर डिजिटल सुविधाओं की बात की जाए तो स्कूलों के बीच गहरी खाई दिखती है। मसलन, फंक्शनल कंप्यूटर महज 57.2% स्कूलों में उपलब्ध है और 53.9% स्कूलों के पास इंटरनेट ऐक्सेस है। हालांकि, इस मामले में पिछले वर्षों में हुई प्रगति का अंदाजा इस तथ्य से होता है कि 2021-22 की UDISE प्लस रिपोर्ट के मुताबिक 66% स्कूलों में इंटरनेट कनेक्शन नहीं थे।

सभी स्कूलों में हो सुविधाए

स्कूल बढ़े, एनरोलमेंट घटा | देश में पिछले साल के मुकाबले स्कूलों की संख्या तो बढ़ी है, लेकिन एनरोलमेंट में गिरावट देखी गई है। जहां स्कूलों की संख्या 14.66 लाख से बढ़कर 14.71 लाख हो गई वहीं इनमें होने वाला स्टूडेंट्स एनरोलमेंट 25.17 करोड़ से घटकर 24.80 करोड़ हो गया। यह गिरावट कमोबेश सभी कैटिगरीज - लड़के लड़कियां, ओबीसी, अल्पसंख्यक आदि- में है।

ड्रॉपआउट का ट्रेंड | जहां तक ड्रॉपआउट यानी स्टूडेंट्स के स्कूल छोड़ने के मामलों की बात है तो इसमें सेकंडरी स्टेज में होने वाली बढ़ोतरी ध्यान देने लायक है। मिडल स्कूलों में जो ड्रॉपआउट दर 5.2% है, वह सेकंडरी स्टेज में आकर 10.9% हो जाती है। इसके पीछे OBC और SC/ST कैटिगरी के स्टूडेंट्स को दाखिले के डॉक्युमेंटेशन प्रॉसेस के दौरान होने वाली मुश्किलों और प्री-मैट्रिक व पोस्ट-मैट्रिक स्कॉलरशिप जैसी सुविधाओं की कमी का हाथ हो सकता है।

टीचर-स्टूडेंट रेश्यो | एक और अहम पहलू है टीचर्स और स्टूडेंट्स के अनुपात यानी PTR का। इस मामले में विभिन्न राज्यों के बीच अंतर विशेष रूप से ध्यान खींचता है। एक तरफ झारखंड, बिहार और पश्चिम बंगाल जैसे राज्य हैं, जहां सेकंडरी लेवल पर PTR राष्ट्रीय शिक्षा नीति (NEP) के तय मानक यानी 30:1 से भी ज्यादा है तो दूसरी ओर असम, ओडिशा और कर्नाटक जैसे राज्य काफी पीछे नजर आते हैं।

नई चुनौतियां | कुल मिलाकर, देश में स्कूली शिक्षा को बेहतर इन्फ्रास्ट्रक्चर उपलब्ध कराने की दिशा में किए जा रहे प्रयासों का असर दिखता है। लेकिन इस दौरान नई चुनौतियां भी उभर रही है, जिनकी अनदेखी नहीं की जा सकती। यूनिवर्सल एजुकेशन के लक्ष्य को ध्यान में रखें तो ड्रॉपआउट के ट्रेंड्स और PTR पर खास ध्यान देने की जरूरत है।

Balancing dreams and parental aspirations: A dilemma for students

SANJAY CHANDRA

In a society deeply rooted in tradition and shaped by economic uncertainty, parents often tread cautiously when guiding their children's career paths

We tend to be over-cautious when we guide our children in their professional choices. I realised this only after I had cajoled my children into studying sciences till their class 12. My rationale was that they could always switch to any other course for graduation, but the reverse was not possible. They are now happily pursuing their non-science professions, often ribbing me about how much better they could have done in their Board examinations had I not insisted. Many parents from my social circle still struggle to resolve the conundrum.

A senior colleague faced such a dilemma for his daughter two decades back. My daughters were by now happily pursuing their dreams. I freely dispensed my wisdom to let the young lady pursue whatever she wanted. He was contemplative for some time before agreeing. He remembered his school friend, the son of a famous medical doctor.

The friend was pushed into a medical college sometime in the late sixties. He quit after a couple of years, joined a course in liberal arts, and was a contented leading artist. I was born a few years after independence. I believe our parents were excited about freedom but were equally apprehensive about the future for the next generation.

They opted for the more secure government jobs for us through engineering or medical studies. Children from families who had already seen enough government jobs through second-generation elders started moving to other options in the nineties. The liberalisation of the Indian economy opened professional choices hitherto unknown to children and parents alike. But it was still not the same across the entire spectrum.

A junior colleague sought my advice regarding his son's admission to an engineering course. The child had not performed well in the competitive examinations.

The fee charged by the available lower-rung colleges was exorbitant, necessitating the father to take a loan. It was tragic as he came to me after five years, a year after the young man had completed his graduation and had been unable to secure a job, requesting if I could arrange a job even at a measly monthly salary. I witnessed several similar cases and wondered about the strange phenomenon even half a century after independence when several better-paying career options were available.

An improved economy has resulted in a continuous upward movement of people financially from the below-poverty line to the lower class to the lower-middle-class to the middle-middle-class, and so on. However, an increasing population also ensures a part of the population remains in the lower financial strata. These parents are insecure about the future leading them towards the perceived safer educational courses for children to pursue. We read about senior leaders exhorting young people to become job providers instead of job seekers.

Not many talk about the ways to achieve this or the alternate career options. Engineering and medical colleges keep mushrooming without the government and the leaders pausing to reflect upon the implications of unplanned growth. This will continue for a few more generations till the population stabilizes. I narrate experiences from my life when interacting with the young in college.

I tell them to pursue their dreams. A few of them invariably ask me whether to follow the courses that their parents have chosen for them or if they should follow their dreams. It is a difficult question to answer. I draw upon my life when I respond, "Follow your parents today, they only want the best for you. But do not let your dreams die. Life gives enough opportunities for you to pursue your dreams – if not today, certainly sometime in the future."

(The author is an electrical engineer with the Indian Railways and conducts classes in creative writing; views are personal)

'Pedagogy must be flexible'

In an exclusive interaction with Ritwik Mukherjee of The Statesman, Srikrishna G Kulkarni, chairperson, Board of Governors, Indian Institute of Management Calcutta (IIMC), outlines how the first national institute for post graduate studies and research in management, has evolved and emerged as an international centre of excellence in all facets of management education. He explains different facets of how this institute, established by the Government of India in November 1961 in collaboration with Alfred P Sloan School of Management (MIT), the Government of West Bengal, the Ford Foundation and Indian industry, is actively evolving to meet new challenges and realities of the business world by focusing on key areas like entrepreneurship, innovation, and interdisciplinary learning.

Q: The unprecedented volatility in the world of business caused by some recent geopolitical events - from the Covid-19 pandemic to the Russia-Ukraine war and the tensions in West Asia - has prompted large companies to take a relook at business and operational strategies. Did it have a ripple effect on the way management professionals are normally trained by the B-schools?

A: The answer is yes. In response, the Indian Institute of Management, Calcutta is now incorporating more adaptive learning models, emphasizing crisis management, global supply chain resilience, and agility in leadership, to better prepare our students to be future leaders who are comfortable in complex, unpredictable environments. The institute has introduced a range of courses that foster entrepreneurial thinking, including design thinking that will equip our students to respond to complex and unpredictable environments. We are also promoting interdisciplinary programmes that combine management theory, technology, social sciences, law and digital innovation, with an aim to equip our students to better respond to multifaceted problems. With a strong emphasis on digital enablement, IIM Calcutta ensures that its graduates are well-prepared to meet the changing demands of potential employers in a fast-evolving global landscape.

Q: Could you throw some light on the executive management programme IIM Calcutta has launched in Dubai, with a different pedagogy focused on the fragile Middle East?

A: IIM Calcutta has launched a specialized Executive Management Programme in Dubai, tailored to address the unique challenges of the fragile Middle East region. This programme offers a distinct pedagogy focused on real-world case studies, particularly in global business, supply chain management, and the complexities of geopolitical tensions. By incorporating international participants, the course fosters a diverse learning environment, offering valuable insights into global business dynamics. key feature of this programme is its unique face-to-face interaction model, which encourages direct engagement with industry leaders and peers, helping participants develop practical solutions to the region's specific business challenges.

Q: In the wake of the ongoing job crisis and at a time when different corporate entities are cutting down on their hiring plans, how is IIM Calcutta maintaining its placement rates?

A: IIM Calcutta has remained robust, thus effecting placement percentages marginally. One key reason is the increasing interest among students in joining start-ups and entrepreneurial ventures, diversifying their career paths. Consulting and finance-related jobs continue to traditionally dominate the placement landscape, providing opportunities that use core management competencies. IIM Calcutta is also adapting by training students based on evolving business requirements, ensuring they are equipped with the skills and knowledge needed to stay ahead of the game and meet market demands effectively.

Q: Experts say that the way business schools teach sometimes does not match what jobs need. They are of the view that these B-schools should change their lessons every two to three years. What is your take on this?

A: We agree with the experts that premier institutes need to be more flexible when choosing their teaching and pedagogy so that the pedagogy can better align with the curriculum that addresses the evolving job market. This is essential in today's fast changing environment. At IIM Calcutta, there is a structured process in place to regularly revise the course curriculum, ensuring it meets both current and future market needs. The institute's various centers actively engage in consulting and developing industry relations, keeping the curriculum relevant.

Additionally, industry experts and professors of practice bring critical practical perspectives and up-to-date domain knowledge not just into our classroom, but also help in our regular process of curriculum review. IIM Calcutta's Case Research Center further compliments learning goals by developing case studies that reflect real-life business problems and helps our students experience firsthand how for a given set of conditions, there can be multiple perspectives and more than one approach and more than one solution, thus making the learning experience as close to real life situations and hence more impactful.

Q: IIM Calcutta and TalentSprint, a hybrid digital learning platform, have unveiled a new programme: AI for Leaders. Please throw some light on this.

A: Advanced Programme in AI for Leaders (APAL) – The "AI for Leaders" programme is tailored for senior professionals across diverse industries and verticals. It equips participants with essential skills, core concepts, and cutting-edge tools, including generative AI. These are vital as they equip our students (business leaders) to grasp the intricacies in the evolving AI-driven landscape and take timely decisions that are collaborative and sustainable. Each module is designed to foster cross-functional collaboration within organizations, empowering leaders to harness AI's potential effectively.

This programme is specifically designed for senior management professionals seeking to enhance their understanding of AI without the need for a technical background.. This programme offers a comprehensive understanding of AI's transformative power, providing participants with a holistic perspective crucial for effective leadership. It provides comprehensive insights into practical applications and enterprise-level AI platforms, preparing participants to understand the capabilities of technologies such as Google Cloud's Vertex AI, AWS Bedrock, and Microsoft Azure AI Studio, among others. This knowledge empowers leaders to effectively spearhead AI initiatives within their organizations, enabling them to navigate and implement AI solutions with confidence and ease.

Q: How is IIM Calcutta contributing in strengthening and promoting the Indian entrepreneurial ecosystem?

A: The institute boasts of reputed multidisciplinary faculty and houses centres of excellence focused on several domains, including entrepreneurship and innovation. The Centre for Entrepreneurship and Innovation (CEI) is dedicated to the creation, collation, and dissemination of knowledge on entrepreneurship and innovation. Through its IIM Create series, CEI connects academia with industry knowledge research and celebrates the entrepreneurial journeys of IIMC alumni.

IIM Calcutta Innovation Park (IIM-CIP) is a not-for-profit (Section 8) company established under the aegis of IIM Calcutta. It is a thriving ecosystem that nurtures start ups, empowering them to transform ideas into impactful businesses. IIMCIP actively fosters innovation, incubates socially impactful entrepreneurial ventures, and enables livelihood creation. It has supported 1,000+ startups since its inception, with start-up presence in 22 states, and works with 100+ mentors across the country for entrepreneurial development. IIMCIP has a rich experience of working with multiple state governments (West Bengal, Assam, Meghalaya, Bihar, Arunachal Pradesh) as a knowledge partner for implementation of their entrepreneurship development policies.

Entrepreneurship Cell (E-Cell) is a dynamic student-run body, that spearheads the propagation of entrepreneurship within and beyond the campus confines. Genesis, its annual Entrepreneurship Summit, boasts of having 25K+ attendees so far. The E-Cell facilitates workshops, competitions, and insightful panel discussions with students attending from across the globe.

IIM Calcutta recently hosted a national entrepreneurship conclave, "India 2047: Building the Future with Entrepreneurship". As India marches towards its centennial year in 2047, the role of entrepreneurship in driving economic growth and societal transformation has never been more critical and this conclave reflected IIMC's motivation to contribute towards the same. This prestigious event brought together visionaries, innovators, leaders, and alumni from various sectors to discuss and explore the future of entrepreneurship in India and beyond. The Lalit Mohanka & Madan Mohanka Centre for Excellence in Entrepreneurship & Innovation was established with the generous contribution of Madan Mohanka, Executive Chairman of Kolkata-based Tega Industries, with the vision of "Making India the global leader in entrepreneurship and innovation through education, technology, research and thought leadership to ensure sustainable economic growth and job creation."

To achieve the mission of creating large scale socio-economic impact leveraging technology and innovation, IIM Calcutta (IIM Calcuta Innovation Park) will actively seek strategic partnerships with premier technology institutions from India and abroad. IIMCIP has already joined hands with IIT Madras Incubation Cell, which is one of the best technology innovation centers in the country. This collaboration represents a confluence of intellectual prowess and innovation excellence and is poised to create a powerful synergy leveraging the business acumen of IIM-CIP and technological expertise of IIT Madras Incubation Cell. Padma Shri awardee Prof. Ashok Jhunjhunwala, (Institute professor - IIT Madras), a luminary in the realm of technology and innovation and a visionary leader, has agreed to preside as the Chairman of the Board of the IIMCIP Technology and Innovation Council (IIMC-TIC). Prof Jhunjhunwala has had an illustrious career marked by profound contributions that have left an indelible mark on India's technology innovation landscape. Under his guidance, IIMC-TIC is poised to launch numerous groundbreaking initiatives that will revolutionize the ecosystem of innovation and entrepreneurship, with a particular focus on impacting the East and North East India socio-economic landscape.

बड़ी विसंगति से मुक्त हुई स्कूली शिक्षा

आठवीं तक फेल न करने की नीति के चलते बच्चे अगली कक्षा में पहुंच तो रहे थे, पर कुछ सीख नहीं पा रहे थे

प्रेमपाल शर्मा

ठीक नहीं थी फेल न करने की नीति ✑ फाइल

यह स्वागतयोग्य है कि शिक्षा का अधिकार कानून, 2009 की एक बड़ी विसंगति को केंद्र सरकार ने दूर कर दिया। अब नए सत्र से पांचवीं और आठवीं कक्षा की परीक्षा पास करने वाले छात्र ही अगली कक्षाओं में जा सकेंगे। वर्ष 2010 से पूरे देश में आठवीं तक की कक्षाओं को पास-फेल के नियम से मुक्त कर दिया गया था। ऐसा इस सीमित तर्क की आड़ में किया गया था कि फेल होने से बच्चे स्कूल छोड़ देते हैं, उनका मनोबल गिर जाता है और तनाव में आ जाते हैं। इसलिए बिना परीक्षा के ही उन्हें अगली कक्षा में प्रमोट किया जा रहा था। यह ठीक है कि शिक्षा का अर्थ केवल परीक्षा नहीं है और परीक्षा के तनाव से छात्रों को मुक्त भी रखा जाना चाहिए, लेकिन इस नियम ने स्कूली शिक्षा को तो नुकसान पहुंचाया ही, कालेज शिक्षा को भी बर्बाद कर दिया। इसका सबसे बुरा असर देश भर के सरकारी स्कूलों पर हुआ। ज्यादातर सरकारी स्कूलों में उन गरीब परिवारों के बच्चे पढ़ते हैं, जिनकी आर्थिक-सामाजिक स्थिति अच्छी नहीं होती। उनके पास अपने बच्चों की शिक्षा की तरफ ध्यान देने के लिए न वक्त होता है, न सामर्थ्य। कोई बच्चा घर से तो स्कूल चला गया, लेकिन वह वास्तव में स्कूल में गया या नहीं या उसने क्या पढ़ाई की, इसकी जानकारी तभी मिलेगी, जब वह परीक्षा देने के बाद पास या फेल होगा। आठवीं तक फेल न करने की नीति के चलते बच्चे अगली कक्षा में तो पहुंच जा रहे थे, लेकिन उनमें से कइयों को आता-जाता कुछ भी नहीं था। इससे अगली कक्षा के शिक्षकों के सामने भी कई समस्याएं खड़ी होने लगी थीं। नतीजतन स्कूली शिक्षा में और भी गिरावट आती गई।

पिछले एक दशक से प्रथम और इस जैसी दूसरी संस्थाओं के सर्वे बार-बार यह रेखांकित कर रहे थे कि आठवीं के बच्चे को चौथी क्लास का गणित नहीं आता या पांचवीं का बच्चा दूसरी क्लास की हिंदी की किताब भी नहीं पढ़ सकता। ऐसी रपटें आने के बाद दो-चार दिन तो शिक्षा व्यवस्था पर कुछ प्रश्न उठते, लेकिन उसमें सुधार के बारे में कभी गंभीरता से नहीं सोचा जाता। ऐसे में निजी स्कूल सरकारी स्कूलों के मुकाबले और

आगे बढ़ते चले जा रहे थे। जिन सलाहकारों ने बच्चों को स्कूल न छोड़ने देने के लिए फेल न करने का आसान रास्ता अपनाया, उन्होंने ऐसा कोई सुझाव नहीं दिया, जिससे इस समस्या को दूर किया जा सके। जब यही बच्चे नौवीं-दसवीं में कई-कई बार अवसर देने के बावजूद भी फेल होते गए तो मजबूर होकर राज्य सरकारों ने केंद्र से गुहार लगाई कि फेल न करने की नीति तुरंत समाप्त की जाए, क्योंकि इससे सरकारी स्कूलों में शिक्षा का स्तर और बिगड़ जाएगा। 2016 में केंद्रीय शिक्षा सलाहकार बोर्ड ने राज्यों की बात पर ध्यान देते हुए इस नीति को बदलने की सलाह केंद्र सरकार को दी। 2019 में केंद्र सरकार ने राज्यों की सहमति से यह संशोधन तो कर दिया कि परीक्षा के बाद ही बच्चों को अगली कक्षाओं में प्रमोट किया जाएगा, लेकिन इसे लागू करने के बारे में राज्यों के ऊपर छोड़ दिया।

चूंकि शिक्षा का अधिकार समवर्ती सूची का कानून है इसलिए बिना दो तिहाई राज्य सरकारों

की सहमति के यह संभव नहीं था। दिल्ली, असम, बिहार, गुजरात, हिमाचल समेत 16 राज्यों ने इसे बदल दिया, लेकिन कर्नाटक, छत्तीसगढ़, उत्तर प्रदेश जैसे राज्य और केंद्रशासित प्रदेश पांचवीं और आठवीं कक्षा में फेल न करने की नीति पर ही चल रहे थे। अब केंद्र सरकार के निर्णय के बाद देश के सभी स्कूलों में पांचवीं और आठवीं कक्षा में फेल करने की नीति इसी सत्र से लागू कर दी गई है। इस सुधार में सबसे अच्छी बात यह है कि यदि कोई बच्चा फेल हो जाता है तो दो महीने बाद उसे एक मौका और दिया जाएगा। इस बीच स्कूल ऐसे कमजोर छात्रों पर विशेष ध्यान देंगे। स्कूलों को यह भी निर्देश दिए गए हैं कि वे बच्चों के संपूर्ण व्यक्तित्व विकास पर ध्यान देंगे और उनका नाम नहीं काटेंगे। यानी किसी भी हालत में बच्चों को उसी स्कूल में पढ़ने का अधिकार बना रहेगा।

ग्रामीण क्षेत्रों में स्कूली शिक्षा पूरी न करने और बीच में छोड़ देने की प्रवृत्ति जरूर है, लेकिन इसके लिए केवल पास-फेल की स्थितियां ही जिम्मेदार नहीं हैं। बच्चों में लिखने-पढ़ने का कुछ ज्ञान तो होना ही चाहिए। आंकड़ों में उन्हें आठवीं पास कर देने से उन्हें भविष्य में कोई फायदा नहीं मिलेगा, क्योंकि उन्हें आगे इंजीनियरिंग, मेडिकल में दाखिला लेने या नौकरी के लिए परीक्षाएं तो देनी ही होंगी। यह तर्क गले नहीं उतरता कि पांचवीं एवं आठवीं में फेल होने से स्कूल छोड़ने वाले बच्चों की संख्या बढ़ जाएगी।

वर्ष 1992 में आई यशपाल कमेटी की रिपोर्ट के अनुसार बच्चों के स्कूल छोड़ने के पीछे "बस्ते का बोझ" और विदेशी भाषा लादा जाना सबसे प्रमुख कारण है। फेल न करने की नीति के चलते शिक्षक गरीब बच्चों के प्रति और भी लापरवाह होते जा रहे थे। ऐसा लग रहा था जैसे उनके पास-फेल होने के लिए वे जिम्मेदार ही नहीं हैं। इस सुधार के बाद स्कूल, शिक्षक, अभिभावक और बच्चे सभी में पढ़ने-सीखने के प्रति जिम्मेदारी बढ़ेगी। उम्मीद की जानी चाहिए कि इससे सरकारी स्कूलों में शिक्षा की गुणवत्ता भी बढ़ेगी।

Assamese Studies

TRIDIB BORAH

Satyanath Borah was the first lecturer in Assamese in Cotton College and the first Assamese lawyer in Guwahati.

Cotton University published a wall calendar in 2020 portraying eminent personalities. The doyen of Assamese literature and grammarian Satyanath Borah's portrait in this calendar was honoured with the title "The Founding Father of Assamese Studies". Perhaps no other title would have been more apt for the litterateur who not only started the Assamese Department of Cotton College in 1913 as the first lecturer but also fought relentlessly to establish Assamese as the lingua franca of Assam in the early part of the 20th Century when the Bengali language had an overwhelming presence in government offices, courts and educational institutions of Assam.

Prior to becoming the pioneering lecturer of Assamese in erstwhile Cotton College, Satyanath Borah was appointed as a lecturer of law in the then Earle Law College. After earning his BA degree in 1886 and BL degree in 1889 from Calcutta University he became the first Assamese to practice as a lawyer in the law courts of Guwahati and teach law at the same time in the only Law college of Assam. His prolific writing ability manifested in publication of several books viz. *Akash Rohoishya, Kendra Sabha, Sinta Koli, Sarathi, Bohol Byakaran and Gitawali*. His thoughts found expression in sentences which were marked with brevity and captivating words akin to the writings in English of Francis Bacon. This unique attribute contributed to a distinct style of writing that made Satyanath Borah stand out as a stalwart among litterateurs of Assam.

Many facts have been published in articles and books written on Satynath Borah's achievements. But some facts have passed on down to the fourth generation by the word of mouth only. On this 5th day of January 2025, Satyanath Borah's 165th birth anniversary, I share a very little-known fact which portrays his unstinted commitment to establish Assamese as a language distinct from Bengali that eventually culminated into the establishment of the Assamese Department of Cotton College in 1913.

The lawyers in the law courts of Guwahati then were from Bengal and the petitions filed in the court were in Bengali. The motely few Assamese lawyers pleaded with the British judges to accept petitions in Assamese as the cases pertained to the Assamese people. But the pleadings fell on deaf ears as the vociferous Bengali lawyers could impress the judges with their arguments in favour of Bengali over Assamese which in their view was nothing but a dialect of Bengali. It was "Satya Ukil" who fought with his small team tirelessly to prove to the British judges that Assamese community had a culture and language different from that of Bengal. But the coterie of Bengali Lawyers was able to erect an unsurmountable wall between the British judges and the Assamese lawyers. The attempts to circulate the Assamese language in court were often mocked at.

As fate would have it, an incident – more precisely a court case ushered in a sea change in the outlook of the British judges. A case was tabled in the court pertaining to a person beaten up in public by "Mekhela". The British Judge wanted to know what is a "Mekhela". The court was informed that "Mekhela" is a garment worn by the Assamese women folk. The Judge was utterly bewildered on how could one be injured by a garment. The lawyer from Bengal representing the petitioner also could not explain in the court why at all the case was tabled when there was no injury. The judge observing the ignorance of the lawyer from Bengal, summoned Satyanath Borah to the court to explain why the case has been filed by the person when he was not injured at all.

Seizing the opportunity to strongly reiterate his stand to introduce Assamese in Courts, "Satya Ukil" explained to the judge that hitting with a Mekhela apparently inflicts no physical injury but in Assamese culture this act is the worst form of insult that can be hurled upon a person. Being beaten by Mekhela in public for an act of cowardice or any other act deemed to be malevolent in society, can inflict an injury far worse than any physical wound caused by a weapon. The enlightened judge was utterly pleased to learn of such a culture. He not only appreciated this non-violent way of punishment but also announced in the open court that today he could understand why Satyanath Borah and other Assamese lawyers insisted upon recognizing Assamese language and culture as having a distinct identity.
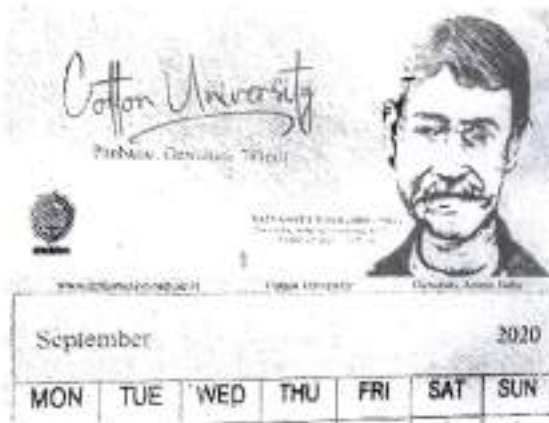
An institution builder par excellence

Dr ARUP KUMAR MISRA

Prof Anil Kumar Goswami transformed Assam's academic and scientific landscape with his seminal contributions.

The life and deeds of a multifaceted personality like Prof Anil Kumar Goswami cannot be summarised in an obituary column. Though he lived a contented and fulfilled life before leaving us on December 27, 2024, it will be very difficult to fill the void created by his passing. A man who believed in life-long learning, valued perseverance to convert difficulties into opportunities, and exuded empathy and kindness towards all around him, will be missed forever.

Born into a very illustrious family of Khatiamari at Bijoynagar (Kamrup) to Jageswari Devi and Bhubaneswar Goswami on July 17, 1932, Prof Goswami was a brilliant student right from his childhood. He secured the 4th position in the matriculation examination of Gauhati University in 1949 and 6th position in the ISc examination in 1951. After graduating from Cotton College, he proceeded to Calcutta University for a master's degree to explore the fascinating world of physics. He secured the first-class-first rank in his MSc in 1955, earning laurels for the State. Soon after, he joined Cotton College and never left it till his superannuation as the Principal in 1991. In between, he proceeded to Sheffield University (UK) for his PhD and worked on High Energy Physics using the Nuclear Emulsion Technique, Astrophysics, and Radio Astronomy.

His affinity for Cotton College was legendary. He shouldered many roles – as a teacher and mark; a mentor and Head of the department; and finally as the Principal of this venerable institution in 1991. Prof Goswami was always dreaming of something new and big. Due to his initiatives and teamwork, he served as the then general secretary of Cotton College Shib Ali Union (present ...

October 17, 1992, when the President of India, late Dr Shankar Dayal Sharma, visited the college and declared it as a Centre of Excellence with integrated postgraduate and undergraduate education. Cotton College will always remember him for establishing the Centre for Radio Astronomy, the Instrumentation Development Centre, and the Faraday Bicentenary Park for developing a culture of entrepreneurship in the college, besides high-end research.

Prof Goswami's career path can be divided into two phases: the first, where he followed the conventional style of academic research and teaching, which is the usual path chosen by 99 per cent of teachers. But, Prof Goswami was among the unconventional 1 per cent who believed in balancing academic pursuits with the dissemination of science and technology among common people; promoting a scientific culture of inquiry, innovation, and inclusiveness for the creation of scientific temper in society; and building "temples of science" to ignite young minds.

Prof Goswami's contribution to the Assam Science Society is immense and extraordinary. He was a student at Cotton College when a handful of teachers from the college and Gauhati University, on February 13, 1953, established the Gauhati Science Society, which in due course became the Assam Science Society, with a mandate to popularise science and promote scientific temper in society. In his own words, as a young teacher, Prof Goswami drew inspiration from the great science scholars, writers and communicators under the umbrella of the Assam Science Society. He served as

the general secretary of this premier organisation for four terms during 1975-79 and had the privilege of working with presidents like Prof Jamini Mohan Choudhury (1975-76), Prof Narendra Nath Siddhanta (1976-77), Dr G Tyagarajan (1977-78), and Dr Pratul Chandra Goswami (1978-79). It was the proposal of this Society that sowed the seeds for the establishment of a comprehensive Science Museum Complex in Assam. The Guwahati Planetarium was also originally proposed by the Society with Prof Goswami as the Member Secretary of the State Advisory Committee on Science & Technology, Govt of Assam.

The Assam Science Society has an embryonic relationship with the Institute of Advanced Study in Science and Technology (IASST), the Guwahati Planetarium, and the Regional Science Centre. Prof Goswami's role in developing the IASST from scratch is nothing less than a saga full of peaks and valleys. The Science Society organised a two-day symposium in Cotton College on December 6-7, 1975, on a theme titled, 'Coordination of research between academic institutions and universities with development departments and other research laboratories on mineral, agriculture and forest resources.' This was a game-changer as Prof Goswami took the opportunity to invite the then Chief Minister Sarat Chandra Sinha to inaugurate the event and later convince him to support the proposed institute for the overall development of the region. It was again Prof Goswami who took the lead by inviting Dr Dorothy Hodgkin, a Nobel Laureate in Chemistry (the third woman scientist to receive it),

on November 3, 1979, to formally inaugurate the IASST.

Prof Goswami often talked about the roadblocks to community work. He went to the Chief Justice's bungalow every morning to literally beg for the small plot of land where the Planetarium stands today. This simple but extremely big-hearted man always knocked on the corridors of power and begged for support to establish public institutions aimed at advancing science and technology in Assam. Recognition came to him in the form of a Fellow of the Royal Astronomical Society in 1996; Member of the Steering Group on the S&T Sector of the Planning Commission of India; Chairman of NCSTC Network (2007-09); and president of Pragjyotish Amateur Astronomical Association, to name a few.

The Assam Science Technology and Environment Council (ASTEC) was established in Guwahati in 1987. Right from its inception, Prof Goswami took a keen interest in the development of all wings of the Council, namely Science & Technology, Environment & Ecology, Applications of Remote Sensing, and New and Renewable Energy. He steered the Council as director from 1991 to 1996, setting benchmarks for all his colleagues and, most importantly, scouting for talent to run the Council.

Criticisms hardly deterred him from his work; negative vibes never affected him; and personal problems could not restrain his movement. Along with Prof (Dr) Alaka Goswami, a renowned obstetrics and gynaecologist of Assam, Prof Anil Goswami formed an adorable couple. As we mourn the loss of this noble soul, we also celebrate the incredible person and the impact he had on our lives.

(Published on the occasion of Prof Goswami's adya shraddha)

Salil Sahadevan

A college student is murdered on her birthday and enters a time loop, and repeats the same day over and over again. That is the storyline of the 2017 black comedy *Happy Death Day*. Many higher education providers find themselves stuck in a similar time loop, endlessly chasing current industry needs but never arriving. Job-specific skills can quickly become obsolete. The acceleration of AI intensifies this cycle. Do we need adaptable individuals who can make sense and create a future, or narrowly skilled workers to boost placement stats? If it is the former, then the traditional focus on immediate job readiness is ill placed.

Skilling, upskilling, and reskilling are essential and urgent. But the relentless focus on job readiness can put education in a reactive cycle. We do not want placement pressure to suppress curiosity and growth, leaving young people anxious and unfulfilled. Instead, we need individuals driven by purpose and a hunger to understand the complexities ahead. The true preparedness comes from three meta-skills: meta-cognitive agility, epistemic flexibility, and transdisciplinary fluency. Big words? Not so when you see them in action as new fluencies needed for the mind.

Transferable skills

A researcher zooming in and out of a mind map to explore alternative interpretations of methodologies or a musician developing a plan for targeted practice for challenging pieces both show meta-cognitive agility. A biology student, initially believing all life needs oxygen, encounters anaerobic life and revises his beliefs, showing epistemic flexibility. An architect designing a net-zero home for the elderly shows transdisciplinary fluency. These are the qualities of an anticipatory learner. These skills are job-independent and transferable.

Anticipatory learning is about encouraging students to develop the adaptability to thrive in the future by developing foresight and creating futures rather than simply reacting to current needs. In institutions, anticipatory learning shifts the focus from transactional models that just try to fill immediate skills gaps to transformative partnerships. These collaborations may rely on evolving policy support for flexible pathways, micro-credentials, context-specific industry linkages, flexible degree programmes, credit-based modular curricula, and hybrid learning. Using a blend of these, anticipatory learning prepares students for impactful careers, not immediate jobs.

Higher education institutions and the skilling ecosystem must also see the nature and content of jobs. In *Bullshit Jobs*, David Graeber argues that, despite technological progress, many roles are meaningless. He cites jobs like some receptionists and doormen who exist solely to make others look important, market lobbyists for harmful industries, workers fixing problems that should not exist such as glitches in poorly designed software, and taskmasters inventing unnecessary projects for others to complete. These are illusions of jobs that cause a lot of moral and spiritual damage. These should definitely not be the jobs for which our education needs to prepare students.

Beyond jobs

Many Western universities face pressure to reduce ties with companies engaged in fossil fuels, tobacco, and environmentally damaging practices. It is tricky to balance social responsibility with financial needs and tempting to be myopic. Industry readiness is important, but seeing education solely as job preparation turns learning into an echo chamber. Getting good grades is not a problem but thinking that schools exist just to give grade is definitely a problem. By avoiding such filter bubbles institutions can truly complement the employment ecosystem.

True learning happens when we are passionate about what we learn and free to explore our own interests. Higher education institutions can create this environment where industry readiness is a natural by-product that follows. Job readiness can be a powerful motivator in the short term, but it risks creating narrow, individualistic lives. This is not about rejecting becoming industry-ready but of looking at education only from that lens alone.

As technical skills quickly get dated, the very notion of job readiness is limiting. Educational institutions exist to encourage self-discovery and a sense of wonder. Finding connections, understanding problems, building solutions, and being socially responsible are all outcomes of that discovery and wonder. Anticipatory learning can strike the balance by combining personal growth with career skills to help create more meaningful work. We have more options for organising society and jobs than we realise. So, is it too idealistic to ask for this from all of us?

Views expressed are personal.

The writer is Deputy Secretary, University Grants Commission.

> Getting good grades is not a problem but thinking that schools exist just to give grade is definitely a problem.

Learning for the future

Why higher education institutions must reduce the focus on job readiness and encourage Anticipatory Learning

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Sharp fall in Madrasa and unrecognised school enrolments

Officials attribute overall enrolment decline to deduplication, but disproportionate drops in certain schools need scrutiny

Sambavi Parthasarathy
Vignesh Radhakrishnan

The number of students enrolled in Indian schools in 2023-24 declined by 1.22 crore compared with 2018-19, show data. Officials argue that Aadhaar numbers and unique student IDs have been used to identify beneficiaries of educational schemes and, in the process, duplicate entries and ghost entries have been weeded out.

However, Unified District Information System For Education Plus (UDISE) data show that this new method of data collection has had a disproportionate impact on Madrasas – both recognised and unrecognised – and other unrecognised schools. Unrecognised schools don't have a license to function and don't meet many of the criteria set by the government in terms of infrastructure, class size, etc. There was a sharp drop in school enrolments among recognised Madrasa schools even as the number of recognised Madrasas and the number of teachers working in them increased.

Chart 1 shows the absolute number of students enrolled in government, government-aided, private, and other schools in 2018-19 and 2023-24. Other schools include unrecognised schools and Madrasas (recognised and unrecognised). Student enrolments dropped from 13.1 crore to 12.7 crore in government schools, 2.7 crore to 2.5 crore in government-aided schools, 9.2 crore to 9 crore in private schools, and 90 lakh to 49 lakh in other schools.

Chart 2 shows the absolute drop in the number of students enrolled in 2023-24 compared with 2018-19 across school types. Enrolments dropped by 36 lakh in government schools, 24 lakh in government-aided schools, 21 lakh in private schools, and more than 40 lakh in other schools.

When read together, Charts 1 and 2 show that the number of students in other schools only formed around 2% to 4% of the total enrolments in both the years (Chart 1), but formed over 33% of the decline in total enrolments (Chart 2).

Calculating the decline in enrolments in percentage terms brings out the disparity further. **Chart 3** shows the percentage drop in student enrolments in 2023-24 compared with 2018-19 across school types. Enrolments declined by 2.8% in government schools, 8.7% in government-aided schools, 2.3% in private schools and 44.8% in other schools.

Chart 4 shows a break-up of student enrolments in other schools – separately for recognised Madrasas, unrecognised Madrasas, and other unrecognised schools – for 2023-24 and 2018-19. Enrolments dropped from 30 lakh to 25 lakh (16% decline) in recognised Madrasas, 6.1 lakh to 78,283 (87% decline) in unrecognised Madrasas, and 53 lakh to 23.5 lakh (56% decline) in other unrecognised schools.

Charts 5 and 6 show the absolute number of schools and teachers for school types presented in chart 4 for 2023-24 and 2018-19. In unrecognised Madrasas and other unrecognised schools, the number of schools and teachers has sharply reduced, which also explains the drop in students in them. However, the number of recognised Madrasa schools have increased by 7%, and the number of teachers in those schools have risen by 13% even though the student share has decreased by 16%.

So, there has been a disproportionate decrease in enrolments in Madrasas and unrecognised schools. Is this because duplicate entries and ghost entries were removed or was there an actual drop in students? It is important to explore this further especially since recognised Madrasas and the number of teachers working in them has increased despite a drop in student enrolments.

The case of missing students

The data for the charts were sourced from UDISE+ reports for 2018-19 and 2023-24

Chart 1: Students enrolled across various schools in 2018-19 and 2023-24

	2018-19	2023-24
Others	90 lakh	49 lakh
Govt. aided	2.7 crore	2.5 crore
Private	9.2 crore	9 crore
Govt.	13.1 crore	12.7 crore
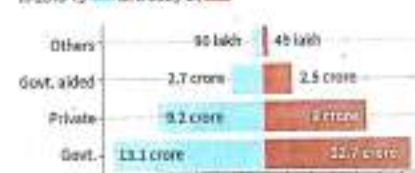
Chart 2: Decline in enrolments across school types in 2023-24 compared with 2018-19

Govt.: 36 lakh; Private: 21 lakh; Govt. aided: 24 lakh; Others: 40 lakh
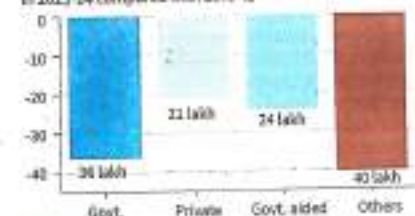
Chart 3: Percentage decline in student enrolments in 2023-24 compared with 2018-19

Govt.: -2.8%; Private: -2.3%; Govt. aided: -8.7%; Others: -44.8%

Chart 4: Number of students enrolled across other schools in 2023-24 compared with 2018-19

	2023-24	2018-19
Madrasa unrecognised	78,283	6.1 lakh
Madrasa recognised (by Wakf board/Madrasa board)	25 lakh	30 lakh
Unrecognised	23.5 lakh	53 lakh
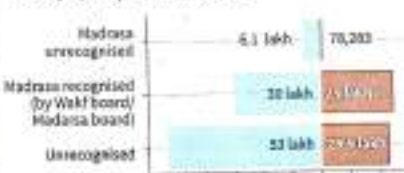
Chart 5: The chart shows the number of other schools in 2023-24 compared with 2018-19

	2023-24	2018-19
Madrasa unrecognised	4886	1163
Madrasa recognised (by Wakf board/Madrasa board)	19 thousand	20 thousand
Unrecognised	32 thousand	13 thousand
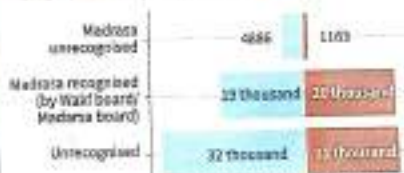
Chart 6: Number of teachers working in other schools in 2023-24 compared with 2018-19

	2023-24	2018-19
Madrasa unrecognised	22 thousand	6017
Madrasa recognised (by Wakf board/Madrasa board)	92 thousand	1.25 lakh
Unrecognised	2.4 lakh	1.5 lakh

Roping in universities for a sustainable future

Scientific and technological innovations have driven human societies toward economic growth. However, such innovations also led to irreversible consequences because of their impact on the environment. Multiple actors must play their role in mitigating these consequences.

First, higher education institutes (HEIs) through their knowledge creation must prepare students for a sustainable future. Second, industries must develop technologies that are low-carbon and clean. Third, society must have more awareness of its responsibility in adopting sustainable practices.

Indian HEIs can play an important role in this through multiple paths — education, research and implementation of sustainable practices on their campuses in tune with the National Education Policy (NEP) 2020's emphasis on sustainable development goals (SDGs). Among 17 SDGs, Goal 11 (sustainable cities and communities) and Goal 13 (climate action) are particularly relevant.

HEIs can realise carbon-neutral campuses by promoting solar power, energy-efficient building practices, and adopting waste reduction strategies in alignment with Goal 12 (responsible consumption and production).

For instance, HEIs must compulsorily adopt sustainable modes of transportation within campus spaces such as walking, cycling and use of electric vehicles. Indian HEIs, to which typically thousands of students and other campus communities commute, must contribute to reducing transport-related emissions to mitigate the effects of the climate crisis. Many HEIs in India can turn unused and degraded parts of their campuses into biodiversity-rich areas by local tree-planting initiatives, aligning with SDG 15 (life and land) and campuses can become testbeds for sustainability innovations and mentor the next generation of environmental leaders, scientists and policymakers.

Additionally, HEIs must engage with local communities and drive sustainability in the broader context of local environmental challenges. Why does this matter? By embedding campus sustainability efforts and research in local contexts, they can ensure that these initiatives are culturally relevant and likely to be adopted and sustained by local communities. The true purpose of such jointly created knowledge would be to achieve real changes in the world. HEIs can indeed build a bridge between the knowledge created by their teachers and students and the use of this knowledge by local communities and governments. It is crucial to have the local community's willingness to accept the consequences of new knowledge created in HEIs regarding sustainable practices. This also entails the HEIs converging the local community's concerns into their research. One of the effective ways in which HEIs can scale sustainability initiatives is to partner with communities around their campuses and educate both students and local communities on sustainability practices. Such collaborations will be valuable learning opportunities for students to gain practical insights into real-world sustainability challenges. The undergraduate and postgraduate curriculum frameworks issued by the University Grants Commission (UGC) allow students to earn credits from such community outreach activities. HEIs should partner with local authorities and private industries to pool resources together to ensure that such activities are adequately funded for scaling up.

HEIs must incorporate sustainability as a strategy in their institutional development plan by committing themselves to eco-friendly construction of their buildings, integrating sustainability into university practices and policies, and introducing climate-crisis education in multi-disciplinary programmes to provide students with the knowledge to understand complex climate-related issues. Experts must be drawn from not only scientific disciplines but also from social sciences, philosophy, economics, and psychology.

In the context of sustainability, UGC has already issued Guidelines and Curriculum Framework for Environment Education in HEIs. HEI-heads must proactively adopt these and incorporate the principles of SDGs into their curricula. UGC guidelines emphasise the importance of interdisciplinary learning enabling students to address the complex, interconnected environmental challenges outlined in the Rio Conventions, making them particularly relevant in the current context of environmental challenges. Even though some HEIs are attempting to implement these guidelines, a lack of interest by many is a cause for concern and can profoundly hinder transforming our HEIs into carbon-neutral campuses by 2047.

Mamidala Jagadesh Kumar

Mamidala Jagadesh Kumar is chairman, UGC, and former vice-chancellor, JNU. The views expressed are personal

Ridding campuses of caste discrimination

The Supreme Court's directive asking the UGC to notify within six weeks new regulations to fight caste-based discrimination and suicides in higher education institutions (HEIs) has come not a moment too soon. Since the tragic suicide of the University of Hyderabad doctoral student Rohith Vemula amid allegations of caste-based bias by university authorities in January 2016, it has been clear that despite their lofty goals, India's premier campuses are riven by persistent discriminatory attitudes that hurt young students from marginalised communities. At a time when people from diverse backgrounds are entering universities in numbers larger than ever before, the bias hurts not just individual but collective and national progress.

Over the past few decades, HEIs have grown in number and stature, and the importance of a higher-education degree has zoomed. Unfortunately, this expansion has not prompted an expulsion of discriminatory attitudes among a section of the student group, professors and administration staff. Students from poorer families, marginalised castes and first-generation learner backgrounds often find it difficult to survive on campuses — not only because they fail to get adequate help but also due to hostility. The death of medical student Payal Tadvi in 2019 due to caste-based bullying in a Maharashtra medical college was evidence that bias can't be removed by short-term responses or stop-gap solutions.

Can the regulations work? A lot will depend on systematic and thoughtful implementation. The top court is right in stressing that the rules must be more than symbolic gestures and also in asserting that the judges would scrutinise the practical effectiveness of rules that the UGC started drafting in 2023 but has not yet put into action. It was only fitting that the mothers of Vemula and Tadvi were the main petitioners in the case. The least our education system can ensure is their tragedies are not repeated.

BEHIND JOBS DATA

Minister Mandaviya has flagged overall improvements. But they don't tell the whole employment story

LAST WEEK UNION Labour Minister Mansukh Mandaviya sought to highlight the NDA government's job creation, drawing a comparison with the record on employment of the Congress-led UPA government. The total number of employed people in India increased from 47 crore in 2014-15 to 64 crore by the end of 2023-24, the minister said. That's an increase of 17 crore (or 36 per cent) — far in excess of the 2.9 crore new jobs (signifying an increase of just 7 per cent) during the preceding decade, 2004 to 2014, under UPA rule. He underlined that since 2017-18, the unemployment rate has fallen while the employment rate (or worker population ratio or WPR) as well as labour force participation rate have risen steadily. Minister Mandaviya has flagged overall improvements, and yet there are persisting reasons for disquiet.

It is true that India had more people with jobs in the decade 2014-2024 than between 2004-2014. But since absolute numbers must be read against total population size, it is best to look at the employment rate or WPR; the WPR for 15 years and above in this case is the percentage of people employed as a proportion of the total population. Here's how India's WPR moved over the past two decades: It was 62.2 per cent in 2004-05, which was the first full year under UPA rule. Since then, despite unprecedented rates of GDP growth, it fell to 55.9 per cent in 2009-10 and 54.7 per cent in 2011-12. The WPR continued to fall well into the first four years of the decade under the NDA to hit a low of 46.8 per cent in 2017-18. It is from this low level that the WPR started its steady upward climb and by the end of 2023-24 (July to June year), rose to 58.2 per cent. In other words, the dip and recovery in employment rate does not follow the neat political divide. Similarly, data on the labour force participation rate also shows a secular decline from 63.7 per cent in 2004-05 to 49.8 per cent in 2017-18, reversing the trend thereafter. Data on the unemployment rate (defined as the percentage of persons unemployed among persons in the labour force) shows that it actually fell between 2004-05 and 2011-12 before rising to a 45-year high in 2017-18.

Most notably, perhaps, the recent improvement in India's labour statistics hides the poor quality of the new jobs being created in the economy. For instance, the minister highlighted the fact that employment in India's agriculture sector had declined by 16 per cent between 2004 to 2014 under the UPA whereas it had grown by 19 per cent between 2014-2023 in Prime Minister Narendra Modi's first two terms. The increase in farm employment should be seen as a backward step — a move away from the structural transformation India has been trying to achieve since Independence. Similarly, the fact that most of the new jobs are in the low-paying "self-employment" category — especially as "unpaid helpers in household enterprises" — actually suggests deepening economic distress.

Teachings that transcend time and geography

NARAYANAN KIZHUMUNDAYUR

Swami Vivekananda, one of India's foremost spiritual leaders, left an indelible mark on humanity through his profound teachings and vision for a better world. His ideas, rooted in ancient Indian wisdom, remain highly relevant in the modern era, offering solutions to the challenges of the 21st century. From personal development to societal transformation, his teachings continue to inspire individuals and guide nations toward progress and harmony.

In a world increasingly divided by religious, cultural, and ideological differences, Vivekananda's call for universal brotherhood and interfaith harmony serves as a beacon of hope. At the 1893 Parliament of the World's Religions in Chicago, his groundbreaking address emphasized the unity of all religions and the need for mutual respect. He asserted that all paths lead to the same divine truth, urging humanity to rise above petty sectarianism. His proclamation, "We believe not only in universal toleration but we accept all religions as true," remains a clarion call for global harmony. Today, as conflicts fuelled by intolerance persist, his message underscores the importance of dialogue, understanding, and coexistence among diverse communities. His vision challenges individuals and societies to embrace diversity and build bridges of compassion and understanding.

Swami Vivekananda regarded youth as the backbone of a nation's progress. He believed in the immense potential of young minds and urged them to cultivate self-confidence, discipline, and a sense of purpose. His famous exhortation, "Arise, awake, and stop not till the goal is reached," continues to resonate with young people striving for excellence in various fields. He envisioned the youth as torchbearers of change, capable of transforming society through their energy, idealism, and innovation. In an age marked by distractions and uncertainties, his teachings inspire the youth to harness their energy constructively and contribute meaningfully to society. His emphasis on moral courage and ethical behavior further equips young people to address the challenges of modernity with integrity and resilience.

Vivekananda's vision of education extended beyond mere academic learning. He advocated for a holistic approach that nurtures character, moral values, and the spirit of inquiry. According to him, "Education is the manifestation of the perfection already in man." He emphasized that true education empowers individuals to face life's challenges with courage and wisdom. In the modern scenario, where education often prioritizes rote learning and material success, his perspective encourages a balanced system that fosters intellectual, emotional, and spiritual growth. His call for blending ancient wisdom with modern knowledge provides a framework for creating an education system that not only imparts skills but also instils values such as empathy, perseverance, and self-awareness. By aligning education with the holistic development of individuals, his teachings lay the groundwork for a society that values both competence and compassion.

In the fast-paced modern world, many individuals experience stress, anxiety, and a sense of emptiness despite material success. Vivekananda's teachings on spirituality provide a roadmap for achieving inner peace and fulfilment. He urged people to discover their true selves through meditation, selfless service, and devotion. His philosophy harmonizes spiritual and material pursuits, offering a way to lead a meaningful and balanced life. He reminded humanity of the inherent divinity within each individual, encouraging self-belief and the pursuit of higher ideals. His concept of 'Practical Vedanta,' which advocates applying spiritual principles in daily life, equips people to transcend mundane struggles and achieve a sense of purpose and connection with the universe.

Vivekananda was a staunch advocate for the empowerment of women, recognizing their pivotal role in shaping society. He called for the education and upliftment of women, asserting that no society could progress without their active participation. His profound respect for women's potential is evident in his words. "There is no chance for the welfare of the world unless the condition of women is improved." In today's world, where gender equality remains a pressing issue, his teachings inspire efforts to dismantle patriarchal structures and promote inclusivity. He championed the idea of women as the custodians of culture and morality, urging them to pursue education, independence, and self-realization. His forward-thinking views serve as a guide for fostering a more equitable society where women can contribute fully and freely.

While Swami Vivekananda was a passionate advocate for Indian culture and heritage, he also envisioned a world united by shared values. He encouraged Indians to take pride in their roots while embracing global perspectives. His statement, "Each nation has a message to deliver, a mission to fulfil, a destiny to reach," reflects his belief in the unique contributions of every culture to global progress. This dual vision of nationalism and global citizenship is particularly relevant in the era of globalization, where fostering cultural identity and global collaboration are equally important. His teachings inspire nations to strike a balance between preserving their traditions and participating in the global exchange of ideas and innovations.

"Service to man is service to God," Vivekananda declared, emphasizing the importance of selfless service. His call to alleviate suffering and uplift the marginalized aligns with the principles of modern social justice movements. In an age of growing inequality and environmental crises, his teachings inspire individuals and organizations to work toward a more equitable and sustainable world. He urged humanity to adopt a sense of responsibility toward the less fortunate and to engage in actions that benefit society as a whole. His idea of service transcends charity, advocating for empowerment and systemic change that address the root causes of inequality.

Swami Vivekananda's teachings transcend time and geography, addressing the fundamental issues of human existence. His vision of a harmonious world, empowered individuals, and enlightened societies remains a guiding light in the modern scenario. By embracing his ideals of universal love, self-realization, and selfless service, humanity can navigate the complexities of contemporary life and build a future rooted in peace, progress, and unity. His timeless wisdom invites every individual to rise to their highest potential and work collectively for a world where dignity, compassion, and understanding prevail.

The writer is a Thrissur-based contributor.

छात्रों के साथ अन्याय का सिलसिला

एक पारदर्शी एवं लीक-प्रूफ परीक्षा प्रणाली के अभाव में भारत 2047 तक विकसित राष्ट्र नहीं बन सकता है

डा. तुलसी भारद्वाज

गत दिनों बिहार लोक सेवा आयोग (बीपीएससी) की एकीकृत 70वीं संयुक्त प्रारंभिक प्रतियोगिता परीक्षा में अनियमितता एवं पर्चा लीक के आरोपों के चलते पूरी परीक्षा को रद करने की मांग को लेकर पटना में अभ्यर्थियों का धरना प्रदर्शन जारी है। इस बीच पर्चा लीक आरोपों के कारण पटना के कुछ केंद्रों पर इसकी पुनर्परीक्षा कराई गई है। गौरतलब है कि बीपीएससी की प्रारंभिक परीक्षा के दौरान एक बड़े परीक्षा केंद्र पर गड़बड़ी एवं पर्चा लीक होने के आरोपों को प्रशासन ने स्वीकारा था। अभ्यर्थियों की दलील है कि एक केंद्र पर पर्चा लीक होने के चलते पूरी परीक्षा पर इसका असर हुआ होगा। इसलिए इस पूरी परीक्षा को रद करके बीपीएससी को दोबारा परीक्षा करानी चाहिए, जिससे परीक्षा की पारदर्शिता सुनिश्चित हो सके और मेहनती छात्रों को न्याय मिल सके। बिहार शासन द्वारा छात्रों के आंदोलन का दबाने के लिए किए गए अमानवीय बर्ताव करने के बाद भी अभ्यर्थी पुनः परीक्षा की मांग पर अड़े हुए हैं। इस घटना ने बीते वर्ष में कुछ प्रतियोगी परीक्षाओं में धांधली के आरोपों के चलते छात्रों के हुए उग्र प्रदर्शनों की याद दिला दी है।

पटना में युवाओं को आंदोलन करते हुए दो सप्ताह हो गए हैं, इसके बावजूद इसका किसी परिणाम पर न पहुंच पाना बेहद दुर्भाग्यपूर्ण है। तीन लाख से अधिक अभ्यर्थियों के भविष्य को प्रभावित करने वाली प्रतियोगी परीक्षा के पहले तो पर्चे लीक होना, फिर उस पर शासन का ऐसा कठोर रवैया किसी भी स्वस्थ लोकतंत्र के अनुरूप नहीं है। लालू-राज में हुए जमीन के बदले नौकरी घोटाले की जांच अभी पूरी भी नहीं हो पाई थी कि बीते साल शिक्षक भर्ती, कम्युनिटी हेल्थ अफसर आदि परीक्षाओं में अनियमितता के आरोप लगना शुभ संकेत

नहीं है। देश में प्रतियोगी परीक्षाओं की साख की बात करें तो यह केवल एक राज्य का मसला नहीं है, अपितु केंद्र द्वारा कराई जा रही परीक्षाएं भी धांधली से मुक्त नहीं हैं। हर साल अभ्यर्थियों की बढ़ती संख्या को देखते हुए एक ही समय में एकल मानक के आधार पर लाखों अभ्यर्थियों का सफल मूल्यांकन कर पाना एक बड़ी चुनौती रहती है। ऐसे में नकारात्मक तत्वों द्वारा जानबूझकर एक छोटी सी गड़बड़ी भी एक ही बार में शासन-प्रशासन एवं अभ्यर्थियों के कठोर परिश्रम पर पानी फेर देती है। पकड़े जाने पर भी कठोर कानूनों के अभाव में बहुत अधिक सजा न हो पाने से भर्ती माफिया और साल्वर गैंग पिछले कुछ समय में बहुत तेजी से सक्रिय हो गए हैं। इसके चलते हाल में सरकार ने सुरक्षित परीक्षा प्रणाली के लिए एक सकारात्मक पहल की है। उसने विभिन्न भर्ती परीक्षाओं के पेपर लीक आदि अपराधों में शामिल लोगों को सजा देने के लिए कठोर कानून बनाया है। इसमें दोषियों को आजीवन कारावास की सजा एवं एक करोड़ रुपये के जुर्माने का प्रविधान किया है।

प्रतियोगी परीक्षाओं में धांधली एवं अपारदर्शिता वर्षों से मेहनत कर रहे छात्रों के भविष्य के साथ खिलवाड़ ही नहीं, बल्कि उसके पूरे परिवार के साथ अन्याय है। प्रतिभा

के अनुरूप व्यवसाय न मिल पाने या फिर अधिकतम आयु सीमा पार चुके प्रतिभावान अभ्यर्थियों का उपयुक्त नियोजन न होना प्रतिभा पलायन से कम नहीं है। यह राष्ट्रीय बौद्धिक संपदा के ह्रास का ही एक दूसरा रूप है। फिर इसके परिणामस्वरूप उपजे सामाजिक अन्याय को भी नजरअंदाज नहीं किया जा सकता। यदि निश्चित कसौटी से निम्न स्तर वाले अभ्यर्थियों की नियुक्ति हो जाती है तो कभी भी उस पद से वांछनीय दक्षता, ईमानदारी एवं विश्वसनीयता की उम्मीद नहीं की जा सकती। इसी से समझ सकते हैं कि यह समस्या कितनी गंभीर है, परंतु दुखद यह है कि ऐसे संजीदा मामलों पर भी सकारात्मक सुझाव देने के बजाय लोग अपनी राजनीतिक रोटियां सेंक रहे हैं।

परीक्षाओं को कदाचार मुक्त बनाने में केवल पक्ष-विपक्ष ही नहीं, बल्कि संबंधित प्रशासनिक तंत्र की भी अहम भूमिका को नजरअंदाज नहीं किया जा सकता। इसलिए उनकी भी यह नैतिक जिम्मेदारी बनती है कि जिन माध्यमों से वे स्वयं एक ओहदे तक पहुंचे हैं उनकी साख और गरिमा को बनाए रखने में भूमिका निभाएं। वैसे देखा जाए तो आज तकनीक, परिवहन, इन्फ्रास्ट्रक्चर आदि क्षेत्रों में भारत की सूरत काफी बदल चुकी है। फिर भी देश में परीक्षा प्रणाली का तंत्र इनको अपनाने की दौड़ में अभी बहुत पीछे है। हमें एक लीक-प्रूफ और पारदर्शी परीक्षा प्रणाली विकसित करने के लिए इनका समुचित इस्तेमाल करना चाहिए। एक पारदर्शी एवं लीक-प्रूफ परीक्षा प्रणाली के अभाव में न तो सामाजिक न्याय की परिकल्पना पूर्ण हो सकती है, न ही देश 2047 तक विकसित बन सकता है।

(लेखिका शिक्षाविद् एवं सामाजिक कार्यकर्ता हैं)

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Make Linguistics Great Again, मलगआ

AI has put a new spin on India's foreign language-learning aspirations. Indians have been increasingly moving out of the comfort zone of English as a 'power language' for better opportunities across the world to learn new languages. Now, with growing interest and needs in large language models (LLMs), AI and natural language processing, an area of study long considered esoteric — linguistics — is getting a new STEAM (science, tech, engineering, art and maths) look.

Strong models for languages, not just foreign but also regional Indian languages, will become important as generative AI becomes the norm. The resurgent interest in linguistics is opening opportunities across the spectrum for students, particularly for those seeking their fortunes abroad. It's no longer just the traditional travel and hospitality industries that are seeking people with language skills. Tech companies and any business with a transnational footprint using speech analytics and virtual assistance services have begun to value the gift of the multiple gab.

This means giving renewed emphasis to languages learning Duolingo-style, be it foreign or regional. Improved knowledge of languages and linguistics will help generate more accurate translation. At present, most translation tools convert a language into English and then into the target language, resulting in palpable loss in translation. For students, and even mid-career professionals, this is an opportunity to leverage natural linguistic skills with creativity. This opens a new area of growth that is lucrative and cutting edge. It would make sense to invest in what is a natural advantage for India. 'Make Linguistics Great Again' would allow Indians to play a key role in a global AI-powered future.

A STRONGER STEM

More women in IITs is reason for cheer. It is important to ensure that passage from classroom to workplace remains unhindered

THE INCREASING REPRESENTATION of women in the Indian Institutes of Technology (IITs) marks a pivotal moment in the journey toward greater inclusivity and gender equity in India's premier institutions of higher education. It is also welcome affirmation of the larger and irreversible shift in society that top-down institutional reforms can help make deeper and wider. Data obtained by this newspaper under the Right to Information Act has revealed that six years since the implementation of a supernumerary quota of 20 per cent for women in undergraduate engineering programmes, in which extra seats were created instead of reserving them within the existing pool, IITs are witnessing a significant surge in female students. At IIT-Kanpur, the number of women rose from 908 in 2017 to 2,124 in 2024; IIT-Roorkee saw a 76.36 per cent jump between 2019-20 and 2024. IITs in Chennai, Mumbai, Guwahati and Kharagpur, too, saw commensurate jumps in enrolment.

The upsurge reflects a positive correlation between individual ambition and availability of opportunities that is a result of good-faith affirmative action. Initiated in 2018, the quota in IITs goes beyond numbers in reshaping an academic space that has historically been male-dominated. There have been infrastructure upgrades in the form of more hostels, washrooms and recreational facilities for women. Some campuses have a special open-door policy for female aspirants and their parents to learn about campus life. These are all welcome departures from a masculine imagination of the classroom where women were expected to man up or ship out, where safeguards against everyday sexism were few and far between. The change challenges the old narrative that STEM is a field for men, and signals a future where women's voices, ideas, and innovations will be indispensable in shaping the country's intellectual and technological future. Given that of the total enrolled students in engineering and technology — according to the All India Survey on Higher Education (AISHE) for 2021-22 — women still comprise only 11.3 lakh, while 27.6 lakh are men in the undergraduate programmes, it is crucial to bridge the gap.

But as with medicine, where for every 100 men there were 100 women enrolled in medical colleges in India in 2020-21, the increased presence of women in IITs can only be counted as a job well begun. It underscores the need for greater systemic support to ensure that the progress of women does not stall, that the passage from classroom to workplace remains unhindered. The focus must now shift to ensuring that the IITs continue to create an environment where women can thrive free from biases, and are equipped with all the support and resources they need to succeed. The India Human Development Survey, by the University of Maryland and the National Council of Applied Economic Research, that has tracked changes in the lives of Indian households between 2004 and 2024, shows that despite ongoing transformations in their lives, one area where women continue to be let down is in terms of economic opportunities. With more women poised to enter the workforce, it is time to ensure that gender-neutral policies, mentorship, and a culture of inclusivity allow them to realise their potential more fully.

How not to criticise Nehru

Certainly, he could have done more in primary education. But he did quicken a moribund economy, a historic achievement

PULAPRE BALAKRISHNAN

IT IS A measure of India's rising confidence that there is now a critical gaze upon all aspects of our past and present. One area that has received attention recently is the performance of the economy in early independent India, and Jawaharlal Nehru's role in it. Into the 21st century, we are in a good place to examine these, for three reasons. We have the quantitative methods that allow us to identify turning points in economic history without resorting to judgement; we have the theoretical models that help us understand how an economy grows; and we have the experience of the rest of Asia to compare our own past policies and achievements with.

For Nehru, the single-most important goal of economic policy was to increase the level of income, which was unacceptably low for the overwhelming majority of Indians. This is evident in the statement he made in parliament in May 1956 when the main vehicle of the Nehru-Mahalanobis strategy for development, the Second Five-Year Plan, was launched. He said "The whole philosophy... is to take advantage of every possible way of growth and not to do something which suits some doctrinaire theory or imagine we have grown because we have satisfied some text-book maxim of a hundred years ago." It would be difficult to detect ideology in this; actually, it is not only pragmatic but cautioned against taking an ideological approach to the economy. And what was the impact of Nehru's stated objective? In one sphere at least, it was nothing short of remarkable.

From the work of S Sivasubramonian, an early student of India's national income accounts, we find that the average annual rate of growth in Nehru's time was 4 per cent as opposed to less than 1 per cent in the last half-century of the British Raj. This is lower than the approximately 6 per cent growth achieved in the last decade, but the performance should be seen in perspective. It would be naïve to imagine that an economy can leapfrog from 1 to 6 per cent without traversing the intermediate growth phase, especially when emerging from two centuries of exploitation by an external power. For an international comparison — in Nehru's time, India grew slower than Korea but faster than China.

What about the economy's performance during 1950 to 1965 has received particular criticism? The allegations are first, that agriculture was neglected in the craze for industrialisation. Second, that the public sector was a blackhole, sucking the nation's savings without yielding any returns. Third, that the licensing of private investment repressed the private sector.

Sivasubramonian's data shows that agriculture was the sector that performed the best during Nehru's time, leading the transition to a permanently higher growth path. To understand this, it would be useful to recognise that agricultural production benefits from industrial inputs and the spread of publicly-provided infrastructure. Public policy towards agriculture itself was forward-looking, seen in the invitation to the world's leading agricultural scientist Norman Borlaug to visit India in 1963. The Green Revolution followed soon after.

I turn now to the performance of the public sector. Most interestingly, the savings of the public sector grew faster than that of the private corporate sector, both of which drew upon savings of the household sector. This record of the public sector need not surprise. The planner Prasanta Chandra Mahalanobis had actually imagined public enterprises as a potential source of revenue to step-up public investment. Their subsequent degeneration is entirely due to the dispensation that followed Nehru, which succeeded in turning them into welfarist traps.

Finally, on the alleged repression of the private sector due to controls. Going by their investment record, the private corporate sector, taken as a whole, flourished under Nehru. The private corporate investment rate surged, growing at least as much as that of the public sector. Again, this need not surprise at all. While a certain narrow understanding of the "market" views it purely as an institution for exchange, the original economists saw it as the aggregate demand for goods. Thus, in the 1950s, as public investment stepped-up, it expanded the market for the private sector which could now meet demand for their products that may not have arisen otherwise. (The data referred to here are presented in my book, *India's Economy from Nehru to Modi: A Brief History*).

So, was economic policy under Nehru optimal? Far from it. There were errors of commission and omission. As an economist, I am perplexed most by the absence then of a mission-mode approach to spreading primary education, and getting older children, especially girls, into school given the abysmally low literacy rate in 1947. If there is one feature that distinguishes India from East Asia which has been far more successful in raising income levels and ending poverty, it is schooling. It is not as if alarm bells had not been rung early. Bombay University's B V Krishnamurti had pointed to the meagre outlays on education the very moment the second five-year plan was launched in 1956. Later, Amartya Sen in the 1960s and the educationist J P Naik in the 1970s flagged this continuing neglect. What is troubling about it is the visible class bias. It left the vast majority of Indians without the human capital to raise their productivity and the freedom to pursue the life they value. This is a monumental democratic deficit to contemplate. For sure, Nehru could have done more here, but he did quicken a moribund economy, a historic achievement without which there could not have been much human development anyway.

The writer is honorary visiting professor, Centre for Development Studies, Thiruvananthapuram

E-student visa initiative

Special visa categories for international students would make it easier for them to pursue their education in India

India has taken a significant step to attract international students by introducing two special visa categories: the e-student visa and the e-student-x visa. This initiative not only streamlines the process for students seeking education in India but also demonstrates the country's commitment to becoming a global hub for higher education. The e-student visa is designed specifically for foreign learners registered on the "Study in India" portal. This platform facilitates admissions for international students into a variety of Indian institutions offering long-term and short-term courses. The e-student-x visa, on the other hand, caters to dependents of these students, ensuring families can stay together during their academic journey. To apply for these visas, students need to secure admission to a partner institution listed on the 'Study in India' portal. Once the admission is confirmed, they can use their 'study in India' identification number to authenticate their identity and complete the visa application process at the official portal. These visas are valid for up to five years, depending on the duration of the chosen course.

By welcoming a diverse cohort of international students, Indian universities can elevate their global reputation, fostering cultural exchange and enhancing their academic standing on the world stage. Increased enrollment of international students contributes to revenue generation, which can be reinvested in research, infrastructure, and faculty development. The influx of students from different countries enriches the campus environment, promoting global perspectives and intercultural dialogue. With a range of courses across disciplines, international students can find programmes tailored to their interests and career aspirations. Studying in India provides an unparalleled opportunity to experience its rich cultural heritage, traditions and diversity. Globally, countries like the US and the UK have long-established student visa frameworks that have attracted millions of international learners. The US for example offers the F-1 visa for academic students and the M-1 visa for vocational or technical students. These visas allow students to work part-time on campus and participate in Optional Practical Training (OPT) programmes, enabling them to gain work experience in their field of study. The UK's Tier 4 student visa permits full-time study and part-time work during term time. Post-study work options, such as the Graduate Route, allow students to stay and work in the UK for two years after graduation. India's introduction of specialised student visa categories is a strategic move to position itself as a global education hub. By simplifying the visa process, the country is poised to attract a significant number of international students. With affordable fee structure, India can attract good number of students from across the world. However, a lot more needs to be done in terms of quality of education and infrastructure. University campuses that are foreign student friendly will go a long way in making India an international education hub.

Turning Canada's crisis into India's opportunity

DINESH **SOOD**

India holds the potential to become a global talent powerhouse by addressing skill gaps and aligning training programs with international demands

> WHILE INDIA'S YOUTH ARE AMBITIOUS AND EAGER, MANY LACK ACCESS TO INDUSTRY-RELEVANT SKILLS AND TRAINING. BRIDGING THIS SKILLS GAP IS CRUCIAL FOR ENSURING EMPLOYABILITY AND DRIVING ECONOMIC GROWTH

For years, Canada has been a top destination for Indians, especially Punjabis, seeking quality education and better employment opportunities. However, as Canada grapples with various socio-economic challenges, the situation has created a ripple effect with unforeseen opportunities for India. While the crisis in Canada poses significant concerns, it also presents a moment for introspection and action for India's young workforce. India stands at a unique vantage point, with its burgeoning youth population and a growing demand for skilled workers across key sectors like IT, hospitality, transportation, beauty and wellness, and retail.

The current global workforce shortages highlight India's potential to bridge these gaps while empowering its workforce to meet domestic and international demands. With over 65 per cent of its population under 35, India boasts one of the world's youngest and most vibrant workforces.

This demographic advantage positions the country as a potential global talent hub. However, the critical challenge lies in transforming this potential into a skilled, job-ready workforce. While India's youth are ambitious and eager, many lack access to industry-relevant skills and training. Bridging this skills gap is crucial for ensuring employability and driving economic growth. Canada's challenges serve as a wake-up call for India to accelerate its focus on skill development, especially in sectors that align with global demand.

Global Demand Beyond Canada
While Canada's crisis has brought attention to the workforce, opportunities extend far beyond North America. Countries in Europe, as well as South Asian nations like Taiwan and Vietnam, are also facing workforce gaps and require skilled, hardworking individuals. With its demographic advantage and growing focus on skill development, India is well-positioned to fill these gaps. By aligning training programs with the specific needs of these markets, India can cement its reputation as a global supplier of talent. Bridging the Skills Gap with Policy Support India has already made strides in skill development through initiatives like Skill India, Digital India, and the National Skill Development Mission. However, these efforts must be scaled and aligned with global standards to capitalise on emerging opportunities, and the private sector truly should be able to design certification programmes that meet international benchmarks. Hands-on training, internships, and industry-specific curricula ensure that Indian workers are both employable and competitive globally. Equitable access to skill development programmes is critical. Government subsidies, partnerships with educational institutions, and digital learning platforms can make high-quality training accessible even in rural areas. Technology can be a game-changer in India's skill development journey. Online learning platforms, virtual reality simulations, and AI-driven personalised training modules can revolutionise how skills are imparted.

These tools make training accessible to even the country's remotest corners, enabling millions to participate in the economic mainstream. Skill development should focus on employment and fostering entrepreneurship. For instance, a trained beauty and wellness professional could start a salon, or a logistics expert could launch a delivery service. With mentorship and financial support, such ventures can create jobs and spur regional economic growth.

Key Sectors with Growing Opportunities

1. Information Technology (IT): India's IT sector is already a global leader, but the rapid advancements in artificial intelligence, cloud computing, and cyber security require a highly skilled workforce. As digital transformation reshapes industries worldwide, there is a pressing need for talent proficient in emerging technologies. Training programmes should focus on data analytics, AI applications, and cyber security protocols to meet global standards.

2. Hospitality and Tourism: With increasing international and domestic travel, the hospitality and tourism sectors demand professionals with strong soft skills, cultural competence, and customer service excellence. Vocational training in these areas, coupled with language enhancement programs, can help Indian youth secure lucrative positions both at home and abroad.

3. Transportation and Logistics: The transportation industry is a vital economic pillar, requiring skilled personnel for logistics management, safety protocols, and infrastructure operations. By offering targeted training in these areas, India can create a workforce ready to address the growing demand in this sector.

4. Beauty and Wellness: Often overlooked, the beauty and wellness industry has witnessed exponential growth globally. This sector offers immense opportunities, from cosmetology to spa therapies and holistic wellness. By blending traditional Indian practices with modern techniques, India can produce skilled professionals catering to diverse cultural needs worldwide.

5. Retail: The rise of e-commerce and the evolution of traditional retail have created a demand for skilled workers in inventory management, customer relations, and digital marketing. Training programmes focused on these areas can help India's youth tap into this dynamic sector.

A Collaborative Effort Capitalising on these opportunities requires a coordinated effort between the government, private sector, and educational institutions. Policies should focus on creating industry partnerships, providing financial incentives for skill development, and ensuring that training programs are aligned with market demands.

At the same time, private enterprises must invest in upskilling initiatives and collaborate with training institutes to design job-ready curricula. International partnerships can also be vital in providing Indian workers with exposure to global best practices.

Seizing the Moment India's youth stand at the cusp of a transformative moment. By equipping them with the right skills, the nation can address unemployment, meet global workforce demands, and drive economic growth. The current challenges faced by countries like Canada remind us of the interconnectedness of global economies and the opportunities that lie within crises. This is an opportunity for India to fill workforce shortages in other nations and elevate its standing as a global talent powerhouse. By focusing on skill development today, India can ensure a brighter, more prosperous tomorrow for its young generation and the nation.

As the world navigates economic uncertainties, it is not the crises that define us but how we respond to them. This is a moment for India to turn challenges into opportunities and empower its youth to shine within the country and on the global stage.

(The writer is co-founder and MD of Orane International, a training partner of the National Skill Development Corporation (NSDC) and a network Member of India International Skills Centres, an initiative of GoI. The views expressed are personal)

नवभारत टाइम्स

नवभारत टाइम्स । नई दिल्ली। मंगलवार, 7 जनवरी 2025

शानदार मिसाल

देश के IITs में लड़कियों के लिए रिजर्वेशन की व्यवस्था वहां जिस तरह के बदलाव ला रही है, वे चौंकाने वाले हैं। RTI आवेदन के जरिए निकाली गई सूचनाओं के मुताबिक पिछले छह वर्षों में हुए बदलावों से ये संस्थान अब अलग ही नजर आने लगे हैं।

धक्के ने बढ़ाई रफ्तार | जैसे बंद पड़ी गाड़ी हलके से धक्के से स्टार्ट होकर रफ्तार पकड़ लेती है, कुछ उसी तरह रिजर्वेशन के इस धक्के के बाद IITs में बदलाव की प्रक्रिया रफ्तार पकड़ने लगी। ज्यादातर IITs ने 2018-19 में 14% रिजर्वेशन के साथ इस दिशा में कदम बढ़ाए थे। लेकिन 2019-20 में ही यह बढ़कर 19% और 2020-21 तक ज्यादातर संस्थानों में 20% तक पहुंच गया। 2017 के मुकाबले 2024 में IIT कानपुर में लड़कियों की संख्या 133% बढ़ी।

IITs में महिला रिजर्वेशन

IIT रुड़की में यह इजाफा 76.36% रहा। अन्य IITs में भी बढ़ोतरी इसके आसपास ही रही। दिल्ली और बॉम्बे IIT में जरूर 20% लड़कियों की सीमा रिजर्वेशन की यह व्यवस्था लागू होने से पहले ही हासिल की जा चुकी थी।

बदलते पैटर्न | सबसे बड़ी बात, लड़कियों की बढ़ती संख्या ने इन संस्थानों के अंदर स्टूडेंट्स और टीचर्स के व्यवहार में ही नहीं, प्रशासन के नजरिए में भी बदलाव सुनिश्चित किए। न केवल गर्ल्स हॉस्टल्स और लेडीज वॉशरूम की संख्या बढ़ी बल्कि गर्ल्स हॉस्टल्स के लोकेशन भी बदले गए। पहले गर्ल्स हॉस्टल कैंपस के किसी कोने में होते थे, लेकिन बाद के दिनों में ये एक्टिविटी सेंटर के करीब लाए गए। कैंपसों के स्पोर्ट्स कल्चर में भी बदलाव आया।

जेंडर सेंसिटाइजेशन | खास तौर पर जेंडर सेंसिटाइजेशन बढ़ा। देखा गया कि रैगिंग या सेक्शुअल हैरासमेंट के मामले आने पर लड़कियों की ही गलती बताने की प्रवृत्ति कम हो रही है। इसमें दो राय नहीं कि समाज की तरह इन संस्थानों में भी अभी काफी कुछ किया जाना है, लेकिन बदलावों के ये उदाहरण बेहतरीन मिसाल तो पेश करते ही हैं।

IN PERSPECTIVE

United state of antipathy

The Right and Left converge in opposition to H-1B. Can the US afford to listen?

ALOK RAY

A controversy on H-1B visa holders (of which the major chunk are Indians) taking away American jobs is raging in the US. This is bothering educated Americans more than the illegal immigrants from Latin America (who take up mostly unskilled, low-paying jobs), though the number of undocumented immigrants entering the US each year is many times more than the legal H-1B workers. The political opinions of both the extreme right and the radical left are converging to the same conclusion.

However, this sentiment of Indians taking away well-paying American jobs is nothing new. In the early 2000s, I was teaching at a US university as a visiting professor. At the end of the course, when students fill out the course evaluation form, an American student wrote: "After outsourcing jobs to India, our university has now started importing cheap professors from India. This must stop in the interest of protecting our jobs." The student knew that I would read the evaluations. Yet, his dislike of Indian-imported "cheap" professors was so intense that he took the risk of stating his opinion.

A major plank of the Trump campaign was that, if elected, he would deport millions of illegal immigrants. Nothing was said about legal H-1B workers. Elon Musk who enjoys enormous influence in the present Trump administration is himself a beneficiary of the H-1B visa and a strong advocate of the H-1B path to citizenship. But the extreme right in the Republican camp, represented by Steve Bannon (an influential Trump advisor in his earlier Presidency who has since fallen out of favour) and followers argues that H-1B should be a guest worker programme (like for Mexican workers) and should not provide a pathway to citizenship.

H-1B supporters would mention names of people like Elon Musk (a South African), Sundar Pichai and Satya Nadella (both Indians) as examples of the "best and the brightest" who have become CEOs of top US companies and tech startups, creating jobs for Americans and helping the US retain its technological leadership, after getting citizenship through the H-1B route. The extreme right-wing opponents would point to thousands of "diploma holders", cooks and housekeepers who have also used the H-1B route to become US citizens and are certainly not the "best and the brightest".

On the left, leaders like Bernie Sanders have openly joined the opposition to the programme, arguing that it provides US capitalists the opportunity to import cheap foreign labour and depress US wages which increases their profit and worsens the income and wealth distribution.

Moving jobs to India

What the opponents of the H-1B programme do not realise is that in its absence, American companies would be forced to shift a much larger part of their operations to countries like India to make use of the huge pool of high-quality engineers, scientists, and finance experts available at lower wages. The process has already started with many well-known US tech and finance companies opening GCCs (Global Capability Centres) in India doing research, design, and innovation instead of outsourcing simple, low-value jobs to Indian companies as was the earlier practice. If high-skilled Indians are not allowed to be US citizens by following the H-1B route, this process will be strengthened many times, shifting high-paying jobs from America to India. It would be a loss for the US and a corresponding gain for India. Similarly, if Indian doctors are not allowed to migrate to the US (or the UK for that matter), US hospitals (and the NHS in the UK) would face a crisis.

In some cases (especially in social media posts), the opposition to Indian H-1B workers is taking a racist colour with mention of the "curry smell", and with Musk's picture painted in black to make him 'look' like an Indian. This, probably, comes from the resentment of white American supremacists over the increasing influence of Indian-Americans in the 'corridors of power' in the present Trump administration—like billionaire Vivek Ramaswamy in charge (along with Musk) of the high-profile Department of Government Efficiency (DOGE), Tulsi Gabbard as Director of National Intelligence (which oversees FBI, CIA, NSA), "Kash" Patel as FBI Director, Sriram Krishnan as AI advisor to the President, and many elected Indian-American governors, senators and House representatives. The Indian-American community in the US is also the ethnic community with the highest median per capita income.

The irony, of course, is that all Americans were immigrants at some point. But once someone becomes a citizen, he or she takes an anti-immigrant position, to prevent competition.

(The writer is a former professor of economics, IIM, Calcutta, and Cornell University, US)

Number of schools up but enrolment drops

The Union Education Ministry's latest data from the Unified District Information System for Education Plus (UDISE+) present a challenging picture of education in the country in its various aspects. They reveal gaps and problems on various fronts, including enrolment, retention of students, infrastructure, and other facilities. There is a decline in the enrolment of students from 251.7 million in 2022-23 to 248 million in 2023-24. A decline of 3.7 million, which amounts to 1.47%, is a matter of serious concern. The decline has been seen across gender groups and social categories. This happened when the number of schools increased in this period by over 5,000, from 1.466 million to 1.471 million. The Gross Enrolment Ratio (GER) is about 95% at the preparatory level, but it gets worse at higher levels. According to the report, there is no dropout at the foundational level (pre-primary to Class 2), but it increases at later stages and is maximum at the secondary level. Bihar, Uttar Pradesh, and Maharashtra have seen the highest drop in enrolments.

The report reveals several gaps and deficiencies in the case of infrastructure. Though most schools have basic facilities like electricity and gender-specific toilets, many advanced amenities are either absent or inadequate. Functional computers are available in only 57% of schools, Internet access is present in over 53%, and ramps with handrails are available in just 52% of institutions. Computers and the Internet have become basic facilities now, and they should be made available in all schools. The data also show that while many schools are underutilised, in some states there is a shortage of them. The schooling picture varies from state to state. According to the report, the dropout rate in Karnataka increased in 2023-24: 1.7 at the primary level, 2.7 at the upper primary level, and 22.09 at the secondary level.

> UDISE+ report points to poor allocation and poorer utilisation of funds

Backwardness of some regions, poor socio-economic status of many families, migration of parents, and lack of facilities in schools are among the reasons for the low enrolment rate. The National Education Policy 2020, the Sarva Shiksha Abhiyan, and the Right to Education Act have all aimed at universalising education, but even now there are serious deficiencies in infrastructure and the quality of education provided in schools. The country's spending on education in the last few years is in the range of 4-4.6%. It is not low in comparison with many countries. But the problem highlighted by the report shows that the spending on school education should be better utilised or even increased. There are many other countries that make higher allocations for education.

Why is there a drop in school enrolments?

What does the data from the Unified District Information System for Education Plus reports tell us about student dropouts and school reduction? Why has the Ministry of Education said that 2022-23, 2023-24 UDISE+ report data is not strictly comparable with the years before it?

EXPLAINER

Maitri Porecha

The story so far:

The total enrolment of students in schools across India studying from grade 1-12, dropped by over a crore in 2023-24 as compared to 2018-19. After a gap of two years, the Ministry of Education (MoE) released the Unified District Information System for Education Plus (UDISE+) for 2022-23, 2023-24 on December 30, 2024.

What do the figures say?

Since 2012-13, when the MoE started maintaining UDISE+ data, it was believed that the total number of students studying in India were 26.3 crore. Till November 22, 2022 when the 2021-22 data was released, the number hovered around 26 crore, until last month, when the 2022-23 data reflected enrolment at 25.18 crore, which has further fallen to 24.8 crore in 2023-24 (a drop of 6% or 1.22 crore students) as compared to earlier years.

How did such a drop happen?

MoE officials in the UDISE+ reports have given a disclaimer that the UDISE+ reports of 2022-23 and 2023-24 are not strictly comparable to previous years reports because of a change in the 'methodology,' of data collection. However, former professor and HOD, Department of Educational Management Information System at Delhi-based NIEPA, Arun Mehta, said that the UDISE+ reports are silent on the sharp dip in total enrolment of students, and the dip in government schools. "The reports do not explain the reasons behind the dip. Only change in methodology of data collection is not reason enough," said Prof. Mehta, who has worked on UDISE reports for 15 years.

What is the change in methodology?

While the MoE claims that the exercise of individual data collection from each student, which includes their Aadhaar

Low numbers: Students go for school during a cold morning in Srinagar in November 2024. IMRAN NISSAR

number, was implemented from 2022-23, Prof. Mehta said that a similar exercise was initiated in 2016-17 and went on for a year. "We had anticipated even back then that there was no way of verifying data that was sent by schools regarding the number of students studying in their facilities, and so for one year NIEPA had attempted to collect individual student data with consent from the MoE. However, over subsequent years this exercise was discontinued and restarted only in 2022-23."

Prof. Mehta explains that the enrolment decline since 2022-23 can be attributed to the elimination of duplicate enrolments (of students changing schools, but their records being maintained at two or more places), inflated enrolment figures and so on. "The new data collection system suggests that previous

enrolment figures were overestimated by 5-6%. So what happened to these students who no longer reflect in UDISE data? Were they previously included for funding or incentive purpose like scholarships, free meals, text books and cash benefits? If so much how much funding was allocated to these students and was it effectively utilised?," he asks.

For instance, in 2022-23, ₹32,515 crore (actual) was incurred under the Samagra Shiksha scheme, during the time when enrolment dropped (the latest figure reveals). In the current financial year of 2024-25, the allocation under the scheme is higher at ₹37,010 crore.

How comparable is UDISE+ data of last years with 2022-23, 2023-24 data?

While the MoE cautions that UDISE 2022-23 and 2023-24 data is not

comparable with previous years, upon reviewing the UDISE+ 2022-23 report, Prof. Mehta noted that efficiency indicators like dropout, transition, and retention rates of students were computed depending on UDISE+ 2021-22 data. "Despite differences in data collection methodology, indicators, rates, and ratios remain comparable as this reflects the situation at a specific point of time, regardless of the methodology used," he says. Even after revamped data collection methods were put in place, there has been a decline in the enrolment of students between 2022-23 and 2023-24 by 37 lakh. "The UDISE+ report is silent on this steep decline, nor is there an explanation for declining number of schools covered under UDISE+; whether this decline of schools is due to merging or closing down of schools is not clear," Prof. Mehta says. There is also a stark decrease in the number of schools covered under UDISE+. There was a drop in the number of schools covered – from 15, 58, 903 (2017-18) to 14,71,891 (2023-24), a decline of 87,012 schools. Most of these schools are government-run, with 76,883 lesser schools recorded in the latest 2023-24 data. "MoE must furnish reasons for the decline of schools. Was this due to the shutting down and merger of schools? and while shutting down schools, were the Right to Education norms of having one primary school within a kilometre followed?," Prof. Mehta said.

Which States are the most affected?

Jammu and Kashmir experienced the most decline in total schools, with a decline of 4,509 schools, while in Assam 4,229 schools reduced, and in Uttar Pradesh 2,967. Other affected States are Madhya Pradesh (2,170) and Maharashtra (1,368). "With the shutting down of schools, parents seek re-admission of their children to another nearby school. It is not an automatic transfer. Students drop out during this process, where parents are not comfortable seeking re-admission because of longer distances," said Prof. Mehta.

THE GIST

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MoE officials in the UDISE+ reports have given a disclaimer that the UDISE+ reports of 2022-23 and 2023-24 are not strictly comparable to previous years reports because of a change in the 'methodology,' of data collection.

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Till November 22, 2022 when the 2021-22 data was released, the number hovered around 26 crore, until last month, when the 2022-23 data reflected enrolment at 25.18 crore, which has further fallen to 24.8 crore in 2023-24.

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Let's trust our universities

UGC draft regulations 2025, though welcome, uphold a top-down model in selection of VCs

FAIZAN MUSTAFA

"TODAY, ALBERT EINSTEIN cannot be appointed as the Vice Chancellor [VC] of any University (at least in India) unless he fulfils the qualifications prescribed by University Grants Commission", observed Madras High Court in *Kalyani Mathivanan* (2015). The Indian higher education sector is overregulated and grossly underfunded. The New Education Policy (NEP) and the draft regulations titled "University Grants Commission (Minimum Qualifications for Appointment and Promotion of Teachers and Academic Staff in Universities and Colleges and Measures for Maintenance of Standards in Higher Education) Regulations, 2025" at least promise to bring in flexibility though the tighter governmental control has still been retained.

If Oxford University could appoint John Hood in 2005, who was a businessman and not a distinguished academic, why should Indian universities restrict their choice only to academicians? Our universities need a versatile leader, not just a teacher. VCs, the heads and most visible symbols of the university system are to be appointed strictly in accordance with the UGC regulations. Not surprisingly expediency and not merit at times decide the choice. Congress governments generally preferred left-leaning VCs and current dispensations naturally opt for the other extreme.

The VC as the head of the university is expected to function as a "bridge" between the administrative and the academic wings. The qualifications of VC for the first time were laid down by UGC in 2010. As per the 2018 UGC regulations, the VC should be a "distinguished academician, with a minimum of 10 years of experience as professor in a university system or 10 years of experience in an equivalent position in a reputed research and/or academic administrative organisation". Most VCs in India are academicians, yet not a single university finds a place in the world's top 100 universities. We need to make distinguished people of all fields eligible to become VCs.

This is the welcome change that the new UGC regulations have proposed by making non-professors eligible for the coveted post. In addition to professors, any distinguished person at a senior level in industry, public administration, public policy and/or public sector undertakings with a proven track record

The government plays a crucial role in the appointment of the VCs and the autonomy of the university is given scant regard. VCs in central universities are appointed by the President of India, the ex-officio visitor of all central universities, who generally acts on the advice of the Centre. However, according to the SC judgment in Dr Premachandran Keezhoth (2023), he acts purely as a statutory authority under a particular university Act and not as constitutional head of state. In state universities, appointments are made by the governor rarely on his own except in Opposition-ruled states.

of significant academic or scholarly contribution would now be eligible.

As a member of some 11 search committees, I faced the huge and difficult task of shortlisting candidates for the interaction from the hundreds of applicants. While the idea of inviting applications for such senior positions through newspaper advertisement brings more transparency and to some extent reduces the role of godfathers, it allows all and sundry to apply. The better option is to invite nominations from the current and former VCs, public intellectuals, judges and leading professors. They must be asked to write why they consider a particular person most suitable for that university. They should also give their assessment of the nominee in terms of his leadership qualities, "belief in teamwork", "pluralism", and "strong alignment to constitutional values" as these qualities are now part of the prescribed qualifications for the post. One quality that we do not consider important is humility. A good VC should not be arrogant but humble. Unfortunately, humility is an underrated leadership virtue.

True, several commissions had made recommendations on this issue. The Kothari Commission (1964) said that "a vice-chancellor should be a person with vision and (have) qualities of academic leadership with ability for administration. He should command high respect among all sections of the society. The vice-chancellor should be a distinguished academic... (who) has commitment to the values for which the universities stand... He must have the ability to provide leadership to the university by his academic worth, administrative competence and moral stature." But is such a paragon found only amongst teachers?

Our country has seen some prominent civil servants leading the universities from the front. G Parthasarathy, a diplomat, was a successful VC of Jawaharlal Nehru University. So was K R Narayanan who eventually became the President of India. Former vice-president Mohd Hamid Ansari too was a hugely successful VC of Aligarh Muslim University. In fact, some of AMU's most successful VCs have been bureaucrats such as Badruddin Tyabji, Syed Hamid, Syed Hashim Ali, Mehmoodur Rehman and Naseem Ahmad. General M A Zaki in Jamia Millia Islamia and General Z U

Shah in AMU had good tenures. In civil services, we do have lateral entry now and professors too should be given high administrative positions in the government.

The government plays a crucial role in the appointment of the VCs and the autonomy of the university is given scant regard. VCs in central universities are appointed by the President of India, the ex-officio visitor of all central universities, who generally acts on the advice of the Centre. However, according to the SC judgment in *Dr Premachandran Keezhoth* (2023), he acts purely as a statutory authority under a particular university Act and not as constitutional head of state. In state universities, appointments are made by the governor rarely on his own except in Opposition-ruled states.

The 1996 Commonwealth Higher Education Management Service (CHEMS) found that in as many as 55 per cent of Asian universities, VCs were appointed by the government. Additionally, in 18 per cent, approval from the government was required after the university selected the VCs. In just one-fifth of cases — 27 per cent — universities had the right to pick their own VCs.

In contrast to Asian countries, universities have been given freedom to choose their VCs in the West. Even in many places in Africa, governments do not have a decisive say. Each university has its own distinctive identity and peculiar problems. Therefore, ideally, universities should be free to choose their own VCs.

The draft regulations fall short of the ideal of giving universities autonomy in selecting their VCs. The proposed three-member search committee has one nominee of the UGC chairman and the other nominee of the chancellor/visitor. The university's executive council/syndicate etc. will have the right to nominate just one member. Ideally, three nominees should come from the university, one from UGC and the other from the President/Chief Justice as visitor or the Governor as chancellor.

The top-down model is not great. Let us trust our universities and give them a major say in choosing their VCs and let universities be student-centric, not VC-centric.

The writer is vice-chancellor of Chanakya National Law University, Patna

Views are personal

Politicising VCs

UGC's higher education reforms troubling

THE University Grants Commission (UGC) Draft Regulations 2025, released on Monday for public feedback, herald significant changes in higher education. While touted as reforms aligned with the National Education Policy (NEP) 2020, several provisions appear to dilute academic standards and invite undue politicisation into university administration. Most troubling is the removal of restrictions on contract teaching appointments. Under the previous guidelines, such appointments were capped at 10 per cent of an institution's total faculty. The removal of this cap risks turning critical academic positions into temporary, cost-cutting measures that prioritise convenience over quality. Contract positions, while expedient, undermine long-term institutional stability and the career prospects of the faculty.

Equally contentious is the restructuring of vice-chancellor (VC) appointments. By granting chancellors — often state governors — the authority to appoint search committees, the draft centralises power in a manner that could compromise university autonomy. Moreover, opening VC positions to industry experts and public sector professionals, while potentially bringing fresh perspectives, risks sidelining academics who understand the nuances of higher education. This redefinition of eligibility dilutes the academic integrity of university leadership. While the draft abolishes the outdated quantitative Academic Performance Indicator (API) system, replacing it with qualitative assessments, the implementation remains opaque. Criteria such as innovation, societal contributions and digital content creation are commendable but lack clear evaluation mechanisms, opening the door for favouritism.

It is argued that these changes will foster flexibility and inclusivity, yet the draft's rushed timeline for feedback — 30 days — raises concerns about genuine stakeholder engagement. Such sweeping reforms demand careful deliberation to safeguard academia from being reduced to a political battleground or a marketplace for short-term contracts. India's higher education institutions are pillars of intellectual and cultural progress. The UGC must ensure that reforms strengthen, rather than erode, their academic foundations. Anything less risks undermining the very purpose of education.

Looking for a new culture of learning in 2025

AVIJIT PATHAK
SOCIOLOGIST

AS we welcome the New Year 2025 with usual excitement-and festivity, I am assailed by my persistent worry about the new generation growing up in a world characterised by three evils: the horror of climate emergency; the brutality of war; and the aggression of hyper-nationalism and authoritarian leaders.

Will it be possible for them to evolve an art of resistance and move towards a new world free from these three evils? Or, is it that they are destined to accept the status quo and imagine their existence as nothing beyond compliant workers enhancing the 'productivity' of the neoliberal empire or obedient citizens saluting the bunch of narcissistic/neo-fascist political leaders?

Possibly, everything depends on the kind of education they receive. If education remains primarily technical and instrumental — merely a tool for economic productivity or a mode of indoctrination — the possibility of fighting these three evils will remain bleak. Hence, as a teacher, I plead for a qualitatively different culture of learning-and education.

To begin with, let us ask some uncomfortable questions. Isn't it a fact that what we regard as the causes and symptoms of climate emergency emanate from the very logic of our modernity and associated modes of living? These symptoms include the rising temperature of the earth; 2024 as the hottest year in human history; the continual carbon emission because of ceaseless fossil fuel extraction; the life-killing pollution; and the recurrence of heatwaves, flash floods, earthquakes, cyclones and wildfires.

Think of the consequences of the greed and expansionist urge of techno-capitalism — the conquering of forest land, rivers and mountains for 'development' projects, and the sanctification of consumerism as a mode of 'good' living that invariably leads to the production of innumerable goods and commodities, further intensifying the degree of fossil fuel extraction and carbon emission.

Isn't it a fact that there is no 'green capitalism'? And, for a truly meaningful solution, we need a paradigm shift — from instrumental reasoning to communicative action; from consumerist extravaganza to simplicity of living; from the duality of man vs nature to intelligent and life-affirming symmetry.

Likewise, it is high time we realised that our modernity, far from civilising us, has created a new form of barbarity that is manifesting itself in the cycle of wars.

Yes, our children are seeing that war is normal; and our politicians, diplomats and religious leaders remain passive spectators — even when they see the aggression implicit in the deeds of Vladimir Putin and Benjamin Netanyahu. Or, for that matter, in the age of 24x7 news, even you and I seem to have lost our sensitivity and become the consumers of wars as spectacles. Thus the Freudian language, we are celebrating the triumph of the Thanatos over the Eros — death over life.

Is it that our modernity has further stimulated the expansionist ambition of the modern nations and normalised the production of military weapons and technologies as a profitable business?

Further, can we deny that there is yet another form of war — hyper-nationalists declaring a war against immigrants, religious minorities and political dissenters? And, quite often, this sort of hyper-nationalism is linked to the aggression of religious fundamentalism. As this rightwing nationalism spreads across the 'world', we see increasing scepticism towards democratic/liberal values, critical thinking and cultural pluralism. Is it that some sort of alliance between market fundamentalism and religious nationalism nurtures the ground for the emergence of narcissistic and authoritarian leaders?

The questions I am raising indicate that we need to rethink education if we wish to regain the power of imagination and critical thinking for striving for a humane, egalitarian and ecologically sustainable world.

As a teacher, I have no hesitation in saying that unless we broaden the meaning of education, the generation that is growing up cannot even see these three evil as evils. It is high time we questioned the purely neoliberal, market-driven, economistic notion of education — that education is merely for getting jobs and, thereby, enhancing the 'productivity' of the techno-corporate empire. Is it, thus, surprising that the likes of Narayana Murthy want the youngsters to work for 70 hours in a week and not bother about anything else, be it politics, aesthetics, philosophy or creative art?

Likewise, it is important to shift the focus of education from the obsession with performance in standardised tests to the liberating power of critical thinking and empathic, dialogic sensitivity.

It is sad that the formative years of this generation are spent on merely mastering the 'techniques' for cracking all sorts of tests; there is no creative surplus, no alternative imagination.

Furthermore, the damage that a purely instrumental, technical and economistic notion of education has done is that it does not encourage the youngsters to inculcate and internalise a new set of values — say, the courage to question what the 'hidden persuaders' ask them to do, say, buy, consume, possess and run after a mythical success like mad horses. They should acquire the wisdom to prioritise simplicity and the art of relatedness and ecological connectivity in the rhythm of everyday living.

Yes, it is not easy to implement a project of this kind. The obstacles are many. While the policymakers are often driven by the urge to promote and retain corporate interests, the ruling regime does not feel very comfortable with the kind of education that promotes critical thinking and democratic and humanistic aspirations.

Yet, in 2025, let those who still believe that education ought to have a higher and nobler purpose for creating a better world derive their inspiration from the likes of Rabindranath Tagore, Jiddu Krishnamurti and Paulo Freire and initiate a movement for saving education from the virus of the three evils I have referred to.

RETHINK: Education is not merely a tool for economic productivity. PTI PHOTO

> It is sad that the formative years of this generation are spent on merely mastering the 'techniques' for cracking tests; there is no creative surplus, no alternative imagination.

नवाचार है नई अर्थव्यवस्था का इंजन

उद्योगपति कुमार मंगलम बिड़ला ने हाल में कहा, 'आज किसी भी व्यवसाय को शुरू करने के लिए एक करोड़ रुपये भी पर्याप्त नहीं हैं।' वह व्यवसाय को बड़े पैमाने पर बढ़ाने और इसके लिए आवश्यक पूंजी के पहलू को रेखांकित कर रहे थे। वहीं, इनोवेशन यानी नवाचार को बढ़ावा देने के अपने अनुभव के आधार पर मुझे लगता है कि आज इनोवेशन और रचनात्मकता वित्तीय संसाधनों से अधिक अहम है। एक साधारण इनोवेशन अक्सर भारी-भरकम पूंजी की तुलना में कहीं असाधारण शक्ति प्रदान करता है। भारत में स्टार्टअप इंडिया के तहत 1.4 लाख से अधिक स्टार्टअप पंजीकृत हैं। लाखों स्टार्टअप अस्तित्व में आने की तैयारी कर रहे हैं। अधिकांश स्टार्टअप मामूली अनुसंधान अनुदान पर या छोटी व्यक्तिगत बचत पर निर्भर हैं।

आइआइटी कानपुर में स्टार्टअप इनक्यूबेशन एंड इनोवेशन सेंटर यानी एसआइआइसी के साथ अपने जुड़ाव के आधार पर मैं कह सकता हूं कि अधिकांश स्टार्टअप दृढ़ संकल्प और एक सम्मोहक विचार से लैस और छोटे अनुदानों पर निर्भर होते हैं। कई मायनों में वे लाख रुपये से ही शुरुआत करते हैं और वे भी किसी सरकारी या गैर-सरकारी एजेंसी द्वारा प्रदान किए जाते हैं। यह अनुदान उन्हें लैब-स्केल प्रोटोटाइप विकसित करने और उसकी अवधारणा के प्रमाण को मान्य करने में सक्षम बनाते हैं। एक बार बात आगे बढ़ने पर एंजल निवेशकों तक उनकी पहुंच हो जाती है। एंजल निवेशक इकोसिस्टम प्रारंभिक चरण के स्टार्टअप्स को एंजल फंडिंग और डीपीआइआइटी, डीएसटी और रक्षा मंत्रालय जैसे निकायों से सरकारी अनुदान के माध्यम से हर वर्ष लगभग 10,000 से 15,000 करोड़ रुपये मिल जाते हैं, जो इन नए उद्यमों की आरंभिक आवश्यकताओं की पूर्ति में उपयोगी होते हैं। इस कड़ी में वेंचर कैपिटल यानी वीसी उद्योग भी अहम भूमिका निभा रहा है। स्टैनफोर्ड विश्वविद्यालय के दूरदर्शी प्रोफेसर फ्रेडरिक टर्मन ने स्टार्टअप की क्षमता को तब समझा, जब उन्होंने विलियम हेवलेट और डेविड पैकार्ड को हेवलेट-पैकार्ड कंपनी स्थापित करने के लिए प्रोत्साहित किया। बाद में यही एचपी नाम का दिग्गज कंप्यूटर ब्रांड बना।

व्यवसाय में सफलता पूंजी के आकार से नहीं, बल्कि विचारों की शक्ति से प्राप्त होती है

अजय कुमार

इनोवेशन का अनुसरण करती है पूंजी ● फाइल

अमेरिका की सिलिकन वैली उद्यमों की ऐसी ही सफलता गाथाओं से भरी है। भारत में ही पिछले 10 वर्षों के दौरान वीसी उद्योग तेजी से बढ़ा है। वर्ष 1993 तक इस क्षेत्र में जहां केवल आठ कंपनियां प्रतिवर्ष 100 करोड़ रुपये से कम का प्रबंधन करती थीं, वहीं अब इस उद्योग में 1,750 से अधिक कंपनियां सक्रिय हैं, जिनका निवेश प्रतिवर्ष दो लाख करोड़ के करीब है।

पारंपरिक सोच यह है कि प्रतिस्पर्धा के लिए व्यवसाय का बड़ा होना अनिवार्य है। हालांकि आज की वैश्वीकृत अर्थव्यवस्था ने इस अवधारणा पर सवालिया निशान लगाए हैं, क्योंकि छोटी कंपनियां भी बहुत जल्द अपना दायरा बढ़ाकर वैश्विक स्तर पर स्थापित हो जाती हैं। इनमोबी और जोहो इसके उदाहरण हैं। उनका आकलन केवल पूंजी से नहीं, बल्कि उनकी अभिनव क्षमताओं से ही संभव है। उनकी ये क्षमताएं उन्हें प्रतिस्पर्धी बनाती हैं। मुंबई के मशहूर डिब्बावालों को ही देखें तो वे पूंजी के बजाय सरलता के माध्यम से अपने दायरे के विस्तार की एक उम्दा मिसाल हैं। वे रोजाना बड़े पैमाने पर लंच बाक्स वितरित करते हैं और वह भी सीमित बुनियादी ढांचे के साथ।

नई अर्थव्यवस्था में बौद्धिक संपदा यानी आइपी के माध्यम से भी धन का तेजी से सृजन हो रहा है। आइपी के लिए इनोवेशन सबसे महत्वपूर्ण पहलू है। आइपी से न केवल संपदा सृजन, बल्कि प्रतिस्पर्धा और विकास में भी मदद मिलती है। वर्ल्ड इंटेलेक्चुअल प्रापर्टी आर्गेनाइजेशन के अनुसार 2020 में वैश्विक आइपी संपत्तियों का मूल्य 100 ट्रिलियन (लाख करोड़) डालर से अधिक था और उसमें वृद्धि जारी है। भारत में 2013-14 और 2023-24 के बीच स्टार्टअप द्वारा आइपी फाइलिंग में लगभग पांच गुना वृद्धि हुई है।

इनोवेशन सिर्फ नई और उभरती हुई तकनीकों तक सीमित नहीं है। इसकी सफलता गाथाएं विविधतापूर्ण एवं नवोन्मेषी भावना को उजागर करती हैं, जो पूरे भारत में विकास को गति दे रही हैं। अगर सवाल यह है कि इनोवेशन ज्यादा महत्वपूर्ण है या वित्तीय पूंजी तो तथ्य खुद ही सब कुछ बयान कर देते हैं। अनुमान है कि स्टार्टअप इकोसिस्टम 2025 तक हर साल एक करोड़ से अधिक नौकरियां पैदा करेगा। 2020 में नास्काम और जिनोव के एक सर्वेक्षण के अनुसार 58 प्रतिशत से अधिक भारतीय छात्रों ने पारंपरिक करियर विकल्पों के बजाय अपना स्टार्टअप शुरू करने को तरजीह दी। 2023 में डीपीआइआइटी के साथ 70,000 से अधिक स्टार्टअप पंजीकृत हुए। इनके संस्थापकों में से अधिकांश 30 साल से कम उम्र के हैं। टियर-2 और टियर-3 शहरों में देश के 30 प्रतिशत स्टार्टअप सक्रिय हैं और प्रतिवर्ष लगभग पांच लाख से ज्यादा नौकरियां सृजित कर रहे हैं। इनमें से अधिकांश उद्यम महज कुछ लाख रुपये की मामूली पूंजी से शुरू हुए। निष्कर्ष यही है कि उद्यम के लिए पूंजी अत्यंत महत्वपूर्ण है, लेकिन इनोवेशन नई अर्थव्यवस्था का असली इंजन है। अब पूंजी इनोवेशन का अनुसरण करती है। व्यवसाय में सफलता आपकी पूंजी के आकार से नहीं, बल्कि आपके विचारों की शक्ति से आती है। इनोवेशन वृद्धि का सबसे बड़ा उत्प्रेरक है, जो सपनों को उद्यमों में और बाधाओं को अवसरों में बदल देता है।

(लेखक पूर्व रक्षा सचिव और आइआइटी, कानपुर में विजिटिंग प्रोफेसर हैं)

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A case for quotas in school

RAJESH RANJAN

The Karnataka State Education Policy Commission constituted by the government of Karnataka is considering implementing reservations for scheduled caste, scheduled tribe, and other backward classes students in schools. Under the current reservation system, seats are allocated to students from these communities in Kendriya Vidyalayas as well as in private unaided schools as per Section 12 of the Right to Education Act, 2009. In this article, I argue the case for reservation in schools along with different ways to tackle discrimination against children belonging to marginalised communities.

Students from marginalised communities face discrimination from teachers and other students. *Prima facie* it may look like these acts of violence are new. But historical accounts reveal that although the nature and the form of violence have changed, discrimination has remained the same.

Access to education for Dalits, STs, and minorities has remained a daunting challenge. In response to questions in the Rajya Sabha, the Centre informed that the dropout rate among minority community students at the secondary level is 24.4 %. As per data from 2020, 1/4th and 1/5th of tribal and Dalit students, respectively, quit Class IX and Class X. These statistics highlight the impact of violence on marginalised communities, further hindering their access to education. A UNICEF report has also argued that violence in school can reduce attendance, lower academic performance, and increase drop-out rates. Children from marginalised backgrounds often lack institutional support, such as the involvement of parents in addressing caste discrimination and challenging the prejudices of teachers to treat Dalit and tribal students with dignity, further perpetuating structural violence against these students.

Therefore, it is imperative to devise different mechanisms to make schools inclusive. One mechanism could be reservation for students from these communities to ensure adequate representation. Reservation in schools may not eradicate discrimination but it will certainly help in reducing it. In his book, *The Foresighted Ambedkar*, Anurag Bhaskar has shown that princely states like "Mysore in south India and Baroda and Kolhapur in western India took considerable interest in the awakening and advancement of the minorities and deprived sections of society". Some of these were the introduction of reservation policies and quotas in their respective provinces. Reservation in school will ensure the representation of children from marginalised

segments and help in community building and in resisting discrimination against such students.

In India, the discourse on affirmative action policies is largely limited to quota or reservation systems. To tackle discrimination at the primary, secondary, and tertiary levels, we must think beyond it. This requires regular consultation with and counselling of students from marginalised communities. The shunning of casteist language, inclusion of human rights, democratic citizenship, anti-caste education and intercultural education in the curriculum, promotion of students' voices, involving students in peer education and peer mediation activities, welcoming parents and involving them in school decision-making, and forming partnerships with different community organisations and groups working on caste can help in tackling discrimination in schools.

Rajesh Ranjan is a lawyer and researcher

Teacher crisis

Prioritise holistic revival of schools

HIMACHAL Pradesh's schools are grappling with a dire teacher shortage, with 125 schools devoid of educators and 2,600 running with only one teacher. Despite the government's claims of progress, the challenges in ensuring quality education remain stark. The state government's recent decision to denotify or merge over 1,100 schools with zero or low enrolment has stirred a controversy. While this measure is pragmatic, reallocating teachers from defunct schools to understaffed ones, it highlights a deeper systemic issue: the chronic underfunding and lack of strategic planning in education.

Moreover, the shortage of 12,000 schoolteachers underscores the gap between policy intent and implementation. Although recruitment efforts have been initiated, the reliance on temporary measures like deputations and guest teachers raises questions about sustainability. The merging of institutions and clustering of schools for resource sharing are commendable steps, but they address symptoms rather than root causes. The declining enrolment in government schools adds another dimension to the crisis. The allure of private institutions, fuelled by better facilities and English-medium instruction, continues to draw students away. While the government's initiatives like identifying 'Schools of Excellence' and enhanced teacher training are steps in the right direction, they need robust execution and consistent follow-through.

However, education reform requires more than infrastructural improvements. The focus must shift to filling vacancies, addressing regional disparities and enhancing the learning experience for students. Policymakers should view the education sector not as a political battleground but as a cornerstone for the state's future. The government's actions so far indicate intent, but outcomes will depend on translating these efforts into tangible, long-term benefits. Himachal Pradesh must prioritise the holistic revival of its education sector to ensure every child's right to quality learning.

स्तरहीन शिक्षा से पनपते कोचिंग केंद्र

अभी हाल में केंद्रीय उपभोक्ता संरक्षण प्राधिकरण ने भ्रामक विज्ञापनों को लेकर 45 कोचिंग संस्थानों को नोटिस जारी करते हुए 19 संस्थानों पर 61 लाख रुपये का जुर्माना लगाया। साथ ही कई छात्रों की फीस वापस कराने में सफल भी हुआ। आज देश में लगभग सात करोड़ से भी अधिक छात्र कोचिंग संस्थानों से जुड़े हैं। इनमें करीब चार करोड़ लड़के और तीन करोड़ लड़कियां हैं। पहले कोचिंग की यह संस्कृति केवल संपन्न घरों के बच्चों तक सीमित थी, परंतु अब अल्प आय वर्ग वाले परिवार भी अपने बच्चों को कोचिंग दिलाने में पीछे नहीं हैं। शहरी इलाकों के संपन्न परिवारों में 38 प्रतिशत तथा गरीब परिवारों में 30 प्रतिशत बच्चे कोचिंग का सहारा ले रहे हैं। एनजीओ प्रथम की रिपोर्ट बताती है कि वर्तमान में एक से आठवीं तक की कक्षा में पढ़ने वाले बच्चे सरकारी स्कूलों के 31 प्रतिशत तथा प्राइवेट स्कूलों के 30 प्रतिशत बच्चे कोचिंग के लिए जाते हैं। विगत एक दशक में कोचिंग लेने की प्रवृत्ति में 25 प्रतिशत से भी अधिक की बढ़ोतरी हुई है।

कोचिंग का कारोबार एक संगठित उद्योग का रूप ले चुका है। आज यह दुनिया में सबसे अधिक फैलने वाले कारोबार में शामिल है। खरबों के इस कारोबार की विकास दर दस प्रतिशत के आस-पास है, जबकि अपने देश में यह कारोबार 30-35 प्रतिशत की सालाना दर से बढ़ रहा है। पुणे की कंसल्टेंसी फर्म इंफिलियम ग्लोबल रिसर्च की 2023 की रिपोर्ट में कहा गया है कि भारत में कोचिंग उद्योग से जुड़ा कारोबार विगत वर्षों में 58 हजार करोड़ रुपये से भी अधिक का हो गया है। अनुमान लगाया गया है कि आने वाले पांच वर्षों में यह कारोबार 1.35 लाख करोड़ रुपये तक पहुंच जाएगा। इसी संदर्भ में शिक्षा मंत्रालय की एक विशेषज्ञ समिति की रिपोर्ट में कहा गया है कि आइआइटी-जेईई की तैयारी कराने वाले कोचिंग संस्थानों का सालाना कारोबार करीब 24 हजार करोड़ रुपये का है। इस समिति का मत है कि स्कूलों में कमजोर पढ़ाई का लाभ ये कोचिंग संस्थान उठा रहे हैं। इंडियन काउंसिल फार रिसर्च आन नेशनल एजुकेशन की हालिया रिपोर्ट बताती है कि देश में प्रतियोगी परीक्षा से जुड़े एक करोड़

हर स्तर पर कोचिंग संस्थान इसलिए भी फल-फूल रहे हैं, क्योंकि स्कूल-कालेज उपयुक्त और स्तरीय शिक्षा नहीं दे पा रहे हैं

डा. किशोर गुप्ता

संगठित उद्योग का रूप लेती कोचिंग ● फाइल

छात्र विभिन्न प्रकार की कोचिंग ले रहे हैं। वित्त वर्ष 2023-2024 में अकेले कोटा में दो लाख से भी अधिक छात्र वहां के कोचिंग संस्थानों में दाखिल हुए।

कोचिंग का रोग केवल प्रतियोगी परीक्षा की तैयारी को लेकर ही नहीं है, बल्कि प्राथमिक शिक्षा से लेकर उच्च शिक्षा तक है। कोचिंग व्यवस्था ने छात्रों को स्वकेंद्रित अध्ययन के प्रति पंगु सा बना दिया है। स्थिति यह है कि कस्बों एवं नगरों तक के हजारों छात्र अक्सर सड़कों के किनारे लगे आकर्षक और कई बार भ्रामक विज्ञापन देखकर अपने मन में डाक्टर, इंजीनियर, अफसर आदि बनने का स्वप्न लेकर कोचिंग समूह के जाल में फंस जाते हैं। अपने बच्चों के सपनों को पूरा करने के लिए मां-बाप अपनी जमीन-जायदाद तक बेच देते हैं। कोचिंग केंद्रों में साल-दर-साल पढ़ने के बाद भी जब निराशा हाथ लगती है तो कुछ बच्चे आत्मघात को मजबूर हो जाते हैं। कोटा इसका सबसे बड़ा उदाहरण है, जहां हर साल 20-25

छात्र आत्महत्या कर लेते हैं। कोचिंग के बढ़ते चलन के कारणों पर निगाह डालने से यह सामने आता है कि स्कूल एवं कालेज परिसर की शिक्षा से भरोसा धीरे-धीरे उठ रहा है। एनुअल स्टेटस आफ एजुकेशन से जुड़ी कई रिपोर्ट इसकी गवाह हैं कि बच्चों पर पाठ्यक्रम का बोझ, शिक्षकों की कमी और गुणवत्ता का अभाव जैसे कारक कोचिंग के ढांचे को और मजबूत करने का कार्य कर रहे हैं। शायद इसी वजह से भारत आज इस कोचिंग की दुनिया का सिरमौर बन गया है।

आज कोचिंग का अर्थ छात्रों को केवल अतिरिक्त ज्ञान देना ही नहीं रह गया है, बल्कि छात्रों को परीक्षा पास करने के गुर सिखाने और अच्छे अंक लाने का माध्यम भी हो गया है। इसीलिए अभिभावकों की कोचिंग व्यवस्था पर निर्भरता तेजी से बढ़ रही है। कुछ समय पहले तक देश के मेडिकल और इंजीनियरिंग कालेजों में सरकारी स्कूल के छात्रों का दबदबा अधिक रहता था, परंतु आज वे छात्र बाजी मार रहे हैं, जो निजी स्कूलों में पढ़ाई करते हैं और जो कोचिंग पर भारी-भरकम रकम खर्च कर रहे हैं। इस धनोन्मुख कोचिंग व्यवस्था से शिक्षक और छात्रों का आपसी संवाद टूट रहा है। साथ में एक नई शैक्षिक परिपाटी के चलन से गैर-बराबरी के बढ़ने का बड़ा खतरा भी पैदा हो गया है। इसलिए कोचिंग से जुड़े वर्तमान आंकड़ों को नजरअंदाज करना ठीक नहीं है। देश की शिक्षा में योग्य एवं प्रतिबद्ध शिक्षकों और इसके बुनियादी तंत्र को कोचिंगविहीन शैक्षिक श्रेष्ठता के आधार पर विकसित करने की बड़ी जरूरत है। ध्यान रहे कि कोचिंग शिक्षा की बुनियाद करियर का मजबूत भवन नहीं बना सकती। कोचिंग सेंटर्स विनियमन एवं नियंत्रण अधि.-2007 के तहत केंद्र सरकार के उच्च शिक्षा विभाग द्वारा कोचिंग केंद्रों के पंजीकरण और विनियमन के लिए दिशानिर्देश दिए गए हैं, परंतु केवल इतना ही काफी नहीं है। इस कानून से जुड़े दिशा-निर्देशों का सख्ती से पालन कराकर ही कोचिंग केंद्रों की मनमानी के साथ-साथ उनके भ्रामक विज्ञापनों पर लगाम लगाकर भावी कर्णधारों को राहत पहुंचाई जा सकती है।

The complex pursuit of quality in higher education

Metrics-based approaches can be inherently subjective, and skew perceptions of quality

FURQAN QAMAR AND NAVNEET SHARMA

The 2020 National Education Policy (NEP 2020) underscores 'quality education' by referring to 'quality' 154 times across its 66 pages. Its exhortation for universal access to quality education by 2030 to make it in sync with the Sustainable Development Goal (SDG4), however, seems an antithesis because equitable access to all learners, irrespective of their socioeconomic background, cannot be accomplished through private schools, colleges, and universities, howsoever public-spirited.

This aside, quality has long been intensely debated in education, notably higher education. Conventionally, quality in education has been associated with equipping students with the essential knowledge and skills and preparing them for lifelong learning. Since economic liberalisation, the idea and concept have been mainly shaped by commercial considerations and the demands of intense competition, which often conflict with the old established notion of quality. Consequently, defining and achieving quality has become elusive and increasingly complex in the contemporary context.

The definition of quality in education is inherently ambiguous. Should it be defined in terms of physical facilities and infrastructure? Or be indicated by the effectiveness of managing the admission and examination process? Should it be determined by the curricula, content syllabi or pedagogy, or the quality of lectures or lecturers? It could mean all of these, making its measurement all the more complicated and equally contestable. How much technology should be integrated into pedagogy and curriculum to enhance quality? Is human development, i.e. transforming individual beings into evolved human beings, possible without a human touch?

Quality is, at its core, an internal aspiration. Supported by suitable systems and processes, facilitated by adequate infrastructure, teaching-learning resources, and liberal funding, and free from excessive administrative burdens, faculty members will likely focus on improving teaching, innovating their pedagogy, and bringing rigour to the classroom. This would undoubtedly improve quality. Conversely, even the best teachers would fail to deliver without a conducive work environment and lack of resources. Quality is not merely about teaching itself but about ensuring all enabling factors are in place.

Arguing that the prevalent approaches to quality cannot capture the essence intensely debated in education, notably higher education. Conventionally,

of quality in education, Van Kemenade et al. pitch for a quality concept based on four constituents: objects, standards, subjects, and value. These dimensions underline the multifaceted and contextual nature of quality, raising essential questions about its scope and implications and highlighting control, continuous improvement, commitment, and breakthrough to explain quality and management of quality in the contemporary context. Even then, determining and measuring quality in higher education remains a challenge. Metrics-based approaches often rely on a series of parameters. On the face of it, they might appear objective but are inherently

subjective in their inclusion or exclusion of criteria. Such approaches can skew perceptions of quality and inadvertently disadvantage institutions or students.

The relationship between higher education and career outcomes complicates the discourse on quality further. Poor career progression and graduate unemployability may not necessarily reflect deficiencies in higher education. It could also be attributed to broader economic challenges, such as insufficient job creation to accommodate the growing number of graduates.

While expanding access to higher education is crucial, the twin concerns of equity and affordability must be noticed. Today, students and families do not only seek access to higher education but aspire to receive quality higher education at an affordable cost. The lack of a reliable and objective mechanism to assess quality often forces people to base their choices on perceptions and proxy indicators. Such reliance can lead to misinformed decisions and make individuals susceptible to market manipulations. Moreover, the increasing tendency to create false perceptions of quality, driven by marketing and rankings, exacerbates these challenges. Policy interventions to improve quality often result in isolated 'islands of excellence' amidst a 'sea of mediocrity', failing to drive systemic improvement.

The question of privilege

Quality is a complex phenomenon that cannot be reduced to a simple formula

where high-quality inputs and efficient processes automatically result in high-quality outputs. Instead, inputs, processes, and outputs are intrinsically interwoven and influence each other in dynamic ways. Traditionally, input-based quality measures, like seat-to-application ratios, have been used to signal excellence in higher education. However, these measures can reinforce exclusivity and elitism by prioritising programme popularity. Merit-based selection processes often privilege students from socioeconomically advantaged backgrounds, perpetuating inequality and limiting access for marginalised groups.

Emphasis on economic criteria to measure output quality often overlooks the nuanced interplay of socioeconomic factors that affect student outcomes. This creates a vicious cycle in which students from privileged backgrounds are more likely to succeed, perpetuating inequities in higher education.

Comprehensive quality measures, such as those adopted by the University Grants Commission (UGC) and the National Assessment and Accreditation Council (NAAC), have historically attempted to address these complexities. However, their effectiveness has been diluted in recent years.

Teachers are central to quality education. Quality teaching and research are inseparable, and appointing and nurturing competent, motivated educators is crucial to fostering meaningful learning experiences. Teachers need support to innovate and engage in pedagogical practices, prioritising critical thinking and holistic development. Sadly, the contemporary discourse on education policy often sidelines teachers' agency and perspectives. Teaching is increasingly viewed as a de-professionalised activity, reduced to standardised performance inputs.

Teachers are no longer seen as facilitators of critical thinking but as providers of replicable skills. This shift reflects the deep penetration of market forces into education, where the focus has shifted from cultivating an enlightened society to producing employable graduates. Thus, the purpose of education has been reduced to certification and employability. Reimagining education requires a fundamental shift in perspective. A pedagogy centred on interactive and participatory learning, as opposed to rote instruction, is essential.

Quality education must aim to develop well-rounded individuals who can contribute meaningfully to society. Addressing these broader dimensions is the only way to realise the true essence of quality education.

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such as those adopted by the University Grants Commission (UGC) and the Na-

Jobs Challenge

India should focus more on high-skill, high-pay employment opportunities. India has one of the world's most significant numbers of graduates in STEM — science, technology, engineering, and mathematics — fields. Closer connections between India's technical colleges, employers, and investors can help support better job-matching, continued skills development, and start-up growth — which can turn job seekers into job creators

Viksit Bharat@2047

The wealth of a nation lies in its people, and in India, 1.4 billion aspirations drive the country's progress. Over the past decade, the Government of India has made job creation a central focus of its governance, yielding transformational results. However, as with any significant endeavour, there is much to celebrate, but there are challenges that require greater attention in the years to come.

India is at a remarkable crossroads. With the largest population in the world and one of the youngest workforces globally, the nation enjoys a unique advantage. Approximately 68 per cent of its population is of working age. India's median age is 29.5 years, which starkly contrasts with China's 39.8 years and the United Kingdom's 40.6 years. This emphasises the tremendous potential of a dynamic, innovative, and youthful workforce. This demographic dividend presents a fleeting opportunity that, if effectively harnessed, could propel the country into unprecedented economic growth.

Job creation has been a central focus of the government over the past decade, driven by an explicit acknowledgement of its importance for economic development and social stability. The statistics highlight this progress: between 2014 and 2024, India created 17.19 crore more jobs, compared to the previous decade's creation of just 2.9 crore jobs (2004-14). Notably, 4.6 crore jobs were added in the year 2023-24 alone, demonstrating the scale and ambition of the government's policies.

These initiatives have been transformative in terms of numbers and their impact on reducing unemployment and increasing workforce participation. The unemployment rate fell from 8 per cent in 2017-18 to 3.2 per cent in 2023-24, while the labour force participation rate rose from 49.8 per cent to 60.1 per cent during the same period. Notably, progress has been significant at the sectoral level. A 19 per cent increase in agricultural employment between 2014 and 2023, reversing a 16 per cent decline in the previous ten years (2004-14). In manufacturing, employment rose by 15 per cent (2014-23), more than double the growth in the prior decade. These outcomes are indicative of the effectiveness of targeted policies.

But these are not both sides of the same coin. Manufacturing, for instance, is a sector with enormous job creation potential. But its share of GDP has persisted at around 15 per cent – a far cry from the target of 25 per cent that the National Manufacturing Policy had set. In contrast, manufacturing accounts for 28 per cent of China's GDP and 25 per cent of South Korea's.

Though the Rs 1.97 lakh crore outlay under the Production Linked Incentive scheme has ensured sizeable investments in electronics manufacturing and $15.6 billion in exports of mobile phones in FY 2022-23 – employment generated remains well below expectation. The PLI scheme needs recasting to align the incentives more directly with job generation.

Fiscal stresses are another inhibiting factor. The tax-to-GDP ratio in India stands at 11.7 per cent, limiting its investment in job-generating sectors. Although GST collections have consistently crossed its 1.5 lakh crore every month, structural reforms are needed to widen the tax base and reach the 20 per cent tax-to-GDP ratio of peer economies. Improvement in tax compliance, modernisation of property taxes, and use of AI in GST analytics can bring in much-needed fiscal space.

The MSME Sector represents the most significant opportunity for achieving inclusive growth in this decade. To put this in perspective, with 63.4 million enterprises contributing 30 per cent to GDP and employing over 100 million people, the MSME sector's economic footprint is much larger than the entire economy of countries like Thailand or Sweden. MSMEs have a Rs 20-25 lakh crore credit gap. Access to credit for this sector should be ensured as it has immense employment generation potential.

At the same time we should also focus more on high-skill, high-pay employment opportunities. India has one of the world's most significant numbers of graduates in STEM - science, technology, engineering, and mathematics - fields.

Closer connections between India's technical colleges, employers, and investors can help support better job-matching, continued skills development, and start-up growth – which can turn job seekers into job creators.

What the government needs to do now is future-proof the Indian workforce through recalibration of the PLI scheme, scaling up investments in green energy, and fostering innovation in emerging fields such as artificial intelligence, automation, and electric mobility. For instance, India's ambitious target of achieving 500 GW of non-fossil fuel energy by 2030 is good for the environment and will become one of the biggest job generators. Likewise, the Indian space economy, valued today at $8.4 billion, is supposed to reach $44 billion by 2033 and would create thousands of specialised roles in that field.

In the long term, India needs to invest in better education and support women in entering the formal workforce to shift more of its population away from precarious work. That will support income growth and, in turn, drive further job creation. Partnerships will be necessary to achieve this. Public-private collaborations, community engagement, and citizen feedback may help refine their strategies and bring inclusive growth in their wake.

Global disruptions – the Covid-19 pandemic, geopolitical tensions, and economic slowdowns – have tested India's resilience. But more importantly, they brought home the message that the strategic policy to create employment has to be strong and responsive.

And this is why we, reflecting over the past ten years, must realize that this journey for a prosperous India has just about begun. The government has laid the foundation, and it laid the right direction.

Sustained effort, strategic reforms, and collective will can ensure that India converts the demographic dividend into a demographic boon and an opportunity for every citizen, fulfilling the promise of a truly "Viksit Bharat" by 2047.

GOURAV VALLABH

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हाल में कई इनोवेशन हुए, लेकिन ये समाज के खास तबके तक ही सिमट कर रह गए हैं

तकनीक में ख़ास-ओ-आम का फ़र्क़

निमिष दुबे **आकृति राणा**

टेक्नॉलजी की दुनिया में एक कहावत बहुत मशहूर है कि, हर नई तकनीक के बारे में काफी बातचीत होती है। तब पहले उसका इस्तेमाल होता है टेक सोसाइटी में। इसके बाद उसका उत्पादन और उपयोग होता है समाज के ऊंचे तबकों में। फिर घाट-घाट का पानी पीकर यह टेक्नॉलजी आती है आम जनता के बीच।

दुनिया के दो हिस्से। लेकिन, हाल के दिनों में ऐसा नहीं हुआ है। पिछले कुछ बरसों में टेक की दुनिया दो हिस्सों में बंटी नजर आई है। एक तरफ है वे लोग, जो लेटेस्ट टेक्नॉलजी का उपयोग कर फायदा उठा पा रहे हैं। दूसरी तरफ खड़ी है आम जनता, जो ज्यादातर थोड़ी पुरानी तकनीक को कुछ नए डिजाइन और एकाध नए कंपोनेंट के साथ चला रही है।

दिखता है पर ठहरा नहीं। दूर से देखने पर लगता है कि टेक

कल्हें में कोई खास परिवर्तन हुआ ही नहीं। वही थोड़े बेहतर प्रोसेसर व कैमरों और 9-10 मिनट जल्दी चार्ज होने वाली बैटरी के साथ आने वाले फोन, वही विंडोज और मैक ऑपरेटिंग सिस्टम पर चलने वाले नोटबुक व डेस्कटॉप कंप्यूटर जो कुछ ज्यादा ही पावले और रंगीन हो चले हैं, वही दवा की डिब्बी जैसे दिखने वाले TWS, वही कलाई पर चिपकी कदम और हार्ट रेट गिनने वाली स्मार्ट घड़ियां वगैरह...! हालांकि इससे यह सोच बनाना गलत होगी कि टेक की दुनिया ठहरी हुई है।

आम जनता से दूर। पिछले कुछ बरसों में कई तकनीकी खोजें हुई हैं, जो हमारे जीवन को पूरी तरह से बदल सकती हैं। जैसे कि आर्टिफिशियल इंटेलिजेंस, इलेक्ट्रॉनिक वीकल (EV), वर्चुअल रियलिटी (VR), मुड़ने वाले फोन। अफसोस की बात यह है कि ये सब अभी तक अखबारों के पन्नों, टेक वेबसाइटों की स्क्रीन और बाजार की पृष्ठभूमि में ही हैं, आम जनता के पास नहीं पहुंचे। इन टेक्नॉलजी की बात काफी समय से हो रही है। Foldable mobile phone के

बारे में बात करते हुए आधा दशक से ज्यादा गुजर चुका है, EV का सपना भी कोई नया नहीं और VR के बारे में तो हमें सोनी कंपनी 8-10 साल पहले बता चुकी थी। इन सभी में करोड़ों डॉलर निवेश किया जा चुका है, इन पर ढेरों पन्ने लिखे जा चुके हैं और तमाम वेबसाइटों पर हजारों बार टिप्पणी की जा चुकी है। इतना सब होने के बाद भी ये टेक्नॉलजी मात्र कुछ लोगों तक पहुंच सकी है।

क्या है मसला
- टेक्नॉलजी अब भी महंगी
- लोगों तक पहुंच बनानी होगी
- AI का हो बेहतर इस्तेमाल

नुकसान पहुंचा रही आदत। कंपनियों के सीईओ टेक्नॉलजी के लोकतंत्रीकरण को लेकर बड़ी-बड़ी बातें करते हैं, लेकिन तकनीक के उच्चतम पायदानों पर पिछले कुछ बरसों से पैसे फेंक और तमाशा देख वाला हिसाब चल

रहा है। ऐसा लगता है कि लेटेस्ट और सबसे इनोवेटिव टेक्नॉलजी पर केवल कुछ ही लोगों का हक है और कंपनियों बस इन्हीं लोगों के लिए प्रॉडक्ट बना रही हैं। यह प्रवृत्ति टेक्नॉलजी और मानवता, दोनों के लिए हानिकारक है।

सबकी पहुंच में हो। कितना अच्छा होगा अगर हम 10 हजार रुपये के फोन पर AI का बेहतरीन अनुभव कर सकें! यह भी कितना अच्छा रहेगा कि पेट्रोल-डीजल और इलेक्ट्रॉनिक गाड़ियों के बीच कीमत का अंतर मामूली हो जाए और मुड़ने वाले मोबाइल फोन बस 30 हजार रुपये में मिलने लगें! तमाम लोग इन ख्यालों को कुछ ज्यादा ही आदर्शवादी और कल्पनिक समझेंगे, लेकिन सच तो यही है कि टेक्नॉलजी हो या कोई कला, वह सही मायने में तभी काम आती है, जब ज्यादा प्रचलित होती है। ऐसा होने के लिए उसे आना पड़ेगा आम जनता की पहुंच में। टच स्क्रीन हम लोग 90 के दशक से देख रहे थे, लेकिन उसका असली प्रभाव तब पड़ा, जब एपल ने उसे iPhone और गूगल ने Android पर दर्शाया।

पहल की जरूरत। वैसे भी

जितने अधिक उपभोक्ता होंगे, कंपनी को उतना ही फायदा मिलेगा। टेक्नॉलजी तैयार है, जरूरत है किसी के पहल करने की, जैसा गूगल ने तब किया था, जब उसने Google Maps जैसे सॉफ्टवेयर को मोबाइल उपभोक्ताओं को फ्री में उपलब्ध करा दिया था। गूगल ने दुनिया को दिखाया था कि रास्ता तलाशने के लिए GPS यंत्रों पर हजारों रुपये खर्चने की जरूरत नहीं है। इसी तरह से रिलायंस जियो ने 4G को काफी कम दरों पर उपलब्ध कराकर मोबाइल इंटरनेट का काफ़ल्ट कर दिया।

सबके पास हो तकनीक। आज करते हैं कि 2025 में इसी तरह की पहल होगी और टेक्नॉलजी कुछ लोगों के कमरों से निकलकर आम बाजार में पहुंचेगी। 'कुछ के पास और काफी खास' के दिन बहुत हो गए, समय आ गया है टेक्नॉलजी में 'सबके पास, सबके विकास' के। राहत इंदौरी साहब के शब्दों को थोड़ा-सा बदल कर कहें तो, 'सभी का श्रम और शौर्य शामिल है इस जहां में, किसी के बाप का तकनीकी आविष्कार नहीं!'

(लेखक और लेखिका Tech (जानकार हैं)

ONOS boost to academia

IMRAN HUSSAIN

The One Nation One Subscription scheme holds promise for transforming India's academic landscape and bolstering its global reputation.

The Government of India announced the One Nation One Subscription (ONOS) initiative to support the growing needs of the research community. The scheme aims to provide open access to renowned national and international journals, research articles, and publications for academic professionals, research scholars, students, and other stakeholders. The initiative promises significant advantages for academic institutions, including colleges, universities, research organisations, institutes of national importance, and other centres of higher studies.

Beyond its benefits to academia, ONOS is positioned as a welfare scheme for the nation. The Office of the Principal Scientific Adviser to the Government of India, in the fifth draft of the Science, Technology, and Innovation Policy (STIP)-2020, proposed ONOS as a national-level programme to enhance the global visibility of Indian research while improving access to scholarly content. The policy seeks to replace individual institutional journal subscriptions with a Centrally negotiated model. This arrangement would make academic literature freely accessible to everyone in the country through a single national payment.

In its first phase, the Planning and Execution Committee (PEC) recommended the inclusion of resources from the world's top 70 publishers. The key objectives of the ONOS scheme include:

Cost savings: Centralised negotiations aim to reduce subscription costs by eliminating duplication and enabling aggregate purchases, thereby alleviating the financial burden on academic institutions, especially those with limited resources.

Improved access: By consolidating subscriptions at the national level, ONOS ensures that even institutions with minimal resources can access the latest scholarly content. This will promote research and innovation by providing Indian scholars with access to cutting-edge global research.

Efficiency and resource optimisation: Reducing duplication of journal subscriptions will minimise wasteful spending and ensure that funds are channelled toward impactful research activities.

The scheme was approved by the Union Cabinet on November 25, 2024, with an allocated budget of Rs 6,000 crore for the period 2025-27. The Information and Library Network (INFLIBNET), an autonomous inter-university centre under the University Grants Commission (UGC), will coordinate the implementation of ONOS. The Union Education Ministry will serve as the driving force behind the ONOS initiative. The existing subscriptions to online databases from 70 publishers will be aligned with the programme. Under this plan, the government will directly cover the subscription costs, granting the people of India access to scientific resources.

Nearly 4,000 high-impact journals and periodicals are expected to be included in the subscription. As part of this policy, the proposed National Science, Technology & Innovation Observatory will act as a central repository for all data generated by the scientific research community. Measures will also be taken to enhance the quality of Indian journals by eliminating fraudulent publications. The successful implementation of this initiative will contribute to achieving Atmanirbhar Bharat in science, technology, and other thrust areas. The scheme is set to operate through a digital and seamless process to ensure efficient access to resources.

The scheme offers numerous benefits. It democratises access to scholarly content for a vast academic population. Centralised subscription models save costs at both institutional and national levels. Despite its potential, however, implementing ONOS comes with challenges. India's vast and diverse network of academic institutions makes it difficult to negotiate a unified subscription price for international journals. Publishers may be reluctant to sign such large-scale agreements due to technical challenges in providing access to India's immense population.

Moreover, ensuring equitable resource distribution and addressing the varied needs of institutions with diverse research specialisations could pose management hurdles. The extent to which the government accommodates the demands and commercial interests of publishers will be a critical challenge to address.

Commercial publishers often secure more favourable deals when negotiating with smaller institutions or individuals than with larger consortia, institutional libraries, or Central organisations representing multiple entities. Also, there will be questions about the concept's overall viability. If a central committee negotiates with only a few major publishers, many others may opt out of the arrangement. The 'Access to Knowledge and Resources' group, which contributed to framing the Science and Technology Innovation Policy-2020, highlighted that while the idea is appealing, it is difficult to draw conclusions without clarity on which publishers will participate and their expectations.

The group also emphasised that while the goal is commendable, it is essential to ensure that the financial burden on taxpayers remains reasonable. However, significant concerns have been raised about the lack of transparency in the negotiation process, as limited updates have been provided thus far. The willingness of publishers to agree to multi-state subscriptions is crucial for the proposal's success. If successful, India could become the largest country to secure agreements providing access to paywalled materials for over 1.3 billion citizens, potentially setting an example for other nations.

India's fragmented journal subscription model has long hindered efficient access to resources. By consolidating consortia into a single national-level framework, ONOS addresses these inefficiencies, significantly reducing per capita spending on journals. India, often cited as a hub of predatory publishing, stands to transform its academic landscape through ONOS.

However, its success will depend on a number of factors, including the availability of funding, the ability to negotiate favourable subscription rates with publishers, and the ability to ensure that the needs and interests of all academic disciplines and institutions are taken into account simultaneously. By implementing these policies, government agencies and institutions in India can reduce duplication of journal subscriptions and save public funds. This will allow for more efficient use of resources and greater access to important research by researchers, students, and the public.

This bold initiative has the potential to make India a global leader in quality scientific publishing if accompanied by suitable and timely measures. The scheme is a timely and much-needed step toward building a unified, resource-efficient, and accessible academic ecosystem for India. It paves the way for enhanced research output, economic efficiency, and strengthened global academic stature.

IKS and manuscript preservation

Dr PRASANTA Kr DEKA

Preserving ancient manuscripts ensures the accessibility and application of India's rich intellectual heritage, fostering knowledge dissemination.

Knowledge – its acquisition, perception and dissemination are terms that, when integrated, together make complete sense of its essence. The very substance of knowledge and its epistemology are matters that have been the major focus of attention in every age. Keeping in mind the fact of changing times, relevant methods and ways of understanding and attaining knowledge have been formulated by epistemologists and critical thinkers across the world from time to time. Almost all the different theories and branches of knowledge emphasise the attainment of valid or authentic knowledge and its critical application in understanding the real world.

Embracing a rich heritage inclusive of medicine (Ayurveda), yoga, meditation, phonetics, language, grammar, astronomy, architecture, rituals, customs, philology, auxiliary sciences, literature, myth, agriculture, mathematics (Vedic mathematics), sports, and *arthashastra* (economics), the bulk of the Indian knowledge system comprises a rich legacy. It is not surprising, therefore, to note the extraordinary attraction of scholars from around the world to the Indian knowledge system, with an interest in Indology and the Indian civilisation, which undoubtedly showcases the rich constituents of the Indian knowledge system.

With a view to ensuring quality and holistic education, the National Education Policy (NEP)-2020 has implemented various schemes and outlines that ensure universal accessibility, higher research and innovation, equity, quality, digital empowerment,

and affordability, among others. Amidst the various transformations implemented by the NEP 2020 in the structure of the education system in the country, ample scope and emphasis have been placed on the promotion of Indian languages and the Indian knowledge system. The Indian Knowledge System, functioning under the Ministry of Education at AICTE, New Delhi, is a cell that promotes research and examination, as well as the preservation and dissemination of the rich heritage and tradition of Indian knowledge, spread out in the fields of medicine, yoga, art, literature, painting, architecture, archaeology, sports, agriculture, ancient Indian science and technology, economics, law, justice, administration, commerce, and various other aspects showcasing the legacy of Indian knowledge. The primary aim behind IKS is to promote awareness on a large scale of the rich tradition within the Indian knowledge system, as well as encourage research and innovation to apply ancient knowledge to certain problems and complexities of the present-day world. Under the guidelines of the NEP 2020, the inclusion of the IKS in the syllabi and the curriculum has been made a mandatory criterion at all levels of education in India, from the primary level to the University level and beyond.

Promoting the indigenous Indian systems of knowledge under the cell of the IKS, the syllabi of the various institutes of higher education in our country have started including several aspects of the subject in their prospectus. In this sense, it is important to note the contribution of the KK

Handiqui Library, Gauhati University, which, in addition to its enormous collection of books, e-resources, journals, pamphlets, rare books, and other materials, is blessed to have a collection of manuscripts rich with prospects, potential, and resources for the IKS system of education at Gauhati University. Manuscripts, being one of the most valuable pieces of historical, cultural, and literary resources, are rightfully considered some of the most treasured and significant archival possessions. Right before the advent of the print culture, the significance of the manuscripts as a written tradition in the historical, educational, social, and religious life of the Assamese people was so profound that the history of manuscript collection in the region dates back to the Middle Period, around the 18th and 19th centuries. The rich content and subjects of the manuscripts, abounding with information, art, and wisdom, reflect the various significant branches of knowledge that were in existence even before the advent of the print culture.

The collection of manuscripts in Assam in the present times primarily rests with individual families' personal collections, as well as in the religious sects of the *satras* and the *namghars*. However, with a collection of about 4,500 manuscripts collected from various parts of the region, the KK Handiqui Library, Gauhati University, holds an important position as one of the oldest and most significant libraries of its kind, housing a section completely dedicated to the collection, preservation, and conservation of manuscripts in Assam. The manuscript collection of the library, considered

one of its most prestigious sections, is pledged to include some of the rarest and oldest manuscripts relating to myth, religion, Ayurveda, medicine, yoga, epic, grammar, the Puranas, the Puthis, the Vedas, various incantations, rites and rituals, etc. With collections such as the *Chitra Bhagabat*, the *Lava Kusha Yuddha*, the *Ratnamala Vyakaran*, the *Gopi Uddhav Sambad*, the *Jal Chakra*, the *Ramayana*, the *Mahabharata*, the *Agni Puran*, the *Amabaiskya Nirnay*, the *Amaratha Chandika*, the *Anka Ganana*, the *Aousadhar Katha*, and Ayurveda, the KKH library can be considered an important repository of IKS materials and resources. Scripted primarily in old Assamese and Sanskrit, the manuscripts preserved in the Library are written on *sanchipat*, *tulapat*, and palm leaves, dating back 200 to 300 years. The application of certain chemicals, disinfectants and room humidifiers, installation of air-conditioners, and other measures have been taken from time to time for the scientific conservation and preservation of the manuscripts.

Under the National Mission for Manuscripts (NMM), around 200 manuscripts of the library have been digitised and set on an easily accessible podium to encourage greater readership. Future plans for the easy accessibility and scientific conservation of the manuscripts include a scanner, a digital camera, file compression, image processing software, DSpace, Eprints, and other digital techniques to ensure the implementation of the IKS through the manuscripts.

IN THE BALANCE

India's growth dilemma: Skyscrapers or social equity?

Infrastructure push comes at the cost of investments in healthcare, education, and social welfare

RAJESHWARI U R

India stands at a critical juncture in its development journey, grappling with the challenge of how best to allocate its limited public funds. The debate over prioritising infrastructure, such as highways, railways, and airports, versus investments in the social sector, including healthcare, education, and welfare, has become increasingly pressing. Both are crucial for national progress, but recent spending trends reveal a disproportionate focus on infrastructure. This imbalance risks undermining equitable and sustainable growth in the long run. Infrastructure development has long been regarded as a cornerstone of economic prosperity. To address its infrastructure deficit, India has initiated ambitious programmes like the National Infrastructure Pipeline (NIP), which aims to invest Rs 111 lakh crore between 2020 and 2025. This includes substantial allocations for transportation, energy, and water and sanitation. Schemes like the PM Gati Shakti seek to modernise logistics and improve connectivity, ultimately targeting a reduction in India's logistics costs from the current 14% of GDP to the global average of 8-10%. Such initiatives align with the government's goal of becoming a $5 trillion economy.

However, the Union Budget for 2023-24 reflects a stark disparity in priorities. Of the Rs 45 lakh crore total expenditure, Rs 10 lakh crore was allocated for capital expenditure, primarily for infrastructure, representing a 33% increase from the previous year. In contrast, healthcare and education – sectors directly tied to human development – received far smaller allocations of Rs 89,155 crore and Rs 1.12 lakh crore, respectively. Compared to countries like Brazil, which spends 6.5% of its GDP on education and 9% on healthcare, India's investment in these areas appears insufficient.

The emphasis on infrastructure, while essential for GDP growth, comes at the cost of social investments that have a more profound and sustainable impact on human well-being. India's low Human Development Index (HDI) ranking of 134 out of 193 countries in 2023 underscores the urgency of addressing gaps in healthcare, education, and social welfare. Despite the National Education Policy (NEP) 2020 proposing that public spending on education should reach 6% of the GDP, current levels hover around 3%. The situation is reflected in poor learning outcomes, with the 2022 Annual Status of Education Report (ASER) revealing that only 20% of Class 5 students in rural areas could read a Class 2 text. Healthcare fares no better, with spending stagnating at 2.1% of the GDP, far below the global average of 6%. The COVID-19 pandemic exposed severe inadequacies in India's healthcare system, including shortages of hospital beds, medical

staff, and equipment.

Poverty and inequality exacerbate these challenges. Nearly 10% of India's population lives below the international poverty line of $2.15 per day, according to the World Bank, and the country faces one of the highest levels of wealth inequality globally. Programmes designed to address food security, rural employment, and affordable housing remain underfunded when compared to large-scale infrastructure projects.

A skewed development model

The preference for infrastructure spending is not purely economic but also deeply political. Large infrastructure projects generate immediate, visible benefits such as job creation and economic activity, making them attractive for governments seeking electoral gains. In contrast, the outcomes of social investments, such as improved literacy rates or better healthcare metrics, take longer to materialise and are less conspicuous. This short-term focus

neglects the long-term economic dividends of social spending. A 2022 study by the International Monetary Fund (IMF) found that increasing public health expenditure by just 1% of the GDP could boost GDP growth by up to 0.7% in the long run.

Ignoring the social sector while prioritising infrastructure creates a hollow foundation for growth. A population that is undernourished, poorly educated, and unhealthy cannot fully harness the benefits of advanced highways or industrial parks. India's labour force participation rate, particularly among women, remains alarmingly low due to inadequate access to education, healthcare, and skills training.

To address these challenges, policymakers need a more integrated approach that links infrastructure investments directly to human development. For instance, expanding digital infrastructure could play a transformative role in enhancing access to education, healthcare, and government services.

The declining school enrolment rates provide a stark warning about the state of the education system. Recent data from the Unified District Information System for Education (UDISE+) reveals that school enrollments fell from 26.02 crore in 2018-19 to 24.8 crore in 2023-24, a decline of 6%, or 1.22 crore students. States like Bihar, Uttar Pradesh, and Maharashtra recorded the sharpest declines, with Bihar alone losing over 35.65 lakh students. While a part of this drop can be attributed to improved data accuracy under the revamped UDISE+ system, it also reflects deeper issues such as inadequate school infrastructure, poor learning outcomes, and rising economic pressures on families.

India's development cannot rest solely on skyscrapers and highways; it must also nurture its social fabric. Infrastructure and social investments should not be seen as competing priorities but as complementary pillars of progress. A robust infrastructure network can enable social mobility, while an educated and healthy workforce strengthens the economy. Policymakers must recognise that social sector spending is not merely an expense but an investment in the nation's future. Only by striking a balance can India achieve inclusive and sustainable growth, ensuring that no one is left behind in its march towards progress.

(The writer is an associate professor at the Department of Economics, Christ University)

4 Pure Politics

DHARMENDRA PRADHAN
MINISTER OF EDUCATION

> BJP is a party for social justice. What decision needs to be taken on caste census would be taken at the appropriate time. Please remember who gave Bharat Ratna to Karpoori Thakur and constitutional status to OBC Commission. We believe all should have equal rights in resources.

Educational Reforms Must be Paced, Can't Create Fear Among Students: Pradhan

TEXTBOOK CONTROVERSIES

Sardar Patel's contribution to integrating India in its modern avatar is unmatched and unforgettable. How is anyone diminished if we highlight his contribution and work?

AAP'S CLAIMS ON EDUCATION

It is only a claim, they have done nothing in the education sector. AAP is expert in making false and illogical claims.

OBC CHANGES IN BJP

I am a common and committed worker of BJP. I am not born with a golden spoon to launch, relaunch and then repackage myself.

LANGUAGE, NEP & TAMIL NADU

Some friends from Tamil Nadu — and their time will soon be up even if they make it one or two times electorally — keep attempting to artificially divide society. They will not succeed.

Forging leadership with India's youth power

Every year, January 12 is celebrated across the length and breadth of India as 'National Youth Festival', a day which is also the birth anniversary of Swami Vivekananda. The Viksit Bharat Young Leaders Dialogue is an innovative one, launched with the vision of engaging India's youth in the developmental journey of the nation. The programme seeks to harness the collective energy, creativity and leadership potential of young minds to contribute towards realising a Viksit Bharat, i.e., a Developed India.

In line with Prime Minister Narendra Modi's belief that the youth of the country are central to India's growth, the dialogue provides a platform for young leaders to engage in discussions, exchange ideas, and collaborate on solutions to the nation's challenges. The competition and its stages are designed to inspire the youth to think critically and contribute in a proactive way towards India's progress.

A dialogue, its competitive nature

The dialogue is a dynamic, multi-stage initiative, designed to engage and empower India's youth in the country's developmental journey. The competition has four stages, the first being a Viksit Bharat quiz held digitally on the My Bharat platform. This stage tested a participant's knowledge about India's achievements, challenges, and vision for a developed future, covering areas such as sustainable development, technology, and national policies. The top scorers moved on to the second stage, i.e., essay and blog writing, where they had to write on themes such as tech for Viksit Bharat and empowering youth for Viksit Bharat, reflecting on their vision for India's future. These submissions were evaluated for originality.

In the third stage, the Viksit Bharat Vision Pitch Deck, participants at the State level presented innovative ideas for India's development through a compelling pitch deck. The best teams from each State advanced to the fourth and last stage of the Viksit Bharat National Championship, which will be held at the Bharat Mandapam in New Delhi on January 11-12, 2025.

In the finale, the selected teams will pitch their visionary solutions to the Prime Minister. This in itself is a unique opportunity to influence national policy and contribute to India's vision of a Viksit Bharat. The competition is structured to test not only a participant's knowledge and creativity but also their leadership and communication skills.

Raksha Khadse

Union Minister of State for Youth Affairs and Sports, Government of India

The features this year

The National Youth Festival is an annual celebration of India's youth, fostering a spirit of national integration and promoting the ideals of youth empowerment and creativity. However, this year's festival stands out in several ways.

The focus this year is on Youth for Sustainable Development, a theme that resonates with growing recognition of young people as the drivers of global change. In line with India's commitment to the Sustainable Development Goals (SDGs), the festival has incorporated workshops, seminars and cultural activities that align with the vision of a greener, more inclusive, future. Additionally, there is a greater emphasis on the role of technology and innovation in achieving national goals, with specific sessions dedicated to Tech for Good and Innovation for India's Development.

Another unique feature this year is expanded virtual participation. With digital platforms having been integrated into the festival, young people from remote corners of the country can participate in discussions, workshops, and showcase their talents and ideas online. This inclusivity broadens the festival's reach and ensures that youth, regardless of location, has the chance to contribute.

The 2025 National Youth Festival will feature: workshops and panels on leadership and innovation. With a focus on topics such as youth leadership, digital entrepreneurship, and sustainable living, these sessions will equip participants with the skills necessary to drive change in their communities.

Second, cultural programmes. The festival will celebrate India's rich cultural heritage through music, dance, theatre, and folk art performances. These will provide youth with opportunities to express themselves creatively and appreciate the diverse cultural landscape of the nation.

Third, tech and innovation showcases. With the theme, Tech for Viksit Bharat, the festival will include exhibitions and presentations from young tech innovators and entrepreneurs who are building solutions to real-world problems in sectors such as health, education, agriculture, and urban development.

Fourth, engagement with leaders. The festival will facilitate direct engagement between youth and key leaders as pathbreakers from various sectors, which include government, business and academia. These interactions will provide participants with insights into leadership, governance, and the path to national progress.

Fifth, recognition of youth contributions. Awards and recognitions will be presented to young individuals and organisations that have demonstrated exceptional leadership, innovation and service. This will motivate others to take active roles in shaping India's future.

The role of MY Bharat

The Mera Yuva Bharat (MY Bharat), an autonomous body under the Ministry of Youth Affairs and Sports, plays an instrumental role in shaping and guiding the direction of the National Youth Festival. As a platform that empowers youth by promoting engagement, knowledge sharing, and participation in nation-building activities, it is crucial in curating the festival's programmes and ensuring that they align with the aspirations of India's youth. Through MY Bharat, young people can gain access to resources, mentorship, and opportunities that will enhance their ability to contribute meaningfully to the country's development.

In this year's festival, MY Bharat will facilitate the digital integration of youth, enabling participation from across the country. It will also actively support youth-led initiatives, helping them navigate the complexities of social and technological challenges and encouraging them to find innovative solutions for a better India.

In totality, India's youth is indeed its most precious asset. As the country progresses towards its vision of becoming a Viksit Bharat, it is the boundless energy, the ideas and the ambition of young people that will power the nation's transformation. The initiative of the Viksit Bharat Young Leaders Dialogue will not only open a new chapter but will also shape the mobilisation of the political leadership.

The future of India is bright, and it rests in the able hands of its youth. This resonates with the belief expressed by Swami Vivekananda in unlimited possibilities in youth energy when he had said, 'Give me one hundred 'believing' young men... I will transform India as the number one nation in the entire world....'

> The Viksit Bharat Young Leaders Dialogue is designed to inspire the youth of India to think critically

Aligning the stakeholders

There is a pressing need for updated, NEP-aligned curricula, value-added courses, and collaborative corporate-academia initiatives to bridge the gap between academic knowledge and workplace skills

NABANITA GHOSH

Institutions, corporations, and the government should share the responsibility of creating a sustainable, inclusive model for employability

Today, the question brought to the table is, "Can a student be trained from the mother's womb to cater to corporate needs?" The world is reeling under the pressure of producing for the corporate sector: the tech giants, the accounts executives, the smart programmers, and whatnot. The learning institutions, specifically the undergraduate and postgraduate ones, are predominantly responsible for disseminating adequate domain knowledge to aspirants who are spending their valuable three to five years grooming themselves for a sustainable future.

With the rise in demand for value-added and professional courses, students are invariably enrolling in the same and are blessed with opportunities to undergo extensive internships in firms or entities. In a few spectacular cases, they even land positions in some big companies. Looking at the scope of the general category of learners, quick internships, conservatively spanning only a few weeks, can at best justify the concept of internships for students without adding significant productivity to their academic bank or accelerating their career graph. These non-professionally qualified interns are at the mercy of their institutions and, therefore, cannot be strong contenders in the job market. Comparisons push such candidates to the back burner, and consequently, leveraging their qualifications becomes a steep proposition.

According to data from Worldometer, India's total population as of today is 1.45 billion, with a median age of 28.4 years, essentially calling for active and continued employment. Corporations are setting stratified criteria for graduates to join the workforce. A student typically joins an undergraduate program at the age of 18, spending three years (or, with recent NEP amendments, four years) being moulded theoretically rather than practically for the job field. Corporate expectations have drastically changed over time; they are now hunting for tailor-made recruits who can immediately handle industry challenges without intrinsic "on-the-job" or "off-the-job" training.

This creates a stark disparity, as budding professionals gain an edge over the mass of non-professional graduates. challenges continue to exist for the learning temples in modifying the curriculum to make it fit for the working requirements. The Indian system of education which demonstrates vehemently classroom approaches almost across all the disciplines will be finding slightly difficult to transform their pedagogies at 180 degree to suit the industrial demands. The attention is also to be given for the level of learners in the universe. For a slow learner the adaptability is way much behind in contrast with the average and advanced learners and this creates the stumble blocks for the learning partners to design differentiated learning models. The fundamental knowledge is the pillar for the working life to rest upon. Time on the other hand is the demon to cast a shadow on the acquisition of domain knowledge and employability skills. The core competency of the Institutions lies in the delivery of updated subject knowledge duly keeping in mind the dynamicity of the industry needs.

Just as banks are nationalised to promote national welfare, industries are meant to provide employment to graduates after scrutinising their candidatures. If recruitment focuses solely on trained and experienced candidates, the inexperienced will remain unemployed or need to find ways to align their educational achievements with corporate thresholds.

The Indian primary and secondary education system, irrespective of the board, typically rests on the quantum of learning with considerable trust in its inbuilt traditional quality. Enrolled learners are expected to be adequately equipped with knowledge streams before being prepared for job requirements. While the age-old shackles of learning styles have been modified by many institutions and universities to avoid obsolescence, corporate demands still necessitate a realistic approach.

Benchmarking NEP-centric syllabi with those of competent institutions and making significant modifications in pedagogies, assessment patterns, and examination structures compel institutions to adopt versatile program structures. However, whether these changes are reflected in course outcomes remains uncertain in the long run. Various value-added courses, micro-credential programs, and courses focused on employable and entrepreneurial skills are now being mapped by educational institutions to enhance the absorption of their students in the demanding corporate world.

It should be borne in mind that if all learners simultaneously seek hands-on opportunities in the corporate sector, provisions to accommodate all may fall short. Furthermore, educationists lack sufficient navigation into the knowledge pool and need to inculcate modern teaching skills. At this juncture, the corporate sector must invest its time, money, and resources to extract real talent.

Reality bites: organisations often remain conservative in their approach, believing that newly hired freshers are unable to yield results and instead incur costs. Significant savings in time, training, and supervision are areas where companies place their utmost trust and confidence. The onus lies on the government and organisations to rationalise their requirements to overcome fluctuations in the recruitment process. Institutions alone cannot be solely responsible for preparing learners for the job market.

The gap between book knowledge and practical exposure should be mitigated by an appropriate proportion of effort from the corporate sector, as the workplace emerges as the centre for future learning, development, and sustainability. It has been repeatedly observed that companies refuse to support learners seeking data for their research or case study-based assignments. Big Four firms and large-cap companies, standing at the helm of industrial hierarchy, often accomplish their stereotypical agendas by exploiting the intellectual capabilities of budding graduates.

In some cases, interns end up negotiating with small-scale entrepreneurs, compromising their expected learning needs. It is imperative to sketch a reasonable collaborative methodology for nurturing skilled youth under a Corporate-Academia hand-holding initiative.

The writer is Assistant Professor, Dept of Commerce, Christ University, Bangalore. Views expressed are personal

Traditional classroom-centric pedagogies and theoretical curricula inadequately prepare students for corporate expectations, which increasingly require job-ready candidates

FIRST COLUMN

HOMESCHOOLING: AN OPTION WORTH EXPLORING

While it comes with challenges, its benefits make it an increasingly compelling choice

SAKSHI SETHI

Childhood is a short season, and homeschooling gives a child more time to truly enjoy it. In recent years, homeschooling has seen a significant rise in popularity as parents increasingly opt to educate their children at home rather than through traditional schooling systems. This shift reflects a combination of concerns about conventional education and the desire for more tailored learning experiences. One of the primary reasons parents choose homeschooling is the ability to customise education to suit their child's unique needs.

There is no denying that curriculum is a valuable tool but at the same time a terrible master. Traditional classrooms often struggle to accommodate different learning paces and styles, whereas homeschooling allows parents to tailor lessons, fostering deeper understanding and engagement. Many parents cite dissatisfaction with public or private school systems as a motivator for homeschooling. Issues such as overcrowded classrooms, underfunding, and lack of individual attention can negatively impact the quality of education. Additionally, concerns over bullying, peer pressure, and exposure to harmful influences prompt parents to seek alternatives.

Homeschooling allows families to integrate their cultural, ethical, or religious values into the curriculum. Parents can teach their children in alignment with their personal beliefs, creating an educational experience that reflects their family's principles. Unlike traditional schooling, homeschooling offers flexibility in schedules and teaching methods. Families incor-

porate travel, extracurricular activities, or non-traditional subjects into their routine, enhancing the learning experience. This adaptability appeals to families seeking a more balanced lifestyle.

Unlike traditional schooling, homeschooling offers flexibility in schedules and teaching methods. Families can incorporate travel, extracurricular activities, or non-traditional subjects into their routine, enhancing the learning experience. This adaptability appeals to families seeking a more balanced lifestyle. While homeschooling offers many benefits, it is not without its challenges. Parents often need to dedicate significant time and effort to planning and teaching. Additionally, concerns about socialisation can arise, as homeschooled children may have fewer opportunities for peer interaction. However, many families address this by participating in extracurricular activities, and community events. Homeschooling is not a new phenomenon.

In olden times, education often took place at home, with parents or private tutors guiding the learning of their child. The rise of formalised schooling in the 19th and 20th centuries shifted education to institutions, but homeschooling remained a choice for families who sought alternatives. Modern homeschooling driven by educational reformers and parents seeking greater control over their children's education began gaining traction in the 1970s and 1980s. Today, it continues to evolve, integrating technology and innovative teaching practices. Technology undoubtedly has played a pivotal role in making homeschooling more accessible and effective. It has also enabled collaboration and connection among homeschooling communities. Online learning platforms, virtual classrooms, and educational applications such as Scholastic Kids, Udemy, Duolingo, Funbrain and many more provide parents with resources to create comprehensive curricula. The shift to homeschooling reflects a broader desire among parents to take control of their children's education and provide a more personalised, values-driven learning environment. While homeschooling comes with its challenges, the benefits of flexibility, individualised attention and alignment with family priorities make homeschooling an increasingly appealing choice for families worldwide.

(The writer is an educator; views are personal)

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ACROSS THE AISLE

P CHIDAMBARAM

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Vice chancellors will become viceroys

Times have changed — for the worse. Under the present dispensation, governors are political appointees rewarded for loyalty to the RSS/BJP's ideology or trusted retired civil servants. In Opposition-ruled states, the governor is instructed to act as the Viceroy of the central government and to shackle the state government. In effect, there is a Dyarchy in the states: the elected government and the unelected governor

PRACTICALLY ALL governments crave more power and make laws to give themselves more control and more authority. It is because the rulers believe they alone know what is good for the country and the people. Some individuals have the same complex. It is called the 'saviour' (or messiah) complex. It is a psychological construct that leads one to believe that he or she must 'fix' all the problems and 'save' the people. In its extreme manifestation it may lead to the delusion that he or she was not born biologically but "God has sent me".

Tucked away in the inside pages of newspapers on January 7, 2025 was the news story headlined UGC review guidelines for appointments of V-Cs. The subject matter was the selection process of vice chancellors of universities. The University Grants Commission (UGC) has issued draft Regulations and has invited comments.

BROAD-BASED & COLLEGIAL

Presently, in most Acts authorising the establishment of one or more Universities, the governor of the state is made the chancellor. In some Acts that established central universities, the President is the visitor. The governor, invariably, was a long-retired political leader of eminence or a distinguished citizen. The governor was expected to, and would, function constitutionally. The current Regulations provide for a search-cum-selection committee that will include a nominee each of the governor, state government, senate of the university and syndicate of the university. The search-cum-selection committee was broad-based and democratic. Though the final selection was by the chancellor/governor, in the past, the governor ordinarily acted on the 'aid and advice' of the state government. That practice, unfortunately, was buried in the last decade and governors have appointed vice chancellors in their sole discretion.

Times have changed — for the worse. Under the present dispensation, governors are political appointees rewarded for loyalty to the RSS/BJP's ideology or trusted retired civil servants. In Opposition-ruled states, the governor is instructed to act as the Viceroy of the central government and to shackle the state government. In effect, there is a Dyarchy in the states: the elected government and the unelected governor. The 'aid and advice' clause in the Constitution of India has been thrown to the wind.

CREEPING DYARCHY

Witness governors refusing to read the whole or parts of the Address to the Legislative Assembly prepared, by convention, by the state government. Witness the governor publicly criticising the state government, especially the chief minister. Witness the governor summoning the chief secretary or the police chief and issuing instructions to them by-passing the chief minister. Witness the governor embarking upon a tour of the state to 'review' the district administrations and hold 'discussions' with the district officials. Dyarchy is entrenching itself, especially in Opposition-ruled states, in contravention of the provisions of the Constitution. [In the case of BJP-ruled states, the state government is totally subordinate to the central government and there is usually a minister or a senior officer who is the 'eyes and ears' of the prime minister and conveys the decisions of the prime minister to the chief minister.]

Section 22 of the UGC Act stipulates that a 'degree' means any such degree as specified by the UGC and can be granted only by a university established by an Act. The new draft regulations prescribe the mode of search-cum-selection and appointment of a vice chancellor: it will be through a 3-member committee comprising a nominee each of the chancellor, UGC and the apex body (Syndicate/Senate/Board of Management) of the university. The committee shall prepare a panel of 3-5 names and the chancellor shall appoint one of them. If a university violated the regulations, it will be debarred from offering degree programmes or participating in UGC schemes, removed from the list of universities under the UGC Act, and subject to other punitive action. In effect, the educational institution will cease to be a 'university'. Note that the state government has no role at all in the selection and appointment of the vice chancellor. The vice chancellor will become the Viceroy of the UGC whose chairperson and members are appointed, and may be removed, by the central government.

NATIONALISATION OF UNIVERSITIES

Two Viceroys, vetted for ideological purity, will be in place to administer a university — the governor/chancellor and the vice chancellor. The draft regulations, if notified, will usurp the rights of the state government that had established the university for the benefit of the residents of the state and funds the university out of the state's own resources. The draft regulations virtually nationalise the universities and the messiah will take control of all higher education institutions (HEIs) of the country. It is another example of galloping centralisation in line with the BJP's policy of 'One Nation, One Government'. It is a blatant attack on federalism and states' rights.

The states must repudiate the draft regulations and fight, politically and legally, to defeat the nationalisation of Indian universities. Teachers and students must protest. Beware, once Dyarchy is entrenched in all aspects of public administration, it will be only a matter of time before Dyarchy will give way to Monarchy or an absolute ruler.

Ranking and citation rat race is hurting India's academic reputation

V RAMGOPAL RAO

The rising obsession of Indian institutions with metrics and rankings is leading to a crisis in academia, with dire consequences for the credibility of research emanating from the country.

Academic contributions have been reduced to a numbers game, and institutions are being measured by their publication count or citation score, not by the originality or real-world impact of their research. In this atmosphere, academic integrity is often the first casualty. Some universities have resorted to dubious practices, including manipulating publication metrics, to climb the Indian and global rankings ladder.

A recent article in the journal Science highlights the proliferation of "shoddy commentaries" designed solely to game the metrics system. Researchers demonstrated how some institutions artificially created citation networks to inflate their visibility.

The data accompanying the study reveals that some Indian institutions are producing hundreds of low-quality papers annually. This practice not only distorts the true quality of research but also diverts resources and attention away from meaningful academic pursuits.

Additionally, a study published by MIT Press exposes troubling practices within Indian academia. Features Indian universities appearing in global rankings were found to engage in questionable authorship and affiliation tactics. These include honorary authorship, where researchers are listed as co-authors despite making no substantive contributions, and strategic collaborations designed to inflate the perceived research output.

This trend is further fueled by a well-organised ecosystem of services. Companies openly advertise "solutions" for research scholars, offering services ranging from paper writing and publication to tailored plagiarism reduction. Some even promise guaranteed results within a fixed time line. This ecosystem reduces academic publishing to a commercial transaction, undermining the very foundation of scholarly work.

While metrics such as the H-index, impact factor and citation counts can provide useful insights, they should not be treated as ends in themselves. This trend is particularly damaging for young researchers who, instead of focusing on innovative and impactful research, are often forced to adopt unethical practices just to remain competitive.

This also puts the global reputation of Indian academia at stake. As more universities engage in these practices, international collaborators and funding agencies may become skeptical of research originating from India. This could jeopardise valuable partnerships and slow down the country's contributions to global scientific advancements.

To address this growing crisis, policymakers, regulatory bodies, academics, and academic leaders must come together to restore integrity and ensure sustainable practices.

1. Transparent and rigorous peer review: Journals, particularly those in the grey or predatory zones, must adopt stricter review processes. Indian institutions should encourage their researchers to publish in journals that adhere to globally accepted ethical and quality standards.

Our institutions of Eminence should publicly list reputable journals to guide researchers in selecting high-quality platforms for publishing.

2. Regular audits and accountability: Regulatory bodies like the University Grants Commission should enforce periodic audits of research publications to uphold academic integrity. India's esteemed science and engineering academies can collaborate with regulatory bodies to carry out these audits of effectively institutions engaging in unethical practices should face stringent penalties, including withdrawal of funding or recognition. Additionally, faculty associated with publications in dubious journals should be disqualified from holding administrative or leadership roles within universities. Establishing a transparent and rigorous auditing mechanism will serve as a deterrent to unethical practices and foster accountability in academia.

3. Evolving new metrics, and creating awareness: India must commission studies to develop more holistic research metrics that account for factors such as research integrity, inter-disciplinarity, and societal impact rather than relying on outdated metrics like the H-index and impact factor. Institutions should also invest in training programs that educate faculty and students about research ethics and the long-term consequences of malpractice. Workshops and seminars can foster a culture of integrity and reduce the allure of shortcuts.

India's institutions have much to be proud of. Their contributions to high-impact research and their growing presence in global knowledge systems are commendable. From pioneering the Green Revolution to achievements in space exploration, biotechnology, atomic energy, and renewable energy, Indian academia has consistently addressed critical global challenges. However, the race for rankings must not come at the cost of ethics and quality.

By prioritising genuine contributions and creating a supportive environment for ethical research, Indian institutions can uphold their legacy as beacons of knowledge and innovation. Failure to address this crisis will not only harm individual institutions but also tarnish the image of Indian academia on the global stage.

Prof Rao is vice-chancellor for the BITS Pilani group of institutions and former director of IIT Delhi. Views expressed are personal

Centralising control

The Centre must not attempt to run universities by proxy appointments

In a federal setup, attempts at undermining any stakeholder in the subject matter of education, which is in the Concurrent List, will prove disruptive. The Draft UGC (Minimum Qualifications for Appointment and Promotion of Teachers and Academic Staff in Universities and Colleges and Measures for the Maintenance of Standards in Higher Education) Regulations, 2025, seeks to do precisely this. Demonstrating the Centre's penchant for facilitating control over institutions through gubernatorial proxies, it proposes to divest State governments of their role in the selection process for Vice Chancellor (VC) of universities. All powers are sought to be vested in the Chancellor — i.e., the Governor in most State universities — by taking away the function of constituting the search-cum-selection committee from the higher education departments. Such a committee would comprise a nominee each of the Chancellor; UGC Chairman; and of the respective university syndicate/senate. The Chancellor would appoint the VC out of three to five names recommended by the committee. Any violations, the draft warns, could attract debarment from participating in UGC schemes and denial of funding under the UGC Act. This comes against the backdrop of conflicts between State governments and Raj Bhavans on appointing VCs, which have deprived several universities, particularly in Tamil Nadu, of leadership. Naturally, opposition has come from several States, including Tamil Nadu, which passed a House resolution urging the Centre to immediately withdraw the draft. Tamil Nadu Chief Minister M.K. Stalin has argued that the draft is not only against the basic federal principles enshrined in the Constitution but also poses a threat to the higher education system. Kerala Chief Minister Pinarayi Vijayan, the AIADMK and the CPI-M have endorsed this stance.

A proposal to make non-academics eligible for the VC's job has also drawn criticism. The draft says such non-academics must have served for at least 10 years at a senior level in industry, public administration, public policy and/or public sector undertakings, with a proven track record of significant academic or scholarly contributions. Mr. Vijayan fears this could be used to appoint Sangh Parivar loyalists. However, universities have benefited from the scholarship of non-academics such as former President K.R. Narayanan and scientist Y. Nayudamma; appointing academics does not guarantee visionary leadership. The proposal to extend the VC's tenure from the typical three to five years is welcome. The UGC would do well to remove anti-federal clauses from the draft regulations and allay apprehensions on other provisions. In the long run, it should aim for reforms to obliterate any governmental role in university administration, except maybe, for funding, and elevate them into truly autonomous institutions that nurture excellence.

SARKAR & CAMPUS

Liberalising V-C eligibility is a good step forward. Letting Raj Bhavan — or CMO — choose them is many steps back

MORE THAN THREE-AND-A-HALF years after the government announced that it would implement a new National Education Policy (NEP), the task of reforming higher education institutions remains a work in progress. The challenge is to remove persisting deficits and enable universities to cater to the demands of the modern knowledge economy. Addressing these imperatives requires the higher education regulator, UGC, to not just set standards but also act as an enabler. In the past, the agency has attracted criticism for its tendency to over-regulate. The draft UGC (Minimum Qualifications for Appointment and Promotion of Teachers and Academic Staff in Universities and Colleges) Regulations 2025 signal a welcome change in the regulator's approach, but only to an extent. Stringent rules that made undergraduate and postgraduate degrees the qualifying criteria to teach a discipline have been relaxed. This flexibility in recruitment aligns with the NEP's effort to break disciplinary silos. Equally significant are the provisions that allow senior industry experts and public administrators to apply for a VC's post. Lifting the cap on contract jobs, one hopes, will be used to attract diverse talent and not keep the talented insecure and beholden to their bosses. However, by strengthening the role of state governors in appointing university heads, the draft rules mark a disappointing departure from the NEP's thrust on institutional autonomy. Worse, they signal once again that the sarkar, in this case, the Centre, is the arbiter of excellence.

Opening the VC's post to professionals outside academia could increase the pool of experts required to helm higher education institutions. The move creates possibilities for collaboration between academia and industry — key at a time the contours of higher education are being reshaped by technology. The salience of this cannot be overstated when the higher education system, barring select institutions, has been impervious to the imperatives of an aspiring society, especially the skill deficits in the young. Realising the potency of these liberalising initiatives, will, however, require unshackling the university ecosystem from the centralising tendencies of the past, when several VCs were treated as political appointees. That universities are caught in the crossfire between governors and state governments — especially in non-BJP-ruled states such as Kerala, West Bengal and Tamil Nadu — shows that academic freedom in the country's higher educational institutions continues to be a fraught issue. In the draft rules, the clause empowering state governors, as chancellors, to constitute a search committee to find VCs undermines the university's autonomy. Raj Bhavan and the UGC will have one nominee each in this three-member panel, while the university will have just one representative.

Opposition-ruled governments are upset at the prospect of what's tantamount to a Central veto in the appointment of VCs. To get the best person to lead a campus needs a process that insulates the campus from political pressure — from the Centre as well as from state governments. A TMC loyalist chosen as a VC in West Bengal or a CPM member in Kerala could be as damaging to a campus as one imposed by Raj Bhavan. The UGC would do well to study how some of the more progressive institutions in the world give a say to participants in the system — faculty bodies, domain experts, even student associations — in choosing heads of institutions. The draft rules will be in the public domain for about a month. The government must reach out to invite a range of ideas and voices; give greater thought to designing rigorous appointment procedures that are insulated from party politics and, most importantly, resist the temptation of believing that a good rubber-stamp makes for a good academic leader.

A crack in the MAGA edifice

Scuffle inside the Trump tent on H-1B visas is symptomatic of a larger failure of policy and imagination

BHASKAR CHAKRAVORTI

WITH NO INSURRECTIONISTS invading the US Capitol in Washington, DC, this January 6, America has been robbed of a juicy fight, something we have come to expect after a US presidential election. But all is not lost. Mercifully, there are enough reckless individuals within the extreme MAGA wing of the Donald J Trump coalition who are unreasonable in a different enough way from the reckless individuals in the coalition's tech wing. So, we have a fight.

Laura Loomer, self-anointed MAGA high-priestess, took issue with the nomination of a harmless enough chap called Sriram Krishnan to the harmless enough position of "senior AI advisor" to Trump. Neither Loomer nor Krishnan is particularly consequential, but her warning that Krishnan's nomination signalled a threat to America from "third-world invaders from India" became a call to arms for the extreme MAGA — exactly the outcome a professional conspiracist hopes for. Krishnan, an otherwise chatty tech podcast host, has remained mum and it was left to invaders from a different third-world country (South Africa), techies Elon Musk and David Sacks, to speak up in support of invaders from everywhere. It is also sweet that both Musk and Sacks are White — and have roles in the upcoming administration. Now, techies are up in arms as well. US-born Vivek Ramaswamy bashed his home country for venerating mediocrity.

In the meantime, a demoralised Trump opposition finally has something to cling to: A crack in the MAGA edifice. Finally, a civil war to celebrate. The commander-in-chief in-waiting came out in favour of H-1B invaders, giving the techies an early win. Trump may have been a bit confused about the distinction between an H-1B visa holder and an immigrant he hires to mow the grass on one of his golf courses, but for now, the visa programme is safe. But you can never be too sure with Trump. In his first term, he had issued an executive order temporarily banning H-1B visas, which a federal court had struck down. This time, Trump's bromance with the techies may have caused a change of heart, but all things to do with the heart are ephemeral for the president-elect.

Indians are in the eye of the storm. It was

> Firms with H-1B visa holders have a higher rate of patents and patent citations. Immigrants are twice as likely to start a business as native-born Americans. The US system of higher education would come apart without foreign-born students, researchers and faculty. The Darwinian process of immigrating (beginning with the visa hurdles at US embassies or slipping through the border with Mexico) brings a certain degree of can-do-it-ness, which accounts for the accomplishments of the displaced. Contrary to the misinformation spread by Trump himself, immigrants, both legal and illegal, commit far fewer crimes than US citizens.

an Indian-born, Krishnan, whose nomination set off the row. Indians are the majority of H-1B visa holders; Indians clearly aren't White Europeans, who according to Loomer "built" America. But let's put this incident in perspective with three wider contextual issues.

Issue one: The H-1B visa programme — the largest temporary work visa for foreigners in the US — is beset with problems. Complaints come from those who want it banned as well as those who want it expanded. The H-1B programme allows employers to hire foreign workers "in speciality occupations or as fashion models of distinguished merit and ability," when US workers of equivalent skills cannot be found. (Who am I to question why "fashion models" deserve the special call-out?). Populist politics is in vogue in the US, so politicians are complaining about the programme being misused to hire cheap — as opposed to American — labour. Since the visa is tied to the sponsoring organisation, it could bond the worker leading to further exploitation. Others worry that US workers are overlooked and as a result, fewer Americans study STEM subjects and the US education system is failing them, creating a vicious cycle.

Champions of the programme argue that the demand for such visas vastly exceeds the annual cap and argue against the caps for each country. Moreover, the electronic registration is abused by companies gaming the system through multiple filings, which leads to delays and a lottery creating uncertainty for everyone. Musk claims the programme is essential to retain the top 0.1 per cent of engineering talent, but not everyone in the programme is highly skilled and many outstanding applicants are denied.

The flawed H-1B is part of an overall flawed immigration policy system in the US. Recent administrations have all promised to fix it and have failed. Don't expect Trump's second coming to find a fair solution.

Issue two: Trump wants to out-compete China and America badly needs that foreign-born talent. A recent US Department of Energy commissioned report found that the US is losing its competitive advantage in STEM to China. Immigrants have been critical to building artificial intelligence models as well as to installing artificial turf on a Trump property. It has kept the country younger than its European counterparts with a vibrant workforce. Firms with H-1B visa holders have a higher rate of patents and patent citations. Immigrants are twice as likely to start a business as native-born Americans. The US system of higher education would come apart without foreign-born students, researchers and faculty. The Darwinian process of immigrating (beginning with the visa hurdles at US embassies or slipping through the border with Mexico) brings a certain degree of can-do-it-ness, which accounts for the accomplishments of the displaced. Contrary to the misinformation spread by Trump himself, immigrants, both legal and illegal, commit far fewer crimes than US citizens.

Issue three: The H-1B storm is larger than the teacup in which it is brewing. It is part of a larger war over who can cosy up to the Big Boss. The techies see opportunities for money-making in business-building without pesky regulatory guardrails and installing technocratic "efficiency" solutions and the conspiracists see opportunities for money-making from large digital followerships and selling conspiracies. The Boss, in the meantime, thrives on the attention.

While our focus is on immigration, the real issue is a much wider scuffle inside the Trump circus tent, which at some point will explode beyond it. As opposed to the false fears of invasion of America, the ill effects of that explosion will invade every other part of the world. Worsening the broken immigration policy or failures on other pressing matters: Reversing action on climate change, uncontrolled rush into crypto or to Mars, worsening the misery in conflict zones in the Middle East, Africa or Ukraine, unpreparedness for the next pandemic. Who needs invaders from the third world? America has invaded itself.

The writer is dean of Global Business at The Fletcher School at Tufts University and senior (non-resident) fellow at the Centre for Social and Economic Progress

The leaders our universities need

Draft UGC regulations remove ambiguities in processes to select VCs, instil flexibility.
But resisting external interference, raising research standards, will pose challenges

ASHOK THAKUR AND
S S MANTHA

THE UGC'S RECENT draft regulations — Minimum Qualifications for Appointment and Promotion of Teachers and Academic Staff in Universities and Colleges and Measures for Maintenance of Standards in Higher Education — attempt to represent the objectives of the National Education Policy (NEP). They also seek to remove ambiguities in the selection process for the post of Vice-Chancellor (VC) as well as open up the position for non-academics.

The VC's post is central to the functioning of a university. As the academic and administrative head of the university, he/she chairs the council of the university, the board of faculties and the finance committee of the university. The VC represents the university externally, both within and overseas. He/she is also responsible for securing the university's financial base and making it robust enough to allow the delivery of the institution's mission, aims and objectives. The mandate of this post is the creation of knowledge for humanity/universe — the term "university" derives from this objective. Peter Mathieson, VC, University of Edinburgh, once summed up this imperative aptly: "Universities are not just about learning. They are about creating knowledge, questioning the status quo, and making the world a better place through research and education."

The regulation clears ambiguities in the formation of the search-cum-selection committee to appoint VCs. Such powers are now vested in the Governor-Chancellors or Visitors. Earlier, the government would seek the nominee of the Governor-Chancellor from a list of three names it supplied. The Governor-Chancellor will now nominate his representative. A UGC nominee was always a part of the search panel which is as it should be, since the maintenance of the quality/academic standards is its mandate. The third member will be nominated by the apex body of the university like the Management Council or Senate. These bodies may have representatives with affiliations to the ruling party in the state. However, state governments have been complaining that they are left with no voice in the selection of the VC.

In recent times, the VC's post has attracted controversy in some states. Some state governments have tried to replace the Governor-Chancellor with a Chief Minister-Chancellor. This turn of events is ironic because the President of India and the Governors were given this role to keep politics out.

Regarding the opening up of the post of VC to non-academics, one cannot but be reminded of the Kalyani Mathivanan vs State (2015) case in which the Madras High Court famously remarked: "Today, Albert Einstein cannot be appointed as the Vice Chancellor of any University in India, unless he fulfils the qualifications prescribed by the regulator". Flexibility in appointment processes is there-fore an imperative. At the same time, this should not lead to a scenario where the "eminence" of the post may be contested. To avoid such situations, the draft proposes that industry experts, public sector veterans, and senior administrators or experienced professionals can be directly appointed as VCs. This is a bold move. However, resisting interference by vested interests could be a challenge.

A search committee for the selection of a VC in a US university consists of participants in the university's processes — senior administrators like provosts, deans, faculty representatives, staff members, even students (occasionally) and trustees or board members. In the UK, a search committee typically has university governors/trustees, senior university leaders, such as Pro-VCs, Deputy VCs, faculty representatives and external advisors or search firms. Faculty and even students are a part of the search committee paving the way for a most inclusive and transparent search mechanism.

Institutions like the Massachusetts Institute of Technology or Stanford University are multifaceted and deeply impactful, though it's worth noting that these universities primarily use the title of Chancellor or President to refer to the highest executive leadership. Here, the board of trustees form a search committee that engages with various university constituencies to develop a list of qualifications and desired qualities in a new president, then consults with all stakeholders, and identifies suitable candidates. This involves formal interviews, conducting background checks and making

> Our universities are starved of funds today. Eminent people from systems outside the universities, such as representatives of industry bodies or the services sector, may need to understand the ethos of a university before they deliver on its objectives. At the same time, they could help bring in a professional perspective and facilitate the creation of endowments. The challenge for vice-chancellors today — in whatever way he/she is selected — is to help raise the research bar and help in internationalisation.

assessments. It's also worth noting that in the US or the UK, there are no regulators who set standards for such appointments.

Some other provisions of the draft regulations are forward-looking. Waiving the requirement of clearing the UGC-NET examination for an entry-level assistant professor's post in technical institutions for instance. A ME or Mtech degree with at least 55 per cent marks would suffice. Removing the cap on contract teacher appointments is in line with the NEP's objectives and must be welcomed. This could help fill up the large number of vacancies in several of the country's universities.

As members of a progressive society, we share the education minister's optimism on these regulations. However, we may need to pause and ponder if we are in sync with the best practices in the world. Our universities are starved of funds today. Eminent people from systems outside the universities, such as representatives of industry bodies or the services sector, may need to understand the ethos of a university before they deliver on its objectives. At the same time, they could help bring in a professional perspective and facilitate the creation of endowments. The challenge for vice-chancellors today — in whatever way he/she is selected — is to help raise the research bar and help in internationalisatio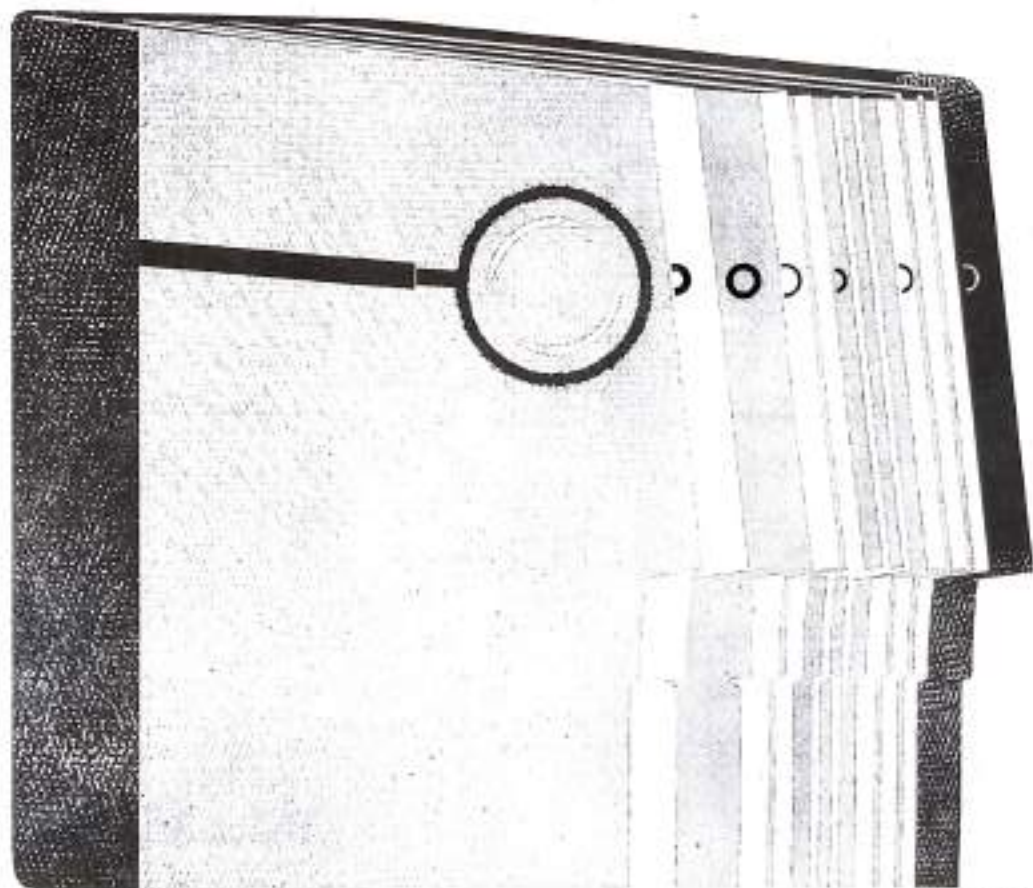n. That could help raise the position of our universities and place them among the best in the world. We hope these regulations will help in that pursuit.

Thakur is former Secretary Education GoI and Mantha is former Chairman, AICTE

C R Sasikumar

ON URBAN VS RURAL INNOVATION

We had an independent assessment of the first 1,000 labs which are the most mature. The number of innovations, on an average, from a rural school is higher as compared to that in an urban school

WHY CHINTAN VAISHNAV

Dr Chintan Vaishnav was the Mission Director for Atal Innovation Mission (AIM), a Government of India initiative to encourage grassroot innovation across the length and breadth of the country, for close to four years. Before that, over the past decade, he split his time between teaching and research at MIT and living and working with rural communities in India. As a teacher, innovator and entrepreneur, he has first-hand experience of the various parts of the innovation ecosystem, both in India and the US. He also served as the Chair for the Startup 20 engagement group during India's G20 Presidency

ON INNOVATION IN POLICYMAKING

In science, technology and innovation, the policy processes, which are always consensus based, have the danger of diluting the outcome. We have to be bold enough to follow that one right way

'Greatest challenge for innovation in India is cultural. Families want their children to be safe, not take risks'

Chintan Vaishnav, former Mission Director, Atal Innovation Mission, on AI putting us in an unknown paradigm, need for startups to benchmark themselves and how we have lost a generation. The conversation was moderated by Soumyarendra Barik, Special Correspondent, The Indian Express

Chintan Vaishnav, former Mission Director (AtaI Innovation Mission) (right) in conversation with Soumyarendra Barik, Special Correspondent, The Indian Express

ON LACK OF INNOVATION IN MANUFACTURING

Most of our young entrepreneurs do not have deep pockets. They are choosing something with a fast clock speed and faster returns. It is a practical choice and there is nothing wrong with it

Vivekananda: A vision for an inclusive world

AMAL **CHANDRA**

As we celebrate Swami Vivekananda's birth anniversary, it is crucial to revisit his teachings, not just as historical artefacts but as living ideas relevant for today

Swami Vivekananda, born Narendranath Datta on January 12, 1863, is one of India's most remarkable spiritual leaders and thinkers. His birth anniversary is more than a mere occasion to honour his memory; it is an invitation to reflect on his profound legacy and the enduring relevance of his ideas. While his role in revitalising Hinduism and introducing Indian philosophy to the Western world is well-documented, some aspects of Vivekananda's thought remain less explored yet deeply significant. In a world grappling with numerous social, ethical, and philosophical challenges, his teachings serve as a quintessential guide.

Vivekananda was much more than a spiritual icon; he was a pragmatic philosopher who firmly believed in the application of spiritual principles to practical life. His famous assertion that 'service to humans is service to God' exemplifies his view that spirituality should be lived, not merely theorised. He encouraged people to engage in social service, emphasising that true religion manifests in the form of compassion, kindness and action.

This perspective feels especially resonant in our modern times, where there is often a disconnection between spiritual practices and real-world issues. Vivekananda's message is a call to integrate spirituality with daily life, urging individuals to act with empathy and responsibility toward others.

One of the most forward-thinking aspects of Vivekananda's philosophy was his vision of education. He was deeply critical of the colonial education system, which he believed produced clerks rather than thinkers and visionaries. For Vivekananda, education was not merely about accumulating knowledge but about developing the whole person—intellectually, morally and spiritually. He emphasised the need for self-reliance and character-building, which he saw as the true objectives of education. In today's educa-

tional discourse, which increasingly values holistic development and critical thinking, Vivekananda's ideas are strikingly prescient. His approach encourages educators and policy-makers to think beyond conventional curricula, fostering environments that nurture creativity, ethics, and personal growth. At a time when women's rights were severely restricted, he advocated for their education and empowerment, highlighting the significant role women could play in shaping society.

He often drew from India's spiritual heritage, pointing to historical examples of women who had achieved great intellectual and spiritual heights. In a world that continues to struggle with gender disparities, Vivekananda's vision offers a timeless reminder of the importance of creating opportunities for all, irrespective of gender. His thoughts encourage us to work towards dismantling barriers and fostering a society where everyone can achieve their potential. Another fascinating aspect of Vivekananda's thought was his balanced approach to nationalism and internationalism.

He was a patriot who deeply loved India, yet his nationalism was inclusive, rooted in the cultural and spiritual wealth of the nation rather than in aggression or exclusion.

His famous speech at the Parliament of the World's Religions in Chicago in 1893 exemplified his belief in the unity of humanity. In his view, true patriotism did not mean hostility toward others but an appreciation of one's culture while respecting and learning from others. This approach is particu-

> **HE WAS A PATRIOT WHO DEEPLY LOVED INDIA, YET HIS NATIONALISM WAS INCLUSIVE, ROOTED IN THE CULTURAL AND SPIRITUAL WEALTH OF THE NATION RATHER THAN IN AGGRESSION OR EXCLUSION**

larly relevant today, as we navigate the complexities of national pride in a globalised world. Vivekananda's inclusive nationalism provides a framework for fostering pride in one's heritage while promoting global solidarity. Less commonly discussed, yet equally significant, is Vivekananda's respect for science and rational inquiry. Unlike many of his contemporaries who saw religion and science as oppositional forces, Vivekananda believed they could complement each other. He encouraged the cultivation of a scientific temper, advocating for a worldview that embraced both rationality and spirituality.

His open-mindedness toward scientific discoveries and his belief in the power of reason present a balanced perspective that is incredibly relevant in today's age of rapid technological advancement. Vivekananda's stance reminds us that faith and reason need not be in conflict but can coalesce to enrich our understanding of the world. Vivekananda was also a pioneer of interfaith dialogue, advocating for the respect and understanding of all religious traditions. He saw the diversity of faiths not as a barrier but as a testament to the multifaceted nature of truth. His inclusive attitude towards different religions stands as a powerful counter to the sectarian violence and religious intolerance that plague many societies today. Vivekananda's vision of interfaith harmony reminds us of the need for empathy and respect in a world often divided along religious lines.

His approach encourages us to find common ground and to cel-

ebrate the richness that diverse spiritual traditions bring to humanity. The legacy of Swami Vivekananda is multifaceted.

He was a monk, a philosopher, a nationalist, and a reformer, whose ideas continue to inspire millions worldwide. His teachings invite us to reflect on our personal and collective responsibilities, urging us to work towards a world that is more just, compassionate, and inclusive. Vivekananda's emphasis on the practical application of spiritual principles, disagreement with the imposition of vegetarianism, advocacy for education that nurtures the whole person, progressive views on gender, inclusive nationalism, and respect for both science and interfaith dialogue, all remain remarkably relevant.

His vision offers solutions to many of the challenges we face today, from educational reforms to gender equality, from religious harmony to ethical living. As we celebrate his birth anniversary, it is crucial to revisit Swami Vivekananda's teachings, not just as historical artefacts but as living ideas that can guide us toward a better future. His message is clear: "Arise, awake" - true greatness lies in the ability to apply timeless principles to the needs of the present, to foster a world where humanity can thrive in all its diversity.

Swami Vivekananda's life and work remain a beacon, illuminating the path to a world that values compassion, justice, and the collective wellbeing of all its inhabitants.

(The writer is a policy analyst, political commentator, and columnist. Views expressed are personal)

Fanaticism in the name of science

BASAB DASGUPTA

My first industrial job after graduating with a PhD in theoretical physics was that of an R&D engineer at RCA, which at the time was a major conglomerate in the US. They manufactured TV sets among many other products which used cathode ray tubes (CRTs) as display devices.

The charter of my group was developing magnetic deflection coils for CRTs which could deflect electron beams inside the tube to their desired positions. These coils had been traditionally designed by veteran engineers using their experience and intuitive skill following empirical trial and error methods – a time consuming and expensive process. Our goal was to develop a CAD method using sophisticated computer programs so that design could be done faster and more accurately, even by less experienced engineers.

The staff members at the Research Laboratory, consisting mostly of PhDs in physics and mathematics, had already developed a program which they hoped would serve the purpose. Our job in the R&D group was to confirm its accuracy and give the research guys feedback so that they could continue to improve the software.

The CRTs used in colour TVs used not one but three electron beams, one for each of the three "primary" colours, red, green and blue; colours were generated by phosphor stripes corresponding to each color, deposited on the inside of the TV screen. The desired performance was convergence of all three beams at every point on the TV screen. Our first task was to model an existing coil system to see how close its computer-predicted convergence characteristics came to its experimentally measured performance.

While the computer model correctly predicted general trends such as geometric distortions, change in performance by incremental changes in design parameters, ideal location of the coils on the CRT, it never gave us a satisfactory number for "misconvergence error" – the separation between the red and blue beams, the most significant performance parameter. The largest error allowed in specifications was at the corners and typically of the order of 1-1.5 mm. Much to our frustration, the discrepancy between experimental value and computer prediction was 3 mm or more at corners, even after many enhancements of the software. As a result, neither RCA nor any other TV manufacturer succeeded in designing deflecting coils entirely using computer software.

The reasons for this discrepancy were understandable. In any physics-based computer modeling there are two key components: a) construction of a "model" and b) actual mathematical computations. It is the second part that got more and more sophisticated with the introduction of faster computers and more innovative algorithms.

Construction of a model is a different story. A model is absolutely necessary because we cannot convert everything we see into mathematical equations which the computer can crunch. A model inherently consists of a series of simplifying assumptions. For example, the earth can be modeled as a sphere but one must use a bunch of straight lines and triangles to model a tree.

In modeling deflection coils, two major assumptions were a) coils were assumed to be smooth two-dimensional surfaces which ignored discreetness and thicknesses of copper wires in the winding and b) electron beams were represented by rays without finite width. This resulted in uncertainties in computed values.

This experience shaped my views about climate change predictions. I am certainly not a climate change denier. As a physicist, I do believe endless carbon dioxide emission into the atmosphere is detrimental. Any effort to reduce such emissions is good. However, I draw the line at fanaticism in the name of science. I cringe when I hear predictions such as rise of ocean level by X ft by a certain year, flooding entire countries.

Different models are used by scientists around the world and not surprisingly, their predictions do not all agree. Instead of electrons moving in a CRT we must now study the motion of earth dragging its atmosphere under the influence of the sun. Physics involved is much more complicated and often unknown; one must take into account an array of different interactions: the ones between sun, earth, moon, gas molecules, oceans, rotation of the orbs, exhaust from fossil fuel, deforestation and the list goes on. I am sure that these phenomena are taken into account in all models but my main point is that descriptions fed into software are oversimplifications of the real situation.

Yes, the models will predict gradual warming, rising ocean levels and changes in many atmospheric phenomena, but they cannot possibly predict the timeframe and severity of their occurrence. This has nothing to do with denying science or questioning the mathematical rigour involved in the computation. To make the predictions even trickier, we have no way of knowing the occurrence of natural phenomena like volcanic eruptions, earthquakes, underground lava flow and forest fires over upcoming decades and how different countries will attempt to reduce carbon dioxide emission or melting of ice caps. The weathermen on TV cannot even accurately predict weather for the next seven days!

The real question is what we should collectively do at the present time. We must certainly do things that common scientific sense dictates; plant more trees, use solar energy, reduce use of fossil fuel etc. and formulate plans to deal with possible flooding of lowland areas and invent cost-effective ways to keep ourselves cooler during summer. It does not make sense to shut down coal mines and take away centuries-old livelihoods of miners nor force people to buy electric cars they cannot afford. Throwing soup at the painting of Mona Lisa or blocking traffic or giving up beef to raise the awareness of climate change are absurd ideas. I am not in favour of pouring millions of dollars in aid to other countries without any accountability to help them fight climate change and holding glitzy international conferences.

I am disappointed to see that almost every adverse atmospheric phenomenon is now blamed on climate change and the narrative has become political. Part of the reason is that governments are generously doling out grants to support research on climate change; naturally, scientists find it easier to get grants if they can somehow correlate their work with climate change; of course, they are all in agreement about the need to be proactive.

I can perhaps explain my views with an analogy. Ever since I moved to Southern California 35 years ago, I have been hearing about a major earthquake (the "big one") coming. In fact, we experience minor earthquakes almost weekly. There are theoretical models and predictions about how and when this big earthquake would take place affecting a metropolis of more than ten million people causing unthinkable damage. However, the models cannot predict the event with any precision. So even though everyone knows that it can happen anytime we do not worry about it and have left ourselves at the mercy of Mother Nature.

Reasonable precautions have been taken such as structural reinforcements of existing buildings and bridges, new building codes and designation of earthquake shelters; but I do not see efforts like national conferences, reduction of fracking and drilling, proposals of major geoengineering projects or millions of dollars being poured into earthquake research. There is no ban on living close to the fault lines either.

My belief is that Mother Nature will do whatever Mother Nature wants to do. We cannot control her but only learn to adapt ourselves to her activities without preemptively sacrificing our lives, based on some computer models in the name of science.

Wait For The Calling

There's no age for asceticism. But there is an age to go to school. The Juna akhara case has lessons for all

The Juna akhara's decision to stop initiation of a 13-year-old girl into their rigorous way of life should sound caution to society at large. Reports have suggested the girl's parents said they "donated" her because, to quote them, "she always wanted to be a sadhvi". Can a 13-year-old be expected to recognise what entering monkhood entails? Prayer and worship are considered beneficial in and of themselves, but it's the parents' understanding of their role, and agency of a young teen, that needs parsing.

For a large part of India, childhood is but an age. Children labour, both boys and girls are exploited, they're forced to beg and steal, they're not in school – they live adult lives, not out of choice. Even among teeming middle classes, between unfiltered social feeds, TV reality shows, and uncurated selfie-reels (Insta effortlessly replaced TikTok), children are commodified and sexualised with family approval, childhood reduced to a performative ritual of observing birthdays and dressing up for festivals on loop. Given India's reality and religiosity, it isn't impossible to imagine parents agreeing in good faith to give away their daughter to rigorous practice many doubtless consider the ultimate calling.

This is not to shame the parents. But ask, what does the law say? For one, shouldn't *all* 13-year-olds be in school? That's perhaps the one thing middle class parents must hold on to – education till at least Class 10. Teen years are tumultuous times. It is the time to experiment, yes, but not the time to take life-altering decisions. It is the time to grow up, and for parents to shepherd, not to give up or give in. A child's 'consent' is not valid in law. India's age of consent is 18 (given moral considerations), but to work is just 14 (given practical considerations). There's much left to do to secure children's rights – to start off, a mindset change among adults about what childhood is.

Education for some

SABIR AHAMED
SNEHA BHASIN

Gender gaps in educational attainment have narrowed over the years across India. West Bengal stands out with the highest enrolment rate for girls at 55.7% among higher secondary students, followed by Chhattisgarh (53.1%) and Tamil Nadu (51.2%). This achievement is largely attributed to the implementation of the Right to Education Act, 2005, various educational incentives, and increasing parental aspirations. However, gender biases remain entrenched as families still tend to prioritise sending their sons to privately-managed schools. There is a widespread belief that private schools offer quality education, leading to a higher representation of boys in these institutions. While the public education system continues to serve the majority of students, particularly at the secondary level, concerns about the quality of education in government-run schools have been a point of contention in the past few decades.

Data from UDISE for various years for West Bengal make it evident that male enrolment in privately-managed schools has increased for SC, Muslim and OBC categories but remains constant for ST category students. The enrolment gap between boys and girls in privately-managed schools is nearly 10 percentage points for all social groups except Muslims. However, data suggest that the proportion of male students has always been higher across SC, ST, OBC and Muslim students in comparison to their female counterparts. Also, the gap between male and female enrolment in government and privately-managed institutions has not narrowed much in a decade's time.

A variety of factors can help us understand the issue at hand. The rising direct cost of education in privately-managed schools could have dampened the demand for female enrolment. Thus, poverty has a causal link with access to education for females. Societal obligations can be a barrier too. The decision to continue education may not be dependent on a girl student's interest, performance or ability but on early marriage. Spending on female education is not considered an investment but a consumption good. Families thus restrain themselves from spending on female education. The perception that sons can be relied upon to be caregivers for family members in their old age leads to gender biasedness in schooling choices. Furthermore, families often think that education may make women unfit for marriage. Families are also unable to realise the long-term benefits of education due to the weakening of the relationship between education and the job market. The cost of female education is, therefore, considered an unproductive investment.

Another factor that can be attributed to low female enrolment in privately-managed schools is the unavailability of such schools in the vicinity. The 'proximity factor' is vital in accessing education. A longer distance to schools makes families concerned about the safety of their daughters; consequently, their enrolment suffers.

Female education is cost elastic, implying that changes in cost significantly affect the demand for education for girls across all social categories. This, in turn, has a disproportionate impact on female enrolment in privately-managed schools that leads to the perpetuation of gender disparities. This situation calls for a concerted effort to create an equitable educational environment that promotes gender justice. However, the focus should be on addressing issues at the local level, such as ensuring the availability of schools within close proximity to reduce distance barriers. Additionally, improving school infrastructure will be the key to enhancing overall female enrolment. Most importantly, there needs to be a significant improvement in the quality of teaching in public schools to ensure that education remains accessible regardless of gender.

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Delhi must look beyond H-1B

India's diplomacy will have a key role in finding common ground between its strategic interests and Trump's tech policy in the next four years

RAJA-MANDALA
BY C. RAJA MOHAN

C R Sasikumar

THE INDIAN DEBATE on Donald Trump's second White House term must look beyond the H-1B controversy raging in America. While exporting technical talent remains a top political and policy priority for Delhi, the broader implications of Trump's technology policies are arguably more significant.

America's renewed tech boom under Trump promises to reshape the domestic use of technology, deepen political polarisation between liberals and conservatives in Western societies, accelerate economic growth in the US, extend America's lead over geopolitical rivals, and transform the global governance of emerging technologies.

But let us first address Indian concerns about H-1B visas. Worrying about the American debate is futile since Delhi has little influence over its outcome. The H-1B visa system, part of the broader immigration debate in America, pits US businesses against growing domestic resistance to rapid increase in foreign populations. Given America's labour shortages — in agriculture, healthcare and technology — commercial interests strongly support immigration. Meanwhile, anti-immigrant sentiment across the American political spectrum remains a persistent force.

The traditional left argues that immigration depresses wages, and favours capital over labour. In contrast, the liberal left advocates welcoming immigrants based on humanitarian and universalist principles. The conservative backlash against unrestricted immigration, pushed by the Democrats, has been a key factor in Trump's victory. Trump quickly aligned with business interests, emphasising how skilled immigration maintains America's scientific and technological edge. Both sides now acknowledge that the US immigration system needs reform. The challenge for American policy now lies in balancing support for skilled, legal immigration while curtailing illegal entry. India is unlikely to lose in this scenario, as the US tech industry's demand for imported talent continues. With India remaining the largest source. However, Delhi must cooperate more in preventing illegal Indian immigration while supporting merit-based legal immigration.

Beyond H-1B visas, Trump is likely to bring three major changes to American technology policy. First, the domestic political dimension. Recent years have shown that technology, far from being neutral in political disputes, has significantly influenced the battles between liberals and conservatives. Republicans, especially Trump supporters, have long accused Facebook and Twitter of liberal bias and censoring conservative views. Since acquiring Twitter and rebranding it as X, Musk has actively worked to reverse this bias.

Facebook has followed suit, with Mark Zuckerberg acknowledging a decade-long pressure to accommodate demands by the liberal and Democratic establishment. President Joe Biden has strongly criticised Facebook's decision to eliminate "fact checkers" and adopt X's community notes approach for context. The subjective nature of "fact checking" is well-known. Trump's victory will likely shift this balance toward conservatives — a shift that will extend beyond America.

Musk's involvement in British and European politics has initiated a major Western conflict on perceived "liberal hegemony". The European left, long comfortable with ideological interventions through liberal internationalism, now faces opposition from tech-backed, cross-border conservative coalitions. This Western ideological struggle will inevitably envelop other democracies.

A second feature of Trump's second term is the emergence of "techno-libertarians". While conservatives traditionally advocate for limited government, these techno-libertarians actively champion dismantling the extensive "administrative state" in the US and West.

Trump's decision to appoint Musk and Vivek Ramaswamy to lead the mission to massively downsize government reflects his ideological commitment to unleashing the potential of new technologies. Alongside other techno-libertarians like PayPal founder Peter Thiel, Musk and Ramaswamy advocate removing bureaucratic oversight of emerging technologies. This approach is most likely to result in a reversal of Biden's AI regulation policies. While Biden prioritised safety, ethics and accountability in AI development, Trump and his techno-libertarian allies seek to remove bureaucratic constraints and unleash innovation's full potential in the US.

The third aspect of Trump's tech policy will be intensified competition with China. His first term broke the long-standing American consensus on deeper US-China ties, while Biden focused on confronting China's challenges, placing technology at the core of this strategy.

Biden has implemented extensive technology sanctions against China, tightening restrictions through last week. His strategy includes reshoring and "friendshoring" tech supply chains while increasing investment in defence technologies. Biden also sought engagement with China on AI to prevent an unrestricted arms race.

The Trump team shares Biden's goal of reasserting US technological leadership over China. All signs point to increased domestic tech development and stronger constraints on China. Emphasising peace through strength, the Trump team is likely to pursue aggressive military AI development, possibly with less concern for ethical considerations on autonomous weapons. Their plans for "Manhattan Projects" in military technology indicate a major push for defence-oriented AI.

Parts of Trump's team have criticised Biden's approach of engaging Beijing while competing with China. The hawks in the Trump administration have less time for the idea of engagement and would want to go full tilt at confronting China. The new administration will likely show less consideration for arms-control ideas inherited from the Cold War in managing AI's military implications. Trump will probably favour a policy of pursuing unilateral advantages in the AI field over multilateral approaches.

It remains to be seen how focused Trump would be on sustaining Biden's policy of "reshoring" and "friend-shoring" of tech supply chains and building "geo-technological" coalitions with friends and allies. The emphasis on advanced technological collaboration with India — both bilateral and minilateral — was its signature strategic theme.

What about Trump's well-known predilection for the "big deal" with Xi Jinping? Trump will seek to put his personal stamp on relations with China and will seek to explore a "grand bargain". Some Trump-allied tech entrepreneurs, including Musk, have Chinese business interests. Will they back Trump's quest for an accommodation with Beijing?

All American administrations deal with competing interests and imperatives on foreign policy, especially on relations with other great powers. Trump's inclination for a deal with China is likely to be constrained by the structural contradictions between the world's foremost powers. It will also not be easy to dismantle the range of US technology sanctions against China in the last few years.

Meanwhile, the convergence of three factors — the current turning point in the history of technological development, America's enduring capacity for rapid innovation, and Trump's political will and capacity to promote global change — could reshape the international system's social, economic and geopolitical dynamics. Whether one likes it or not, India's tech talent is integral to the first two factors. Delhi's diplomacy will have a key role in finding common ground between India's strategic interests and Trump's tech policy in the next four years.

> The convergence of three factors — the current turning point in the history of technological development, America's enduring capacity for rapid innovation, and Trump's political will and capacity to promote global change — could reshape the international system's social, economic and geopolitical dynamics. Whether one likes it or not, India's tech talent is integral to the first two factors

Educational equity for tribals

Addressing the persistent challenges in providing quality education to India's tribal populations necessitates tailored, inclusive approaches, governance reforms, and tribal–friendly policies that consider their unique geographical, cultural, and socioeconomic contexts

KDP RAO

> Though Scheduled Castes and Scheduled Tribes share a common and special identity as victims of social discrimination, geographical and cultural factors seem to variedly influence their relative advancement in the field of education

Ensuring quality education in tribal areas of India seems to be a continuous challenge. According to the MHRD's tentative figures, the dropout rate among ST students at the secondary level as of 2018 was 24.03 per cent, higher than the 18.64 per cent among SC students. The GER in Class 11 and 12 for 2015-16 was 59.4 per cent for ST students, compared to 71.4 per cent for SC students. Though Scheduled Castes and Scheduled Tribes share a common and special identity as victims of social discrimination, geographical and cultural factors seem to variedly influence their relative advancement in the field of education.

The network of schools and colleges has been substantially expanded in most tribal areas across the nation over the years. In 2018-19, Samagra Shiksha was launched, subsuming the three erstwhile Centrally Sponsored Schemes—Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA), and Teacher Education—envisaging 'school' as a continuum from pre-school, primary, upper primary, secondary, to senior secondary levels, with a view to ensuring universal access and retention. However, the benefits of these schemes do not easily percolate down to tribal populations due to various factors such as inaccessible terrain, seclusion from mainstream society, cultural specificities, and stringent forest laws that restrict free movement of people and the creation of infrastructure in designated forests. The inadequate representation of tribals in public and private sector jobs and professions, as reflected in 'backlog vacancies,' indicates that much is left to be desired in the educational advancement of tribal populations.

Education for tribal children from upper primary to secondary levels is mainly provided through residential schools in forest areas and post-matric hostels in non-forest areas. The Eklavya Model Residential School (EMRS) programme is designed to provide quality education to ST students (Classes 6 to 12) in remote areas, while Ashram Schools under the Tribal Sub-Plan (TSP) are established for both girls and boys in LWE pockets. These Centrally Sponsored institutions are operated and maintained by state governments. There are around 900 Ashram Schools and about 200 EMRS across the country. A report by the TATA Trust states that most Ashram Schools do not comply with basic standards, resulting in apathy from school management and teachers toward students' welfare. The Hemanand Biswal Committee Report of 2014 revealed that 793 children died between 2001 and 2013 due to snake bites and minor diseases.

Ambitious schemes of education are eclipsed by issues like frugal finances, lack of infrastructure for capacity building, lethargy in delivery mechanisms etc. Additionally, poverty and uncertainty of livelihoods strongly demotivate tribals from sending their children to school. However, when we juxtapose the state of education of tribal populations of Northeastern states like Assam, Mizoram, Meghalaya, and Tripura where the Sixth Schedule of the constitution operates, with that of the tribals in the rest of India, we see significant and encouraging achievements in the former. On the contrary, though tribes in Madhya Pradesh, Odisha, Bihar, Maharashtra, Gujarat, Rajasthan, Andhra Pradesh, and West Bengal together account for 82 per cent of the total ST population in India and are covered under the Fifth Schedule of the Constitution, their human development indicators, especially in education, remain far from satisfactory. This is notable even though more than 50 per cent of them live in Lok Sabha constituencies where they form the majority.

The largest number of tribals inhabit India's mainland, stretching from western India (Bhils), through central India (Gonds), to Jharkhand and Bengal (Mundas, Oraons, and Santhals). Some vulnerable tribal populations in states like Karnataka, Tamil Nadu, Kerala, and West Bengal, where the Fifth Schedule does not operate, continue to lag in educational development.

Ensuring quality education for tribal children requires an area-specific approach that accommodates cultural and linguistic differences and involves active participation from stakeholders. This is because unlike SCs, the target groups are heterogeneous in sociocultural values, livelihoods, and demographic characteristics, broadly segmented into three categories:

a) those living in inaccessible terrains with traditional ways of life unaffected by mainstream society,

b) those living in forest areas and villages adjacent to the mainland but lacking educational facilities, and

c) those residing in non-tribal-dominated areas and attempting to assimilate into mainstream society.

The last category mostly benefits from affirmative action, while the first and second groups are too educationally disadvantaged to compete. Modern infrastructure, qualified teachers, and a streamlined administrative machinery may improve GER rates and lower dropout rates. However, as a precursor, we must first address issues of poverty, healthcare, housing, and livelihoods that have driven tribals into misery and hopelessness for years.

Forest laws primarily treat forests as sources of revenue and conservation areas for wildlife, with little concern for the tribals who depend solely on them. Forest and environmental laws have turned forests, home to a majority of the tribal population, into a curse rather than a blessing. National parks and sanctuaries are declared in forest areas without properly settling the rights of the tribals inhabiting them. In some states, forest lands are even transferred to the corporate sector in the name of development, often forcing tribals out of their natural habitats. While the right-conferring provisions in these laws exist only as guidelines without legal force, the restrictive provisions are enforceable by law.

Although the Panchayats (Extension to Scheduled Areas) Act (PESA), 1996 (73rd Amendment), recognises the traditional rights of tribals over "community resources" like land, water, and forest products, many states have yet to grant the necessary powers to tribal Gram Sabhas and PRIs.

Education cannot be treated in isolation from the socioeconomic aspects of human society. Initiatives like midday meals, distribution of free uniforms, books, and cycles are commendable but insufficient. What is needed is a game-changing, holistic approach—a comprehensive model that ensures the participation of stakeholders in decision-making, control over funds, and the management of institutions. Firstly, the stringent forest laws must be reviewed to make them more tribal-friendly and to create an ecosystem of social endosmosis between forest dwellers and mainstream society. This will facilitate learning opportunities and general awareness among tribals, a benefit that SC populations received due to their proximity to mainstream society. Increased rail and road connectivity in forest areas will also allow for the free flow of human resources and knowledge. The much-repeated catchphrase "protection of tribals" has, in practice, led to their "glorified confinement" and societal disintegration. Secondly, enforcing the Sixth Schedule in certain notified areas will pave the way for educational advancement among tribals, as it has in Assam, Tripura, Mizoram, and Meghalaya, by empowering locals with self-rule to protect their economic and cultural interests. Thirdly, in states where the Fifth Schedule is currently in operation, strengthening institutions under the PESA Act, at least in the education sector, could significantly improve the current scenario. After all, to quote Nelson Mandela, "Education is the most powerful weapon to change the world."

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America and jobs

The latest US jobs data shows that as 2024 drew to a close, the labour market displayed remarkable resilience, defying expectations with robust job gains and a drop in the unemployment rate. In an economic environment shaped by cautious monetary policies and global uncertainty, this performance underscores the enduring strength of the American workforce and its pivotal role in supporting the broader economy. The December surge of 256,000 new jobs exceeded all projections, highlighting the labour market's adaptability. Sectors like healthcare, retail, and leisure and hospitality drove this growth, showcasing their capacity to rebound from earlier slowdowns. Healthcare employment, bolstered by home health services and hospital expansions, demonstrated the sector's indispensable role in both economic and social stability. Meanwhile, the retail sector's seasonal recovery reflected consumer confidence and the enduring vitality of domestic spending. Despite challenges in manufacturing and mining, the labour market's broad-based growth underscores its adaptability, with key sectors driving gains and cushioning the impact of localised economic weaknesses. Wage growth, another critical indicator of economic health, added to the positive narrative. Hourly earnings rose 3.9 per cent year-over-year, with aggregate labour income increasing at its fastest pace since late 2023. This trend not only empowers households but also reinforces consumer spending, which remains a cornerstone of economic expansion. Importantly, this growth outpaced inflation, ensuring real gains for workers even as monetary policies aimed to curb price pressures. Beyond the headline numbers, deeper indicators of labour market health offered equally encouraging signs. The unemployment rate fell to 4.1 per cent, and the median duration of unemployment shortened, signalling improved job-finding prospects. Furthermore, the steady labour force participation rate and rising employment-to-population ratio reflect a workforce that remains engaged and resilient despite economic headwinds. This strong labour market performance poses both opportunities and challenges for policymakers. On one hand, it provides the US Federal Reserve with the flexibility to maintain its current monetary stance, holding interest rates steady. On the other, it requires vigilance against potential overheating, especially as wage growth contributes to inflationary risks. The central bank's cautious approach appears prudent, allowing room to navigate an economy that continues to expand above its non-inflationary growth rate. Looking ahead, the labour market's resilience will be critical in weathering both domestic and global uncertainties. Proposed policy shifts, including changes to trade and immigration, could introduce volatility in the coming year. Yet, the current momentum, built on diverse sectoral growth and solid consumer demand, positions the US economy to remain a global leader. The end of 2024 serves as a testament to the adaptability and strength of the American labour market. As the new year begins, the focus should remain on sustaining this momentum while addressing structural challenges to ensure long-term economic prosperity. The resilience of workers and businesses alike offers a powerful foundation for navigating the uncertainties ahead, turning challenges into opportunities for a thriving economy.

How Not To Run Unis

UGC's draft guidelines on selecting VCs, if implemented, will do no good & much harm

National Education Policy 2020 has a clear vision of moving higher educational institutions (HEIs) towards full autonomy – academic and administrative. Autonomy is not some kind of sacred object in and of itself. Rather, evidence across democratic societies is unequivocal that autonomy is prerequisite for helping HEIs deliver *all* their missions, be it classical ones like learning and teaching, or ones that have come into greater prominence in a more globally connected world, namely research and innovation and business outreach. New draft regulations by UGC rejig how vice-chancellors are to be appointed. But diluting the influence of state govts while increasing that of the Centre, is hardly the way forward.

Tamil Nadu and Kerala govts are already up in arms at what the change means for state universities, which after all states fund. Per draft regulations, the university chancellor, aka the state governor, shall constitute the VC search-selection committee, which in turn shall comprise one member nominated by the chancellor, one by UGC's chairman, and one by the university's apex body. This change is *patently not* about eliminating political interference. It's about – let's be clear – imposing the Centre's will on opposition-governed states. How's that an improvement? And that's aside from the question of increasing tensions in a federal system. Opposition CMs vs BJP-appointed governors are already a stress point, including in university affairs. What's to be gained by adding to the stress? Of course, state universities fare poorly in NIRF rankings and student application preferences. But UGC's solution will create another problem, not solve the existing one. VCs and faculties should be unbiased, meritocratic appointments.

That brings us to the other point – opening up VC posts to non-academic candidates. Let's assume every PSU top executive or senior bureaucrat or an industry veteran chosen for the job is brilliant. But will they be fit to run universities? Why are all eight US Ivy League presidents top scholars? India's higher education regulator needs to return to the diagnostic table. More centralisation and bureaucratisation is a terrible idea. As is disempowering academic achievements.

Infrastructure in govt. schools catching up with private ones in 2024

The latest UDISE+ report shows that infrastructure in rural schools is on a par with urban schools, compared to a decade ago

DATA POINT

Sambavi Parthasarathy
Nitika Francis

Government schools have notably improved in the provision of basic infrastructure facilities to students over the past 10 years, and are almost on a par with private schools, data show. More than 80% of government schools in India are equipped with functional electricity, ramps, boys' and girls' toilets, handwash, and libraries.

Table 1 shows the shares of government and private schools that provide various infrastructural amenities as mentioned in the latest data released by the Unified District Information System for Education (UDISE+), maintained by the Ministry of Education.

Compared to 2013-14, the share of government schools providing functional electricity has doubled from 45% to 90% in 2023-24, while the share of those equipped with computers has tripled from 15% to 51% in the same period. The share of government schools having libraries and ramps, and conducting medical checkups, has surpassed that of private schools equipped with the same in 2024.

Table 2 shows the share of rural and urban schools equipped with various infrastructure facilities in 2014 and 2024. Facilities such as drinking water, electricity, functional toilets, libraries, ramps, and playgrounds are available in more than 75% of rural schools across India in 2024.

The latest report shows the gap between the share of rural and urban schools in select infrastructure facilities has narrowed. The share of rural schools with ramps and regular medical checkups has surpassed the share of urban schools with the same. Drinking water, toilets, libraries, and playgrounds were provided in almost the same share of rural and urban schools. However, schools in rural areas continue to lag in the availability of computers, rainwater harvesting systems, and internet connection.

Table 3 compares the availability of select infrastructure facilities in 2013-14 and 2023-24. The data is provided for all major States across government and private schools. The greener the cell, the greater the percentage of schools (by management) with the facility and vice versa.

Data show that the share of schools with a functional toilet facility has increased and is at least 90% across all States in the latest year. While States such as Kerala, Tamil Nadu, Punjab, and Delhi have sustained their values, there has been a considerable improvement in government and private schools in Bihar, Odisha, and West Bengal.

Compared to 2013-14, more schools have equipped themselves with functional electricity. A decade ago, the share of government schools with functional electricity was less than 50% in States such as Bihar, Madhya Pradesh, Odisha, Uttar Pradesh, and West Bengal. The share has increased close to 80% and above in all these States.

However, the availability of computers is higher among private schools compared to government schools. Except for Kerala whose figures have always been above 90%, the share of government schools having computers is above 80% only in six other States.

The share of government schools equipped with computers is still as low as 12% in Bihar, 19% in West Bengal, and 29% in Uttar Pradesh. However, Chhattisgarh, Jharkhand, Haryana, and Odisha have shown considerable improvement compared to 2013-14.

Interestingly, the tables turn when we look at the share of schools with the availability of ramps. More government schools are equipped with ramps compared to private schools. The trend has been true in 2013-14 as well, not just in the latest year.

Report card

The data for the charts were sourced from Unified District Information System for Education Plus (UDISE+) Reports of 2013-14 and 2023-24, released by the Ministry of Education

Acing all tests: Students in a public school at Laggere in Bengaluru in May 2024.

Table 1

The table shows the shares of government and private schools that provide various infrastructural amenities (ie %)

	Government		Private	
	14'	24'	14'	24'
Functional electricity	44	90	80	92
Functional toilet	88	96	91	96
Functional boys' toilets	77	90	88	96
Functional girls' toilets	81	93	90	95
Availability of ramps	65	85	95	99
Availability of computer	15	51	51	74
Rainwater harvesting	2	16	10	34
Internet	1	46	19	74
Medical checkup	66	81	57	59
Handwash	39	95	55	96
Library	78	93	73	82

Table 2

The table shows the share of rural and urban schools equipped with various infrastructure facilities in 2014 and 2024 (in %)

	Rural		Urban	
Rural/Urban	14'	24'	14'	24'
Functional electricity	47	88	85	96
Availability of computer	19	53	52	77
Functional toilet facility	86	95	91	97
Functional boys' toilet	75	88	80	91
Functional girls' toilet	81	93	85	94
Internet	9	59	21	73
Medical checkup	63	76	64	71
Playground	66	81	73	87
Rainwater harvesting	3	27	10	38
Library	76	89	81	89
Availability of ramps	59	79	45	71

Table 3

*The greener the cell, the greater the % of schools with the facility. In contrast, cells coloured red indicate lesser % of schools with the facility

The table compares the availability of select infrastructure facilities in 2013-14 and 2023-24. The data is provided for all major States across government and private schools (in %)

	Functional toilet facility				Functional electricity				Availability of computers				Availability of ramps			
	Govt		Private		Govt		Private		Govt		Private		Govt		Private	
Location	14'	24'	14'	24'	14'	24'	14'	24'	14'	24'	14'	24'	14'	24'	14'	24'
Andhra Pradesh*	61		68		87					80	66			48		90
Bihar	66		75		4	77	58	67	2		36	68	60	55	33	15
Chhattisgarh	90		90		48	90	81		5	67	39	73	66	83	27	50
Delhi		100					100		76		91	100	91		64	
Gujarat									89		87				40	52
Haryana	97	100			57		100				84		73	84	47	56
Himachal		100			85				15	40	78		64			27
Jharkhand	81		88			70			1		77	66	90	45	77	40
Karnataka	100								1		38	66	85	73	88	52
Kerala		100	97	100	91			100	92		93		77			51
Madhya Pradesh	90	92	97	95	11	82	81			41	49	78	62		46	93
Maharashtra		94			82	81	57		37	73	85		92		42	94
Odisha	70	100	70			96	57		1	56	31	81	68			89
Punjab						100		100	39	100	87		64	89	35	66
Rajasthan		89	17	89	36	89	83		1	38	47	60	51	76	31	66
Tamil Nadu						100			49	73	89	88	77		22	
Uttar Pradesh		97		95		89	61	81	1	29		56	84	50	54	52
Uttarakhand	93	93	92	93	61	88	79		1	87	62	88	59	65		53
West Bengal	83		62		38		62	93					49	58	85	

*2024 data includes numbers for Andhra Pradesh and Telangana for the sake of comparison

A MORE OPEN ACADEMIA

Criticism of draft UGC regulations takes a narrow view, ignores their potential

VANDANA MISHRA

THE CRITICISM OF the new draft regulations by the University Grants Commission (UGC) in this newspaper's editorial ('Sarkar and Campus', January 13) takes a limited view. The regulations need to be understood along with the broader aim of the National Education Policy (2020). The NEP aims to restructure the governance of the Indian education system to address the country's developmental goals and respond to the evolving demands of society and the global knowledge economy. This calls for a move towards multidisciplinary curricula, institutional autonomy, integration of technology, restructuring of governance and regulatory mechanisms, blended pedagogy, and industry-academic linkages. The UGC, by releasing a draft of the new regulations concerning the qualifications for the appointment and promotion of teachers and academic staff, has initiated a process of aligning the academic recruitment processes with these broader objectives.

The regulations propose to make the landscape of academia more competitive. Recommendations around choosing PhD/NET as disciplines for teaching, appointing vice-chancellors from the bureaucracy and industry, and teaching in Indian languages are aimed at doing so without compromising academic quality. The draft regulations reiterate the "inseparable relationship between quality and competition".

Let us look at a few examples that show a major change in the approach.

The draft regulations make candidates eligible for appointment as faculty in the discipline/subject that they have chosen for PhD

DEAR EDITOR, I DISAGREE

A column in which we invite readers to tell us why, when they differ with the editorial positions or news coverage of 'The Indian Express'

The provision of forming a search-cum-selection committee by the Chancellor for the appointment of VCs, and opening up the post to industry experts and public sector veterans is being vilified. It is difficult to understand how the mere formation of a three-member search-cum-selection committee by the Chancellor is an assault on federalism And how is the current provision of VC appointments by the Chancellor more democratic?

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and NET/SET, even if it is different from the discipline/subject chosen by them in undergraduate or postgraduate programmes. This provision is an attempt to steer clear of rigid disciplinary boundaries. However, it does not make candidates who have chosen the same subject across degrees ineligible.

Allowing candidates to qualify for UGC-NET or to do a PhD in a subject of their choice enables universities to tap into a larger talent pool. When faculty are allowed to specialise in subjects they are passionate about, regardless of their degree backgrounds, they are likely to excel as educators and researchers. Resisting this change on the grounds of "disciplinary purity" amounts to turning a blind eye towards the interventions that multidisciplinary teaching and research can make to enhance the quality and relevance of education globally.

Let us now look into the provision of "notable contributions" designed to do away with the Academic Performance Indicator (API) system of the 2018 regulations that heavily rely on quantitative metrics. The 2025 draft proposes discontinuing API-based shortlisting thus allowing the selection committees to assess candidates based on their contributions to academics, research, institutional development, society and the larger national interest. Critics have also overlooked that the expected notable contributions from the academic staff/librarian cadre and the physical education/sports cadre have been identified separately, thus giving them sufficient scope to fulfil the eligibility criteria. Considering various aspects such as innova-

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tion, digital literacy, user engagement, inclusivity, community engagement and institution building ensures a comprehensive evaluation of a candidate's contributions.

The provision of forming a search-cum-selection committee by the Chancellor for the appointment of VCs, and opening up the post to industry experts and public sector veterans is being vilified. It is difficult to understand how the mere formation of a three-member committee by the Chancellor is an assault on federalism. And how is the current provision of VC appointments by the Chancellor more democratic? Laying down the composition and required qualifications of the members of the search-cum-selection committee makes the procedure more transparent and democratic. Allowing people from diverse backgrounds to become VCs broadens the leadership talent pool. The draft regulations have taken all possible precautions to ensure the academic integrity of the leadership.

The draft regulations aim to create a more inclusive, dynamic, and quality-driven higher education system in India. Flexibility, inclusivity, and democracy are not meant to be mere rhetoric for public platforms but are guiding principles for individuals, society, and the nation. These principles need to be delicately woven into rules and regulations, and the latter should be understood in this context.

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Startup and go

In India, favourable policies, culture of innovation and collaborative efforts provide foundation for scaling up

AMITABH KANT

INDIA'S STARTUP ECOSYSTEM has witnessed extraordinary growth, transforming from a fledgling stage to becoming the world's third-largest hub for innovation and entrepreneurship. With over 1,30,000 recognised startups today — up from approximately 400 in 2015-16 — India's progress is remarkable. During this period, startup funding grew 15 times, the number of investors increased nine-fold, and the number of incubators rose seven-fold. This transformation owes much to India's robust digital public infrastructure, which has addressed pressing global challenges such as achieving Sustainable Development Goals, combating climate change, fostering financial inclusion, and improving agricultural productivity.

India stands at the threshold of a technological revolution, presenting immense opportunities in areas such as artificial intelligence (AI), machine learning (ML), big data, energy transition, electric vehicles (EVs), quantum computing, genomics, 3D printing, robotics, drones, and space exploration. The government has actively fostered this progress through initiatives like the National Quantum Mission, India AI Mission, and Semiconductor Mission, alongside allocating Rs 1 lakh crore for research and development (R&D).

Progressive policies have opened up new sectors, including space, geospatial technology, defence, and drones, encouraging startups to venture into cutting-edge domains. Realising the full potential of these advancements requires collaboration between policymakers, entrepreneurs, and educational institutions.

Despite their success, Indian startups, particularly in deep tech sectors, face challenges in accessing patient capital. The Fund of Funds for Startups (FFS), launched in 2016, has been a game changer. With Rs 11,688 crore committed through 151 AIFs, it has catalysed a capital pool of Rs 81,000 crore, creating a significant multiplier effect.

However, India needs a specialised fund of funds for deep tech startups that require long-term investments. Increasing domestic capital sources is also essential. Although Indian startups raised over $12 billion in 2024,

India's startup ecosystem is no longer confined to metro cities like Bengaluru, Mumbai, and Delhi. Nearly 50 per cent of the country's startups originate from Tier II and Tier III cities, including emerging hubs like Indore, Jaipur, and Ahmedabad. With nearly half of India's urban population living in smaller cities, these regions offer immense potential for growth. Tech companies are increasingly establishing operations in cities such as Chandigarh, Visakhapatnam, and Ahmedabad. Supporting these regional hubs with infrastructure, educational opportunities, and inclusivity — especially by increasing women's representation in leadership roles — will unlock untapped talent and drive innovation.

about 75 per cent of this funding came from international sources. Large domestic institutions like insurance companies and pension funds can allocate a portion of their surpluses to support startups, while family offices and businesses should take on more active roles as angel investors.

Private equity (PE) and venture capital (VC) have significantly shaped India's startup ecosystem. Funding from these sources grew from $19.7 billion in 2015 to a peak of $77.07 billion in 2021, and in early 2024 alone, it stood at $49.54 billion. Over 50 per cent of India's unicorns have been backed by PE and VC investments.

To ensure sustainability, domestic funds must grow and focus on long-term value creation. A shift toward profitability, quality over quantity, and more robust business models can help startups achieve sustainable growth.

In designing Startup India, we prioritised avoiding excessive regulations that could hinder startups. India's startup ecosystem thrives on minimal regulatory interference, fostering innovation. However, recent incidents of corporate mismanagement in startups such as Byju's, Dunzo, and BharatPe have raised concerns. Startups must adopt self-regulation frameworks that emphasise accountability, transparency, and ethical conduct. This involves strong mentorship, professional boards, and sound financial management. Venture capitalists and angel investors play a vital role by ensuring governance and mentoring startups to balance growth with long-term stability.

India's premier educational institutions, including the IITs, IIMs, and IIITs, are integral to the startup ecosystem, producing skilled professionals and fostering innovation. To keep pace with emerging needs, curricula must address skill shortages in areas such as product development, data science, and AI-ML. Collaboration between academia and industry is vital to ensure that educational programmes align with market needs. Programmes for internships, apprenticeships, and recruitment can attract talent to startups and bridge existing skill gaps.

As new technologies disrupt industries,

regulators must adapt to the changing landscape. India's regulatory framework must balance innovation with oversight, enabling startups to thrive while mitigating risks associated with unregulated growth. Pro-innovation policies will be crucial in maintaining India's competitive edge.

India produces approximately 24,000 PhD graduates annually, driving advancements in science and engineering. However, the country paid $14.3 billion in IPR royalties in 2024, while earning only $1.5 billion, highlighting a significant gap. Greater innovation and breakthroughs are essential to bridge this gap. Creating a vibrant ideas ecosystem, one that rewards and protects intellectual property, can establish India as a global hub for innovation. Startups must lead this charge, contributing to advancements in science, technology, and intellectual property.

India's startup ecosystem is no longer confined to metro cities like Bengaluru, Mumbai, and Delhi. Nearly 50 per cent of the country's startups originate from Tier II and Tier III cities, including emerging hubs like Indore, Jaipur, and Ahmedabad. With nearly half of India's urban population living in smaller cities, these regions offer immense potential for growth. Tech companies are increasingly establishing operations in cities such as Chandigarh, Visakhapatnam, and Ahmedabad. Supporting these regional hubs with infrastructure, educational opportunities, and inclusivity — especially by increasing women's representation in leadership roles — will unlock untapped talent and drive innovation.

India is well-positioned to become the world's leading startup ecosystem. Favourable policies, a thriving culture of innovation, and collaborative efforts across sectors provide the foundation for scaling startups into global enterprises. As India works towards its vision of Viksit Bharat by 2047, startups will play a pivotal role in driving economic growth, creating jobs, and positioning the country as a leader in innovation.

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OUT OF WORK

Why India's job crunch is on a longer spell

Rising unemployment underscores the need for policies that support skilling, reduce market barriers

PALASH BARUAH AND D L WANKHAR

Unemployment is a multifaceted challenge that affects individuals across various demographic groups, including gender, age, and the length of their job search. A comprehensive understanding of unemployment spells – the period during which individuals remain unemployed while actively seeking employment – is vital for effective policymaking, economic analysis, and workforce planning. This can be attained by analysing the percentage of the population within distinct timeframes, based on how long individuals have been unemployed. By comparing data from two periods from the NSSO's Periodic Labour Force Survey (PLFS), 2020-21 and 2023-24, the shifting unemployment patterns can be better understood. These changes provide us with a clearer picture of labour force participation, economic recovery, and the specific obstacles different demographic groups encounter.

A key finding among males is the notable rise in long-term unemployment. In 2020-21, a significant portion of unemployed men (37.5%) were in the 6-12 months and 15.4% in the less than or equal to 6 months unemployment category. By 2023-24, this number decreased to 25.9% and 12.2%, suggesting that a significant share of previously short-term unemployed males is now experiencing longer job search durations. Specifically, the percentage of males in the 1-2-year unemployment category rose sharply from 23.9% to 30.9%. This shift indicates that many men are facing difficulty in securing jobs beyond the initial months of unemployment, and similar trends are visible in both the 2-3 year and over 3-year categories.

Shifts in the labour market – such as automation and changes in demand for certain industries – have likely resulted in longer job search times for men. Additionally, the post-COVID restructuring of industries has altered the types of skills employers seek, leaving a segment of the male workforce either underemployed or struggling to adapt to new sectors.

While females still experience shorter unemployment spells than their male counterparts in the 6-12 month and the less than or equal to 6 months unemployment category, the 2023-24 data reveals a clear trend toward longer job searches. In 2020-21, 35.4% of unemployed women had been seeking work for 6-12 months. By 2023-24, this figure dropped to 21%. However, the percentage of women unemployed for more than two years increased substantially, from 10.7% in 2020-21 to 16.3% in 2023-24. The rise in long-term unemployment among women can be attributed to several factors. During the pandemic, many women, particularly those in caregiving roles, were disproportionately affected by job losses, leading to longer unemployment spells. Additionally, gendered labour market segregation – where women are often concentrated in sectors like retail, hospitality, and education – may contribute to extended job search times, especially since these sectors were hit hardest by the pandemic.

Among younger individuals (15-29 years), the data reveals a concerning trend. While the proportion of youth unemployed for less than or equal to 6 months decreased between 2020-21 and 2023-24 (from 14.7% to 11.8%), there was a significant increase in the length of unemployment lasting more than one year. Specifically, the percentage of young people unemployed for 1-2 years increased from 23.% to 32.1%. A similar upward shift is observed in both the 2-3 years and over 3 years categories.

This shift reflects the growing challenges faced by young job seekers in an increasingly competitive and complex job market. The youth labour market is heavily influenced by factors such as educational attainment, skill gaps, and the availability of entry-level positions. The rise in long-term unemployment among young people can be attributed to several key factors: slower recovery of the job market post-pandemic, mismatched skills and job requirements, and heightened competition for limited opportunities. Moreover, technological advancements like automation and digitalisation have exacerbated the issue.

Evolving industry demands

For middle-aged individuals in the 30-45 age group, the data reveals significant changes in short-term and long-term unemployment patterns. In 2020-21, this group had the highest proportion of individuals unemployed for 1-2 years (25.4%), and 23.2% were unemployed for 2-3 years. By 2023-24, long-term unemployment became even more pronounced, with 41.4% now unemployed for more than 3 years. This shift is driven by the transformation of industries and the growing demand for advanced, technology-driven skills. Middle-aged workers, while experienced, often find their qualifications outdated. Family responsibilities may also limit their ability to pursue retraining or relocate, compounding their challenges.

Older workers encounter significant barriers to re-entering the workforce. While the percentage of individuals (aged 46-60) unemployed for less than 6 months decreased from 20.1% in 2020-21 to 17.3% in 2023-24, long-term unemployment in both the 1-2 year and 2-3 year categories remained significant. Older workers face unique challenges when re-entering the workforce, including age discrimination, declining industry relevance, and a lack of modern digital skills, all of which make it more difficult to secure employment. For individuals aged 60 and above, the situation is even more challenging and severe. The percentage of this group unemployed for over 3 years increased sharply from 22.6% in 2020-21 to 47% in 2023-24.

The data from 2020-21 and 2023-24 reveal a complex and evolving unemployment landscape, with significant shifts across gender, age, and the duration of unemployment. Long-term unemployment is rising across all demographic groups, highlighting the need for policies that support skill development, reduce labour market barriers, and create greater employment opportunities for workers at all stages of their careers. There is another factor that needs to be accounted for, where some sections of the employable youth are looking forward to maintaining life-work balance rather than going all out to grab and slog for whatever employment opportunities are available. This phenomenon will potentially leave such youth unemployed for longer periods.

As economies continue to recover and adapt to new technological realities, it is essential to provide targeted support for the most vulnerable groups in the labour market, including youth, women, middle-aged workers, and older workers. By focusing on reskilling, enhancing job market accessibility, and addressing specific demographic challenges, policymakers can help foster a more inclusive, resilient, and sustainable labour market for all.

(Palash is fellow at National Council of Applied Economic Research, New Delhi; Wankhar is a retired Government of India officer)

Redefine Campus-Company Success

**Janhavi Rane &
Surya H K**

Each year, India's brightest minds enter higher education with dreams of success and fulfilment. Yet, by the time they graduate, many are left burnt out, anxious and disillusioned. Why? The relentless pressure of campus placements has turned education into a rat race, where high-paying offers and placement percentages eclipse personal growth and well-being.

According to a 2022 survey by the National Institute of Mental Health and Neurosciences (Nimhans), nearly 80% of students experience stress during the placement season. IITs and IIMs are not immune. Placements have become less about matching talent with opportunity, and more about chasing sky-high salaries to boost institutional rankings.

As a result, students often compromise their long-term aspirations to secure roles that meet societal expectations. Companies, too, struggle to find candidates who align with their needs, leading to high attrition rates and a workforce that often feels dis-connected from organisational values.

Placement season is synonymous with anxiety and burnout. While some colleges have taken steps to provide counselling services, these efforts remain insufficient. The stigma surrounding mental health, coupled with the sheer scale of the problem, often leaves students to navigate this pressure alone. Without systemic intervention, this cycle will only perpetuate.

The current placement ecosystem prioritises salaries and placement percentages over meaningful career trajectories. Here's how this approach fails students and companies alike:

▶ **Mismatched expectations** Many students accept roles that do not align with their long-term goals, driven by societal pressure rather than genuine interest.

▶ **Institutional incentives** Colleges focus on maximising placement statistics to climb rankings, sidelining questions about career satisfaction and sustainability.

▶ **Employer challenges** Companies face difficulties in identifying and retaining talent, as the high-pressure environment of placements often results in suboptimal matches.

This flawed system erodes student well-being, compromises the quality of talent entering the workforce, and leaves employers dissatisfied. It's time to move beyond quick fixes and address the root causes.

▶ **Redefine success** Institutions must shift the narrative from 'LPAs'

Cross connections

—lakhs per annum —to 'life', emphasising job satisfaction, growth potential and alignment with personal values. Career counselling should focus on helping students identify roles that fit their unique strengths and aspirations.

▶ **Bridge the gap** Educational institutions need to collaborate with industries to align curricula with market needs. Internships should be reframed as opportunities for exploration rather than mere stepping stones to job offers. Programmes like the Pradhan Mantri Internship Scheme, which aims to create 1 cr internships over five years, can play a pivotal role in reducing the skills mismatch.

▶ **Normalise alternative careers** From entrepreneurship to creative arts, students should feel empowered to pursue unconventional careers. Placement cells can promote diverse pathways by celebrating alumni success stories and offering resources for students interested in research, public service or starting their own ventures.

▶ **Prioritise mental health** Colleges must invest in accessible, year-round mental health services. Integrating stress management and resilience workshops into the curriculum can equip students to handle the pressures of career planning. Alumni mentorship programmes can also provide invaluable emotional and professional guidance.

▶ **Revamp hiring** Companies and institutions should jointly develop holistic evaluation processes. Behavioural assessments, psychometric tests and problem-solving exercises can ensure a fairer and more inclusive hiring process, moving beyond the narrow lens of GPAs and technical test scores.

▶ **Tap the potential** Reforming campus placements isn't just about easing student stress. It's also about creating a system that values human potential over numbers. Institutions and employers must work together to design a placement ecosystem that nurtures creativity, resilience and long-term success.

Imagine a future where students graduate not with dread but with confidence, equipped to tackle challenges and pursue meaningful careers. Where companies welcome a workforce that is not only skilled but also aligned with their values. And where society fosters a generation of innovators, dreamers and doers.

It's time to break the chains of the current placement process and reimagine what success truly means. For the sake of our students, institutions and future, let's build a better way forward.

Side-stepping NEET issues

The refusal to shift the entrance test to online mode is baffling, considering the crisis last year

After the National Eligibility cum Entrance Test-Undergraduate (NEET-UG) fiasco last year, reforms recommended by a government-constituted expert panel offered redemption to the National Testing Agency (NTA). NTA's ability to conduct the test in a manner that engendered trust in the process had come under question last year. Allegations of question paper leaks, arbitrary awarding of grace marks, and inflated marking eroded stakeholders' trust in the exam process, as did NTA's response to the issues. First, the agency tied itself in knots trying to explain away the various discrepancies flagged in marking, and when none of this sailed, it had to take the retest route for a select number of candidates. Then, even as it flatly denied any leaks, probe agencies uncovered paper-leak/solving rackets that spanned multiple states.

Against this backdrop, NTA choosing to sidestep a key recommendation of the expert panel, to shift the NEET-UG to the online mode and instead continuing with the pen-and-paper mode, is baffling.

The panel headed by former Isro chief K Radhakrishnan had called for making the test a "multi-stage" one, with thresholds and test objectives of scoring or ranking at each stage. It also recommended holding the test in multiple sessions, over a couple of weeks, with transparent normalisation. Shifting the exam online, and staggering it into multiple stages and sessions, would have eliminated any prospect of leaks and made the testing less unwieldy — the 2024 edition saw 2.4 million aspirants appear for the test on a single day, with question papers sent to hundreds of centres across the country, increasing vulnerability to leaks.

NTA hasn't explained its decision to conduct the 2025 edition in the offline mode, except for mentioning that the National Medical Commission, the country's medical education and practice regulator, wanted it this way. Given how the move has stirred unease among aspirants — over leak rackets getting activated again and scuppering chances of genuine candidates — such abdication of responsibility is problematic. There not being enough time for aspirants to become familiar with a new testing pattern before the exam — a reason proffered by a senior education ministry official — doesn't justify postponing the shift to online testing. One batch of aspirants, no matter when the shift happens, will be the pilot pool and will face the same unfamiliarity about which there are apprehensions at present. Questions relating to aspirants' access, especially in rural areas, though merit attention as does the shortage of infrastructure to roll out an online NEET-UG. The expert panel recommended at least one online testing centre in each district, and setting these up would need an assessment of the availability and adequacy of infrastructure — physical and digital — as well as of personnel. But these challenges are surmountable.

A country that needs many more doctors than it has can't let the sanctity of the medical entrance exam come under a cloud. While NTA needs to urgently implement the recommendations of the Radhakrishnan panel, the need is also to expand the pool of medical seats in the country.

Andhra Pradesh's journey towards zero hunger and inclusive education

The Dokka Seethamma Mid-Day Meal scheme is a testament to the State's commitment to inclusivity and reforming the education system

Since Independence, food security has been a significant concern in India. Despite notable progress toward achieving Sustainable Development Goal (SDG) 2: Zero Hunger, India still grapples with the challenge of undernutrition.

According to a United Nations report, the country accounts for nearly 195 million undernourished individuals, with children constituting 43 per cent of this population. Various initiatives, such as the Public Distribution System (PDS) and the PM Poshan Mid-Day Meal scheme, have been implemented to address this pressing issue.

Historical Roots of Mid-Day Meal Schemes

The origins of the Mid-Day Meal scheme in India can be traced back to the colonial era. In 1925, the Madras Presidency proposed the first-ever Mid-Day Meal initiative for underprivileged children. Tamil Nadu became the first state to implement this idea, with Sourashtra Boys Higher Secondary School in Madurai serving meals to children in 1955.

By the 1980s, this programme gained widespread acceptance, particularly with the introduction of the "Nutritious Noon-Meal Scheme" by Tamil Nadu's then Chief Minister, M G Ramachandran. This initiative aimed to provide food to 6.8 million malnourished children in the state. Over the years, the programme has demonstrated the strong correlation between nutritious meals and improved educa-

T V KATTIMANI

tion. For children in tribal and socio-economically disadvantaged communities, the scheme has proven to be a lifeline. Many of these children, previously engaged in household activities or income generation due to food insecurity, could now attend school and pursue their right to education. The programme also had a transformative impact on children from Socio-

Economic Disadvantaged Groups (SEDGs), including Scheduled Castes, Scheduled Tribes, De-notified Tribes, Nomadic Tribes, and girl children.

Dokka Seethamma Mid-Day Meal Scheme

In a significant step forward, the Andhra Pradesh government recently launched the "Dokka Seethamma Mid-Day Meal Scheme". This initiative, named after Dokka Seethamma—revered as Agara Annapurna—provides free meals to students in junior colleges across the state. Seethamma, born in 1841 in Mandapet village, was renowned for her compassion and dedication to serving the needy. Despite limited formal education, she imbibed strong moral values through stories and songs from her childhood. Along with her husband, Dokka Joganna, she provided food and shelter to travelers and disaster-stricken communities near the Godavari River. Her legacy of humanitarian service remains a beacon of inclusivity and maternal love.

The Dokka Seethamma scheme is the first of its kind in India, targeting intermediate students. Benefiting 148,419 students across 475 government junior colleges in Andhra Pradesh, the pro-

gramme aims to reduce dropout rates, enhance academic focus, and improve overall student health. By lessening the financial burden on low-income families, the initiative also promotes greater equity in education. It sets a model for other states to emulate, addressing hunger while fostering a nurturing environment for academic and personal growth.

Complementary Initiatives for Inclusivity

In addition to the Dokka Seethamma scheme, Andhra Pradesh has revived the "Anna Canteens" initiative. This program offers wholesome meals at just Rs 5 to economically disadvantaged individuals, significantly alleviating hunger and improving living standards. By ensuring affordable

access to food, the state aims to bridge socioeconomic disparities and support marginalised communities.

For tribal students, particularly girls, the Dokka Seethamma scheme has been a game-changer. Tribal communities often face acute food insecurity due to geographical remoteness and limited resources. Free nutritious meals enable tribal children to focus on their education instead of household chores or income generation. The scheme also addresses educational inequity by encouraging families to prioritise their children's schooling. For tribal girls, the program has a transformative impact. Social and financial pressures often force girls to leave school prematurely, but free meals reduce fam-

ily burdens and promote their continued education.

A Vision for a Better Future

The Mid-Day Meal scheme and similar initiatives signify more than just food distribution—they represent a commitment to empowering the marginalised and uplifting the underprivileged. These programs not only ensure access to nutritious meals but also encourage higher education, better living standards, and healthier lifestyles. By fostering cooperation among teachers, students, and staff, the scheme revives the ancient "Gurukula" system of holistic education, emphasising both mental and physical wellbeing.

(The writer is Vice Chancellor of Central Tribal University of Andhra Pradesh, views are personal)

Reverse brain drain: A game-changer for growth

WASEEM **JAVED**

By harnessing the knowledge, networks and expertise of these returnees, India is laying the foundation for a resilient and competitive economy

India has witnessed a mass exodus of talent for decades, as highly skilled professionals and students left the country in search of better opportunities abroad. This phenomenon, known as 'brain drain', has historically deprived the country of its brightest minds. However, the tide is reversing, with individuals returning to their home country, as seen in the recent past. With acquired skills and rich experience, the 'reverse brain drain' is increasingly becoming a powerful force in India's economic growth and development. This comes against the backdrop of India's fast-paced economic growth, combined with government initiatives and an evolving entrepreneurial ecosystem that has made the country an attractive destination for global talent, including those who once left its shores. This shift is not about just people coming back; it's about knowledge transfer, innovation, and global networks essential to building a competitive and resilient economy.

Economic and Entrepreneurial Opportunities Driving Return

In most cases, what has caused this reverse brain drain is the prospect of available opportunities in India. The growth pattern of India as a country with an upward economic trajectory brings with it demand for science, technology, and innovation skills from professionals in their fields.

Returnees easily get absorbed in suitable roles since their international experience puts them on top of the sought-after candidates at startups, large multinational companies, and research centres. Government initiatives like Make in India, Startup India, and Atmanirbhar Bharat have further made India more attractive. These initiatives encourage entrepreneurship, self-reliance, and innovation by offering financial incentives, regulatory support, and access to infrastructure. Thus, many Indian professionals who had earlier worked in global hubs such as Silicon Valley are returning to start their startups or take up leadership roles in Indian enterprises.

For example, several Indian entrepreneurs who have returned from the United States or the United Kingdom are at the helm of billion-dollar startups in India today.

They cut across fintech, e-commerce, health tech, and renewable energy among other sectors that create jobs and spur economic growth. Their global networks and access to venture capital give them a competitive edge that will allow them to scale their business quickly and effectively.

The Role of Overseas Education in Shaping Talent

Education in foreign lands serves as the core of the reverse brain drain. In 2024, more than 13.35 lakh students from India pursued education abroad, of which the USA, Canada, the UK, Australia, and Germany were among the top destinations. In general, courses in engineering, business management, medicine, and technology attract Indian students with promising career avenues. This international education equips students with advanced knowledge, technical skills, and a global perspective. Many also gain valuable work experience abroad before deciding to return to India.

A key facilitator in this journey has been

forms that streamline the process of studying abroad. These platforms help students identify the best courses, universities, and countries based on their aspirations and career goals.

They also help with visa processes, and education loans, and even offer post-admission help, so everything goes off smoothly.

These consultancies not only empower students in terms of succeeding abroad but also lay the groundwork for their potential contributions upon returning to India while bridging the gap between students and global education systems.

Benefits of Reverse Brain Drain for India

The reverse brain drain is an economy-changing force for India, bringing skilled professionals back to drive progress across sectors. In the case of technology, returnees provide cutting-edge expertise in areas like artificial intelligence, biotechnology, and clean energy, which ensure that India is not left behind globally.

The knowledge that these returnees provide creates technological advances that benefit both industries and society. Entrepreneurship and innovation also pick up pace as returnees start new ventures, create jobs, and develop innovative products and services that address local and global challenges. This not only increases employment but also makes India a creative solutions hub.

Furthermore, these professionals enhance scientific collaboration by connecting Indian institutions with international research networks, thereby facilitating the exchange of ideas and resources in areas such as healthcare and renewable energy. The economic impact is equally strong as the

reverse brain drain strengthens productivity, draws in foreign investment, and propels GDP growth.

Key Challenges and the Way Forward

Although reverse brain drain promises to boost Indian growth immensely, bureaucratic red tape, infrastructural inadequacies, and differing work environments of India versus the developed world will still prevent most professionals from coming back. This will only come true when registration procedures, tax regimes, and the regime for intellectual property become more simplified, paving the way for returnees to establish enterprises or meaningfully contribute to organizations.

To tap into returning talent effectively, India must improve its infrastructure: world-class research facilities, modern educational institutions, and strong health care. More competitive incentives to attract international talent include tax breaks, grants for research, and easier access to funding. Only then will the reverse brain drain convert into practical input toward the nation's economic growth and innovation.

Government Initiatives and Policy Support

The Indian government has been proactively capitalising on reverse brain drain. By setting up innovation hubs, funding startup companies, and collaborating with world-class research institutes, the country is attracting much-needed talent as well as fostering innovation. Many countries have implemented policies and incentives to encourage skilled professionals to return to their home countries. For example, Taiwan created the Hsinchu Science Park and offered tax cuts to encourage the development of high-tech industries. Such poli-

cies not only encourage the return of skilled professionals but also provide them with a platform to flourish.

The Global Context and Its Implications

Interestingly, reverse brain drain is not an Indian phenomenon alone. Developed countries like the United States and the United Kingdom are losing talent due to restrictive immigration policies and limited opportunities for career advancement. For example, America's flawed immigration policies have inadvertently driven away skilled professionals who are now contributing to India's growth.

This shift points to a wider paradigm wherein developing countries are transformational centres of innovation and economic activity. It could also help India emerge as a global leader in sectors ranging from technology to healthcare.

A Bright Future for Reverse Brain Drain

The reverse brain drain represents a new paradigm in India's journey to become a global economic superpower. In this new scenario, talent can be an asset to the country by nurturing innovation and fostering collaboration. With government support, private sector participation, and an emphasis on developing world-class infrastructure, the country is poised to turn reverse brain drain into a sustained growth driver.

In doing so, this movement is not only for India but reshapes the global talent landscape with a new reality of importance: inclusive and dynamic economies in a more integrated and interconnected world.

(The writer is the founder and CEO of EduVis; views are personal!)

> GOVERNMENT INITIATIVES LIKE MAKE IN INDIA, STARTUP INDIA, AND ATMANIRBHAR BHARAT HAVE FURTHER MADE INDIA MORE ATTRACTIVE. THESE INITIATIVES ENCOURAGE ENTREPRENEURSHIP, SELF-RELIANCE, AND INNOVATION BY OFFERING FINANCIAL INCENTIVES, REGULATORY SUPPORT AND ACCESS TO INFRASTRUCTURE

The Assam Tribune
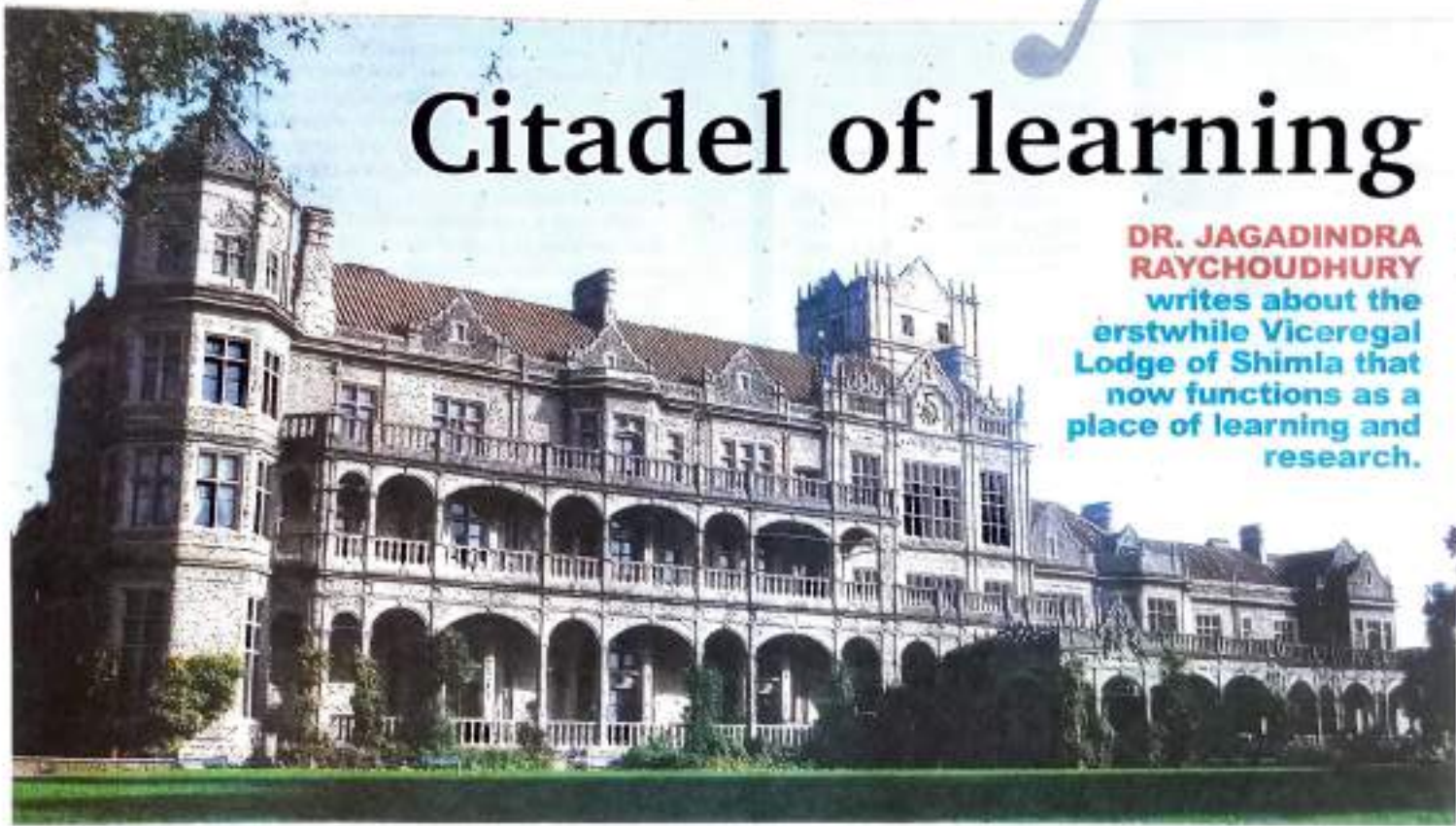
Sunday READING

Citadel of learning

DR. JAGADINDRA RAYCHOUDHURY writes about the erstwhile Viceregal Lodge of Shimla that now functions as a place of learning and research.

India is a naturally blessed country adorned by the Himalayan mountains in the north and the Indian Ocean down below — where it meets with the Arabian Sea and the Bay of Bengal. The Portuguese, French, and British, with their plans to establish a colony, reached India but only the British managed to establish their might and rule the country for over two centuries. And even though the climate was hardly suitable for the British, they explored India's hilly areas and established several official and personal retreats.

The Europeans in India always had a special attraction for the charming Shivalik Hills where the British officers were posted at the Subathu Cantonment. In the lower Shivaliks, the British officers explored the thick forests for hunting expeditions and on the ridges of it the present Shimla town is situated. It was Captain Charles Kennedy, the political agent of the East India Company, who came to the hill station and became the first European to build a permanent house near the original village called 'Shemlah' in the year 1822. The village 'Shemlah' turned to Shimla in due course of time and the British declared it as their summer capital in 1864. It was Lord Lytton who conceived the plan to build the Viceroy residence here and it came to fruition during the viceroyalty of Lord Dufferin. The main architect of the building was

Henry Irwin, also the Chief Superintendent of the works, along with F.B. Hebbert and L.M. St. Clair Wilkins who were the executive engineers, and A. Scott, T. Macpherson, and T. English assisted the project as assistant engineers. It was the last priority of Lord Dufferin, who used to visit the construction site every day, often accompanied by Lady Dufferin, who also gave her inputs.

With only a few months left as the Viceroy of India, Lord Dufferin expedited the work and due to his urgency, the original drawing of Irwin was changed to reduce the cost, as a result of which the upper walls of the main gallery (around which the rooms were made) became narrower in comparison to the original drawing. Finally, Dufferin moved to the Viceregal Lodge on July 23, 1888, and on August 11, 1888, Lady Dufferin hosted the first 'At Home' event at the Viceregal Lodge and received almost 300 visitors, mostly women, and that was followed by the tennis tournament on August 17, where the Maharaja of Cooch Behar participated, along with Irwin and other players. The Maharaja was declared the winner of the match. The Viceregal Lodge finally became a home.

The Elizabethan and Scottish architectural structure, with its beautiful wood-panelled walls and a graceful stairway, has been witness to several memorable occasions like the historic Round Table

Conferences, as well as the 'Simla Conference' of 1945. This Viceregal Lodge hosted many national leaders of India like Mahatma Gandhi, Jawaharlal Nehru, Maulana Abul Kalam Azad, Khan Abdul Ghaffar Khan and others, who visited in connection with different political dialogues and conferences. After independence, the lodge was transferred to the hands of the President of India and renamed as Rashtrapati Nivas.

In its early years as Rashtrapati Nivas, it remained in an unused condition, except for once a week in a year when the then President, Rajendra Prasad, stayed here. When Sarvepalli Radhakrishnan became President, he conceived of an idea to use that building as a research centre. His dream came true and this centre was renamed as 'The Indian Institute of Advanced Study' and formally inaugurated by him on October 20, 1965, which was fully funded by the Ministry of Education, Government of India. Radhakrishnan envisaged a place for free and creative inquiry into the themes and problems of life and thought. As a residential centre for advanced research, it encourages creative thinking in areas of deep human significance.

The well-maintained institute has a beautiful garden with a variety of flora and is one of the best landscape gardens located at such a height. There are three nurseries in the garden, with some rare

Himalayan plants. It is recognised as one of the best gardens in this region. Besides this, there is a sports complex, theatre space and much more to keep residential scholars engaged and entertained. This institute has a library with a huge collection of books and the numbers exceed more than two lakhs at present. The books pertain to disciplines of different branches — like anthropology, history, linguistics, literature, philosophy, sociology and comparative religion.

Regular academic programmes are organised by the institute and eminent scholars visit the institute for academic pursuits. Several national and international seminars, workshops, conferences, symposia, study weeks on themes of contemporary relevance, as well as those of fundamental theoretical significance are organised every year, in which distinguished scholars from across the globe participate. The major significance of this institute is the intellectual freedom that is supported by the government as well. Therefore, the former President of India, Dr. Zakir Husain expressed the hope that the institute would "grow into a site of free enquiry, of disciplined intellectual activity, both critical and constructive, where the illimitable freedom of the mind is respected and nurtured, and where excellence in all its aspects is the guiding star."

[THE BIG PICTURE]

Annihilating caste in universities & colleges

Tweak the 2012 Promotion of Equity Regulation to expand its jurisdiction, and ensure better enforcement of its existing provisions

The fact that suicides in higher education institutes continue despite the 2012 Regulation indicates there is a need to treat caste discrimination as a criminal act. Only then can it be brought under check.

Sukhadeo Thorat

NIRF: A parametric analysis

DEBENDRA CHANDRA BARUAH

A university's excellence depends on strategic governance, inclusive policies, academic output, and research excellence, as measured by comprehensive metrics.

A precise understanding of the quality of higher education institutes (HEIs), especially in India, remains a challenge. The National Institutional Ranking Framework (NIRF), a unique ranking system, is perhaps a rational approach by the Government of India to address such challenges. Starting with four categories (universities, engineering, management, and pharmacy) in its first edition in 2016, NIRF has gradually extended the categories of ranking to 16 (namely, universities, colleges, research, engineering, management, pharmacy, medical, dental, law, architecture and planning, agriculture and allied sectors, innovation, open university, skill university, state public university, and overall) in the recently declared 9th edition, i.e., NIRF 2024, where 10,845 applications from 6,517 HEIs across different categories were assessed.

Such categorisation is justified given the vastness of HEIs, comprising universities (central, state-public, state-private, deemed-private, deemed-public, open-central, and open-state), colleges, IITs, NITs, and other centrally funded institutes offering undergraduate, postgraduate, and PhD degrees.

The current discussion is limited to the universities category of NIRF ranking due to its significant share (87.6%) among the total 1,297 higher education institutes. A university is expected to be a renowned centre of academic excellence, producing quality and employable human resources. Thus, NIRF uses a score incorporating more than 20 parameters related to functioning and academic outputs aligned with such expectations for ranking purposes. The significance of the five broad aspects, namely, (i) teaching, learning, and resources (30% weightage), (ii) research and professional practice (30%), (iii) graduation outcomes (20%), (iv) outreach and inclusivity (10%), and (v) perception (10%), used to evaluate quality is highlighted below.

The student intake capacity of a university is a key criterion for NIRF ranking. The demand to fill seats, retention of students without dropout, completion of degrees within the stipulated time, and, finally, the employment or progression of students to higher studies are evaluated using data provided by the university for three consecutive years. Sensible and continuous efforts by the university to sustain the above factors are crucial for achieving a better ranking.

NIRF further considers the availability of competent teachers for teaching. The adequacy is accounted for by a specific teacher-student ratio (15:1) based on the intake capacity of students (not the actual number admitted), whereas a PhD degree is considered a measure of teacher competency. An equal proportion of experienced teachers, comprising (i) young (<8 years), (ii) mid-level (8-16 years), and (iii) highly experienced (>16 years), is desired for a full NIRF score. A higher number of students benefiting from online education (via standard platforms such as Massive Open Online Courses) as part of credit requirements is yet another quality consideration. The implementation of NEP 2020, as reflected in provisions for (i) multiple-entry-exit, (ii) courses on the Indian knowledge system, and (iii) the promotion of regional languages, was also considered for the NIRF 2024 rankings. Universities' expenditure on providing and maintaining state-of-the-art learning infrastructures and resources solely for academic benefits is another key ranking parameter. Expenditure on buildings, roads, etc., is not accounted for as academic expenditure. It should be noted that while normalising the data based on student strength, the approved intake capacity (not the actual admitted students) is considered. Thus, vacant seats incur a penalty in the NIRF ranking.

Research is considered essential not only for multifaceted benefits but also for its positive impact on students, who are potential researchers. The number of PhDs produced by a university is also used in the NIRF score. A strategic research programme requires sufficient quality publications, patents, and the timely completion of PhD degrees to secure a better NIRF score. The quantity (number) and quality (total citations and their proportion in top-ranked journals) of research publications over three consecutive years are used to estimate relevant NIRF scores. The publication and citation counts are normalised based on the desired teacher strength (1 teacher per 15 students of declared intake capacity) instead of the actual number of teachers available. Normalisation addresses potential discrepancies between small and large varsities.

NIRF also evaluates the professional practices of a university based on four parameters, viz, (i) the number of patents (published and granted), (ii) the amount of funds received for research, (iii) earning through consultancy, and (iv) income from executive development programmes. Data provided by the university over three consecutive years are used for the ranking.

Academic and research excellence cannot be achieved by ignoring the social accountability of a university. Socially relevant parameters in NIRF scoring are: (i) admissions of students from other States and foreign countries, (ii) the proportion of female students (a desired minimum of 50%) and female representation in administrative positions (a minimum of 20%), (iii) full tuition fee waivers for economically and socially disadvantaged students, and (iv) facilities for physically challenged students. In addition, NIRF analyses feedback from academicians and estimated a perception score for the university. Finally, a unique score is calculated, incorporating all the above parameters to determine the ranking.

It should be noted that mobilising financial resources from different sources, such as government funds, external research funding, revenue from consultancy, executive development programmes, and licensed patents, is crucial for attracting students and maintaining quality education. This is appropriately accounted for by NIRF and is expected to be a focus for universities. Universities should also strive to provide financial support to socially and economically disadvantaged students, offer employment-oriented academic programmes, ensure 100% seat occupancy, attract students from other regions (including foreign students), implement effective academic plans (teaching, research, consultancy, and training) with an adequate number of qualified teachers, ensure a robust examination system for the timely declaration of results, engage in cutting-edge research with quality publications/patents, ensure timely completion of PhDs, and promote social vibrancy and equal opportunities for women and physically challenged individuals. The implementation of NEP 2020 and contributions to SDGs are additional responsibilities for universities. A strategic and visionary plan involving all stakeholders (management, governance, teachers, students, alumni, parents, and neighbouring communities) is essential to achieve the desired quality standards.

The top 100 universities ranked by NIRF since 2018 reflect a typical pattern of regional distribution, which has remained almost consistent over the years, highlighting certain concerns. Tamil Nadu has consistently had the highest number of top-ranked universities. Regional factors could be interesting areas of investigation, as 83 universities within the NIRF 100 belong to just 10 States: Tamil Nadu (22), Karnataka (11), Maharashtra (10), UP (9), Punjab (7), Delhi (7), Andhra (5), Kerala (4), Rajasthan (3), Uttarakhand (3), and Telangana (3). None of the universities in Nagaland, Goa, Madhya Pradesh, Chhattisgarh, Bihar, Arunachal Pradesh, Sikkim, Manipur, or Tripura are ranked within the NIRF 100. Among the 85 universities in Northeast India, only three (Gauhati University, Tezpur University, and Mizoram University) are ranked within the NIRF 100.

Overall, southern and northern universities outperform central, eastern, and western universities, except for a few exceptions. Among 84 private-deemed universities, 38% are ranked within the top 100. Additionally, 20% of 54 central universities, 14% of 50 public-deemed universities, 8% of 460 public-state universities, and 2.8% of 468 private-state universities are ranked within the top 100. The top 10 ranked universities are shared among five central universities, three state-private universities, and one each of public-state and public-deemed universities. Along with regional factors, the type of university appears to be another important influencing factor.

Overall, the governance, leadership, and management of universities appear to be crucial for maintaining high standards and achieving better rankings.

Future skills survey brings good tidings

It is a recognition of the potential of India's growing economy that the QS (Quacquarelli Symonds) World Future Skills Index has ranked the country's job market as second only to the US. The survey looked at readiness in future skills, especially in the areas of AI, digital, and green technologies. This is the first ever survey of the position of various countries, with respect to their need and preparedness for emerging technologies. The index ranked India globally in the Future of Work indicator, with a score of 99.1, just behind the United States. It placed the country 25th overall across four indicators, identifying it as a Future Skills Contender. The indicators include the alignment between skills and employer needs, academic readiness, and economic transformation. The assessment of the 'future of work', where India is ranked second, has been done largely from the demand side, which reflects job postings. While this indicates the potential, there is much to do to realise it.

On some parameters, the country's performance is poor. While it got 100 marks on account of economic capacity, it scored low on parameters like innovation, where G-7 countries are far ahead and some African countries have fared better. The report has identified gaps in investment and innovation capacity which could slow down long-term growth. It said that "India's overall 'skills fit' score is lower than that of its counterparts in APAC, with a particularly large skills gap in 'entrepreneurial and innovative mindset." The APAC (Asia-Pacific) region is known for its skills in these areas and will pose challenges to India.

> India is second only to the US in potential, but can we realise it?

The report specifically says that "employers across India are highlighting a critical gap in the work force's ability to meet the demands of a rapidly changing economic landscape" and that the "shortfall underscores a broader challenge for India's higher education system, which is struggling to keep pace with evolving employer needs." That underlines the need for aligning the country's education, especially its technical education, with future needs. Prime Minister Narendra Modi has welcomed the ranking of India as the top job market in the survey. He said that over the last decade, the "government has worked on strengthening our youth by equipping them with skills that enable them to become self-reliant and create wealth." He believes they have leveraged the power of technology to make India a hub for innovation and enterprise. There is much more to be done to realise his claim. The criticism that most of the country's technical graduates are unemployable still stands. The country needs to improve the quality of education to welcome the future knocking on its doors.

Albert P' Rayan

The The use of generative Artificial Intelligence (AI) in education has recently sparked widespread discussion and debate about its impact on student learning. AI tools are now commonly used by students at both the secondary and tertiary levels for several academic purposes. While many educators view this development positively, others express concerns that it may lead to plagiarism, hinder creativity, and reduce originality.

Recently, when speaking at a conference on AI at a Chennai college, I opened my presentation on "Does AI kill creativity?" with a series of brainstorming questions designed to assess familiarity with AI tools and the benefits from using them. Nearly everyone in the audience responded that they use ChatGPT and a few other AI tools for various academic tasks.

How authentic?

It is true that AI cannot create in the same way humans can because it lacks intrinsic creativity. Humans possess immense creative potential that machines cannot match. For example, the music of renowned musicians and the writing style of creative authors are unique. In fantasy and sci-fi author Joanna Maciejewska's words "I want AI to do my laundry and dishes so that

I can do my art and writing..." No fan of JK Rowling expects her to use AI to write a novel, just as no fan of AR Rahman expects him to compose music with the help of AI. Artificial is synthetic, while natural is authentic. This statement should not be interpreted to mean that AI cannot be used for creative or productive purposes. The purposes for which creative artists use AI tools are quite different from those for which students and teachers use them.

Noam Chomsky provocatively described AI as "plagiarism software". While some critics argue that AI merely copies and modifies existing words and phrases, generative models do not simply reproduce content. Instead, they synthesize new combinations and generate novel outputs based on the data they are trained on. However, using AI-generated content uncritically reflects a lack of originality, creativity, and critical thinking. Those who view AI as a threat to academic integrity (honesty, fairness, and responsibility) often fail to see its educational potential. This raises the question of whether AI tools should be banned, restricted, or promoted in educational institutions.

New York City public schools, which had previously restricted access to ChatGPT on school computers and networks, have recently lifted the ban. Rather than thinking of banning AI tools, schools

should teach students how to use them appropriately. This proactive approach can enhance students' understanding of the technology and could prove to be a valuable workplace skill. It is crucial for education boards to implement thoughtful and reasonable AI policies.

Good or bad mentor

In a discussion on the role of AI in education, one teacher remarked that AI acts as a mentor for students. I asked whether he

considered it a good or bad one. The reality is that AI can be either, depending on how we choose to use it. The prompts we provide reflect our intentions, and AI responds accordingly.

AI, as a good mentor or an educational tool, can instil confidence in learners, arouse their curiosity, empower them to critically evaluate generated content, spark creativity, synthesise information, edit or translate content into any language, help them improve their lan-

guage skills, organize study materials, develop learner autonomy, and enhance personalized learning by making it more effective and enjoyable.

On the other hand, as a bad mentor, AI can do everything for the student: generate ideas for homework, complete assignments, prepare presentation slides, and even give the impression that the user is the original author of essays, presentations, and reports it has created.

AI has empowered

many academics, researchers, and students who now feel that language should no longer be a barrier to expressing their novel ideas and research findings, as AI tools assist with language-related tasks. In other words, thanks to AI, academia has become more productive, if not more innovative and creative.

With the ubiquitous smartphone and other gadgets and 24/7 internet, anyone can learn anytime and anywhere in the 21st century. If individuals be-

come AI literate and learn to use AI tools effectively, they can become self-directed learners with minimal assistance from teachers. Therefore, educators should teach students how AI works, its strengths, and its limitations, so that students understand when and how to use it effectively. This can promote more strategic use of AI and reduce over-reliance on it. They should also address ethical issues, such as plagiarism and emphasise the importance of adhering to AI policies.

AI tools, by themselves, do not have the power to enhance or diminish our originality and creativity—it all depends on how we use them. When applied thoughtfully, rather than as a crutch, they can assist with idea generation, help overcome mental blocks, and refine texts, thereby expanding creative capabilities. However, over-reliance on AI can develop cognitive laziness or mental inertia, weaken problem-solving abilities, reduce independent thinking, and lead us to bypass imaginative processes. Since AI-generated content often reflects patterns from its training data, excessive dependence on it can further restrict originality. Will we make AI our creative assistant or allow it to become a crutch? The ball is in our court. Let's make the right play.

To AI or not to AI?

AI tools, by themselves, do not have the power to enhance or diminish
our originality and creativity. It all depends on how we use them.

The impact of H-1B visas on the tech industry in U.S.

Elon Musk and Vivek Ramaswamy, both immigrants and Mr. Trump's picks to overhaul the U.S. government, are supportive of the skilled foreign worker visa programme

John Xavier

The last week of 2024 didn't exude the holiday spirit for several folks in the tech world. A section of billionaires, politicians, and tech workers were piqued by a specific U.S. immigration policy that allows skilled foreign workers to work in the country.

A verbal mudslinging began after President-elect Donald Trump appointed Sriram Krishnan as his senior policy advisor on Artificial Intelligence (AI). Within days after the announcement, Laura Loomer, a prominent MAGA supporter, wrote rancorous social media posts against the decision, calling Indian immigrants "third world invaders." The right-wing influencer then doxxed Mr. Krishnan, sharing his domicile details scoured from the U.S. Federal Election Commission (FEC). While Ms. Loomer apologised for doxxing Mr. Krishnan, she remains rooted in the idea that the number of skilled foreign workers must be reduced in the U.S. as the programme is negatively impacting native workers.

Mr. Krishnan, an Indian immigrant who came through the ranks of top tech firms in the Silicon Valley, supports simplifying the legal process for tech workers to enter the U.S. His stance has been echoed by several tech billionaires. His to-be-peer in the Trump administration, former PayPal executive David Sacks, came in support of the a16z's general partner and clarified that Mr. Krishnan did not advocate for the removal of restrictions for a green card but was only seeking the removal of country-specific caps.

Elon Musk and Vivek Ramaswamy, both immigrants and Mr. Trump's picks to overhaul the U.S. government, are supportive of the skilled foreign worker visa programme. The world's richest man even said he would "go to war" to defend the programme. In an X post, he wrote: "The reason I'm in America along with so many critical people who built SpaceX, Tesla, and hundreds of other companies that made America strong is because of H1B." The H1-B issue has not just split MAGA supporters; it has also turned some prominent Democrats, who were pro-immigration during the election season, into H-1B programme bashers. For instance, Vermont Senator Bernie Sanders said the main function of the H1-B visa "is not to hire 'the best and the brightest' but rather to replace good-paying American jobs with low-wage indentured servants from abroad."

Heated debates on the H-1B visa programme are not a new phenomenon. It helps to know the programme's brief history – at least from the time it went through a major revision in the 90s – and its net impact on wages and productivity in the U.S.

A brief history

In the early 90s, the U.S. enacted the Immigration Act of 1990 to increase the number and diversity of immigrants coming into the country and to adapt to the changing economic and social needs of a globalising world. The legislation significantly revised and expanded the H-1B visa programme.

Apart from mandating employers to file an application with the labour department that hiring H-1B workers will not adversely affect wages and working conditions of U.S. workers, the law established an annual cap of 65,000 new H-1B visas for each fiscal year.

These changes led to a substantial increase in the number of H-1B visas issued and made the programme more accessible to U.S. employers seeking high-skilled foreign workers. This, in turn, contributed to the programme's role in attracting skilled workers at a time when American companies were facing intensifying global competition, especially from Japan in high-tech and manufacturing sectors.

Silicon Valley was emerging as a global tech hub, creating unprecedented demand for scientists, technology professionals, engineers, and mathematicians (STEM workers). Traditional industries in other parts of the country were also undergoing rapid computerisation, requiring STEM talent that wasn't readily available in the domestic workforce.

The cap on H-1B visas were hiked to 1,95,000 during the dot-com boom before returning to the base cap. Then, in 2004, an additional 20,000 slots were added for advanced degree holders from U.S. universities. Since 1990 to 2019, roughly 4.5 million H-1B visas were issued, and in the fiscal year of 2023, 72% of approved H-1B petitions were for beneficiaries born in India, and 65% of all approved H-1B petitions were for workers in computer-related occupations.

The impact of H-1B workers

A 2013 study, titled 'STEM Workers, H-1B Visas, and Productivity in U.S. Cities' by economist Giovanni Peri, found that H-1B workers had a positive impact on the wages of native college-educated workers and overall productivity in U.S. cities.

The study examined the influx of foreign STEM workers through the H-1B visa programme and their impact in 219 cities between 1990 to 2010. It noted that H-1B-driven increases in STEM workers boosted wages for native college-educated workers. A one percentage point increase in the foreign STEM share of a city's employment led to an increase of around 7-8 percentage points in the wages of native college-educated workers.

Also, wages of non-college-educated native workers saw a positive, though smaller, increase. These workers experienced a 3-4 percentage point increase in wages for every one percentage point increase in the foreign STEM share of employment. The study estimates that the growth in foreign STEM workers may account for 30% to 50% of aggregate productivity growth in the U.S. between 1990 and 2010. Fast forward to 2024, and the impact of foreign workers on U.S. wages and productivity continued to be positive.

In a follow-up study, titled 'Immigration's Effect on US Wages and Employment Redux,' economists Alessandro Caiumi and Giovanni Peri note that immigrants and native workers complement each other in the labour market. In their research that examines the broader impact of immigration on the U.S. labour market between 2000 and 2022, they found that immigrants often specialise in different and complementary occupations compared to native workers.

In a separate study that documents the impact of H-1B workers on innovation and product commercialisation, Harvard Business School Professor William Kerr notes that skilled immigrants have contributed significantly to U.S. patent activity, particularly in emerging technologies. Jennifer Hunt, Professor of Economics at Rutgers University, has shown in her research that H-1B workers who transition to permanent residency tend to be particularly innovative and entrepreneurial, often founding companies that create jobs for U.S. workers.

Talent conundrum in the age of AI

Despite the positive impact of H-1B workers on the U.S. economy, opponents of the visa programme are clamouring for restrictions and lowering the number of legal immigrants. Some criticisms, particularly the ones against Indian tech services companies like Infosys and Cognizant, are well-laid.

These companies developed a business model that combined offshore development centres in India with on-site presence in the U.S., facilitated by H-1B visas. This model, sometimes called the "global delivery model," transformed how technology services were delivered to U.S. companies, but it did not truly make a path-breaking innovation for the U.S. economy.

These companies typically rank among the top H-1B sponsors annually. For instance, in many years between 2005-2019, Indian companies accounted for a substantial portion of all H-1B visa petitions. This has raised concerns about the programme's concentration among top IT services firms.

It will do well for the incoming Trump administration to look into these practices and redraft a skilled worker immigration policy that prioritises the skill and educational background of an individual over a company's profit-making interests.

ISTOCKPHOTO

JOIN THE EDUCATION DOTS

Quality of higher education is an outcome of quality of primary education in India

J S RAJPUT

A SUDDEN EXPANSION in any organisation often leads to dilution in the quality of its products, ushering in a serious loss of institutional credibility. In academic circles, it has been witnessed in reputed universities, well-established schools, and also the systems managing large numbers of institutions. The trust deficit suffered by government schools is a case in point, of which almost every family in India is convinced. The Indian education system observed a big attitudinal change from "why educate" to the demand for "good education in a good school not only for boys but also for girls".

The post-independence expansion of school education, and consequently, higher education was inevitable. However, there was a serious deficit in qualified and competent manpower on the one hand, and the constitutional directive to provide free and compulsory education within 10 years to all children till they attain 14 years of age on the other. Thanks to the leadership, our achievements in education deserve appreciation for the efforts made under extremely tough and restrictive circumstances. From a literacy rate of around 18-20 per cent to nearly 80 per cent against a population rise of 100 crore is no mean achievement. Credit must also go to the institutional leadership of university professors, scientists and primary teachers working under the most arduous circumstances.

Recently, the UGC has floated a draft regulation suggesting an amended framework to recruit vice-chancellors. Unfortunately, the dialogical tradition of which we were once proud, stands totally ignored. In the absence of

> We have inherited the legacy of great academics and scholars, which could inspire the youth to achieve professional targets serving the larger interests of human welfare. There are instances of a single leader transforming an institution. Every great university is invariably mentioned, along with one outstanding person who took it to great heights.

visible initiatives for discussions, only diatribes float around. One could also say that discussions stand reduced to the level of superficial daily TV debates. Our experience shows that it is indeed tough to prepare academic leaders. However, attention has barely been paid to this aspect. The UGC's focus is on the universities and higher institutions. The national concern must be on a much wider horizon.

The quality of higher education institutions, including their leadership, is a direct product of the quality of elementary education. One often cites the example of Japan, the most destroyed nation in World War II. The visionary leadership entrusted with the task of reconstruction decided to prioritise the primary education and the curriculum. Imagine a primary school soaked in a culture of punctuality, respect for hard work and total devotion to the value of every minute, and using it all in contribution to nation building. Learners observe it, participate in it and experience every day the thrill of being nation-builders.

Imagine a teacher reaching late by five minutes in his class and 50 children waiting for him, wasting their time. In India, it is routine. In Japan, it would be rare as the teacher would suffer from self-guilt for months and make every effort to put in extra effort. When learners educated in such an environment move out into their working life, universities will find institutional leaders in the vice-chancellors.

We have inherited the legacy of great academics and scholars, which could inspire the youth to achieve professional targets serving the larger interests of human welfare. There

are instances of a single leader transforming an institution. Every great university is invariably mentioned, along with one outstanding person who took it to great heights. Could one even talk about BHU, AMU, Vishwa Bharati or Jamia Malia Islamia without referring to Madan Mohan Malaviya, Syed Ahmed Khan, Rabindranath Tagore or Zakir Husain? Could anyone ever think of BARC or ISRO without being grateful to Homi Bhabha and Vikram Sarabhai? Individuals create great institutions. Institutions prepare individuals and give wings to their imagination and curiosity. Equipped with it, they create the future of the nation and upgrade the quality of life of its people.

India is a successful democracy. Our paksh and vipaksh are always busy in political bickering, totally unmindful of their constitutional responsibility to enter into serious discussions on issues like education, national security, health care and hunger. The federal set-up provides ample scope for debates and discussions on serious national issues. The Central Advisory Board on Education (CABE), presided over by the Union education minister has a very wide national representation of state education ministers, academics, and major institutions. They could discuss and resolve issues like education policy or the procedure for selecting vice-chancellors, besides thinking of how to prepare leaders at every stage in educational institutions, including primary schools.

The writer works in education, social cohesion and religious amity. He is a former director of the NCERT

UGC's draft regulation has serious constitutional issues

The draft regulation by the University Grants Commission (UGC) on the selection and appointment of vice chancellors of universities has evoked protests by non-Bharatiya Janata Party-headed State governments. Their main objection against this regulation is that it constitutes a violation of the federal principles enshrined in the Constitution of India. The State governments concerned have demanded its withdrawal.

The UGC has sought to amend Regulation 2010 that relates to the selection and appointment of vice chancellors by widening the area of selection. Under the existing regulations, a vice chancellor can be selected only from among academicians who have a minimum experience of 10 years as professor. Through this amendment, the UGC declares that professionals with 10-plus years of experience in industry, public administration or public policy, shall also be considered.

The draft regulation raises serious constitutional issues which need to be examined by separating the political context of protest and a possible political reaction from the UGC or the party in power.

The objective of the UGC Act

The University Grants Commission Act, 1956 was enacted by Parliament to make provision for "the co-ordination and determination of standards in Universities and for that purpose, to establish the University Grants Commission". The Act, therefore, mandates the UGC to take all steps as it thinks fit for the promotion and the coordination of university education, and for the determination and maintenance of standards of teaching, examination and research in universities. For performing these functions the UGC can allocate funds to the universities essentially for the maintenance and development of the universities, recommend measures necessary for the improvement of university education, advise the Union or State governments on the allocation of grants to universities for any general or specific purpose, collect information on all matters relating to university education in India and other countries and make them available to any university, regulation of fees.....

Section 26 of the UGC Act empowers the UGC to make regulations for implementing the mandate of the Act. But it is made clear in this section that these regulations need to be consistent with the Act and the rules made thereunder. The most important among these regulations relate to defining the qualifications required of a person to be appointed to the teaching staff in a university, the minimum standards of instructions for the grant of any

P.D.T. Achary

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The problem arises when the UGC begins to regulate an area which is not a part of the parent Act — namely the selection and the appointment of university vice chancellors

degree by a university, and regulating the maintenance of standards and the coordination of work or facilities in universities.

It is not the job of the UGC

The crucial point that needs to be considered here is whether the regulation made by the UGC in respect of the selection, qualification and appointment of vice chancellor is consistent with the provisions of the UGC Act. As a matter of fact, the Act does not contain any provisions relating to the selection and the appointment of vice chancellors. The fundamental objective of the Act is to determine standards in universities and the promotion and the coordination of university education. To lay down the standards of teaching and to prescribe the qualifications of teaching staff whose job is to give instructions, is the main function of the UGC — which it does by making periodic regulations. But the problem arises when this statutory body begins to regulate an area which is not a part of the parent Act. Rules and regulations are technically called subordinate legislation. The subordinate legislation can be made only in consonance with the provisions in the Act. If the regulation goes outside the scope of the Act, it will be ultra vires the Act, and hence invalid.

A close reading of the Act would show that it was not meant to prescribe the qualifications or mode of selection of vice chancellors. All universities, whether under the Union or the States, are established under a statute made by the respective legislature. Therefore, it is the legislature which prescribes the qualifications, mode of selection, and conditions of service of vice chancellors. It is not the job of the UGC. The selection and the appointment of vice chancellors cannot be considered to be an exercise connected with maintaining the standards of education or promotion and coordination of university education. The Bombay High Court in Suresh Patilkhede vs The Chancellor Universities of Maharashtra and Others (2011) corroborates this view in the following words "we are of the view that qualifications and method of appointment of Pro-Chancellor and Vice Chancellor of the University cannot be treated as satisfying the 'direct impact' test [on the standards of education]". Therefore, it is safe to assume that under Section 26 of the UGC Act, the UGC has no mandate to make any regulation in respect of the selection and the appointment of vice chancellors.

An interesting constitutional question which arises in the context of the UGC's regulations is whether a regulation can over-ride an Act passed by a State legislature. This question came up in the context of the termination of the appointment

of some vice chancellors in the past. The Bombay High Court in the Suresh Patilkhede case (supra) took the view that "Regulation 7.3.0 of UGC Regulations, 2010 being a subordinate legislation under an Act of Parliament cannot override plenary legislation enacted by the State Legislature...." However, the Supreme Court of India, in Kalyani Mathivanan vs K.V. Jeyaraj and Ors (AIR 2015 SC1875 para 22) overruled it by holding "we hold that the U.G.C. Regulations through a subordinate legislation has binding effect on the Universities to which it applies...." The reason given by the Court for reaching this conclusion is that "it is only when both the Houses of the Parliament approve the regulation, the same can be given effect". It may be clarified here that Parliament does not formally approve any rule or regulation laid in the House. It can only amend a rule which has already come into effect before it is so laid; if Parliament amends the rule, it will, thereafter, be effective in the amended form. With due respect to their lordships, the observation of the Court does not correctly reflect the parliamentary procedure relating to the laying down of rules and regulations in the Houses of Parliament.

The question whether the UGC regulations override a State law can be answered only in terms of Article 254 of the Constitution which deals with repugnancy. Under this Article, if a State law is repugnant to the central law, the State law, to the extent of repugnancy, be void. But is a regulation made by the UGC, a central law within the meaning of Article 254? Clause (2) of this Article says that if the law made by the legislature of a state has been reserved for the consideration of the President and has received his assent, it shall prevail in the State. In this clause the word 'law' simply means the Bill passed by the legislature and sent to the President. It does not include the rules and regulations which are framed only after assent is received. So, what overrides a State law is a Bill passed by both Houses of Parliament and assented to by the President, and certainly not the subordinate legislation.

A key ruling

In any case, the Court made a significant ruling on the question of mandatory application of Regulation 7.3.0 of the UGC relating to the selection and appointment of vice chancellors in the Kalyani Mathivanan case (supra) it says: "However, the finding of the Bombay High Court that Regulation 7.3.0 has to be treated as recommendatory in nature is upheld in so far as it relates to Universities and Colleges under the State Legislation." This ruling may perhaps help resolve the present controversy.

UGC regulations or State university laws?

The crux of the dispute is whether UGC regulations framed by the UGC's Chairman, Vice-Chairman and 10 other members can supersede provisions of State University
Acts which are plenary laws passed by State legislatures and assented to by the Governor or President

LETTER & SPIRIT

K. Ashok Vardhan Shetty

Six of Tamil Nadu's State universities are at present without a Vice Chancellor (VC). Some of these posts have been vacant from a few months to over a year. This impasse is due to a disagreement between the Governor and the State government regarding the composition of the search committee for selecting VCs.

The Governor (as ex-officio Chancellor of State universities under the University Acts) insists on including a nominee of the University Grants Commission (UGC) in the search committee as per Regulation 7.3 of the UGC Regulations, 2018. Conversely, the State government insists on adhering to the respective State University Acts, which generally require the search committee to consist of one nominee each from the Chancellor, the syndicate, and the senate. It opposes UGC involvement due to concerns over erosion of State autonomy in university governance.

Conflicting Supreme Court rulings have complicated the situation. One set of judgments support the Governor's stance that UGC regulations are mandatory and can override the State University Acts in cases of conflict. Another set of judgments back the State government, holding that UGC regulations are merely recommendatory for State universities. The controversy has been exacerbated by the UGC's Draft Regulations, 2025 which are seen to erode State autonomy further.

There is a somewhat similar stand-off in Kerala and Punjab where numerous universities also face leadership vacuums. This has led to serious deterioration in university administration, including delays in staff appointments and award of degrees.

A constitutional question

UGC regulations are a subordinate legislation framed under Section 26 of the UGC Act, 1956. The crux of the dispute is whether UGC regulations framed by the UGC's Chairman, Vice-Chairman and 10 other members can supersede provisions of State University Acts which are plenary laws passed by State legislatures and assented to by the Governor or President. This is part of a larger question of law dealing with Centre-State relations – "can delegated legislation (rules, regulations, notifications, etc.) framed by the Union Government and its agencies under a Central law override the provisions of a plenary State law?"

It underlines a critical constitutional issue regarding the scope of delegated legislation with potential for eroding the separation of powers, and federalism – both considered 'basic features' of the Constitution.

Judicial precedents

Article 254(1) of the Constitution addresses conflicts between central and State laws. It states that if a State law is repugnant to a central law on matters in the Concurrent List, the central law will prevail, and the conflicting part of the State law will be void. The plain wording of Article 254(1) indicates that it applies only to plenary laws enacted by Parliament and State legislatures, and not to delegated legislation. The Supreme Court has consistently upheld this interpretation in several landmark judgments.

The leading case on the subject is Ch. Tika Ramji versus State of Uttar Pradesh (1956). The Supreme Court ruled that the Centre's Sugarcane Control Order, 1955 issued under the Essential Commodities Act, 1955, could not repeal the provisions of the U.P. Sugarcane Act, 1953. It held: "The power of repeal, if any, was vested in Parliament, and Parliament alone could exercise it by enacting an appropriate provision in regard thereto. Parliament could not delegate this power of repeal to any executive authority. Such delegation, if made, would be void..."

In Indian Express newspapers (Bombay) versus Union of India (1984), the Supreme Court ruled: "Subordinate legislation may be questioned on any of the grounds on which plenary legislation is questioned. In addition, it may also be questioned on the ground that it does not conform to the statute under which it is made. It may further be questioned on the ground that it is contrary to some other statute. That is because subordinate legislation must yield to plenary legislation." In J.K. Industries versus Union of India (2007), the Supreme Court again ruled: "Subordinate legislation may further be questioned on the ground that it is inconsistent with the provisions of the Act or that it is contrary to some other statute applicable on the same subject matter. Therefore, it has to yield to plenary legislation." These rulings make it clear that the Central Government and its agencies cannot use subordinate legislation to override plenary State laws; any changes require a plenary central law passed by Parliament.

An overreach by the UGC

There is no repugnancy between the provisions of the UGC Act, 1956 and Tamil Nadu's University Acts because no provision of the UGC Act addresses the appointment of VCs. According to the UGC, its power to form Regulation 7.3 relating to VCs is derived from Section 26(1)(e), which allows the UGC to define qualifications for university teaching staff, and Section 26(1)(g), which permits regulation of standards and coordination of work or facilities in universities, of the UGC Act, 1956. But the VC is not a 'teaching staff' within the meaning of S.26(1)(e). In all University Acts – Central and State – the VC is an "officer of the university" along with the Chancellor, Registrar, Controller of Examinations, Finance Officer and Directors. So, the above two provisions do not apply to VCs.

Moreover, the UGC's powers under Section 26(1) of the Act are only recommendatory. While the UGC can advise on standards in higher education, it cannot enforce compliance, except by withholding grants under Section 14. The Supreme Court has affirmed this interpretation in University of Delhi versus Raj Singh (1994), ruling that UGC regulations are advisory, not mandatory. Universities can choose whether or not to follow them, albeit at the risk of losing funding. Thus, UGC's regulation 7.3 on VCs is a classic case of executive overreach in delegated legislation and is ultra vires the UGC Act, 1956.

Additionally, the UGC's shifting stance – no regulation on VCs till 2010; introducing a UGC nominee on the search committee in 2010; withdrawing this requirement in 2013; reinstating it in 2018; and expanded control in the 2025 draft regulations – reflects an agenda driven more by administrative control than a genuine effort to improve academic standards.

Inconsistencies in judgments

Recently, some conflicting Supreme Court judgments have created confusion.

In Annamalai University versus Secretary, Information & Tourism (2009), State of West Bengal versus Anindya Sundar Das (2022), Gambhirdan K. Gadhvi versus State of Gujarat (2022) and Professor Sreejith P.S. versus Dr. Rajasree M.S. (2022), the Supreme Court held, without articulating reasons, that once UGC regulations are laid before both Houses of Parliament, they become part of the UGC Act, invoking Article 254(1) and rendering any VC appointments contrary to these regulations void.

However, in Kalyani Mathivanan versus K.V.Jeyaraj (2015), the Supreme Court used the same rationale but confusingly ruled that UGC Regulations are not mandatory for State Universities unless adopted by the State. In P.J. Dharmaraj versus Church of South India (December 2024), the Supreme Court held: "If the State Government itself has not adopted the amended regulations, the same cannot be applicable to the (institute)." In other words, UGC regulations apply only if adopted by the State.

The interpretation that UGC regulations lose their subordinate character and automatically become part of the parent Act merely by being laid before Parliament is not supported by the Constitution or the General Clauses Act, 1897. It contravenes a significant precedent ruled in Chief Inspector of Mines versus Karam Chand Thapar (1961) where the Supreme Court held: "(Rules) continue to be rules subordinate to the Act, and though for certain purposes, including the purpose of construction, they are to be treated as if contained in the Act, their true nature as subordinate rule is not lost." In other words, they retain their character as subordinate legislation and do not become integral to the parent Act.

There are three recognised procedures for laying subordinate legislation before a legislature – (i) without further procedure; here the subordinate legislation takes effect immediately and is for information only; (ii) negative resolution procedure; here legislation takes effect immediately but can be annulled or modified by the legislature within a limited period (as in the case of UGC regulations under Section 28(1); (iii) affirmative resolution procedure; here resolution takes effect only after receiving prior approval from the legislature.

Courts should recognise only rules and regulations laid under the affirmative resolution procedure as part of the parent Act, because the other two procedures have nil or limited legislative oversight and allow executive overreach.

What next?

Given the constitutional significance of the dispute and doctrinal ambiguities, a definitive ruling by a Constitutional Bench of the Supreme Court is imperative. Such a ruling would hopefully reaffirm that Article 254(1) of the Constitution applies only to conflicts between plenary Central and State laws; clarify that delegated legislation does not automatically become part of the parent Act unless laid under the affirmative resolution procedure; and emphasise the advisory nature of UGC regulations for State universities unless adopted by the State.

Such clarity is essential not only to restore the normal functioning of State universities across the country, but also to preserve the delicate balance of legislative powers between the Centre and States.

K. Ashok Vardhan Shetty is a retired IAS officer and former Vice Chancellor of Indian Maritime University.

Sparking smile: Lessons from a children's elocution competition

ASHA IYER **KUMAR**

From innovative tech-based ideas to timeless acts of kindness, the young participants presented thoughtful solutions that left me inspired about what truly makes us happy

Last week, I had the privilege of being on the panel of judges for an elocution competition for students, with the topic 'The Perfect Solution to Make People Smile More.' It was an intriguing subject-one very close to my heart-because I am the kind of person who smiles a lot. A lot more than people sometimes care to respond to or reciprocate. On the street, in the metro, in the building gallery, during my walk-almost anyone I can get eye contact with, whether stranger or friend, gets a smile. It is the most inexpensive gift I can offer, regardless of whether it is valued or not. It's a heart-felt gesture that could be the very thing someone needs to make their day. The children who participated came up with some remarkable ideas-everything from making a smile a commodity that fetches monetary rewards or other tangible benefits to evoking emotional points that deeply resonated with the empathy in me. Given that the contest was called "Pitch Perfect," the students brought forth many innovative concepts to make people smile, many of which revolved around technology. It was fascinating to imagine how new-age devices could inspire smiles, but I couldn't help wondering-do we really need tools and gadgets to smile? Can't we simply find natural reasons for it? Can't we create genuine moments that make people's eyes crinkle at the corners authentically?

As I waited for those ideas to unfold, I felt a gentle discomfort with the implicit belief that nothing happens these days without gadgets. But then came a few gems that emphasised the importance of compassion, empathy, and kindness as part of our daily lives-powerful ingredients for sparking smiles. This is what I want the younger generation to embody-an attitude that encourages them to be better people each day, spreading smiles through simple acts of kindness, rather than relying solely on innovations.

I was deeply moved by what some of the children shared. When I asked one young participant what act of kindness he had done that day to make someone smile or brighten their day, his answer was simple yet profound: "I told my mother how yummy the breakfast was, and it made her very happy."

My takeaway from the experience was this: the new generation is competitive, full of energy to beat the odds and rise to the top in life. But it is also brimming with humaneness and rationality, qualities nurtured by the guidance of teachers, parents, and mentors. As they navigate the pressures of becoming super achievers, they still understand that the roots of happiness and peace lie in kindness and compassion. As is my habit, I often ask my students if they enjoy going to school and, if so, why. The answer I invariably hear is they like school not because of what they learn in class, but because of their friends. This sometimes makes me question my belief that schools and universities should be temples of learning-platforms for young minds to ignite and soar.

Their answer also makes me wonder if there's more to be desired in how we mould our students. Have we focused too much on academic excellence at the cost of soul-nurturing education? Perhaps we need to spend less time teaching children skills to thrive in a competitive world and more time preparing them to be compassionate, kind-hearted individuals who bring joy to those around them.

This competition, with all its innovation and spirited energy, reminded me that the most profound solutions to making people smile often lie in the simplest of acts: a word of appreciation, a compliment, a smile shared.

As we look toward a future increasingly driven by technology, let's not lose sight of what makes us truly human. It's the little things that have the power to make the world a little brighter.

(The author is a Dubai-based columnist and children's writing coach. She has published six books. Views are personal)

FIRST COLUMN

THE TRANSFORMATIVE ROLE OF EDUCATORS

Educators serve as mentors and guide, empowering students to become responsible citizens

SAKSHI **SETHI**

Education is not merely the transfer of knowledge. It is the shaping of minds, the fostering of growth and even more the cultivation of potential. As educators, the role extends far beyond delivering lectures or grading assignments. It encompasses mentoring, inspiring and empowering individuals to become critical thinkers and responsible citizens. Reflecting on our roles allows us to embrace our responsibilities more consciously and adapt to the evolving needs of learners and society. In contemporary education, the role of the educator has shifted from being the sole source of knowledge to a facilitator of learning.

This transition underscores the importance of guiding students to explore, question, and construct their understanding. It is about creating an environment where students feel safe to express their thoughts, make mistakes and grow from them. The role of an educator becomes especially significant when working with board students. When talking about them, the educator's primary responsibility is to ensure a strong understanding of the curriculum, including breaking down complex concepts, identifying and addressing knowledge gaps and providing effective study strategies.

Beyond teaching content, educators must help students develop time management and exam techniques to perform confidently under pressure. The role demands subject expertise and a keen awareness of the examination format and trends. Today, the modern educational landscape for board students includes challenges such as increasing competition, societal expectations, and the rapid integration of technology in learning. Educators need to stay adaptable, leveraging digital tools

to make learning engaging and accessible by recognising diverse learning styles employing strategies to meet those needs, and ensuring that every student feels included and valued. Additionally, acknowledging the diverse learning needs of students and personalising instruction whenever possible is also crucial for ensuring their success. There is no denying that students are at a critical juncture in their academic journey, preparing for examinations that often determine their future educational and career paths. Reflecting on our roles as educators in this context reveals the need for a balanced approach that combines academic rigour, emotional support, and life-skill development.

One of the most vital roles of an educator is to be a lifelong learner. Education is a dynamic field, and staying updated with pedagogical advancements, cultural shifts, and technological innovations is essential. This commitment to personal growth will not only enhance teaching effectiveness but will also model the value of continuous learning for students. Teaching values such as critical thinking, collaboration, and adaptability prepare students for challenges beyond the examination hall. It is essential to emphasise that education is about equipping them with skills for life, not just marks on a report card. Reflecting on our roles as educators highlights the immense responsibility and opportunity, we have in shaping young lives. It requires academic expertise, emotional intelligence, and unwavering dedication. By nurturing not just the intellect but also the spirit of our students, we as educators can guide them toward success in their exams and, more importantly, in life. By embracing our multifaceted roles with passion and purpose, we can create transformative experiences for our students and leave an enduring legacy of knowledge and wisdom.

(The writer is an educator, views are personal)

How skill-based degrees are redefining India's future

DINESH SOOD

By aligning with industry needs and empowering individuals with practical expertise, the nation is paving the way for a more inclusive and dynamic workforce

India's education system is undergoing a quiet revolution. As the global job market evolves, the emphasis on traditional degrees gives way to skill-focused education tailored to the demands of a dynamic economy. A prime example is the introduction of degree courses in salons, spas, beauty parlours, and other vocational domains. These courses signify a paradigm shift in how we perceive education, employment, and entrepreneurship in 'Viksit Bharat.' This development addresses critical challenges. It aligns with the growing aspirations of India's youth, caters to burgeoning private sector industries, and equips individuals with skills for self-employment, entrepreneurship and opportunities abroad.

Growing Demand for Vocational Expertise

The global wellness industry, valued at over $4 trillion, continues to expand, with India emerging as a key player. The beauty and wellness sector alone is projected to grow at a compound annual growth rate (CAGR) of 18 per cent over the next five years. The personal grooming industry demands nearly 1.3 million professionals annually, significantly surpassing the 3-4 lakh jobs the software industry adds yearly. This boom has created immense demand for skilled professionals, from hairstylists and spa therapists to salon managers and beauty wellness consultants. Recognising this, regulatory bodies like the UGC and AICTE have integrated skills courses into the education system. Indian universities now collaborate with training institutes to offer structured programmes like the Bachelor of Science (BSc) in Beauty and Wellness. These programmes cover skincare, makeup artistry and salon management.

Other universities offer diplomas and degree programmes in wellness and hospitality sectors, designed with industry leaders. Globally, institutions such as the London College of Beauty Therapy (UK) and the Australian Academy of Beauty Dermal and Laser offer world-class programmes. These courses adhere to international standards, providing globally recognised certifications that enhance employability abroad.

Parity Between B Voc and BSc Degrees

An essential aspect of this transformation is recognising the equivalence of Bachelor of Vocation (B Voc) and Bachelor of Science (BSc) degrees. While BSc focuses on academic learning, B Voc emphasises hands-on, industry-relevant training. Recent policy reforms place these degrees on par, ensuring vocational education is no longer seen as secondary but as an equally credible academic pathway. This parity allows B Voc graduates to access the same opportunities as BSc graduates in employment, higher education, or competitive exams. It underscores the value of skills and practical expertise in driving economic growth.

Recognition of Prior Learning (RPL) and National Credit Framework

Recognition of Prior Learning (RPL) further strengthens this integration. RPL allows individuals to earn formal recognition for previous informal training or work experiences.

When aligned with the National Credit Framework, credits earned in schools, vocational training institutions, or universities become seamlessly transferable across sectors. This fosters flexibility in education, empowering individuals to personalise their learning journeys and reduce redundancy. By integrating RPL with skill-based programmes, India's education system becomes more inclusive and adaptable. Employment and Entrepreneurship Opportunities Skill-based degree programs unlock diverse career pathways:

1. **Private Sector Jobs:** Luxury wellness brands, fitness chains, and beauty franchises seek trained professionals. Graduates can secure jobs in high-end spas, salons, and wellness centres with lucrative salaries and career growth.

2. **Self-Employment and Freelancing:** These courses empower entrepreneurial individuals to establish businesses. Graduates can run boutique salons or offer personalised wellness services, catering to niche markets.

3. **Government Jobs:** Recognising vocational degrees has expanded opportunities in government roles. Graduates are eligible for positions in wellness centres and initiatives under schemes like Skill India and PMKVY (Pradhan Mantri Kaushal Vikas Yojana).

4. **Global Opportunities:** Programmes often include internationally recognised certifications, enhancing employability abroad. For instance, graduates from LCBT in the UK find opportunities in European markets, while Australian academy-trained professionals thrive in Asia-Pacific regions.

Breaking Stigmas Around Vocational Careers

Vocational careers have long been viewed as secondary options. Introducing structured degree programs challenges these stereotypes. Formal education in salons, spas, and beauty parlours combines technical skills, business acumen, and industry exposure, positioning these professions as aspirational.

This shift is especially empowering for women, who form a significant portion of the workforce in these fields and now gain access to recognised qualifications that enhance professional credibility.

Challenges in Implementation

India's higher education system, often criticised for being theory-heavy, struggles to improve practical skill sets. Initiatives like the National Education Policy (NEP) 2020 and platforms like SWAYAM aim to modernise education, but challenges remain.

1. **Quality Assurance:** Maintaining high standards and industry relevance requires collaboration with established industry players.

2. **Awareness:** Many students and parents remain unaware of these opportunities, favouring traditional careers. Awareness campaigns are crucial.

3. **Infrastructure and Faculty:** Vocational education requires specialised infrastructure and trained faculty. Institutions must invest in state-of-the-art facilities and continuous professional development for educators.

4. **Recognition and Accreditation:** Further integration into academia and government recruitment processes will enhance vocational degrees' credibility.

Vision for the Future

Skill-based degree programmes signify societal reform, recognising youth aspirations and aligning education with market realities. By formalising careers through structured courses, India creates a skilled and confident workforce. These reforms reflect a commitment to inclusivity, providing pathways for diverse socio-economic backgrounds to pursue rewarding careers.

India is on the brink of an educational revolution. Skill-based degrees in fields like salons, spas, and beauty parlours redefine education. These programmes bridge the gap between aspiration and opportunity, equipping students with skills to thrive globally. As these initiatives gain momentum, scaling them, ensuring quality, and destigmatising vocational careers are imperative. With parity between B Voc and BSc degrees and the integration of RPL into the National Credit Framework, India's education system is transforming into a flexible and robust framework. These changes will meet today's demands and shape a prosperous future for the nation.

(The writer is co-founder and MD of Orane International, a training partner of the National Skill Development Corporation(NSDC) and a network Member of India International Skills Centres, an initiative of GoI. The views expressed are personal)

> THE BEAUTY AND WELLNESS SECTOR ALONE IS PROJECTED TO GROW AT A COMPOUND ANNUAL GROWTH RATE (CAGR) OF 18 PER CENT OVER THE NEXT FIVE YEARS

New UGC guidelines ignore ground realities, undermine HEI autonomy

PAUL NEWMAN

The University Grants Commission (UGC) has recently released two new draft guidelines seeking public feedback. The first relates to evaluating higher education institutions (HEIs) based on the implementation of the National Education Policy (NEP) 2020.

The evaluation process comprises two steps: eligibility qualifiers and quantifier parameters. The eligibility qualifiers involve basic institutional information and whether the institution has registered for the Academic Bank of Credit. However, this poses a challenge for autonomous colleges and universities in states yet to implement NEP.

The second step, quantifier parameters, assesses universities, autonomous colleges, and affiliated colleges across 49 criteria. Not all of them apply to autonomous and affiliated colleges. For example, the very first parameter mandates that at least 75% of teaching staff be permanent faculty. This target is far from realistic. In most universities of Karnataka, not even 50% of teaching staff are permanent, and in the autonomous colleges, more than 80% are appointed by the management, where the attrition rates are very high.

In Karnataka's 32 public universities, of the 4,708 sanctioned teaching posts, only 1,896 are permanently filled posts, and 2,723 posts are vacant. At Bangalore University, 234 teaching posts are vacant, and at Bengaluru City University, 150 posts are vacant. If such is the situation in a progressive state like Karnataka, what would it be elsewhere? The UGC must consider these ground realities when setting benchmarks.

Another parameter requires appointing Professors of Practice—professionals from industries without formal teaching experience. However, understanding classroom dynamics is no easy task for non-academics. They are likely to demand higher remunerations, and finding such resources in semi-urban or rural areas may be impractical.

HEIs are also required to enrol a minimum of 3,000 students. This is unrealistic, given that nearly two-thirds of colleges in India have fewer than 500 students. Institutions failing to meet this threshold risk losing UGC benefits and may be forced to shut down.

Furthermore, the new guidelines favour universities and autonomous colleges implementing four-year degree programmes; but affiliated colleges choose not to implement the four-year programme. Does that mean they can continue with the three-year degree programme? HEIs in India currently cater to a system of 3+2 years of higher education, and very few institutions and universities offer research programmes. Of the 1,222 autonomous colleges in India, over 75% lack infrastructure to offer four-year degree programmes. A four-year programme also places an economic burden on students, especially those from low- and middle-income families. It caters to just 1% of students who seek admission abroad, where a four-year degree is a prerequisite.

The multiple entry and exit option under the NEP adds further uncertainty. It complicates course planning, increases the administrative workload of staff members, and risks students dropping out for financial reasons to obtain a diploma or certificate mid-way.

As per the 2024 All India Survey of Higher Education (AISHE) report, India has 58,000 HEIs but only 46,000 international students—a national low that no student per institution. With UGC allowing markets for attracting international students, most HEIs will lose out. Similarly, the Common University Entrance Test undermines the autonomy of the HEIs in managing their own admission processes and admitting students of their choice.

The draft guidelines also overload students. Within a 36-hour campus week, students must balance core subjects, allied subjects, languages, open electives, physical fitness, sports, yoga, artificial intelligence, digital literacy, psychological and emotional well-being, fostering social responsibility, community engagement, life skills, local arts, human values, professional ethics, online courses, Indian knowledge systems, intellectual property rights, and more. This compromises academic specialisation, producing graduates with superficial knowledge across disciplines.

HEIs failing to comply with these guidelines will be ineligible for UGC schemes. Moreover, UGC stopped granting funds to colleges in 2018.

The second notification relates to the appointment of teachers and vice chancellors (VCs). It allows individuals with 10 years of senior-level experience in public administration, public policy, or industry—without an academic background—to apply for VC positions. The onus of appointing the VCs is now entirely on the chancellor or governor of the state, sidelining state governments and potentially alienating local candidates familiar with the region's culture and needs. Professors need not be the VC candidates anymore; any individual with 10 years of senior-level experience in public administration, public policy, or industry can apply. This takes away the charm of the rigour and understanding of academics in higher education.

Education was initially a state subject, and now it is in the concurrent list. However, recent developments suggest a shift toward centralising education under the Union list, eroding states' control over this critical sector.

(The writer is the principal of St Joseph's Evening College (autonomous) and an associate professor at St Joseph's University)

Rethinking women's education in Kabul

It's rare for a Taliban functionary to publicly question the Kabul regime's discriminatory policies towards women. So, how come Sher Mohammad Abbas Stanikzai, deputy minister at the Afghan foreign ministry, said there was no reason to deny education to women and girls? After gaining office in 2021, the Taliban banned girls over the age of 12 from attending school and banned female teachers from teaching boys. This intervention, driven by a conservative reading of Islamic scriptures, has resulted in the denial of education to at least 1.4 million girls, according to a Unesco study. And the ban on women teachers has caused a massive shortage of teaching staff. Stanikzai, clearly, recognises the implications of this disastrous outcome. His welcome outburst suggests that: One, the Taliban is no monolith and there are sections within the Islamist outfit who harbour relatively liberal views on gender rights and are now willing to push back against the hardliners in power; two, there is a recognition within the Taliban leadership that the country may face global isolation — including denial of much-needed aid — if it persists with policies that discriminate against women.

Afghanistan has a rich tradition of women's education, which was subverted when the Islamists came into prominence in the 1980s. The Taliban rule during 1996-2001 imposed harsh measures on women, denying them the right to education and employment, which was reversed when a West-supported liberal regime emerged in Kabul. Afghanistan is at a crossroads now. Taliban 2.0 wants to repair ties with the West and countries such as India — it needs friends and funds, especially since the regime's relations with Pakistan have turned precarious. The Taliban has been seeking better ties with India in a reversal of its previous record of hostility. Delhi could capitalise on Kabul's need for educational infrastructure, including offering learning facilities and scholarships for girl students.

Eclipsed opportunity?

India's young population offers immense potential for growth, but systemic challenges in education, skill development, and employment must be urgently addressed to transform this demographic dividend into sustainable progress

ATVIR SINGH & HIMANI AGGARWAL

India stands at a pivotal moment, with its young population poised to shape the nation's destiny. With 65 per cent of the population under the age of 35, the country enjoys a demographic dividend that can propel economic growth, foster innovation, and drive societal progress. However, for this potential to translate into tangible results, robust systems of education and employment are essential. Higher education, in particular, plays a crucial role in equipping youth with the skills, knowledge, and mindset needed to contribute meaningfully to the economy and society.

As of 2023, India's higher education market was valued at Rs 5.3 trillion, with projections to reach Rs 11.1 trillion by 2032, indicating a compound annual growth rate (CAGR) of 8.46 per cent. Despite this growth, the Gross Enrolment Ratio (GER) in higher education remains below the global average. In 2022, fewer than 40 million young Indians were enrolled in higher education, reflecting a GER significantly lower than countries like China, where over 70 per cent of young adults pursue tertiary education. Youth unemployment in India remains alarmingly high. In 2023, the youth unemployment rate was estimated at 15.79 per cent, a slight improvement from previous years but still indicative of systemic issues. Notably, Indian youth account for nearly 83 per cent of the country's unemployed population, with every third young Indian neither pursuing education nor employment.

The National Education Policy (NEP) 2020 aspires to build a "New India," promising sweeping reforms in education. While the vision is commendable, the execution reveals deep-rooted challenges that need urgent attention. India's youth face a paradox: a growing number of degree holders on one side and a persistent skills mismatch with job market demands on the other. This article examines the intersection of higher education, youth power, and employment highlighting both opportunities and challenges. It emphasises the importance of leveraging India's demographic advantage and ensuring that education and employment systems align with the nation's developmental goals.

Education is the bedrock of progress. However, in India, higher education is increasingly becoming a commercialised venture rather than a public good. Over 75 per cent of higher education institutions in India are privately owned, many prioritising profits over quality. Degrees are being churned out in bulk, yet the employability of graduates remains alarmingly low. Reports indicate that 80-90 per cent of engineering graduates are unemployable due to insufficient practical training and outdated curricula. This skills gap underscores the need for a robust regulatory framework to ensure educational institutions maintain high standards and align curricula with market demands. *(India Skills Report 2022)*.

While bodies like the University Grants Commission (UGC) and All India Council for Technical Education (AICTE) exist, their enforcement capabilities are limited. The absence of stringent quality checks has allowed substandard institutions to flourish. An independent and efficient regulatory system can safeguard students from exploitation and hold institutions accountable for their outcomes. For instance, institutions that fail to equip students with employable skills despite charging exorbitant fees should be subject to penalties, including partial fee refunds to students.

Education and employment are deeply interconnected. In general, higher education is expected to prepare youth for the workforce. However, the current system often falls short. The lack of quality employment opportunities for educated youth is another pressing concern. Contractual and outsourced employment, increasingly favoured by both the private and public sectors, has further complicated the landscape. In the outsourcing model, contractors often exploit employees, paying them significantly less than the amount billed to employers. Delays in salary payments and the absence of job security are rampant. Such practices not only demotivate workers but also harm institutional productivity. The government must ensure greater transparency and fairness in employment practices, particularly in public sector outsourcing.

Technology presents opportunities for innovation and productivity. It also poses challenges, particularly in the form of job displacement. Automation and artificial intelligence are reshaping the labour market, rendering several traditional roles obsolete. To navigate this transition, India's education system must emphasise adaptability and lifelong learning. Youth must be equipped with skills that cannot be easily automated, such as critical thinking, creativity, and emotional intelligence. Our low spending on Research & Development is worrisome. India spends less than 0.7 per cent of its GDP on R&D, even lagging behind smaller countries like South Korea (4.8 per cent) and Israel (4.5 per cent). This stifles innovation and limits the global competitiveness of Indian higher education. Policymakers must also focus on industries with high employment potential, such as green energy, healthcare, and digital services. Strategic investments in these sectors can create jobs while addressing pressing global challenges like climate change and public health.

China's economic transformation, driven by effective use of its demographic dividend, serves as a lesson. By focusing on large-scale vocational training and integrating its workforce into global supply chains, China reduced unemployment and fostered economic growth. Between 1990 and 2010, China's GDP grew by over 10 per cent annually, driven largely by youth productivity. While India lags behind, the window of opportunity is closing; experts predict the demographic dividend will wane by 2045. To avoid squandering this potential, India must prioritise creating quality jobs, investing in skill development, and reforming education to align with industry demands.

To truly harness the potential of its youth, India must adopt a multi-pronged approach:

▸ **Strengthening education:** Focus on improving the quality of higher education through robust regulatory mechanisms, faculty development, and curriculum reform.

▸ **Promote public investment:** Increase public expenditure on education to 6 per cent of GDP, as recommended by the NEP 2020. Focus on expanding access to higher education in rural and underserved areas

▸ **Promoting skill development:** Establish comprehensive skill development programs aligned with industry needs. Scale up initiatives like Skill India to include emerging technologies such as AI, robotics, and block chain. Introduce apprenticeship programs where students can gain hands-on experience.

▸ **Creating quality jobs:** Invest in high-growth sectors and ensure fair employment practices, particularly in outsourced and contractual roles. Offer tax benefits and subsidies to companies that create jobs for youth.

▸ **Fostering innovation:** Encourage research and development by increasing public and private investment in innovation-driven sectors.

▸ **Strengthen regulatory mechanisms:** Establish an autonomous, well-funded regulator to oversee higher education institutions. This body should conduct regular audits, ensure compliance with quality standards, and penalise institutions that fail to deliver outcomes.

India's youth are its greatest strength, but their potential remains underutilised due to systemic inefficiencies in education and employment. Policymakers must act swiftly to address these challenges, with a dual focus on quality education and sustainable job creation. By prioritising investments in human capital and ensuring transparency and accountability, India can transform its demographic dividend into a powerful driver of inclusive growth.

As the economist Ragnar Nurkse observed, "Poverty anywhere is a threat to prosperity everywhere." For India to achieve sustained development, it must empower its youth — not only as participants in the economy but as architects of the nation's future.

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It is predicted that India's demographic dividend will wane by 2045

> **Indian youth account for nearly 83 per cent of the country's unemployed population**

STEM edge

Indian STEM (Science, Technology, Engineering, and Mathematics) graduates have long been a cornerstone of the US H-1B visa programme. Their remarkable proficiency in technical fields, adaptability, and innovative thinking make them ideal candidates for filling critical gaps in the American workforce. With India's robust educational foundation and a growing emphasis on global employability, these professionals bring immense value to American companies and industries. One of the key reasons Indian STEM graduates excel in the H-1B programme is the rigorous academic system they undergo in India. Institutions like the Indian Institutes of Technology (IITs) and other premier engineering and technology schools emphasise problem-solving, critical thinking, and technical expertise. This academic rigour produces graduates who are not only highly skilled but also capable of addressing complex, real-world challenges. Their foundation is further reinforced by exposure to advanced mathematics, coding, and applied sciences, which align with the needs of American industries, particularly in technology and healthcare. Additionally, Indian professionals bring a unique blend of technical prowess and cultural adaptability. Growing up in a multilingual and diverse society, they are naturally adept at navigating multicultural environments. This quality is crucial in the US, where workplaces are often a melting pot of cultures. Many Indian professionals integrate seamlessly, fostering collaboration and innovation in global teams. Their ability to adapt quickly to new work cultures and technologies is a testament to their resilience and resourcefulness. Another factor contributing to their suitability is the sheer scale of India's tech ecosystem. With India emerging as a global IT hub, many Indian graduates enter the workforce with practical experience through internships and projects at leading multinational corporations. This exposure to cutting-edge technologies and real-world problem-solving equips them with the skills needed to thrive in the US market. Fields such as artificial intelligence, data analytics, software development, and biotechnology have seen a surge in Indian talent, meeting the growing demand in these sectors in the US. The H-1B programme benefits immensely from the entrepreneurial spirit of Indian graduates. Many of them not only excel as employees but also go on to establish start-ups, contributing to job creation and innovation in the US. Their ventures often focus on addressing global challenges, further enhancing the bilateral relationship between India and the US. However, the demand for H-1B visas consistently exceeds supply, underscoring the need for policy reforms to maximise the programme's potential. Streamlining the visa process and increasing allocations for STEM talent can ensure that American industries continue to benefit from this invaluable resource. Indian STEM graduates embody a rare combination of expertise, innovation, and adaptability, making them indispensable to the H-1B programme. Their contributions not only bolster the US economy, but also strengthen the cultural and economic ties between the two nations.

Make (Non-US) Indian Migration Great Again

Proactive policy can start with diaspora

Changes to citizenship introduced by Donald Trump among his first decisions after resuming the US presidency will affect immigration from India. Of course, the change has to be settled by the courts. But the Trump administration has introduced uncertainty into US immigration policy. The US is the destination of choice for high-skilled Indian immigrants, and doubt over citizenship status of the second generation spills over to migration flows to other countries as well. The backlog in naturalising immigrants of Indian origin in the US already has a disproportionate impact on their children who seek economic opportunity in other advanced economies. This brings the diaspora into competition with fresh migration from India. Since Trump is emphasising skill in his immigration policy, wage arbitration may not work in India's favour. The onus is on Silicon Valley to establish that it's, indeed, hiring the best available talent, and not merely replacing American workers with less expensive immigrants.

A slowing of high-skilled migration from India is an opportunity for the Indian economy to raise its potential growth. The latter will scale up secondary and tertiary employment as it moves into middle-income status, and labour cost will be a key variable at play. Slower migration also favours offshoring through wage arbitration. It's easier to provide more employment opportunities at home through faster economic growth than in a world where globalisation is in retreat. India's demographics are also turning adverse and altered migration at the top of the value chain may provide some comfort. The emerging skills gap needs intervention through proactive immigration policy and the obvious place to start is in the Indian diaspora.

Trump's action will have knock-on effects on other economies that rely on immigration. Its influence will be felt most in North America. But Europe and the Asia-Pacific will also recalibrate their receptivity to Indian white-collar migrants. This could be a good time for India to make migration more central to its development objectives.

A Boost for Indian Professionals

H-1B visa reforms by Trump will go a long way in addressing the anomalies in the visa system and help Indian professionals

The H-1B visa has long been a critical pathway for skilled foreign workers, particularly Indians, to contribute to the US economy. With Indians accounting for over 72 per cent of H-1B visa recipients in 2023, any reform in this programme significantly impacts the Indian professional community. In his second term, President Donald Trump introduced groundbreaking reforms to the H-1B visa programme, shifting the selection process from a lottery-based system to a salary-based model. These changes, effective from January 17, 2025, aim to prioritise highly skilled professionals and streamline the visa process. The H-1B visa programme was established in 1990 to allow US companies to hire foreign workers with specialised skills. It has been a cornerstone of the tech and engineering sectors, enabling companies to bridge skill gaps. In 2023 alone, 386,000 H-1B visas were issued, with nearly three-quarters going to Indian nationals. This programme not only benefits the US economy by addressing skill shortages but also strengthens India-US ties through the exchange of talent and innovation. The most notable change is the replacement of the lottery system with a salary-based selection process. This reform ensures that highly skilled professionals with competitive salaries are prioritised, making the programme more meritocratic. Besides, now the Indian professionals living in the US will be able to renew their H-1B visas domestically, eliminating the need for costly and time-consuming international travel. Another good news for the Students studying in the US on F-1 visas can now transition to H-1B visas more efficiently, fostering smoother career progression. Now on, research-oriented institutions are exempt from the annual visa cap, encouraging academic and scientific innovation. These reforms are poised to significantly benefit Indian professionals and students. With salary as the primary criterion, skilled Indian workers in high-demand sectors like technology, engineering and healthcare are likely to secure visas more easily. The streamlined process and in-country renewals will reduce uncertainties for professionals and their families. By retaining top talent, these changes will further strengthen the economic and technological collaboration between the US and India. President Trump's reforms reflect a strategic approach to talent acquisition and economic growth. By aligning visa policies with the needs of US businesses and rewarding merit, these changes demonstrate a commitment to fostering innovation and efficiency. While these reforms are a step in the right direction, they would require stricter scrutiny of visa holders and employers. This measure ensures transparency but might pose challenges for smaller companies offering competitive but lower salaries. Moreover, the shift in focus could pressure Indian professionals to align their career trajectories with higher-paying roles, potentially impacting sectors like academia and non-profits.

UGC opens new front in federalism battle

The draft UGC (Minimum Qualifications for Appointment and Promotion of Teachers and Academic Staff in Universities and Colleges and Measures for the Maintenance of Standards in Higher Education) Regulations, 2025 has become a new flashpoint in Centre-state relations. Tamil Nadu took the lead in opposing the regulations, which provide greater powers to the chancellor/visitor of a state university (in most cases the governor) in the appointment of vice-chancellors (VCs). Days after the Tamil Nadu assembly passed a resolution against the regulations, Kerala followed suit in calling for a repeal of the draft. Reports suggest that even National Democratic Alliance members such as the Janata Dal (United) have raised apprehensions that UGC's proposals privilege the Centre in the running of state universities.

There is merit in their concern. The UGC Act of 1956 limits its role in determining academic standards in universities. The selection and the appointment of VCs of public universities have been the responsibility of the state government, and understandably so, since state universities are set up under legislation passed by the legislative assembly and provide funds for their establishment and running. The UGC can surely prescribe the guidelines to be followed in appointments, But the task of selection is best left to the local authority. The UGC draft, effectively, threatens to annul the state law, usurp the powers of appointment from the state executive and invest it in the office of the governor.

In states such as Tamil Nadu and Kerala, university appointments have become a bone of contention between the governor and the elected government with the former overruling the latter's choices for top posts and, in some cases, ordering the removal of persons appointed by the state executive. This is the backdrop of the Opposition-ruled states' concern that the Centre is weaponising the UGC to interfere in the state executive's domain. The administration of public universities deserves to be reformed. This task, however, needs to be addressed by the state government; the centralisation of administration is no solution

DIS/AGREE
THE BEST OF BOTH SIDES

A fortnightly column, which offers not this-versus-that, but the best of both sides, to inform the debate

C.R.Sasikumar

Trump 2.0 has reignited conversations on H-1B visa within the US and abroad. Will changes to the US immigration system benefit or hurt workers and economies?

H-1B is designed to exploit workers

It enables corporate America to take advantage of migrants and snub American workers

TANUL THAKUR

H-1B uncertainty fuels jobs in India

Ambiguity over immigration has unintended consequences. US firms have been quick to shift hiring to other countries

RITAM CHAUREY, KANIKA MAHAJAN AND SHEKHAR TOMAR

Reshmi Chakraborty

Every morning, Sonu, a vegetable seller in Mirzapur's Mukeri Bazaar, has one important task besides setting up his tiny roadside stall. Along with friends Bahua and Shobhit, a shoe-seller in the same market, Sonu, who is in his early 20s, takes turns to open the Mirzapur Community Library for the day. A free library that started last July, this room has become a place of possibilities for Sonu and his friends, all of whom are preparing to sit for state-level competitive exams.

The community library is where these youngsters find some quiet time away from the chaos of the bustling marketplace, and it is also their go-to place for preparatory books they cannot otherwise afford. Although Hindi novels and short stories pack the library's shelves and remain popular, the most in-demand titles here are the guidebooks for the U.P. Police Sub Inspector (UPSI) exam. Sonu says he is also reading *Prayag*, a Hindi short story collection by Dr. Shashi Mangal. He keeps the book alongside the baskets of spinach and brinjal in his stall, evoking much mirth among his customers.

His friend Shobhit's mother who also helps out at the family's shoe stall recently picked up *Meera Ki Prem Kahaniya* from the library to read in between work. For both of them, these are the first books they've ever read for pleasure. The library's Amazon wishlist is a curious mix – books for UPSC preparation, bank clerk exams and Class X model question papers top the list, followed by titles on Ambedkar, Gandhi and Kalam. Popular Hindi books such as *Uske Kaha Tha* come in a close third.

Almost 700 kilometres away in Bhopal, Saba Khan's Savitribai Phule Fatima Sheikh community library has also been embraced by its members. Over the past 15 years, it has grown to 6 branches spread across underserved colonies in the city. In the Naya Basera branch, the floor is covered in bright chatais freed from mats the young girls bring from home, making a cheery mishmash with the red curtains on the sunny window and the children's artwork on the walls. A library banner with reformer Savitribai's image covers the other wall.

Khan, 29, started reading sessions with children in her neighbourhood in Baagh Dilkhusha in 2010. The libraries are a refuge for young people from the Dalit, Adivasi, and Pasmanda Muslim communities; many were forced to leave school due to poverty. Today, they drop in to thumb through picture books or children's books after working in tea stalls and butcher shops. Khan, a dropout herself, later self-funded her education and earned a Master's in psychology from IGNOU. She believes everybody will read if books are made accessible to them.

Across India, community libraries are bridging the gap between a struggling public library system and disadvantaged communities excluded by poverty, caste, gender, or geography. Increasingly, they are also spaces for skill development, networking and fostering a sense of belonging. Community libraries democratise access to information – free Internet browsing is a big draw – and provide safe spaces for diverse conversations. Many of them are part of the Free Library Network (FLN), a solidarity, advocacy and resource-sharing collective of free library communities across India and South Asia that are anti-caste, and gender, disability and queer-inclusive, with a network of over 250 libraries.

Is there a lesson for the public library system in these community libraries, where vegetable vendors join other unlikely volunteers, and spaces are created to read, develop skills, network and foster humanity?

(Clockwise from far left) Saba Khan at one of the community libraries in Bhopal; a vendor-cum-volunteer of the Mirzapur Community Library; readers at a gram panchayat-run library in Karnataka; a camel cart library in rural Jodhpur; and Ruchi Dhona in the midst of a read-aloud session at Let's Open a Book library in Spiti Valley.

INSIDE INDIA'S RURAL READING ROOMS

People come first

A believer in open libraries, Sujata Noronha, founder-director of Goa's Bookworm Trust, has trained many volunteers from across India in running community libraries. She believes that independent libraries are gaining momentum and one of the reasons could be the ailing public library system. "Our public libraries are not vibrant institutions and library work requires one to be current and responsive to the reader's needs. If the public library system is seeking inspiration, there are incredible examples on the ground," she says.

Poet and author Ranjit Hoskote observes that institutionalised systems often become bureaucratic, and this is where community libraries can help. He explains, "Community libraries have nimbleness built into their DNA and for them, it's always about people. It's not about treating books as sacrosanct objects. The library, as an institution, tends to get lost in protocols and mechanisms and ceases to ask what the library is for. Community initiatives never lose sight of that. There's always a self-critical analysis of what the library is for, and if it's meeting the needs of its users."

India faces a severe shortage of public libraries – one rural library for every 11,500 people, and one urban library for every 80,000 people, far below the global norm of one library per 3,000 people. Entry can become a barrier for some because of the fees, however nominal, or the documentation requirements. "Public libraries have procedures that are not always easy," says historian and author Rana Safvi. "Most can also be overwhelming for first-generation learners who may be hesitant to step inside because of these rules."

Karnataka's initiative

India's public library system can take inspiration from Karnataka's rural library revolution – decentralised gram panchayats have transformed public libraries into hubs of information, interaction, and inclusion. The libraries here have hand-drawn walls, child-sized sofas and beanbags, indoor plants and colourful curtains, along with digital assistants like Alexa to help the visually challenged.

Since November 2020, over 5,800 rural libraries have been revamped under the Odisha Belaku – The Right of Reading programme, supported by nonprofits such as the Azim Premji Foundation and Prathara Books. Some 50 lakh children have been enrolled for free, and these libraries also serve as resource centres for adults, says Uma Mahadevan Dasgupta, Additional Chief Secretary & Development Commissioner of Karnataka, who spearheaded the project. The library space is often used to propel learning and is everybody's favourite information hub. "Farmers have come to check YouTube for videos on cattle disease. My favourite story, however, is of a cleaner from Kodagu in her 40s, who used our digital resources and library space to self-study and clear the Class X exam."

Safvi has been supporting two community libraries – Aruna's Library in Delhi's Chand Bag and Bansa Community Library in U.P. – by sending them books regularly. "Neighbourhood community libraries are open and geared to the needs of the community around them. Very often it's the community that helps set up the library, giving children a feel of books and a sense of ownership they don't get elsewhere."

Skills development hub

Before she walked into the bright yellow corridors of the Bansa Community Library, with the Preamble to the Constitution handpainted on one of the walls, Shivani Soni, a first-generation college student, did not have much interest in books or learning. But the library introduced her to books and new friends among the young adults. "Here, I can take grammar classes and study in a good environment that I don't always have at home," says the 20-year-old.

The Bansa Library serves people from 36 nearby villages, offering computer lessons, digital learning, and programmes for women, including reading enhancement, group chats, and a tailoring centre. "The library is now a vibrant hub for learning and skill development," says founder Jatin Lalit, who is also general secretary, FLN.

A lawyer, Lalit conducts legal literacy workshops for adults at Bansa. "Many here didn't even know what a library was, but now each person uses the space according to their needs, whether to read books, use the tailoring facility, or even to obtain sanitary pads through the vending machine we have installed on the premises. Some women who come here to read are stepping out of their homes for leisure for the first time ever." The only other library in the area, according to Lalit, is inside the government college, barely known and tough to access.

In Spiti Valley, high up in the Himalayas, Ruchi Dhona's Let's Open a Book library addresses the lack of a reading habit due to geographic isolation. An avid reader who quit corporate life for social work, Dhona says over 10,000 books have been read in the library since it began in 2021. "It's a big deal because of the geography we operate in. It takes a lot of effort for a child to come to the library here regularly. The read-alouds that we do encourage them to think critically of the content they engage with," she says, adding that sound books are an instant hit among the younger members.

Hoskote, who has engaged with The Community Library Project and the MCubed Library in Mumbai, acknowledges a recent growing momentum around initiatives such as reading circles in cities. "Community libraries, or bookstores such as Leftword and Mayday in Delhi that are creating a library for marginalised children in local languages, are all addressing a need. These are all crucial initiatives. India is so vast that every effort looks minuscule, but it is real and meaningful to the community it addresses," he says.

The independent curator is, however, sceptical that the public library system would draw inspiration from community libraries, suggesting the former may require an inspired bureaucratic changemaker.

Views of the Helsinki Central Library Oodi. 'Oodi' means an 'ode' to the celebration of culture, knowledge and democracy.

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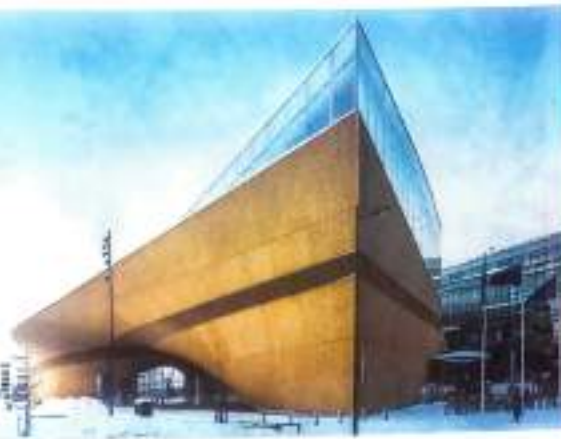
LESSONS FROM HELSINKI'S OODI

With 100,000 books, social robots and a community spirit, Finland's flagship library is designed for the future

At a time when the book reading culture is declining across the world, how does one country keep it alive and thriving? The success story of Helsinki Central Library Oodi in Finland since it opened six years ago is an inspiration indeed. So, when I got the opportunity to be in the world's happiest country (voted thus for the seventh year in a row), I had to visit. Oodi is the Finnish word for 'ode' and this name, as with its design and many of its innovative features, is courtesy of its participatory planning and consultation with the public. I learn that the city did not want to name its iconic library after any famous personality, referencing instead the celebration of culture, knowledge and democracy.

A city's gift

In this Nordic country with a 100% literacy rate, there is a high level of digitisation. There is no need of a separate census exercise here, as all data is available with the government, with it rolling out measures to enrich its people's lives. One of its oldest initiatives is the public libraries in the country. Calling itself "a living meeting place", Oodi was the city's gift to its people on the centenary celebration of Finland's independence. This place also made headlines recently when a book was returned 84 years after it was issued. The due date of the Finnish translation of Sir Arthur Conan Doyle's historical novel Refugees was December 26, 2019.

"Oodi has been designed together with the city's residents so that it can best correspond with the wishes and needs that library users have. Ideas, tips and dreams have been gathered at urban events and workshops, and through websites and various campaigns," a librarian informs me. When I decided to visit Oodi, it was when Australia was still mulling over banning social media usage for children, and there was intense debate about social media and its impact. The debate also involved the rising gaming culture and the reduction in reading habits among children and young adults across the world. And that is what intrigued me further. How is one country keeping the reading culture alive and thriving? Finland has the world's highest library readership. How does a library manage over five lakh loans of books every year, in a city of 6.5 lakh people? How does it track its one lakh books and continue to charm people so much so that over 10 million people have already visited this place within six years since it opened?

Of hobbies and ideas

Resting on two horizontal steel arches, the building is massive – spread over 10,000 square metres. When I enquire about a registration process for visitors, a smiling assistant urges me to explore the place without any inhibitions. I observe chess boards laid on tables, surrounded by players from different age groups. The library's membership opens doors to events, lectures, workshops, the theatre, cafeteria, music studios, edit bays, gaming rooms, fashion design studios, 3D printer labs, sewing rooms, museum-cum-experience centre, all housed within the massive building, all free of cost. From learning the Finnish language to pursuing your hobbies, from socialising with peers to trying to find roots in a new city as an immigrant – everyone's go-to place is Oodi.

"Oodi is much more than a place for books. With its meeting rooms and various studios for analogue and digital handicraft, it is a place for ideas, projects and creativity,"

Enter the 'bookship'

A recent visitor to Oodi, graphic novelist Jaideep Unudurti says he was impressed by the library's commitment to create a space for culture, without having any commercial motive. "I spent hours without paying for anything or even anyone asking for an ID," he recalls. Referring to the library's striking facade, he adds, "I first saw Oodi on a misty and snowy afternoon, and for some reason my first impression was that of a sailing ship. A 'bookship'. Inside, my impression was of a slightly messy but welcoming living room of the nation."

exclaims a visiting Swiss journalist, Felicie Notter, comparing it to the libraries in her country. "Libraries in Switzerland also aim to be places where people meet, and they organise events. But it's far from the infrastructure and program Oodi proposes."

Meet the robots

At the cafeteria, I notice that young mothers have parked their prams and are relaxing for a bit. A digital board catches my eye. "Oodi Robot Veera travels about 1,155 kilometres per year," it says. Next to it is the book issuing counter. With no human on the other side of it. Three computers face visitors. A reader walks in, enters the details of the book she has, and slips it right in. The book travels the conveyor belt (mechanically) to reach Veera, one of the three robots servicing the Oodi library since 2019, so the library staff could have more time to interact and engage with visitors.

It is Veera, along with Tatu and Patu, that sort out the one lakh books the library has. Interestingly, when the library decided to get the robots in, it turned to the children of Helsinki for suggestions. This time, it was a 10-year-old girl who suggested these names, after famous children's book characters. A fourth robot, Obort, helps readers with book recommendations. "Obort is an example of the City's AI experiments that seek to improve services," states the official website.

My visit to Oodi library, and observing first-hand how a city facility can have such an organic relationship with its residents of all age groups, helped me understand why the Finns lead in literacy. And while the significant cost of this project (about US $97 million) is perhaps something that other countries might not be able to afford, the active role of residents in the decision making and the varied activities here offer much inspiration.

Colonial education, labour and gender roles

Macaulay's Minutemen

ARJUN SENGUPTA

The chairman of Larsen & Toubro, S. N. Subrahmanyan, wants a 90-hour workweek. In a statement that has led to outrage on the internet and memes, he also added, "How long can you stare at your wife?" He is justly being taken apart by netizens but he isn't the outlier in a society that knows better. Constructing a woman's identity and purpose in opposition to good, honest work is offensive enough but I wonder whether women who work are also not supposed to stare at their partners beyond a stipulated time. But Subrahmanyan's statement identifies the man as the default 'worker' in the relationship, while the woman as the 'wife' is relegated to domestic spaces where she distracts her husband from the serious business of 'work'. While this reveals a great deal of embedded misogyny and patriarchal smugness in one of the more influential people in the country, what is perhaps more interesting is what makes such a statement possible. And why Subrahmanyan is a symptom of a far older disease.

Subrahmanyan is not the first person to ask for (or be trolled for) extra work-hour weeks. India's economy has been neoliberal since 1991. This meant freeing the market from most governmental restrictions and exponentially increasing the potential for profit-making. After all, the neoliberal claim is rather simple — the State has created a level playing field and, so, anyone willing to put in the hard work is bound to succeed; those who don't are either lazy or simply don't have the 'right stuff' in them. This may be a simplification, but enshrining the need to work as the central tenet of the economy chimes nicely with Subrahmanyan's words which imply that the more you work, the better it is for you and your country. That and a seemingly unconnected bit of misogyny.

As it turns out, they are connected in ways that have nothing to do with neoliberalism. The history of Western education in India can be traced back to the infamous Macaulay's Minute in 1835. Far from an altruistic move by our colonial overlords, its sole purpose was to create a race of loyal and beholden clerks to help with the smooth running of the empire. As Macaulay pointed out,

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Thomas Babington Macaulay (left) and S.N. Subrahmanyan

this wouldn't be accomplished by simply teaching the natives English but by turning them "English in taste, in opinions, in morals, and in intellect." Even though we have come a long way, our continuing dependence on Western education has ensured that the colonial legacy lives on in the most insidious of ways. Something of how 19th-century British culture constructed the ideas of Englishness is part of some of the most cherished ideals of our so-called middle class.

In his seminal, early-twentieth-century work, *The Protestant Ethic and the Spirit of Capitalism*, Max Weber outlines the connection between the rise of capitalism and Protestant theology in Britain and the Germanic states. His argument can be reduced to this: in a fallen, irredeemable world, where you can't do anything to determine your own salvation, your capacity of work is a sign that you are among god's "Elect". From this it naturally follows that prosperity arising from work is also a sign of divine favour. This apotheosis of labour made the earning of money almost an act of worship and when the time came, it gave capitalism (whose purpose is to maximise profit) an aura of celestial legitimacy. On the one hand were extraordinary feats of daring that led to an empire of riches beyond the dreams of avarice. But this was possible because of culturally sanctioned qualities of industry, thrift, and common sense, the

very foundational tenets of the identity of the British middle class. This was more than convenient because it allowed a reconciliation between a religion whose founder stated that it is easier for a camel to pass through a needle's eye than for a rich man to get to heaven and naked imperial greed. However, dominant ideologies of cultures do not exist independently of each other. The rise of capitalism also marked the hardening of gender roles at the time.

In the 18th century, burgeoning imperialism created for the first time a clear demarcation between public and private spaces in Europe. The world was growing smaller, but it was also now full of strange, alien spaces from the Western point of view. The public space was where unimaginable money could be made, but it was also rife with dangers, both physical and spiritual, and, therefore, required masculine intervention. The private space back home was thus constructed in opposition to an unpolluted shrine to cherished ideals central to how the British saw themselves. By the 19th century, women became firmly identified with this private domestic space and eventually became custodians of goodness, purity, and charity. The ideal woman was not supposed to sully her high-mindedness with dross work. Rather, she should be the embodiment of Western civilisation's best ideals — a haven for the weary man

tired after dealing with the cut-throat ruthlessness of the world of money. It wouldn't be too much to say that the highest ideals of Western civilisation were maintained by this fine balance between man's aggressive activity and woman's transcendent passivity. Deprived of opportunities in public life, a woman's primary role was to be beautiful, like a breathing ornament of great spiritual worth, to be stared at!

It was inevitable that most of this would make its way into our normative ideas via an educational system still tied to a distinctly colonial legacy. Subrahmanyan's statements are made possible by certain assumptions that have become part of our country's cultural fabric. These assumptions determine not only how we approach the importance and the role of 'work' in our lives but are also interlinked with ideas of gender roles and social and moral worth. What is perhaps more dangerous is that Subrahmanyan is entirely oblivious to the implications of his statement since they appear to him to be simply about 'how the world works'.

It's been 34 years since liberalisation, and 78 years since Independence, but it seems that Macaulay's plan is still producing, in very unexpected ways, "a class of persons, Indian in blood and colour, but English in taste, in opinions, in morals, and in intellect."

Turning the tide

India's rising student migration highlights a pressing issue of brain drain. However, the National Education Policy (NEP) 2020 seeks to address this by improving education standards, creating a competitive environment, and retaining talent, thus proving to be a game changer

Dr. Prabhat Pankaj

Today, nearly 750 thousand students go abroad every year in search of skills and degrees. This number is estimated to cross 1250 thousand in 2024-25. The most favourite destination for Indian students is Canada, USA, UK, Australia, and Germany. The estimation suggests that at a given time these 1.3 million students cost the country a staggering outflow of foreign exchange of about USD 9-10 billion per year. This money is enough for building 40 IIMs or 20 IITs. The phenomenon of brain drain has been a persistent challenge for India over the decades. Talented individuals with exceptional skills and outreach, which are more business-specific to India. While Indian universities like IIT Bombay and IISc Bangalore make it to QS rankings, their global positions are modest compared to top universities like MIT or Stanford. This highlights a significant gap in infrastructure, global collaboration, and research contribution, addressing these gaps is crucial for making Indian institutions globally competitive and curbing brain drain.

knowledge often move abroad for better educational opportunities, lucrative careers, and higher living standards. This exodus of skilled professionals and bright minds has hindered India's ability to harness its demographic dividend fully. To understand how this issue emerged, it is essential to delve into the concept of brain drain and its roots in India's education system.

> Revitalisation of higher education is expected to save on the outflow of resources. Once India becomes a hub for world education, student preference would shift from USA/Canada/Australia or Singapore to India.

India's Gross Enrolment Ratio (GER) in higher education is approximately 28.4%, much lower than that of the United States.

HOW BRAIN-DRAIN AFFECTS COUNTRY'S ECONOMY

Brain drain refers to the migration of educated and skilled individuals from their home country to foreign nations for better prospects.

A striking disparity exists between India institutions' performance in QS World Rankings and their standing in India's National Institutional Ranking Framework (NIRF). QS World Rankings assess institutions on parameters such as academic reputation, employer reputation, international faculty, and student ratios. Indian institutions often lag in these criteria, particularly to global visibility and research output. In contrast, NIRF focuses on parameters like teaching, learning, research, graduation outcomes, and

India to significantly improve its GDP, targeting 50% by 2030, and lay a strong foundation for a skilled and empowered workforce to compete globally

GLOBAL EDUCATION

The integration of vocational training and industry-oriented courses is likely to create a skill-oriented workforce, reducing the skills mismatch in the job market. Moreover, the focus on improved infrastructure and research opportunities is likely to retain talent within the country, mitigating the issue of brain drain.

NEED TO MONITOR AND EVALUATE NEP

The successful implementation of NEP 2020 is not without challenges. Adequate financial resources are essential to upgrade infrastructure, hire skilled faculty, and establish research facilities. The comprehensive measures outlined in NEP 2020 are poised to address the root causes of brain drain by creating a robust and inclusive education system. Improved global rankings, enhanced research output, and better employability of graduates are expected to retain talent within the country. Furthermore, as Indian institutions gain prominence in QS World Rankings, they will attract domestic and international students and faculty, producing a culture of reverse brain drain.

NEP 2020 promises to transform India's education landscape, align it with global standards, and address the long-standing issue of brain drain.

BENEFITS FOR ALL TO SEE

The benefits of NEP 2020 are manifold. The policy is expected to enhance the global competitiveness of Indian institutions by improving research output, enhancing international collaborations, and promoting innovation by emphasizing technology. NEP 2020 ensures that quality education reaches marginalized communities, bridging the gap between different socio-economic groups. The integration of vocational training and industry-oriented courses prepares students to create a skill-oriented workforce, reducing the talent mismatch in the job market. Moreover, the focus on improved infrastructure and research opportunities is likely to retain talent within the country, mitigating the issue of brain drain.

(The writer is an Educationist and Director of a Management Institute)

India and U.S. lead Courseera enrolments for Gen AI courses

Corporate sponsorship plays a significant role in boosting enrolments in India

The demand for generative AI training has grown significantly among learners and enterprises, according to Coursera data, highlighted in the Future of Jobs Report 2025. India and the U.S. are leading this global trend in enrolments, but the factors driving demand differ between the two countries. While individual learners primarily drive demand in the U.S., corporate sponsorship plays a significant role in boosting enrolments in India.

Globally, individual learners on Coursera are focusing on foundational generative AI skills and conceptual topics, such as prompt engineering, trustworthy AI practices, and strategic decision-making around AI. Meanwhile, institution-sponsored learners are prioritising practical workplace applications, including using AI to enhance productivity in tools such as Excel or developing applications with AI-driven solutions.

Chart 1 shows the Generative AI enrolment trend in 2022-2024 in Coursera. The demand for generative AI training is not happening in isolation but is closely tied to broader technological shifts reshaping industries worldwide. The survey reveals that among nine transformative technologies, AI and information processing technologies are expected to have the most significant impact on businesses by 2030, with 86% of employers identifying them as likely to drive business transformation. This surpasses the anticipated influence of robots and autonomous systems (58%) or energy generation and storage technologies (41%).

Chart 2 shows the technology trends driving business transformation, as answered by the surveyed employers.

Since the release of ChatGPT in November 2022, investment flows into AI technologies have increased nearly eight-fold, driving significant advancements in the field. This influx of capital has been matched by investment in the physical infrastructure required to support these technologies, such as servers.

The growing demand for generative AI training is also closely tied to the shifting landscape of job roles driven by technological advancements. Employers expect technological developments such as AI and robotics to play a pivotal role in shaping the workforce, says the survey. By 2030, roles such as Big Data Specialists, FinTech Engineers, AI and Machine Learning Specialists, and Software and Applications Developers are projected to experience the fastest net growth. Chart 3 shows the top jobs by fastest net growth as projected by surveyed employers.

The interplay of humans, machines, and algorithms is fundamentally reshaping the nature of work. Automation and advancements in technology are driving a shift in how tasks are performed across industries. According to the survey, 47% of tasks today are completed primarily by humans, while 22% are handled mainly by technology, and 30% involve a mix of both. By 2030, tasks are expected to be more equally divided.

This shift is driven largely by increased automation. Of the nearly 15% point reduction expected in the proportion of work tasks performed solely by humans between 2025 and 2030, approximately 82% will be attributable to advancing automation, while the remaining 19% will result from expanded human-machine collaboration.

Chart 4 shows the share of work tasks expected to be delivered predominantly by human workers, by technology, or by a combination of both.

This transition highlights the growing importance of equipping the workforce with the skills needed to thrive in a world increasingly shared with intelligent machines.

Shifting landscapes

The charts are sourced from the 'Future of Jobs Report 2025' released by the World Economic Forum

Chart 1: The chart shows the Generative AI enrolment trend for 2022-2024. The chart reveals significant growth in demand for Generative AI training among both individual learners and enterprises
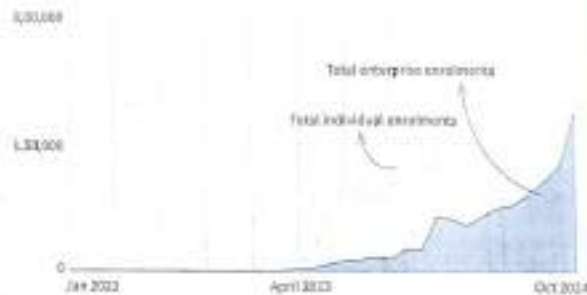
Chart 2: Share of employers surveyed who identify the stated technology trend as likely to drive business

AI and information processing technologies — 86%
Robots and autonomous systems — 58%
Energy generation, storage and distribution — 41%
New materials and composites — 30%
Semiconductors and computing technologies — 20%
Sensing, laser and optical technologies — 18%
Quantum and encryption — 12%
Biotechnology and gene technologies — 11%
Satellites and space technologies — 9%
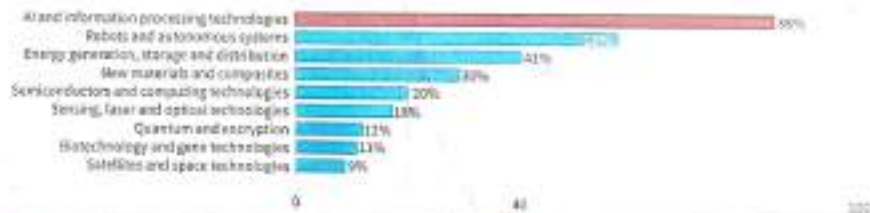
Chart 3: The chart shows the top jobs by fastest net growth by surveyed employers. The fastest growing job roles by 2030 tend to be driven by technological developments.

Big Data specialists
FinTech engineers
AI and machine learning specialists
Software and applications developers
Security management specialists
Data warehousing specialists
Autonomous and EV specialists
UI and UX designers
Light truck or delivery services drivers
Internet of Things specialists
Data analysts and scientists
Environmental engineers
Information security analysts
DevOps engineer
Renewable energy engineers

Net growth (in %)

Chart 4: Share of total work tasks expected to be delivered predominantly by human workers, by technology, or by a combination of both

People — Combination — Technology

Now: People 47%, Combination 30%, Technology 22%
By 2030: People 33%, Combination 33%, Technology 34%
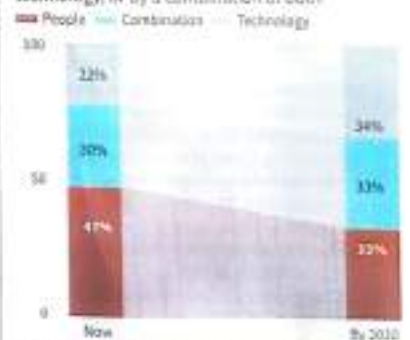
Today, 47% of work tasks are performed mainly by humans, 22% by technology, and 30% by a combination of both. By 2030, employers expect these proportions to be nearly evenly split across these three categories.

Should Governors head State universities?

The Governor's role as Chancellor of State universities has become politicised, undermining university autonomy and causing governance issues, especially in States with Opposition-led governments; various reform models have been proposed to reduce political interference and improve university administration

LETTER & SPIRIT

K. Ashok Vardhan Shetty

The role of the Governor as Chancellor of State universities is a subject of intense debate. It is often misconstrued as a post-Independence measure to safeguard universities against political interference. This role has not been assigned to the Governor by the Constitution of India but by State university laws. Inherited from British colonial rule, it was designed to restrict university autonomy rather than promote it.

In 1857, the British established the first three universities in Calcutta, Bombay, and Madras, appointing Governors of the respective presidencies as their ex-officio Chancellors to maintain direct control. As Chancellor, the Governor became the head of the university and was granted powers such as appointing Vice-Chancellors, nominating members to university bodies like the Syndicate, approving delegated legislation under the university law, and presiding over convocations. Unfortunately, this model of "Governor as Chancellor" was adopted wholesale for State universities even after Independence, without reassessing its relevance in a democratic and federal context.

A politicised office

Initially, from 1947 to 1967, the dominance of the Congress party at both the Centre and State levels ensured that Governors remained ceremonial figures, with Chief Ministers wielding real power. Consequently, there was little impetus to amend the colonial-era provision of "Governor as Chancellor."

However, the political landscape changed after 1967 when several States were ruled by parties other than the ruling party or coalition at the Centre. Governors increasingly transformed from neutral constitutional functionaries to political instruments of the Central government. This change saw them asserting control over university affairs, which often resulted in clashes with State governments. Efforts to amend university laws for change of Chancellor faced roadblocks, as Governors either delayed approving such amendments or referred them to the President. Only a few States succeeded in getting the amendments passed.

Even the Centre's First Administrative Reforms Commission (1966-77) criticised the politicisation of the Governor's office, highlighting the appointment of defeated politicians, which eroded the office's dignity. The Sarkaria Commission (1983-88) on Centre-State Relations, revealed that over 60% of Governors had been active politicians, many of them immediately before their appointment, with quality declining steeply after the Nehru era. Professor Ashok Pankaj's study (1950-2015) found that 52% of Governors were politicians, 26% were retired bureaucrats, and only 22% hailed from academia, the judiciary, or the armed forces. It highlighted a growing trend of appointing Governors based on political loyalty, undermining the office's credibility and exacerbating its misuse.

Governor's dual role

Constitutionally, a Governor's powers are divided into two categories: those exercised as Governor, where he is bound to act on the advice of the Council of Ministers as per Article 163(1), and those conferred by statutes, such as the role of Chancellor of State universities, where he can act at his discretion, independent of ministerial advice, unless the statute

mandates otherwise. The Supreme Court has upheld this distinction. This has enabled Governors to bypass ministerial advice in critical university matters like appointing Vice-Chancellors, nominating members to university bodies, and approving subordinate legislation, particularly in Opposition-ruled States.

Governor and the President

Despite similar legal frameworks, a stark contrast exists between the Governor's role as Chancellor of State universities and the President's role as Visitor of Central universities. The key difference is the level of consultation and legislative oversight.

The President maintains a cordial relationship with the Centre. He functions through the Ministry of Education and consults with it for appointments of Vice-Chancellors, nomination of members to university bodies, and approval of 'statutes' (a type of delegated legislation under the university law). Central university laws require the statutes, along with other types of delegated legislation called 'ordinances' and 'regulations', to be laid before the Parliament.

In contrast, the Governor acts unilaterally while performing similar functions for State universities, often bypassing the State's Ministry of Higher Education entirely, particularly in Opposition-ruled States. State University laws do not mandate laying delegated legislation – statutes, ordinances, and regulations – before the Legislature. This is a significant flaw rooted in the continuation of colonial-era practices.

Existing challenges

The persistence of the "Governor as Chancellor" model has caused numerous problems in the governance of State universities.

While State governments fund these universities, Governors wield substantial power without corresponding accountability. This creates a dual authority system, forcing university leadership to serve two masters, often with conflicting demands.

Disagreements between Governors and State governments, particularly in Opposition-ruled States, lead to delays in appointing Vice-Chancellors, causing administrative paralysis. These delays affect areas such as the appointment of staff, the implementation of projects, and

even the awarding of degrees.

Many Governors lack the academic qualifications or experience necessary to effectively guide educational institutions. They tend to rely on limited, non-transparent advice, leading to questionable decisions.

Rather than insulating universities from politics, some Governors exacerbate political interference, often prioritising the Centre's political agenda over the universities' autonomy and interests.

Allowing Governors – appointed by the Centre – to control State institutions compromises the principle of federalism. State universities should be fully accountable to elected State governments.

Insights from Commissions

Various commissions have examined the Governor's role as Chancellor and proposed reforms. The Rajamannar Committee (1969-71) on Centre-State relations, appointed by the Government of Tamil Nadu, argued that the Governor's statutory functions are included within the meaning of 'functions' under Article 163(1). So, the Governor should perform his statutory functions as Chancellor also on the advice of the State government. However, the Supreme Court has not upheld this interpretation.

The Sarkaria Commission (1983-88) on Centre-State relations, recognised that the Governor's role as Chancellor is statutory, not constitutional, and must be defined by State laws. It recommended that Governors consult with Chief Ministers while retaining independent judgment in university matters.

The National Commission to Review the Working of the Constitution (2000-02), headed by Justice M.N. Venkatachaliah, advocated for political neutrality, a clearer definition of the Chancellor's functions, a supportive rather than authoritative role, and greater university autonomy.

The M.M.Punchhi Commission (2007-10) on Centre-State relations recommended that the Governor focus on constitutional responsibilities, avoiding statutory roles like that of Chancellor to preserve the dignity of the office. It suggested that States appoint eminent academics or experts as Chancellors to ensure academic independence and prevent conflicts.

Alternative models

The ideal Chancellor model, based on

global best practices, envisions the Chancellor as an eminent public figure who provides ceremonial leadership, presides over convocations, acts as an institutional ambassador, and has no executive authority. Universities in the U.K., from whom we borrowed the concept of Chancellor, exemplify this model. There are several ways to amend State university laws to implement this reform. The Governor as Ceremonial Chancellor model removes the Governor's discretionary powers, mandating him to act on the advice of the State Council of Ministers in university matters. Gujarat (1978), Karnataka (2000), and Maharashtra (2020) have adopted variations of this approach.

In the Chief Minister as Chancellor model, critics argue that a ceremonial role does not suit a powerful political figure like the Chief Minister. West Bengal and Punjab passed Bills in 2023 to adopt this system, but they await Presidential assent. In a variation, Tamil Nadu passed a Bill in 2022 substituting 'Government' for 'Chancellor'. It also awaits Presidential assent.

The State-appointed Chancellor model, implemented in Telangana in 2015, has the State government appoint a ceremonial Chancellor. A similar Bill was passed by Kerala in 2022, but it is still awaiting Presidential assent. The Kerala Bill specifies that the appointee should be an eminent academician or public figure.

The Chancellor elected by the University Bodies model empowers university bodies and alumni to elect a ceremonial Chancellor as in Oxford, Cambridge and Edinburgh universities.

In the Chancellor appointed by the University's Executive Council model, several universities in the U.K. (Birmingham), Canada (McGill) and Australia (Melbourne) appoint ceremonial Chancellors through their Executive Council or Board of Governors, following transparent selection processes.

Among these, the State-appointed Chancellor model is the most practical for India, provided the appointees are distinguished academicians or public figures, excluding politicians. The M.M.Punchhi Commission had recommended it.

Dismantling a colonial legacy

Reforming State universities in India demands a careful balance of key principles: ensuring accountability to elected State governments, minimising political interference, promoting institutional self-governance, and fostering academic freedom and excellence. The vital first step is divesting the Governor of his colonial-era role as Chancellor.

While States like Gujarat, Karnataka, Telangana, and Maharashtra have implemented reforms, others such as Tamil Nadu, Kerala, West Bengal, and Punjab face indefinite delays in obtaining Presidential assent for their proposed changes. This disparity underscores the need for impartial treatment by the President and Government of India. There is no valid reason for withholding approval of the pending Bills and resolving such matters through the Supreme Court under Article 131 should be avoided. The Centre should facilitate progressive reforms that seek to dismantle colonial-era administrative structures, guide States towards aligning their university governance models with global best practices, and enable universities to focus on academic excellence free from political entanglements.

The author is a retired IAS officer and a former Vice-Chancellor of the Indian Maritime University, Chennai

THE GIST

▼
The Governor's role as Chancellor of State universities has led to political interference and diminished university autonomy, particularly in Opposition-ruled States.

▼
Over the years, Governors have increasingly become political appointees, undermining the credibility of the office and exacerbating conflicts between State governments and the Centre.

▼
Various commissions have recommended reforms such as appointing academics or public personalities as Chancellors to preserve university autonomy and reduce political influence.

GETTY IMAGES

COURSE CORRECTION

A non-binary lens on classroom inclusivity

Non-binary narratives in learning practices can foster social consciousness outside classrooms

SWARUPA DEB AND ANIKET NANDAN

There is a pertinent question that reverberates through the very fabric of inclusive education: What does it truly mean to belong in a classroom? A question that has profound significance, especially for non-binary students navigating binary-oriented classrooms. This concern requires not just a response, but a re-imagining of what classrooms can and should be – a transformative arena where every student feels seen, heard, and included.

Recently, the Karnataka High Court, in hearing a writ petition (WP 14909/2023) of Mugil Anbu Vasantha v. State of Karnataka & Ors., directed NLSIU, Bengaluru, to uphold constitutional guarantees for transgender students by providing 0.5% reservation in law courses. While NLSIU has been a relatively inclusive campus space for non-binary students as part of an ongoing journey towards holistic inclusivity, this directive by the High Court presents a key framework for extending the representation of non-binary students in India's classrooms. Mugil Anbu Vasantha's writ petition goes beyond placing the spotlight on a single institution. It rather highlights a broader systemic failure of mainstream society floundering to address the concerns of non-binary students.

This calls urgent attention to the need to interrogate the existing 'inclusive' educational frameworks fraught with concerns of discrimination and exclusion. Simultaneously, a discussion on the contemporary perspectives on education also underscores the radical project of subject formation – driven by notions of efficiency, merit, and commodification. While the education landscape claims to pursue new forms of reasoning and rationality that aim to instil liberal values of equality and the legacy of humanism, it is often observed to be reviving the traditional moral order associated with family, gender roles, and social hierarchies. It is also to be noted that within this framework, inclusive education for non-binary students encounters unique contradictions.

Therefore, the model of inclusive education vis-à-vis non-binary students emphasises a system that adapts to the needs of students rather than expecting students to conform to a rigid framework. For non-binary students, this approach challenges traditional norms and paves the way for greater acceptance and equity.

On the contrary, the content of curricula – shaped by the binary mainstream – emphasises the social construction theory expounding on the constructs of 'men' and 'women' based on physiological signifiers, further reimposing the normativity of cis-embodiments both inside and outside classrooms. A practice that effectively posits trans and non-binary bodies as exceptions or 'others' confounding the very logic of inclusion. Academic resources and teaching techniques often omit diverse identities, and rigid assessment systems struggle to acknowledge the lived realities of marginalised groups, including queer and non-binary individuals. Moreover, these inclusive classrooms

often discuss non-binary discourses distinctively outside/adjunction to the binary reinforcing the binary as the mainstream and all other identities and practices as exceptions: a construct that has historically harmed non-binary people and their knowledge. These classroom methods rooted in traditional gender roles, reflect cis-gender, heteronormative priorities by favouring conformity over diversity, ensuring that societal structures remain predictable and governable.

Unlearning the normal

Education systems have mutated from spaces of critical thinking to prioritising individual achievement and societal expectations. Consequently, narratives that challenge conventional norms, such as those of non-binary identities, are often overlooked or marginalised. Inclusive education for non-binary students in India continues to face systemic barriers exacerbated by structural inequities, where access to quality education is rapidly privileging financial capacity and peripheralising marginalised students. What we need are classrooms that integrate non-binary discourses into contemporary, intersectional contexts rather than a narrow specialisation dealing with a rarified population of non-binary people – classrooms that encourage students to unlearn the hegemonies of arranging bodies and their preferences into binary categories.

In India, the constitutional mandate of equality and the Right to Education (RTE) Act, 2009, guarantees free and compulsory education to children aged 6 to 14. The landmark 2014 NALSA verdict recognising transgender individuals apart from the male-female binary and the subsequent 2018 Navtej Singh Johar verdict on decriminalisation of homosexuality under Section 377 by the Supreme Court of India has laid the groundwork for broader acceptance and inclusion of queer individuals. Moreover, policies like the Transgender Persons (Protection of Rights) Act, 2019 provide a framework for addressing discrimination and ensuring access to education, but their implementation is complicated by binary normativity focused on standardised metrics sidelining marginalised groups, including non-binary students.

Inclusive education should be framed as an interrogating and suggestive mechanism for socially entrenched prejudices and stereotypes leading to exclusion, bullying, and discrimination of non-binary students in the classrooms.

Kerala stands out as the only Indian state incorporating progressive representations of gender in school textbooks. An effort that challenges traditional gender roles and stereotypes, breaking from the mainstream norms to prioritise social justice over market logic. For a meaningful change, education systems must prioritise inclusivity by integrating non-binary narratives into textbooks, curricula, and classroom practices to foster a non-binary mindset rather than marginalising. Including teaching materials for both students and educators, that represent diverse identities and experiences, along with specialised hands-on training in inclusive teaching methodologies, can challenge the market-driven tendency to cater only to dominant cultural norms. This shift would not only benefit non-binary students but also cultivate empathetic social consciousness both inside and outside classrooms. Moreover, the implementation of robust anti-bullying policies along with all-gender toilets and inclusive spaces in educational facilities can further address inclusivity through collective responsibility.

Inclusive education, particularly for non-binary students, requires addressing systemic barriers and fostering a culture of acceptance. By creating supportive and affirming learning environments, our classrooms can support students who are often marginalised due to their gender identities. While the journey toward inclusive classrooms is challenging, the rewards – a more equitable and empathetic society – are invaluable.

(Swarupa is a human rights lawyer, academic and a trans-ally; Aniket is an assistant professor of sociology and co-director of the Centre for Study of Social Inclusion at NLSIU, Bengaluru)

The transformative power of sports in shaping industries and careers

CARLOS DIEZ DE LA LASTRA

Sports tourism is projected to reach $1.33 trillion by 2032. This statistics underscore the immense career potential within this dynamic industry

Reflecting on the last year's defining moments, it becomes evident that many are rooted in the realm of sports. From global events like the Paris Olympics and UEFA Euro 2024 in Germany to recurring spectacles such as the Tour de France, FIFA World Cup, and weekly Formula 1 and MotoGP Grand Prix races, sports continue to drive travel, tourism, and consumer spending on an unprecedented scale.

The economic significance of sports is staggering. According to the *Sports Global Market Report 2024*, the global sports market is expected to grow from $480 billion in 2023 to over $500 billion in 2024, reflecting an annual growth rate of 5.6 per cent. Sports tourism, a rapidly expanding segment, is projected to reach $1.33 trillion by 2032, fueled by a compound annual growth rate of 10 per cent. These statistics underscore not only the universal allure of sports but also the immense career potential within this dynamic industry. This growth signals a shift in how organisations engage fans and stakeholders. Today,

sports businesses focus on delivering curated, immersive, and unforgettable experiences that leave a lasting impression. Success is increasingly defined by an organisation's ability to craft these experiences, which has become a cornerstone of the industry's evolution.

This transformation is mirrored in the ambitions of students and alumni. Many are venturing into sports-related careers, with graduates influencing the future of major organisations like FIFA, Formula 1, Nike, and the International Olympic Committee. This trend highlights a growing demand for professionals adept at blending hospitality and business acumen to create seamless, high-quality experiences for fans, athletes, and stakeholders.

The expanding scope of hospitality has also reshaped its role in the sports sector. Hospitality is no longer confined to hotels and restaurants; it now encompasses the design and management of memorable experiences across diverse contexts. Whether managing VIP suites at global tournaments, ensuring seamless fan journeys, or crafting luxury travel packages for sports tourism, hospitality principles are integral to the sports industry's success.

To meet these emerging needs, Les Roches introduced a specialised programme in sports business management and sports tourism. This four-year degree equips candidates, athletes and enthusiasts with the skills to excel in this competitive industry. The

curriculum covers sustainability in sports operations, digital transformation and experiential marketing campaigns, preparing graduates to thrive in an evolving global landscape.

The sports industry is a gateway to talent and leadership, with a growing demand for professionals who can innovate, adapt, and lead. LinkedIn reports a 23 per cent increase in global sports management job postings in 2023, with Europe, North America, and the West Asia driving this demand. This reflects a broader shift in the industry's emphasis on resilience, creativity and excellence.

Looking ahead, the synergy between sports and hospitality will deepen, propelled by sustainability, digital transformation, and inclusivity. Success in this field requires blending passion with innovation, excellence, and the art of crafting impactful experiences. It is time to nurture the next generation of leaders, empowering them to leave a legacy in the ever-evolving worlds of sports and hospitality.

(The writer is CEO de Les Roches; views are personal)

How has AI changed the horizon of management education?

Artificial Intelligence (AI) has emerged as a transformative force enhancing education with industry interface. It has transformed learning experiences by adding pinnacles to pedagogical tools in holistic management education. Traditionally rooted in theoretical knowledge and published academic case studies, all business schools are now embracing AI to better equip students for the rapidly evolving corporate landscape. In the real world where data, automation, analytics and intelligent decision-making are at the forefront, the impact of AI-driven innovation is phenomenal not only in industry interface but also in education. The key benefits of AI in management education can be summarised:

AI-driven personalisation in learning

AI has contributed to management education as it has the inherent ability to personalise learning. Students today come with varying strengths, weaknesses, and learning preferences. AI-powered platforms are able to track individual learning patterns, adapting the content to meet the requirements of the student's pace and understanding. This allows students to tackle complex management concepts at their own pace, ensuring no one is left behind. AI has been transforming education as envisaged therein.

Data-driven decision-making skills

As businesses increasingly rely on data to drive decisions, education has shifted its focus towards teaching students how to analyse and interpret vast datasets. Tools like Tableau and Power BI are now integral to business school curricula, allowing students to learn how to apply AI for predictive analysis, customer segmentation, and even supply chain optimisation. These are essential skills in today's data-driven corporate environment.

Experiential learning through simulations

AI-powered simulations are taking experiential learning to the next level. These simulations allow students to immerse themselves in real-world business scenarios—whether it's running a virtual company or managing a crisis. The benefit? They can experiment with decision-making in a risk-free environment.

Data and learning analytics: By analysing the data of online portals, classroom attendance and grades can be monitored.

Classroom teaching: AI tracks student behaviour and engagement and thereby adapts automated grading and assessment tools.

Virtual assistants and chatbots: Reminds prescribed deadlines; thereby, enhancing engagements.

Game learning and role-play: Adaptive learning adds to greater impact. Interdisciplinary and multidisciplinary learning break the barriers between curriculum and subject course outlines.

Predictive analytics: Help career services departments forecast industry trends, enabling students to prepare for roles that will be in demand in the future.

Enhancing, not replacing human intelligence

Despite its remarkable capabilities, it's important to remember that AI is not meant to replace human intelligence but to enhance it. While AI tools can improve decision-making and efficiency, skills like creativity, critical thinking, and emotional intelligence remain irreplaceable. Future managers must learn to use AI as a complement to their innate abilities, ensuring that technology serves humanity and not the other way around.

Business schools are emphasising this balance, teaching students not only how to leverage AI, but also how to apply it ethically and responsibly. It's about using AI to augment human decision-making, not replace it.

Ethics and responsible AI

With AI becoming increasingly integrated into management education, there is a growing need to teach ethics and responsibility in AI usage. Further, educators must not only understand AI's capabilities but also its limitations and ethical implications. As AI becomes a powerful tool in shaping business decisions, it is also crucial that students are equipped with the knowledge to use AI responsibly and judiciously.

Business schools are now incorporating modules on AI ethics, data privacy, and the societal impacts of technology into their curriculum, ensuring that graduates are not only tech-savvy but also become conscientious leaders.

Cybersecurity, safety and security: This is the need of the hour and must be well addressed by taking the appropriate precautions. Data privacy concerns, biases in AI algorithms and accessibility issues are some of the biggest challenges.

Academic research: It analyses large datasets, resulting in the creation of a reservoir of publication utility.

Challenges and the road ahead

While AI in management education brings manifold benefits; it also comes with its own sets of challenges. The high cost of AI infrastructure, coupled with the need for continuous faculty training, remains a significant barrier for many institutions. Additionally, there's the risk of over-relying on technology, which might overshadow the human aspects of management education—such as emotional intelligence, interpersonal skills, and ethical judgment.

To address these challenges, a balanced approach is essential. All efforts should be made to complement AI and not replace traditional teaching methods. Educators must evolve into facilitators, helping students leverage AI tools while also nurturing the human qualities that form the foundation of great leadership.

It can be easily deduced that AI has dramatically expanded the horizons of management education, reshaping how students learn, how faculty teach, and how academic institutions operate.

From personalised learning and data-driven decision-making to AI-powered simulations and ethical considerations, the impact of AI is profound and far-reaching. Diverse applications will be in consonance with learnings.

The integration of AI in management education is not just about adapting to change; it's about shaping the future of leadership itself.

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A CENTURY OF IMPARTING EDUCATION: CATHEDRAL MISSION COMPLETES 100 YEARS

BHUBAN CHATTERJEE

Cathedral Mission High School, a Christian government-aided English medium educational institution, marked its centenary year on 25 January 2025, honouring a century of imparting education and nurturing young minds. Located within the premises of St. Mary's Church, the school was established by Rev. Canon Aghore Nath Banerjei in 1925.

The celebration was inaugurated by Rt. Rev. Dr Paritosh Canning, Bishop of Calcutta, CNI and President of the school managing committee with a Thanksgiving Service at St. Mary's Church. In his address, Dr Canning expressed his pride in the school's legacy. "Despite being a minority, government-aided institution, it feels incredible to complete 100 years. We aim to maintain our academic excellence and continue this legacy," Dr Canning claimed.

Originally, Rev. Canon Banerjei created the school by amalgamating Bishop's Collegiate School and St. Mary's School, with the intention of providing quality education to the poorest of the poor. "Today, 100 years later, we still haven't deviated from our founding values, offering English medium education with a nominal annual fee," Simson Molla, Headmaster, stated.

The centenary programme was divided into two phases. The first phase saw a Thanksgiving Workshop at St Mary's Church, along with felicitation of ex-students and former teachers. Dignitaries like Ashim Basu, the local councillor and also the Mayor-in-council (MMIC) for the West Bengal Urban Employment Scheme, graced the event and were also felicitated. "Completing 100 years not only gives us joy but also inspires us to move forward. Today, Rev. Canon Banerjei is not alive, still his dedication, his school is creating history and will continue to shape the

backbone of countless futures," Basu said.

The second phase of the event featured cultural programmes by the students and teachers of the school. The performances included medleys in Bengali, Hindi and English; and recitation, dance and drama forming a magical environment. The performances emphasised the school's dedication to contribute to not only academics but to holistic development.

Renowned film director and a notable alumni, Goutam Ghose attended, adding charm to the event. "Attending the event felt like going back down memory lane. It feels extremely nostalgic to see the school almost unchanged. Lots of memories are attached to this place and will stay forever in my heart. Our teachers also were polymaths who inspired us in every way," Ghose shared.

The school simultaneously focuses on preserving the past, while also preparing for the future. Plans are underway to introduce a new course on artificial intelligence and computer science for the 11th and 12th standard. "We have submitted the idea to the relevant departments of the government. These initiatives will help our students to gain practical knowledge and excel in real-life scenarios," Simson Molla claimed.

Cathedral Mission High School still faces challenges despite its achievements. As a government-aided institution, limited resources lead to a lack of infrastructure development. However, the authorities are optimistic and committed to providing a holistic education and environment. "This milestone is a reminder to not forget our objectives. It will inspire us to strive for greater feats!" Simson Molla exclaimed.

UGC draft rules: Govs' control sparks federalism debate

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FIRST formulated in 2010 and amended from time to time since then, the University Grants Commission (UGC) has again revised its rules on the "minimum qualifications" for appointment of teachers and other academic staff in universities and colleges and measures for maintenance of standards in higher education.

The draft regulations 2025 have triggered a mixed response from academic circles as the intended modifications in certain contentious issues have far-reaching consequences on appointments, service conditions and promotions of teachers as well as the autonomy and control of the state on higher educational institutions (HEIs).

With the aim of achieving the goals of National Education Policy (NEP) 2020, emphasis has been laid on the use of Indian languages, societal engagement and teaching, learning and research in the Indian knowledge system. The numeral score-based academic performance indicator (API) system for the recruitment and promotions of teachers has been replaced with a subjective evaluation system that involves contributions towards teaching, research and digital content creation. This system has inherent limitations, which have been already experienced prior to the API system era. Emphasis has been laid on non-measurable accomplishments, to be considered by selection committees. The new system lacks transparency, leaves room for irrational evaluation and manipulation, which is of serious concern.

Apparently envisioned to promote academic flexibility, allowing teachers to teach subjects based on their highest specialisations without having degrees in the same subjects at the lower academic levels may create problems in case of collaborative multi-disciplinary studies and discourage the much-needed interdisciplinary research approaches.

The draft document lacks a transparent mechanism for foolproof and acceptable implementation of its provisions to eliminate suspicion, partiality and undue preference to subjective evaluations.

It is feared that de-capping of the limit on contractual appointments of teachers will encourage this practice, compromising the quality and creation of committed and innovative professionals. Such appointments need to be curtailed as they are only an emergent temporary solution.

The minimum qualifications and procedure for the selection of vice-chancellor (VC) have been revised. Now, absolute powers are vested in chancellors (governors in case of state universities) to select VCs through search-cum-selection committees. The VC's post has also been opened for non-academicians from the industry, public administration and public policy. This is a cause of disappointment and discouragement for distinguished and accomplished academicians.

These ill-conceived, unsustainable solutions have probably been envisioned due to the recent rows between some opposition-ruled state governments and their governors over the appointment of VCs.

The role of state governments in the appointment of VCs has been eliminated though, constitutionally, education is a state subject and under the Concurrent List.

DISRUPTIVE: The UGC draft regulations 2025 will lead to academic chaos. FILE PHOTO

> The role of state governments in the appointment of VCs has been eliminated, though education is a state subject and under the Concurrent List.

Being contrary to the federal principles of governance, the Tamil Nadu and Kerala governments have rejected the draft document. The document is also unacceptable to the All-India Federation of University and College Teachers Organisation. Some other quarters may also oppose it.

Views have been expressed against making the VC's post open to non-academicians. Questions like whether we appoint businessmen as civil surgeons have been raised in this context. A VC is essentially an academic leader and scholastic role model for the faculty, staff and students.

The HEIs are neither factories nor business franchises. They are institutions where excellence in teaching and learning is ensured and young minds are groomed for free thinking in a research-undertaking environment. These values cannot be appreciated by non-academic gatekeepers or persons not exposed to the rigorous academic ecosystem of HEIs and lacking in academic and research knowledge and orientation, no matter how expert they may be in their field of specialisation.

It will open the VCs post to persons with political and ideological affiliations, compromising the character, pedigry and commitment to academic excellence that is expected from this position. The appointment of non-academicians as Professors of Practice in universities with similar expectations too, is yet to show tangibly beneficial results.

It would be in the interest of the nation to avoid such experimentations with HEIs. A balance of the role of state governments and governors in the selection of VCs is needed. Further, it should be provided that none of the selection committee members is below the rank of a VC, that a non-academician is not appointed VC even as a stop-gap arrangement, and that the post does not stay without a regular VC for a long time.

Instead of inviting applications, nominations may be invited from current and former VCs, directors of institutions of importance, acclaimed intellectuals, etc, abundating the achievements, integrity and calibre of the aspirant.

Though questionable, the draft regulations are mandatory in nature and impose stringent penalties on their violations. The penalties include debarring the institution from getting UGC schemes and disqualifying it not only from offering any degree but also the institution as a whole.

These regulations, ostensibly asserted as 'measures for maintenance of standards in higher education' are, in fact, a blatant effort to erode the autonomy of universities, impose Central control, compromise the quality of education, curtail academic freedom, undermine academicians and overstep the UGC mandate. The UGC Act of 1956 does not clearly contain any provision related to VCs' selection. Having no regulation till 2010, introducing the UGC nominee on the search panel in 2010, withdrawing it in 2013, reintroducing it in 2018 and expanding it for greater control over HEIs in 2025 reflects that the UGC itself is not clear about its role in VCs' appointments.

The regulations will lead to academic chaos and put the state universities in a disadvantageous position. The UGC must not go ahead with the disruptive revisions.

Especially so, when the formation of an umbrella organisation — the Higher Education Commission of India (HECI) — as envisaged in NEP 2020, subsuming the UGC, is in the pipeline. The HECI would have responsibilities like maintaining academic standards and specifying the eligibility criteria and mode for selection of VCs.

Unlocking the soft power of languages

The re-energised Kannada translation ecosystem is part of a broader national renewal
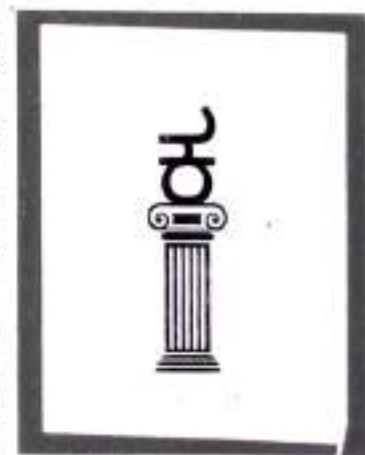
**MANISH SABHARWAL
AND RAHUL MATTHAN**

Sriktar Raghavan's new book *Rama Bhima and Soma*, is a remarkable endeavour of translation and rediscovery. It is a powerful demonstration that "Karnataka is one of India's most diverse states, as rich in literary and cultural traditions as it is in democratic struggles and political churns". This book, part of a re-energised Kannada translation ecosystem, not only rescues us from historical amnesia but contributes significantly to the overdue acceleration in the national identity, culture and soft power infrastructure that is India's translation ecosystem.

Publishing in Kannada language has been historically robust. Print culture originated early, with newspapers like *Mangaluru Samachara*, founded in 1843 (later *Kannada Samachara*). The Kannada Book Authority has an entire history through *Kannada Pustaka Samskruthi: Pustakodhyama Charithre*, and works like the *History of Kannada Literature* by R Narasimhacharya are insightful. There have been strong literary movements, like the Pragatishila and then the modernist Navya, helmed by stalwarts including U R Ananthamurthy. Kannada-language publishing today includes presses like Baburoopi and Chanda Pustaka.

The English translations of authors like Girish Karnad and Vivek Shanbhag are now widely read (Srinath Perur translated both). However, there is still a gap in the translation of non-fiction. One of Kannada's most significant voices was D R Nagaraj, who, in the 1990s, began using the concept of '*smriti*' or 'cultural amnesia' to counter Western preferences for intellectual understanding. While Nagaraj's works are known to an academic Indian Anglophone audience through previous translations of his essays in *The Flaming Feet* and *Listening to the Loom* (both by Prithvi Datta Chandra Sobhi), his ideas have not perhaps been adequately contended with in the larger Indian mainstream. A forthcoming book by Professor N S Gundur, under the NIF Translation Fellowship, will bring his ambitious posthumously published work *Allamaprabhu Mattu*

Shaive Pratibhe to new audiences.

There is good news in the national translation ecosystem: India's first non-profit, open-access, and crowdsourced database of Indian translations has been set up by the Ashoka University Centre for Translations and is now searchable at www.bhashavaad.in. Like any open-source living archive, its current dataset – featuring 14,000+ entries, 6,500+ authors, and 7,000+ translators – is a work in progress that will constantly be improved; it is more a river than an ocean. But even at this stage, it answers questions like what is and is not being translated, who is publishing the translations, who is translating, which languages are the most ac-

tive, what the most translated language pairs are, and many more. It attempts to understand our multilingual landscape: the dynamics between languages, the communities that use them, and the regions they belong to.

Bhashavaad data suggests that the 125 translations in the first five decades of the 20th century leapt to 2,673 in the first two decades of the 21st century. The top ten translated languages are Bengali (1,749), Hindi (1,155), and Marathi (887), followed by Tamil, Malayalam, Urdu, Telugu, Kannada, Sanskrit, and Odia. The top five languages that receive translations outside English (half the story) are Hindi, Gujarati, Kannada, Bengali, and Telugu. A happy discovery is the long tail of translations from Manipuri, Maithili, Kodava, Rajbangshi, Mizo, Kokborok, and Bongcher. The top languages for translation from Sanskrit are English, Gujarati, Hindi, Kannada, and Punjabi.

A work in progress

A search for 'Kannada' returns 1,627 results. The 'Translated Into' current-

ly features 1,069 titles for Kannada, the third-highest number behind Hindi (2,134) and Gujarati (1,170). In intra-bhasha translation, the pairings found most often for Kannada were translations from Marathi (175, with 127 of these by the same translator, Chandrakant Pokale) and Telugu (163). The most-translated authors are S L Bhyrappa and Chandrasekhara Kambara.

Bhashavaad, like any database, is helpful but incomplete. However, it will improve as the Kannada ecosystem of public users, authors, and translators add new entries and correct existing ones. Publishers will soon have institutional interfaces to add or modify information. Collaborations with repositories of existing records are being explored, and data collection work continues from catalogues, websites, and library lists.

The questions facing the Kannada publishing and translation ecosystem are simple but challenging. How do we get more translations for the long tail? How do we increase the translations within Indian languages? How do we get better matching for translators with authors and publishers? How do we improve book discovery and marketing mechanisms for translated books? What is the impact, if any, of tools offered by Artificial Intelligence on translation? What is needed for Indian writing in Indian languages to be accessible more widely within and outside India? These questions are complex, but Indians have natural translation consciousness and must lead the world in translation theory, study, and practice.

In the *Chintanamale* series he edited for Akshara Prakashan, Nagaraj expanded on the peculiar kind of forgetfulness in which societies forget their structures of thinking: 'Thoughts that serve neither as a mirror nor a lamp are not useful.' We must reconnect with our languages because they are "seeds and fields – alive as the minds, tongues, throats, bodies, and air they pass through; germinating, growing roots, bearing fruit, evolving like beings". Linguist Claude Hagege suggests languages are not a collection of words, syntax and semantics but living, breathing organisms holding the connections of a culture. They also offer equal citizenship, identity, and soft power. Kannada's translation ecosystem will help because there is new energy.

(Manish is an entrepreneur; Rahul is a lawyer who volunteers at the New India Foundation)

Learn to Catch Up On the Digital Lag

A comprehensive, citizen-driven national report on India's primary education system provides a vital perspective on how effectively taxpayer money is being utilised to educate and empower Gen Next — and building the foundation for a resilient economy. On Tuesday, Pratham released its Annual Status of Education Report (ASER) 2024, just days before the budget. It highlights areas where government priorities should focus. ASER's central takeaway is clear: demand for education is immense.

NEP 2020 calls for universal early childhood education and quality care for children from birth to 6 years. ASER data shows over 80% of rural children aged 3-4 are enrolled in pre-primary institutions. At the elementary level (ages 6-14), enrolment and foundational skills in reading and arithmetic have improved across all grades compared to 2022. Basic school infrastructure has expanded, and NIPUN (National Initiative for Proficiency in Reading with Understanding and Numeracy) Bharat now covers most schools. Encouragingly, government school students in classes 1-8 have surpassed pre-pandemic levels in reading and maths skills, underscoring the importance of sustained state investment.

For the first time, ASER included a section on digital literacy among 14-16-yr-olds. Here, a critical gap is revealed: gender disparities in access to smartphones and digital skills. Addressing this gap is urgent in a world where digital literacy is as essential as foundational education. Without timely intervention, these disparities will widen, undermining efforts to equip all students for the digital age. Proper budgeting and targeted policies are crucial to ensure digital skills receive the attention they deserve, fostering an equitable, well-rounded education system.

Govt. schoolchildren lead recovery in basic skills; private ones lag

Not all States conformed to the national trend. Students in many States are yet to recover from pandemic lows

DATA POINT

Samreen Wani
Vignesh Radhakrishnan

The closure of schools during the COVID-19 pandemic significantly impacted the ability of rural schoolchildren to divide three-digit numbers and read a paragraph in their regional language. The latest data for 2024, published in the Annual Status of Education Report (Rural), broadly indicates that rural schoolchildren have largely recovered from the learning loss experienced during the pandemic. However, the recovery appears uneven when the data are analysed in detail.

To understand the learning losses during the pandemic as well as the post-pandemic recovery, the story used data for Class 5 children from the report. First, while children showed significant improvement in their arithmetic abilities, their progress in reading ability has been less pronounced. Second, government schoolchildren showed strong recovery in reading abilities, with the share of those who can read a paragraph in their regional language reaching pre-pandemic levels. While private schoolchildren have made some progress from the pandemic-induced decline, the share who could read a paragraph in their regional language remained well below pre-pandemic standards.

Chart 1 shows the share of rural schoolchildren in Class 5 who could read a Class 2-level text (a paragraph) in their regional language. The share of government school students who could read the text dropped from 44.2% in 2018 to 38.5% in 2022 and improved to 44.8% in 2024 – a 6.3 percentage point recovery. For private school students, it dropped from 65.1% in 2018 to 56.8% in 2022 and improved to 59.3% in 2024 – only a 2.5-point recovery.

Third, the proportion of children who were able to perform basic arithmetic operations exceeded pre-pandemic levels among both government and private schools, as per the 2024 data. However, the recovery was stronger among government schoolchildren compared to their private counterparts.

Chart 2 shows the share of rural schoolchildren in Class 5 who could divide three-digit numbers. The share of government school students who could do this declined from 22.7% in 2018 to 21.6% in 2022 and improved to 26.5% in 2024 – a 4.9-point recovery. The share of private school students who could do the same dropped from 39.8% in 2018 to 38.7% in 2022 and improved to 41.8% in 2024 – only a 3.1-point recovery.

Fourth, not all States followed the national trend. There were many patterns and variations in State-level data. **Table 3** shows the State-wise share of rural schoolchildren in Class 5 who could read a Class 2-level text (a paragraph) in their regional language in 2018, 2022, and 2024. **Table 4** shows the same for those who could divide three-digit numbers.

In **Table 3**, States/Union Territories such as Assam, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Uttarakhand, and Tamil Nadu conformed to the national trend. In Andhra Pradesh and Kerala, the share of government schoolchildren who could read did not recover from the pandemic lows. In Bihar, the reading ability of private schoolchildren did not recover. In Chhattisgarh, there was no recovery among government schoolchildren or among private ones.

In **Table 4**, States such as Karnataka and Madhya Pradesh conformed to the national trend. In Kerala, the share of those who could divide three-digit numbers did not recover from the lows recorded during the pandemic in both private and public schools. In fact, in 2024, the share worsened further in Kerala.

Evaluating student performance

The charts were sourced from the Annual Status of Education Report (Rural) 2024

The ASER 2024 survey was conducted across 605 districts among children aged 5 to 16. Older children aged 14-16 were asked questions about their digital access and usage

Chart 1: The share of children in Class 5 who can read Class 2- level text (in %)

Chart 2: The chart shows share of children in Class 5 who can divide numbers (in %)

Table 3: Shows State-wise data for chart 1
Table 4: Shows State-wise data for chart 2

Govt.	Pvt.	State	Year	Govt.	Pvt.
57.1	64.8	Andhra Pradesh	2018	36.7	45.3
37.9	31.5	Andhra Pradesh	2022	27.3	36.4
37.5	38.5	Andhra Pradesh	2024	35.1	38.5
31.5	60.9	Assam	2018	14.4	28.2
29.2	58.7	Assam	2022	10.1	30.3
32.8	55.8	Assam	2024	12	30.9
35.1	78.1	Bihar	2018	24.1	64
37.1	73.4	Bihar	2022	30	67.1
41.2	66.2	Bihar	2024	32.5	67.7
57.1	70.2	Chhattisgarh	2018	26.1	30.2
52.9	68.6	Chhattisgarh	2022	22.8	35
52.3	65.8	Chhattisgarh	2024	22.9	41.5
58.1	78.3	Haryana	2018	34.4	64.5
46.8	71.8	Haryana	2022	27.6	60
53.9	72.9	Haryana	2024	29.4	56.9
74.5	80.4	Himachal Pradesh	2018	51.5	64
60.2	63.1	Himachal Pradesh	2022	38.1	50.5
65.8	68.7	Himachal Pradesh	2024	44	51.8
24.3	69.1	J&K	2018	13.6	42.6
18.1	54.9	J&K	2022	14	32.1
21.8	60.3	J&K	2024	16.3	37.6
29.4	63.5	Jharkhand	2018	15.6	39.6
31.6	66.5	Jharkhand	2022	20.8	52.7
40.3	68.2	Jharkhand	2024	25.5	52.3
47.6	41.8	Karnataka	2018	19.6	23
29.2	34.1	Karnataka	2022	12	17.9
32.8	37.8	Karnataka	2024	19.3	25.6
73.1	81.8	Kerala	2018	33.3	52.5
61.9	69.6	Kerala	2022	20.2	38.2
58.2	71.7	Kerala	2024	12.4	27.6
34.4	63.1	MP	2018	16.5	29.5
29.2	51	MP	2022	15.7	27.4
37.5	58.1	MP	2024	16.9	33.2
66	67.1	Maharashtra	2018	31.7	28
55.7	55	Maharashtra	2022	20.1	18.8
57.9	61.8	Maharashtra	2024	26.1	29.8
68.7	74.4	Punjab	2018	50.1	55.7
59.4	75.5	Punjab	2022	33.3	51.8
60.8	62.2	Punjab	2024	46.3	52.6
39.1	85.8	Rajasthan	2018	14.1	38.1
31.5	57	Rajasthan	2022	6.3	32.8
37.7	63.5	Rajasthan	2024	12.3	37.2
46.3	28.8	Tamil Nadu	2018	27.1	22.2
26	22.4	Tamil Nadu	2022	14.7	15.5
37	32.3	Tamil Nadu	2024	20.2	22.1
36.2	68.8	UP	2018	17	42.9
38.3	63.2	UP	2022	24.5	46.7
50.5	65.6	UP	2024	31.8	51.2
58	72.8	Uttarakhand	2018	26.7	50.9
47.7	62.8	Uttarakhand	2022	23.3	41.8
60.3	71.5	Uttarakhand	2024	35.4	48.8

Signs of more than a recovery in learning

Findings of the Annual Status of Education Report (ASER) 2024 point to a robust recovery from the learning loss incurred in the Covid years. Extended school shutdowns, digital hurdles — lack of access to hardware/connectivity and know-how among teachers and households — and unready systems marked much of the academic years 2020-21 and 2021-2022. As a result, learning gains steadily built over the past couple of decades saw significant erosion. While ASER 2022 painted a mournful picture, ASER 2024 reassures that things are back on track and, quite encouragingly, the progress is led by government schools, which historically have been magnets for criticism.

Reading ability — one proxy being the percentage of Standard III students able to read Standard II level text — is back to the pre-pandemic level of 27%, having fallen to 20.5% in ASER 2022. Government schools recorded a sharp improvement, reaching 23.4%, up not just from ASER 2022's 16.3% but also the pre-pandemic peak of 20.9%. Private schools recovered some ground but are yet to reach their pre-pandemic peak. The arithmetic learning indicators indicate much more than a recovery, registering substantial increases over the pre-pandemic peak. Here, too, government schools lead.

This turnaround may have been ushered in by the Foundational Literacy and Numeracy focus of the National Education Policy (NEP), 2020. Shifting gears from teaching only the cream of the class to teaching at each student at her level is starting to pay off. That said, there is still a significant gap to overcome, given an overwhelming portion of the student population still suffers from learning deficiencies. How NEP enables building on present gains will be its true test.

CLASSROOM SUCCESS

ASER survey shows foundational learning skills have recovered post-pandemic. That's cause for cheer — and redoubling effort

DURING THE COVID-19 pandemic, India had one of the longest school closures in the world. Digital learning locked vast numbers of underprivileged schoolchildren out of the classroom and online classes struggled to replace the experience and quality of teaching in a physical classroom. Last year's Economic Survey pointed out that the gap between class standards and learning levels has widened since the pandemic. It noted that "improving learning outcomes and undoing the Covid-induced learning loss is more urgent than ever". The survey, however, struck a note of optimism: "The education sector is bustling with the across-the-board transformation led by the NEP 2020, which is expected to yield foundational literacy and numeracy (FLN) skills for every child passing the third standard in the near future." The latest ASER report, released on Tuesday, shows that this optimism was not misplaced. It shows that classrooms have not only recovered from the disruption caused by the public health emergency, in several respects, the foundational skills of primary and secondary-level schoolchildren today is much better than even that of their counterparts in the year just before the pandemic.

What is even more heartening is that government schools are at the forefront of this recovery. A large chunk of the credit, as the ASER report points out, should go to the New Education Policy's thrust on improving foundational learning skills. It notes that though states have adapted the NEP's prescriptions in different ways, all of them have adopted the policy's teacher-centric approach. The large-scale rollout of teacher training programmes on foundational skills shows a national commitment towards addressing a longstanding deficit. The training is slowly leaving a mark on the ways teachers relate to students in classrooms. The ASER surveyors found that many teachers are now empathetic to the specific needs of students in the early years of school. However, as ASER 2024 indicates, educating educators is still a work in progress. There cannot be a fixed pedagogical template to teach children in all schools even if they are in the same grade — a fact underlined by the NEP as well. Today, teachers seem to have limited opportunities to address classroom-specific challenges. The ASER report, therefore, underlines the importance of post-training support to teachers. Crucially, decisions on what and how to teach are still based primarily on syllabus completion. "Resolving the inherent contradiction between ensuring universal FLN and syllabus completion is a question that the system has yet to reckon with in a systematic way," the ASER report points out.

Today, more than 100 million children are in the foundational learning stage. When these youngsters graduate from school, the country would be at a critical stage in releasing its demographic dividend — that window would then be open for at most another decade and a half. Therefore, while policymakers can justifiably be upbeat about the good news from the ASER survey, they would be mistaken in not reading the report in its entirety. They must give particular attention to the passages that underline the tasks ahead. The future's at stake.

A recovery, and more

ASER report shows improvement in learning outcomes after pandemic, signals initial success of NEP

WILIMA WADHWA

THIS YEAR ASER went back to almost all rural districts of the country to report on children's schooling status and basic reading and arithmetic levels. Data from ASER 2024 helps track the progress of foundational literacy and numeracy (FLN) skills across the country.

The 2024 report has good news. It shows more than a full recovery from the post-pandemic learning losses. At the all-India level, the proportion of children in Class III who are able to read at the Class-II level, had risen slowly from 23.6 per cent in 2014 to 27.3 per cent in 2018 and then fell drastically to 20.5 per cent in 2022. Two years later, we have a full recovery with the proportion of Class III children reading fluently at 27.1 per cent. We see a similar picture in Class V, with the proportion of children who can read a Class II level text rising from 48 per cent in 2014 to 50.5 per cent in 2018, then falling to 42.8 per cent in 2022, and finally recovering to 48.8 per cent in 2024.

In arithmetic, the learning loss post-pandemic in 2022 was smaller in comparison to reading. The proportion of children in Class III able to do at least subtraction rose from 25.4 per cent in 2014 to 28.2 per cent in 2018 and then fell to 25.9 per cent in 2022. In 2024, this proportion stands at 33.7 per cent — the highest we have seen in the last decade. Similarly, the proportion of children in Class V able to do at least division stands at 30.7 per cent in 2024 — again, much higher than levels in the past many years.

What is remarkable is that this recovery is completely driven by government schools. In rural India, government schools have always lagged behind private schools in terms of learning levels. There is vast literature on the learning differential be-

What is remarkable is that this recovery is completely driven by government schools. In rural India, government schools have always lagged behind private schools in terms of learning levels. There is vast literature on the learning differential between government and private schools, highlighting the fact that simply comparing learning levels across the two is misleading because of the self-selection effect. Children who go to private schools come from more affluent homes and have more educated parents. Nevertheless, ASER 2024 shows that the recovery has been pronounced in government schools.

tween government and private schools, highlighting the fact that simply comparing learning levels across the two is misleading because of the self-selection effect. Children who go to private schools come from more affluent homes and have more educated parents. Nevertheless, ASER 2024 shows that the recovery has been pronounced in government schools, with learning levels in private schools still below pre-pandemic levels.

In arithmetic, both government and private schools have seen large jumps in learning levels, with 2024 levels surpassing the levels attained in 2022. Here again, the gains in government schools have been far greater than those in private schools. For instance, between 2022 and 2024, the proportion of children able to do subtraction in Class III increased by 36.6 per cent in government schools — from 20.2 per cent to 27.6 per cent — as compared to 10.2 per cent in private schools.

What has led to this sudden improvement in learning levels? We have not seen improvements of this magnitude in the last 20 years since ASER has been presenting data on foundational reading and arithmetic. Everything seems to point towards the National Education Policy (NEP) 2020 and its focus on foundational skills. While this is not the first time that programmes have been introduced to improve learning, what is different is that it is the first time that there has been a systemic national push to improve foundational learning outcomes. Almost all states have shown improvements as compared to 2022. In fact, the low-performing states like Uttar Pradesh, Bihar, Madhya Pradesh, and Tamil Nadu have made a remarkable recovery. For instance, consider the case of Uttar

Pradesh. In 2014, only 6 per cent of government school Class III children could read a Class II level text. There was steady improvement in the next four years — in 2018, 12.3 per cent of children in government schools could read a Class II level text. UP was one of the few states not to post a learning loss for Class III in 2022, with the proportion rising to 16.4 per cent. In 2024, the proportion of government school children in Class III who are able to read at Class II level is 27.9 per cent. This kind of improvement cannot be labelled just a recovery — it signals a serious focus on improving FLN abilities. This push has borne fruits in arithmetic and in Class V learning levels as well — learning levels in UP government schools have never been higher in the last 20 years.

While the case of UP is remarkable, there are many other success stories as well. High-performing states like Himachal Pradesh and Maharashtra, where almost half the children in Class III in government schools could read at Class II level in 2018, saw a halving of this proportion in 2022, post the Covid pandemic. These states have also posted appreciable learning gains. What is clear is that for the first time, the country is coming together behind one mission of improving FLN among primary school children.

India is a diverse country with a lot of variation across states. For the first time, the NEP has set clear FLN goals for the entire country, and states are finding different pathways to achieve these goals. ASER 2024 data tell the story of these efforts — a story of more than just a recovery.

The writer is director, ASER Centre, Pratham Education Foundation

ASER 2024: Enrollment up, what's ahead for early childhood education?

EXPERT EXPLAINS

RUKMINI BANERJI

SINCE 2005, the NGO Pratham has released the Annual Status of Education Report (Rural) to measure basic reading and arithmetic levels among school children, attendance in school and other indicators. The data have revealed broad trends in learning over the years.

The 2024 ASER survey reached 6,49,491 children in 17,997 villages across 605 rural districts. It recorded major gains in the share of children of the pre-primary age group (3 to 5 years) enrolled in some kind of institution (LKG or UKG classes/Anganwadi/other). There were substantial increases in reading and arithmetic levels — an encouraging development after the learning losses during the Covid-19 pandemic. This was also the first full-length ASER survey to record digital literacy among older children (15 and 16 years). Here are the key takeaways from the report on learning outcomes and the outlook.

1 Where do the learning levels stand in 2024?

At the elementary level (age 6 to 14 years), covered under the Right to Education Act of 2005, both reading and arithmetic levels have improved for children in all grades in most states. In particular, children in Classes 1 to 3 show significant increases from the 2022 ASER report.

For children between 3 to 6 years, two key findings are worth highlighting: first, pre-school coverage rose between 2018 and 2024. ASER data also show that by 2024, the proportion of rural children of age 5 who are enrolled in some kind of early childhood education program was 77.4%.

2 With five years of the 2020 National Education Policy, what has changed for schools?

The NEP introduced structural changes – particularly by including the 3 to 6 age group in the larger picture. The policy underlines that the highest priority will be given to achieving universal Foundational Literacy and Numeracy (FLN). Launched in 2021, the National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN) Bharat was aimed at improving these skills. It aims for universal FLN at the end of Class 3 (age 8) by 2026-27.

CHILDREN ENROLLED IN PRESCHOOL/ECE CENTRE

2018 — 2022 — 2024 (in %)

Age 3 | Age 4 | Age 5
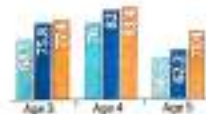
Note: Pre-school coverage includes enrollment in anganwadis, pre-primary classes in govt schools or private LKG/UKG classes. ECE is Early Childhood Education.
Source: ASER 2024

The latest ASER survey found that at the all-India level, 80% of schools said they received directives from the government to implement FLN activities. Around 78% said that at least one teacher in the school had been trained on FLN, while 75% also received relevant learning material.

A directive means there is a goal, with resources being made available for it in a visible manner. If you visit a government rural school, you will see a lot more things than before, whether it is building blocks, books or other learning materials.

3 What is the need for focusing on Early Childhood Care and Education (ECCE)?

The NEP states that Class 1 enrollment should happen at age six. This is because going to school too early can be counterproductive. A child has to be cognitively and socially ready to cope with what formal school brings, in terms of curricular expectations or classroom behaviours.

With a focus on ECCE, there is an acknowledgement that you prepare children not just to enter Class 1, but for the three years before that. If you get a child and her family ready for school, you also get the school ready for the children and eventually have the early childhood structure come into place.

A large share of that age group goes to Anganwadis (more than one-third of children aged between 3 and 5, according to the ASER report). Though early childhood education has not received priority at times, quite a few states are now doing specialised training with Anganwadi workers.

Anganwadis have a lot of tasks at hand, such as immunisation and nutrition. But rather than looking at these as competing claims, you could look at this as a package. Pratham's experience tells us that Anganwadis provide not just tangible benefits, but also a more direct connection for parents. The distance between the parent and the Anganwadi worker is often not very vast, as it might be with the school teacher. And so, if certain states have very high Anganwadi enrollment, strengthening the early childhood component could be a good option.

However, it also depends on each state. In Himachal Pradesh and Punjab, there has been a shift towards pre-primary classes in schools. In Rajasthan, there has been an increase in 5-year-olds enrolling in both Anganwadi and private LKG/UKG classes.

4 What did the survey find about older children (15–16 years)?

Keeping with recent trends, the percentage of children in this age group not enrolled in school has gone down (around 7% today).

This year's survey also showed that in terms of digital access, more than 90% of rural adolescents have access to a smartphone. Children were also evaluated on their ability to do tasks such as searching for information online or setting an alarm. In terms of both accessibility and skills, there were some gender gaps. For instance, 80.1% of boys (ages 14 to 16) could browse for information, against 78.6% of girls. In some southern states, girls either outperformed boys or were at the same level as theirs.

5 What is the outlook for ECCE?

Any planning for achieving quality ECCE must start with a thorough and grounded understanding of current realities. ASER and the government's Unified District Information System for Education (UDISE) provide some data for this age group, but more comprehensive and continuous data collection efforts are needed.

Second, budget considerations are crucial. A key recommendation of NEP 2020 is to "recruit workers/teachers specially trained in the curriculum and pedagogy of ECCE". Education departments need to work out a long-run commitment to budget allocations and processes for identifying, recruiting, training and sustaining dedicated teachers for the pre-primary grades.

Within the Anganwadi system, if the early childhood education component is to be given higher priority, the requirement for additional resources must be specified and projected.

Dr Rukmini Banerji is CEO of Pratham. She spoke to Ritika Singh

Simulation-based learning: Transforming emergency medical training

SARBARI **SWAIKA**

By replicating real-world medical emergencies, this innovative training method bridges the gap between theoretical knowledge and practical expertise

Simulation refers to the imitation of real-world processes or systems for training, education, or evaluation purposes. In emergency medical learning, simulation creates realistic scenarios that replicate medical emergencies, allowing healthcare providers to practice and refine their skills in a safe, controlled environment. The implementation of Competency-Based Medical Education (CBME) by the National Medical Council (NMC) has shown that simulation significantly enhances clinical competence for both undergraduate and postgraduate medical students.

One of the most significant advantages of simulation is that it enables learners to practice handling critical and high-stakes situations without risking patient safety. This is particularly important in emergencies, where errors can have severe consequences. By engaging in simulated scenarios, participants can repeatedly practice emergency protocols, improve technical skills such as intubation and defibrillation, and gain confidence in their abilities.

Simulations replicate the high-pressure environment of real emergencies, helping individuals develop the ability to make rapid, informed decisions under stress. They also provide a risk-free setting to identify and correct mistakes, enabling participants to learn how to prevent such errors in real-life situations. Additionally, exposure to diverse scenarios prepares learners to adapt to unexpected complications effectively. Teamwork plays a critical role in emergency medical training, and simulation emphasises the importance of collaboration and communication. Learners develop skills in articulating observations, providing updates, and conveying instructions clearly, which are essential in high-pressure situations. Simulation allows team members to define roles, such as team leader or airway manager and practice seamless coordination. Through repeated practice, team-based simulations foster trust, cohesion, and an understanding of each member's strengths, weaknesses and working styles.

Structured debriefing sessions after simulations promote a culture of continuous learning by encouraging open discussions about successes and areas for improvement. These sessions help build leadership and followership skills, enabling team leaders to hone their abilities while fostering supportive and adaptive team dynamics. The benefits of simulation extend to faster and more efficient responses in real emergencies, reduced stress and burnout for healthcare providers and improved patient care outcomes. Familiarity with high-stakes scenarios enables teams to act cohesively and manage stress more effectively, ensuring better results in critical situations.

Simulation learning is an essential tool for building individual competence and strengthening medical teams. In a field where zero-error tolerance is crucial, particularly in emergency departments, simulation-based learning equips medical students with both confidence and competence. The future of medical education lies in recognising the importance of practical skills alongside theoretical knowledge, making simulation a cornerstone of training programmes.

(The writer is professor & HOD, Dr. D Y Patil Medical College, Hospital & Research Centre, Pimpri, Pune; views are personal)

Budget 2025: Prioritise health education for a stronger India

RAHUL **MEHRA**

With over 40 per cent of India's population under 25, empowering youth with physical and mental is a vital investment in the nation's future

A s the Union Budget for 2025 approaches, expectations run high across various sectors. Among these, education - specifically health education - deserves special attention. To ensure the holistic development of our youth, the government must consider allocating funds for the integration of health education into school curricula. Such an initiative will not only address immediate concerns but also align with the aspirational vision of Viksit Bharat 2047, where a healthy population becomes the cornerstone of a developed nation. With the Union Budget 2025 at the stage of finalisation, it is time to prioritise health education.

Allocating funds to this cause is not merely an educational reform; it is an investment in India's future. It is stated time and again, including in the National Education Policy, that it is critical to allocate public investment in education from the current over 4.5 per cent to about 6 per cent of total budgetary allocation. Besides this, the Government must consider designing schemes that ensure health education is imparted to children at an early stage to be able to build a healthy society. Development is not merely economic or technological - it is also social, cultural and, above all, human.

A nation's progress depends on the health of its people, and with over 40 per cent of India's population under 25, ensuring the health and wellbeing of its youth is critical. This cannot be achieved without systematically integrating health education into our school curricula. Our goal is to improve student's health knowledge and more importantly, their health behavior. The urgency for such an intervention is rooted in troubling realities. Studies indicate that 30-40 per cent of Indian students face serious mental health challenges. A Global School

Health Survey (GSHS) conducted as far back as 2007 revealed that more than 25 per cent of students aged 13-17 experienced periods of deep sadness or hopelessness, often disrupting their daily activities. These numbers have only worsened in the years since, as highlighted by small-scale studies and the alarming rise in student suicides. Ignoring the mental and physical health of students today will lead to grave consequences for the nation tomorrow.

The contrast between India and nations that give primacy to health education is stark. In the United States, the Youth Risk Behaviour Survey (YRBS) collects data every two years on the health behaviours of high school students. This data informs evidence-based interventions and policies that address mental health, substance abuse, nutrition, and other critical issues. Many US states mandate health education, covering mental, physical, and social health literacy. Similarly, countries like the United Kingdom and Canada have integrated health education into their school curricula, starting at the primary level.

India, however, lacks a comprehensive approach. While physical education is emphasised in schools, the broader concept of health education, encompassing mental and social wellbeing, is largely absent. The much-lauded National Education Policy (NEP) 2020 only touches upon physical health, failing to address the critical need for a holistic health education framework. Why does this matter? Because healthy individuals contribute to a healthier economy. Poor health not only

A NATION'S PROGRESS DEPENDS ON THE HEALTH OF ITS PEOPLE, AND WITH OVER 40 PER CENT OF INDIA'S POPULATION UNDER 25, ENSURING THE HEALTH AND WELLBEING OF ITS YOUTH IS CRITICAL

reduces productivity but also pushes families into financial crises due to high medical expenses.

India's average life expectancy in 'full health' is a mere 60 years, significantly lower than that of many Asian countries, including Japan (74 years) and China (69 years). A healthy lifestyle, ingrained early, can change this trajectory. Countries like Japan provide valuable lessons. Their emphasis on hygiene, nutrition and physical activity is embedded in their cultural fabric. Children grow up practising these habits, resulting in a population that enjoys a higher quality of life and longer years of productive health.

India, with its rich traditions of yoga and Ayurveda, has the cultural foundations to promote such a shift. However, without institutionalising health education, these remain underutilised. Introducing health education as a mandatory subject in schools can address this gap.

A comprehensive curriculum must include modules on physical fitness, mental health resilience, nutrition, social interaction and technology use. For instance, students could learn the importance of balanced diets, strategies to cope with academic pressure, and the benefits of physical activities and mindfulness practices.

The curriculum should also emphasise practical life skills, such as decision-making, interpersonal communication, and self-advocacy, to prepare students for real-world challenges. A structured approach is essential. First, the government must design a standardised health education curriculum with clear performance

benchmarks. Students' progress should be evaluated at key stages, such as the end of classes 6, 8, and 10. Second, teachers need specialised training to effectively deliver this curriculum. Public-private partnerships can play a crucial role in addressing resource gaps and providing innovative solutions.

Importantly, this initiative aligns seamlessly with the vision of Prime Minister Narendra Modi's Viksit Bharat 2047. A healthy India is a productive India. By equipping the younger generation with the knowledge and skills to prioritise their wellbeing, we are not only improving individual lives but also strengthening the nation's human capital, driving economic growth, and enhancing societal happiness.

Beyond the classroom, the ripple effects of mandatory health education can be transformative. A population that understands the value of preventive care will reduce the burden on India's healthcare system. Families will adopt healthier lifestyles, and communities will benefit from reduced rates of lifestyle-related diseases, such as diabetes, hypertension, and heart ailments.

The road to Viksit Bharat 2047 is paved with initiatives that prioritise people over policies, and action over aspirations. Health education is not just a subject; it is a foundation for a stronger, healthier, and more prosperous India.

(The writer is UNESCO Chair for Global Health & Education and Chairman of Jarang Health Alliance. Views expressed are personal)

GET READY

In 2024, one in seven children around the world had to miss school for prolonged periods owing to climate change-induced extreme weather events like heavy rain, floods, heat waves and so on, according to a UNICEF report. About 54.7 million of these children were from India alone. Worse, in countries like Pakistan and Afghanistan, flooding destroyed hundreds of schools, leading to long-term learning losses and school dropouts. Missing school has the potential of starting a vicious cycle: research by Stanford University shows that learning losses as children are directly proportional to scepticism about climate change in adulthood. Education is not the only phenomenon that is affected by climate change. A report by the United Nations Population Fund revealed a similar link between worsening weather and child marriages — financial loss caused by extreme weather prompts people to marry off girls earlier, which, in turn, causes an uptick in maternal and neonatal mortality. Climate change can also significantly impact language by causing the endangerment and potential loss of indigenous languages primarily due to forced migration as people are displaced from areas rendered uninhabitable by extreme climate events.

These findings highlight the little-known but wide-ranging impacts of climate change. This is exactly why the sustainable development goals that were set as part of the Paris Agreement included parameters on education, gender equality, and mental health, among others. Yet, what gets a disproportionate amount of attention in the policy and public discourse on climate change are emission cuts, transition to green energy and so on. While these are undoubtedly urgent and indispensable objectives, other areas that bear the brunt of climate change need to be factored into the global discourse on this phenomenon. Hearteningly, interventions are emerging in India — through education. UNICEF has found successful models in India that can stem learning losses due to extreme weather. In Bihar, the 'Safe Saturday' programme has reached over 8.4 million children to teach disaster preparedness while keeping them on track academically; climate change and disaster management are part of the curriculum in Kerala, with digital content reaching even remote areas; and Gujarat's self-paced school safety course has been adopted by tens of thousands of schools. These are best practices that need to be replicated all over the country and improved upon.

A child's failure in school exams is the system's failure

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A 10-year-old child in class V must be held responsible for her learning outcomes. If her learning outcomes do not meet the 'benchmark' or expected level of learning', she must be 'detained'. What should be regarded as the failure of the pedagogy, curriculum and the collective system of schooling has, in effect, been shifted onto the child or the individual learner.

The systematic dilution of the Right to Education (RTE, 2009) through successive amendments and the National Education Policy (NEP-2020) is a testament to this shift. The first amendment granted local governments the authority to 'ensure class-level learning', prompting 18 state governments to wholly reject the 'no-detention' policy. The recent abrogation of this policy for centrally governed schools is merely another step toward its inevitable denouement.

Over six decades ago, John Holt authored the seminal work, *How Children Fail*.

Since then, the discourse surrounding education has evolved, gradually acknowledging that no learner, irrespective of higher situation, is intrinsically unwilling to learn — he/she simply does not wish to be 'taught'. A child cannot, with deliberate intent, choose not to learn.

The educational narrative has also moved, to some extent, away from solely emphasising 'intelligence quotient' in favour of a broader understanding of multiple intelligences. There is no child who is inherently 'slow', 'weak', or a 'failure'. Rather, it is the inadequacy of the learning environment that prevents the child from realising his or her full potential. In this sense, it is the failure of the system, not the failure of the child.

Examinations should never serve as instruments of exclusion. Yet, each time we design an exam, we do so with a fixed understanding of 'merit', deeply rooted in the belief in the 'normal probability curve'. This framework tends to measure and categorise the learner based on rigid, prescriptive standards. Once a student is marked as 'below average' or labelled a 'failure', she is relegated to repeating the grade and the collective gaze of teachers, parents and peers begin to regard her as 'undeserving' or 'fit to fail'.

Multiple studies have revealed that repeating a grade does little to enhance a

FACTORS: Access to quality education is determined by the learner's 'social assets'. IMAGE PHOTO

child's 'learning outcomes' or 'learning abilities'.

The promise of additional resources or strategies for improvement — beyond the superficial provision of 'special' attention or reducing the learner to an object of pity — remains murky at best. Simply revisiting the same syllabus for another year fails to address the core needs of the learner, reinforcing only the hollow logic of 'meritocracy'.

What is considered merit is often dictated by those perched in positions of power. If monkeys were to define 'ability' as the capacity to climb a tree, all fish would inevitably fall short. In much the same way a learner's abilities are shaped not merely by innate potential but also by their 'cultural capital'.

As Bourdieu and countless sociologists and psychologists have pointed out, the learner's capacity to learn is intrinsically tied to their socio-historical, economic and cultural background — factors over which they have little, if any, control.

Access to quality education, a rich curriculum and effective pedagogy is often determined by the learner's 'social assets'. In India, these assets extend beyond gender and physical abilities to encompass religion, caste, language and geography.

The growing clamour for a uniform system of one nation, one education, one curriculum and one examination will only amplify the struggles faced by the already marginalised learn-

ers. Take, for instance, a differently-abled, tribal, Muslim girl in a conflict zone. Her ability to meet the prescribed learning expectations under the 'normal probability curve' is not a matter of will or intellect but of a convergence of obstacles beyond her control.

India, with its vast network of over 15 lakh schools and a student population exceeding 25 crore, paints a paradoxical picture of promise and neglect. Among these, 1.17 lakh schools operate with a single teacher, while a staggering two crore students remain deprived of access to what can truly be called 'quality' education. The teacher-student ratio is alarmingly skewed in several states, with recent reports revealing that 16 per cent of teacher posts lie vacant. This figure includes the patchwork addition of 'contractual teachers.

If salaries and recruitment processes were indicators of teaching quality, the disparities would be nothing short of scandalous: 25 per cent of schools lack the requisite number of teachers and even more suffer from a deficit of professionally trained educators.

Despite lofty proclamations of education as an 'investment', budgetary allocations have persistently missed the mark, falling far below the recommended six per cent of the GDP. The numbers are

stark — 79 per cent gross enrolment at the secondary level, yet 3.6 crore children remain out of school. To compound this, 11 per cent of the schools function without electricity and 13 per cent are without libraries, eroding the infrastructure critical for holistic learning.

The abolition of the no-detention policy is, therefore, not merely an epistemic injustice, it is also a grave social betrayal. The children who are envisioned as the architects of a developed India by 2047 are, in reality, ensnared in a system that fails them at every level.

This is not a call to abandon the procedures that assess learning, but rather an invitation to reimagine the very constructs of 'pass' and 'fail', of 'retention' and 'detention'. To declare that 'schools are no longer centres of learning but merely mid-day meal distribution hubs' is not only a dismissal of the crushing poverty faced by our people but also a betrayal of the profound human aspiration to cultivate knowledge within these spaces.

The delicate interplay between being a learner and a knower — a dynamic already fragile — risks being irreparably blurred with the dismantling of the no-detention policy. A child may 'fail' as a learner but under no circumstance should her inherent agency as a knower be stripped away. ∎

> It is the inadequacy of the learning environment that prevents the child from realising his or her full potential.

More kids in school, but ASER flags issues to 'fix'

The findings of the Annual Status of Education Report (ASER) 2024, brought out by a non-governmental organisation, with the help of state government agencies and educationists, have come out as a mixed bag. While it paints a rosy picture of the progress the nation has made towards educating its children, it also points at certain major lapses and holes which the governments need to check and plug. Findings in the report also support the demand for higher governmental involvement in education, especially at the lower level.

The most encouraging part of the report is that enrolment of children aged 3-5 years at the pre-primary level has gone up steadily between 2018 and 2024. The figure for the three-year-olds has gone up from 68.1 per cent to 75.8 per cent and some states, such as Gujarat, Maharashtra, Odisha and Telangana, have achieved near-universal enrolment. The figures have gone up in other age groups as well. Karnataka, Gujarat, Maharashtra, Kerala and Nagaland have enrolment exceeding 90 per cent in pre-primary institutions.

The study brings to light an important result that governmental interventions in education have made happen over the decades: Anganwadi centres remain the go-to place for Indian children in the pre-primary age group and they serve more than half of all children aged between three and four years. It may be remembered

Anganwadi centres remain the go-to place for Indian children in the pre-primary age group and they serve more than half of all children aged between three and four years

that the low-profile Anganwadis are not just educational institutions; they are also the route through which the government makes several interventions, including in healthcare and nutrition, to ensure that the children access all-round development. However, parliamentary standing committees on women and children development have noticed that there is underutilisation of funds allotted to the ministry concerned. It only points to poor understanding of the needs of the sector and ineffective implementation of programmes. Given the attention children in this age group deserve, the government needs to look at these lapses immediately and correct them.

It was widely feared that Covid-19 pandemic was a disruptor in education, especially for the poorer sections of society. It now transpires that technology has helped those children continue with their education. Access to gadgets, their use and digital skills have all reported positive trends. True, only half of the children aged between 14 and 16 years use smartphones for education, but they offer a ready channel through which quality education can reach an otherwise neglected section of the population. Technology has indeed proved to be the great leveller.

One important trend that the survey has spotlighted is that children who have left private schools and joined government-owned ones during the pandemic have reversed their choice once the threat vanished. The pandemic made education of their wards in private schools unaffordable for many parents but they revised their choice as soon as they got the chance. This could be a reflection on the quality of education and infrastructure in government schools. Private education is here to stay but the Union and state governments which spend precious resources running schools must introspect why those become a second choice for the most important category of people they intend to serve — the students.

The report is a reminder that the nation must provide not only its resources but also political will in a more focused manner on educating its children if it pins its growth prospects on the so-called demographic dividend.

The copyright conundrum in Carnatic music

During the recent *Margazhi* season or music season in Chennai, *rasikas* (connoisseurs) hopped from concert to concert. While tuning into the music, they also had to keep in mind copyright law as the *sabhas* (performance venues) forbade them from unauthorised recording. Copyright law has seldom been at the forefront of discussion in the Carnatic music sphere as there is a general belief that copyright law does not apply to it. We need to revisit this view.

In *Indian Performing Right Society Ltd. v. Eastern Indian Motion Pictures Association* (1977), Justice V.R. Krishna Iyer asked whether music meant only the composition of a piece or extended to the soulful tune, voice, and rendering of the piece. This remains unanswered in Parliament. Apart from being a metaphysical question, what is music is also a legal question.

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The idea of music

Copyright law across the world defines music as a melody, i.e., a composition which is reduced to print. The idea that music is only a composition stems from a western classical understanding of music. The lawmakers of the Indian Copyright Act, 1914, failed to understand Indian music before enacting the law. The same colonial understanding followed even in the legislation enacted in 1957. This excludes several unique factors of Indian classical music from the realm of copyright law. It is pertinent to ask: should law follow music or should music follow the law?

A song is born after the synchronised efforts of a composer, lyricist, singers, and other performers. The composer and the lyricist get protection over their respective creations for their lifetime and then 60 more years. When a song is recorded onto a medium, there is a separate right over the recording. Called 'mechanical right', this is granted to the one who records the song, for 60 years, to commercially exploit it.

Performers' right enables the singer and other musicians to forbid anyone from recording the song. Further, the law enables the performer to be eligible to claim royalty from the streaming of their performances or the sale of their music. Though this right is available to the singer and the accompanists theoretically, they do not enjoy the same in its true sense, in a concert space. It is only in prominent *sabhas* that video/audio recording of the performance is prohibited; this is not a norm everywhere. Several performances of notable singers are posted by third parties on YouTube and Spotify, which is a violation of the Copyright Act and robs the musicians of the chances to monetise their rendering. Any recording that is done without consent is a violation of the performers' right; it is even a violation if the *sabha* does this without the informed consent of the performers. The licence regime within a Carnatic concert is complex even for music that is in the copyright domain.

Since most of the songs that are performed are in the public domain, the form of music has also remained outside the realm of copyright. The works of Tyagaraja Swami, Shyama Shastri, Muddusvami Dikshitar, Purandara Dasa, and Gopala Krishna Bharathiar, for instance, are in the public domain for anyone to perform today, as they were all created even before the inception of the concept of copyright. Whether the additions and improvisations made by the musicians also become a part of the public domain along with the song and whether a musician who improvises a song has any right over such improvisations remain unanswered questions.

When any performer learns these songs from their guru, they inherit their guru's imagination packaged with the original rendition. The learner also has the scope to add their own touch to the song. They have their own interpretation and perform the song with improvisations which may not have been a part of the original composition. They may even sing the same song in a different raga from what was originally envisioned. For instance, several songs of Gopala Krishna Bharathi are today not sung in the ragas that Bharathi had composed. Does the musical imagination to interpret the song in a different raga become "creativity" under copyright?

Changing the law

The improvisation made by a performer on a stage could be spontaneous and it could be a response to the interest displayed by the audience. The choice of accompanying music could also result in an altogether different version of the song. In several cases, the performers themselves may not be in a position to replicate it exactly in the same way for the second time. The improvisation made by the performer is neglected and there is no scope to grant protection for it under the Copyright Act.

While the compositions of Purandara Dasa were conventionally sung in ragas associated with Carnatic music, Pandit Bhimsen Joshi took it upon himself to introduce the wide collection of Purandara Dasa's compositions to a myriad variety of Hindustani ragas. The song *Eppo Varuvaro* cannot be imagined without the soulful touch of Madurai Mani Iyer; he has inspired generations of singers to perform the song in a particular way. Does he not own his unique additions? It remains unprotected under the copyright laws.

Musicians should have the right to own their soulful additions to a song and also to commercially exploit their performance. The flow of royalty from streaming should be strengthened. Currently, music follows the law. Should the law not be changed to protect the rights of Carnatic musicians in letter and spirit?

> Musicians should have the right to own their soulful additions to a song and also to commercially exploit their performance

The old and the new: schemes to look out for on Budget day

Schemes such as Digital India, Startup India and Smart Cities Mission have recorded consistent declines in funding

DATA POINT

The Hindu Data Team

With Budget FY2025-26 scheduled to be presented on February 1, here is a look at some of the recently launched schemes, older schemes with significantly reduced funding, schemes under the Production Linked Incentive (PLI) umbrella, and those promoting electric mobility in India.

Table 1 shows a select list of recently launched schemes and their allocations. It includes the scheme for installing solar rooftops which was launched in 2024 and allocated ₹6,250 crore in FY25(BE). Other schemes are the Rashtriya Gram Swaraj Abhiyan to re-imagine panchayati raj institutions, the scheme to upgrade Industrial Training Institute (ITIs) and the controversial PM Vishwakarma scheme, which aims to nurture the guru-shishya parampara or family-based practice of traditional skills. Schemes with the goal of promoting AI in India such as the INDIA AI mission and Centres of Excellence for AI are also a part of the list.

Table 2 shows a select list of older schemes, allocations for which have significantly reduced over the years. Major schemes include the Regional Connectivity Scheme, from unserved and underserved airports, and the Smart Cities Mission to enhance the quality of life in 100 cities. The promotion of the digital payments scheme did not get any allocation in the last Budget. Other schemes include Digital India and Startup India.

Table 3 shows the complete list of schemes which come under the Production-Linked Incentive (PLI) umbrella. The largest of them is the successful electronics and IT hardware scheme, with the most recent allocation touching ₹6,200 crore. Table 4 shows the list of schemes which promote electric mobility, with the FAME scheme being the biggest in terms of allocations.

Budget's highs and lows

The text and data for the tables were sourced from the Union Budget documents. The figures for 2024-25 are budget estimates, for 2023-24 are revised estimates and for 2022-23 are actuals

Table 1: Select list of recently launched schemes and allocations for the latest year in ₹ crore

Scheme	Explanation	2024-25
PM Surya Ghar Muft Bijli Yojana	For installing rooftop solar panels	6,250
Centres of Excellence (CoE) in Artificial Intelligence (AI)	To establish three centres of excellence for AI in educational institutions for research and development	255
IndiaAI Mission	To catalyse the AI innovation ecosystem	551.75
National Green Hydrogen Mission	To make India the global hub for production, usage and export of green hydrogen	600
Legal Aid Defense Counsel System (LADCS)	To provide legal aid work in criminal matters	200
PM Vishwakarma	To strengthen and nurture the guru-shishya parampara or family-based practice of traditional skills	4,824
Rashtriya Gram Swaraj	To re-imagine panchayati raj institutions	1063.67
Global Biofuels Alliance	To expedite the global uptake of biofuels	0.01
Mission Anveshan	To fill gaps in seismic coverage and build a robust geoscientific database	132
National Quantum Mission	To create an ecosystem in quantum technology	427
Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN)	To enhance the socio-economic conditions of particularly vulnerable tribal groups	240
National Action for Mechanised Sanitation Ecosystem (NAMASTE)	To ensure the safety and dignity of sanitation workers and safe delivery of mechanised sanitation services	116.94
ITI Upgradation Scheme	To upgrade ITIs	1,000

Table 2: Shows a select list of older schemes, allocations for which have significantly reduced over the years. Figures in ₹ crore

Scheme	Explanation	2022-23	2023-24	2024-25
Regional connectivity scheme	To enhance regional air connectivity from unserved and underserved airports	1,063.81	850	502
Smart cities mission	Aims to enhance the quality of life in 100 selected cities	8,652.92	8,000	2,400
Promotion of digital payment	To help in growth of digital transactions	1,883.62	594	–
Digital India	To transform India into a digitally empowered society	5,518.93	4,428.04	4,216.51
Startup India	Aims to support entrepreneurs and build a strong startup ecosystem	44.33	45.61	0.01
Prime Minister Employment Generation Programme (PMEGP)	To generate self-employment opportunities through the establishment of micro-enterprises in the non-farm sector	2733.21	2,958.22	2,300
Unnat Bharat Abhiyan	To enable higher educational institutions to work with the people in rural India in identifying development challenges	11.38	5	5
Internationalisation of Higher Education	Help internationalisation of education services	146.36	100	104
Development of Particularly Vulnerable Tribal Groups (PVTGs)	Provides various measures for the overall development of the backward population of STs	137.10		26

Table 3: The complete list of schemes which come under the Production-Linked Incentive (PLI) umbrella and allocations for them in ₹ crore

PLI schemes	2024-25
Large scale electronics and IT Hardware	6200
Food processing industry	1,444.02
White goods (ACs and LED lights)	298.02
Toys	0.01
Footwear and leather sector	0.01
Automobiles and auto components	3,500
National programme on Advanced Chemistry Cell (ACC) battery storage	250
Specialty steel in India	245.82
Multiple PLIs	2,543
Promote telecom and networking products manufacturing in India	–
Drone and drone components	57

Table 4: Shows the list of schemes which promote electric mobility and allocations for them in ₹ crore

Scheme	Explanation	2024-25
FAME	To promote electric mobility in India	2,671.33
Electric mobility promotion scheme	To accelerate the adoption of electric two-wheelers	500
Scheme to promote manufacturing of electric passenger cars in India (SMEC)	To promote manufacturing of electric passenger cars in India	13
PM e-Bus Sewa Scheme	To boost India's electric mobility infrastructure	1,300

PARTNERS IN INNOVATION

UK and India can collaborate not just on technology but for Viksit Bharat 2047

RICHARD MCCALLUM

IN THE UK, when I take a long-haul flight, drive a car that has connected technology or use an online banking app, it's likely that in some way, I'm tapping into technology that has been developed in a global capability centre (GCC) in India. However, few UK consumers appreciate how technology collaboration between foreign firms, including those in the UK, and India's dynamic scientific talent and innovation ecosystem, impacts their lives. Or saves lives, as we saw with vaccine development during the pandemic. Technology is a thread that runs through every sector in the UK-India economic partnership. I want to make the case that the UK and India are partners not just in technology but for Viksit Bharat 2047.

In 2024, the UK was third behind the USA and China in attracting venture-capital investment into its technology companies. London alone has more technology start-ups than the rest of Europe combined. At the same time, India has become a technology superpower. So much can be achieved when businesses and universities in the two countries collaborate. This is why the organisation I lead, the UK India Business Council (UKIBC) welcomed the recent signing of the UK-India Technology Security Initiative, a bilateral agreement to increase collaboration on emerging and critical technologies. There are already many examples of such collaboration — the UKIBC recently published a report capturing examples and suggesting ways to enable more.

In financial services, British banks are among the leading investors in India and are already deploying tech-led solutions across segments. By sharing regulatory best practices and standards, India can attract more UK fintech companies, thereby enhancing SME lending and financial inclusion.

Advanced manufacturing and defence is another area where UK and Indian firms are co-developing technology. Few markets have India's scale or need for new capability, but at the same time, UK firms can benefit from India's cost-effective manufacturing. We can do more to plug Indian companies into UK supply chains. Our message to UK business is clear — consider India a strategic partner, not just a market.

As a leader in green innovation and regulation, the UK can become India's energy transition partner, providing green technology solutions and access to finance through the City of London. The climate crisis doesn't respect borders, and UK and Indian universities can be a force for global good. Take the Sunrise project — a multinational collaboration led by Swansea University with 18 academic partners across five countries, including Imperial College London, Oxford, Cambridge, IISER Pune, IISc, and several IITs. We argue that India can boost market access for British businesses through sustained government platforms that spark partnerships with Indian industry. India can also expand priority-sector lending to include EVs and EV-supporting infrastructure alongside renewable energy to help reach its goals.

Advanced manufacturing and defence is another area where UK and Indian firms are co-developing technology. Few markets have India's scale or need for new capability, but at the same time, UK firms can benefit from India's cost-effective manufacturing. We can do more to plug Indian companies into UK supply chains. Our message to UK business is clear — consider India a strategic partner, not just a market.

The UKIBC aerospace and defence group, representing 22 UK firms with $60 billion in global revenue, is eager to expand partnerships with India. It believes technology infusion and investment into India can speed up with certain refinements to India's defence acquisition procedure — for example, adopting a more graduated approach to indigenous content to encourage foreign firms into the market, and relooking at FDI thresholds so that more foreign firms can participate in strategic defence programmes. We also argue that the UK can do more to help its start-ups dock into India's defence technology start-up scene. For example, an accelerator programme for high-growth UK firms to enter India.

Clearly, the economic relationship is strong and growing. We can be more imaginative in our ambition. At our recent Technology Futures Conference, Minister of Commerce and Industry Piyush Goyal spoke about how the UK and India could collaborate on AI and virtual reality to transform education and training. And how a tele-medicine partnership could bring down the cost of healthcare in the UK and make quality healthcare available to the remotest parts of India. He also suggested that the two countries work to develop climate modelling tools to predict and manage natural disasters. These are excellent ideas that need capital. Recently, I've been imagining a big, bold G2G-backed investment fund to support collaboration between UK and Indian start-ups in emerging technologies.

Ideas also need skilled people to make them happen. I've been imagining a time when we talk about tens of thousands of British students in India — taking advantage of economical courses in AI upskilling and understanding the business culture of the next superpower. I started with GCCs and I'll finish with them. 2024 was a good year for the UK-India relationship. 2025 will be better, as UK business leaders realise that engineering and research centres in India aren't just for big brands; with new operating models, even mid-size and smaller firms can tap into the Indian GCC phenomenon. Let's be imaginative and relentless in pursuing the extraordinary potential of this relationship.

The writer is CEO, UK India Business Council

Diminishing the university

UGC's draft regulations are of a piece with efforts to destroy autonomy and excellence in higher education

MANOJ KUMAR JHA

THE PROVISIONS OF the draft UGC Regulations 2025 pertaining to the appointment of vice-chancellors have been rightly criticised for diluting the autonomy of universities, the powers of states, and the principle of federalism. In floating this draft, the powers that be seem to have lost sight of important goals that need to be kept in mind while regulating higher education institutions (HEIs).

Certain reforms are needed to address systemic challenges. However, as a teacher at a central university, I wish to highlight the sweeping set of changes proposed by the draft regulations in the conditions for appointments and promotions of faculty. By laying down clear, transparent and stable criteria, regulations are meant to protect universities from political interference, ensure administrative accountability and uphold institutional autonomy. If they are adopted in their present form, the 2025 regulations will deliver a body blow to higher education in India.

The University Grants Commission's (UGC) mandate does not extend to setting agendas for curricula. However, Clause 3.8 of the draft regulations indicates a realignment of academic focus towards specific ideological and market-driven objectives. They emphasise contributions in areas such as "Teaching-Learning and Research in Indian Knowledge Systems" and "Startups". Clause 4.1 (iii) disqualifies assistant professors with over 10 years of experience from directly applying for professorships unless they serve as associate professors for at least three years. This provision punishes assistant professors who currently qualify for professorships on the merit of their teaching and research contributions. It introduces an additional barrier for qualified candidates, and effectively penalises scholars for their contributions.

Only 10 per cent of professors at Level 14 can be promoted to Level 15. This provision introduces an artificial quota and arbitrariness. It could create an unnecessary hierarchy among professors, and is bound to undermine collegiality and the morale of faculty.

The existing regulations require Career Advancement Scheme (CAS) applications to be processed within six months, with promotions backdated to the minimum eligibility date upon successful assessment. This ensures fairness and protects faculty from institutional delays. Clause 5.6, however, removes the backdating provision, allowing universities to delay promotions without accountability. This change unfairly penalises faculty. Administrative efficiencies can lead to career setbacks in terms of seniority, pay, and professional recognition.

The 2018 regulations excluded books and chapters as eligibility for promotions but required an equal number of journal publications from college and university teachers. The 2025 draft regulations reinstate the earlier criteria and exempt college teachers from publishing for promotions to Level 14. The UGC had pushed through the 2018 policy despite criticism. These rollbacks, along with the recent disbanding of the CARE list of academic journals, reflect an inconsistent and cavalier approach to scholarly publishing standards.

These erratic and frequent changes in criteria disrupt academic career plans and discourage long-term investment in teaching and research. Without surety of fair treatment, faculty will remain vulnerable to the whims of administrators, and the regulatory hurdles seem akin to punishment and a form of censorship. A regulatory body must embody the principles of fairness, certainty, foresight, and predictability.

The National Education Policy (NEP) 2020 proposed a significant upheaval in HEI regulation, including disbanding the UGC and replacing it with a Higher Education Commission of India (HECI). The NEP espoused lofty goals, but these remain unrealised because of delays in enacting the necessary legislative and structural reforms. Meanwhile, the UGC continues to exercise authority, issuing new guidelines and implementing reforms for HEIs without the legislative framework to support such actions.

Regulations on recruitment, promotions, and service conditions of faculty in HEIs have historically been linked to pay structure revisions following the recommendations of Central Pay Commissions. Clause 1.3 of the 2025 draft regulations states, "These shall come into force from the date of notification. However, the date of implementation of the revision of pay shall be January 1, 2016." The date of implementation mentioned here is that of the Seventh Pay Commission, revealing a sad case of copy-paste.

Why this urgency?

While there has been a long-standing demand to fill faculty vacancies in HEIs, recruitments in different universities are evoking a deep sense of disquiet among those who care for education as a driver of democracy and excellence in India. Similarly, frequent use of NFS (not found suitable), particularly in cases of SC, ST and OBC candidates, is causing severe damage to the idea of representation and affirmative action. I am pained to note that premier HEIs are being actively reduced to a pale shadow of their earlier selves. Campus cultures are becoming steeped in aggression and impunity.

It is an open secret that the current regime is making ideological appointments in HEIs and the complaints of a shortage of eligible candidates are misleading. The shortage is of candidates who are ideologically aligned with the regime and its affiliate groups. This is evident from the fact that small coteries of barely eligible persons are occupying multiple administrative positions in several HEIs and in some cases, individuals are even holding charge of multiple institutions. The goalposts shift every time the regime is done scraping the bottom of the barrel of candidates that it deems suitable. The 2025 draft regulation is another exercise in shifting goalposts. The least we can expect from the government is to evaluate the proposed draft regulations on constitutional parameters.

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Can AI replace software engineers in FUTURE?

Higher education institutions must find ways to teach students not only how to use the AI tools but also how to critically evaluate them

ANINDITA ACHARYA

Kolkata-based software engineer Prantik Majumdar had his life all mapped out. He had a stable job at a big tech giant and wedding bells were set to ring in February. But two months ago, that plan hit a roadblock when he was laid off. The company never gave him a clear reason, but he has little doubt that the rise of Artificial Intelligence (AI) played a part. AI isn't some distant sci-fi fantasy anymore. It's here, changing the game faster than most can keep up. And those who don't adapt? They risk getting left behind.

As of August 20, 2024, tech companies have laid off over 124,000 employees, pushing the total number of job cuts since 2022 to a staggering 428,449. A major driving force? Cost-cutting to fuel investments in AI. India has long been recognised as a global software talent hub, known for its skilled workforce and cost-effective services. Indian IT firms hire nearly half a million software graduates every year, with 98% of them being developers aged 18 to 35. Interestingly, the IT sector is ramping up fresher hiring this year, with entry level recruitment expected to almost double compared to the previous fiscal year. But even as freshers enter the field, a cloud of uncertainty hangs over software engineers and experts warn that AI's rapid advancements could put many jobs at risk.

Last year, Google CEO Sundar Pichai raised concerns during the company's Q3 2024 earnings call, revealing that over 25% of Google's new code is now AI-generated, with human engineers stepping in only for review. Meanwhile, Meta CEO Mark Zuckerberg has made it clear that by 2025, AI will replace mid level software engineers. Speaking on The Joe Rogan Experience podcast, he said that Meta and other tech giants are developing AI capable of handling complex coding tasks—jobs that, until now, have relied on human expertise.

"We're going to have an AI that can effectively be a sort of mid level engineer that you have at your company that can write code," Zuckerberg said. AI could eventually take over all coding at Meta, though Zuckerberg admitted the initial setup would be expensive. Right now, mid level software engineers at Meta make close to $500,000.

Salesforce CEO Marc Benioff also seems to share Zuckerberg's view on AI automating software engineer-

> **66 Probably in 2025, we at Meta, as well as the other companies that are basically working on this, are going to have an AI that can effectively be a sort of mid level engineer that you have at your company that can write code**
> **— MARK ZUCKERBERG**

ing. He recently admitted that the company is "seriously debating" whether to hire any software engineers in 2025. "I think in engineering this year at Salesforce, we're seriously debating. Maybe we aren't gonna hire anybody this year because we've seen such incredible productivity gains because of the agents that work side-by-side with our engineers, making them more productive," Benioff said.

For software engineers and coders, this marks a major change in the industry, with AI taking on more of the workload. But before you panic, this doesn't mean coding jobs will disappear. Instead, engineers may need to shift their focus toward overseeing, refining, and guiding AI-generated code to ensure accuracy and efficiency.

"AI software and technologies are increasingly integrated into engineering programmes, where students are introduced to popular AI frameworks and gain practical experience applying these techniques in engineering analysis, design, and optimisation projects. Traditional engineering students can stay competitive by integrating AI into their coursework through taking AI-related courses, incorporating AI into projects, completing AI-related internships or research projects," said Dr Shamik Tiwari, Professor and Dean, School of Computer Science and Engineering, IILM University, Gurugram.

Last year, NVIDIA CEO Jensen Huang suggested that coding might soon become irrelevant as AI takes over. He even advised the next generation to consider careers in fields like biology, education, manufacturing, or farming. Amazon Web Services CEO

Matt Garman echoed this idea, saying, "If you go forward 24 months from now, or some amount of time — I can't exactly predict where it is — it's possible that most developers are not coding."

"The trajectory of AI in the tech industry suggests a future where human intelligence and AI collaborate, leading to a transformation like work. To thrive in this evolving landscape, workers in the tech industry will need to adapt. By offering tailored employment programs that equip learners with the skills required by employers and the current labour market, we enable workers to reskill and upskill, thereby fostering a more adaptable and resilient workforce for the future," said Deepak Bharadwaj, PhD (Humanoid Robotics), Associate Professor, Computer Science Engineering, School of Engineering and Sciences, GD Goenka University. He further added that workers must embrace upskilling and reskilling initiatives, focusing on areas such as AI and machine learning, data analytics, and cybersecurity. "Programs that meet this demand — addressing the skills gap and equipping workers with the tools for success — are essential for the future of tech industry workers," he said.

CEO SPEAKS

AI VS SOFTWARE ENGINEERS: RISK OR RENAISSANCE?

DR SANKU BOSE

The software development landscape is undergoing a shift without parallelism. With the rapid rise of AI tools like GitHub Copilot, ChatGPT and others, tasks once thought to require deep technical expertise—such as writing code, debugging, and testing—are now being streamlined, automated, or even entirely handled by AI. While this has sparked concerns about the future relevance of software engineers, it is essential to view this transformation through a broader lens: as an opportunity to evolve, innovate, and thrive in a rapidly changing ecosystem.

AI has undeniably revolutionized various stages of software development. Code generation, for instance, has become significantly faster with AI tools capable of creating boilerplate code and entire modules in minutes—activities that used to take entire teams weeks and months to accomplish. Similarly, debugging and testing processes, which often consumed hours of human effort, are now expedited with machine learning models that automatically detect bugs, suggest fixes, and even create test cases. Even project management workflows benefit from AI, with tools assisting in resource allocation and timeline predictions. While these advancements enhance productivity, they also spark fears of obsolescence among developers.

Yet, history shows us that technological progress rarely eliminates jobs entirely. Instead, it redefines roles, creating new opportunities for those willing to adapt. For software engineers, this adaptation begins with a mindset shift. AI should not be seen as competition but as a collaborator—a powerful tool to augment human creativity and productivity. By offloading repetitive and mundane tasks to AI, engineers can redirect their focus toward more strategic, creative, and high-value endeavours. This opens doors to AI-augmented development, where developers leverage AI to tackle complex challenges, innovate faster, and design cutting-edge solutions. It also allows them to invest time in creative problem-solving, robust system architecture, and addressing real-world issues that demand human ingenuity.

Despite AI's growing capabilities, the role of software engineers remains vital. After all, AI systems do not build themselves. Talented developers are needed to design, train, and maintain these technologies. Moreover, integrating AI into existing software products requires engineers to embed features like predictive analytics, chatbots, and personalised recommendations seamlessly. Beyond technical expertise, engineers are also at the forefront of ensuring ethical AI development. Addressing challenges such as bias mitigation, data privacy, and transparency demands a level of human oversight and sound judgment that AI simply cannot replicate.

While AI excels at automating repetitive tasks and recognizing patterns, it struggles with aspects that require contextual understanding, empathy, and intuition. This is where engineers bring irreplaceable value. Designing user experiences, engaging with stakeholders, and making strategic decisions are areas where human qualities will always prevail over machine intelligence. These nuances make it clear that AI is not here to replace engineers but to empower them.

To remain relevant and thrive in this AI-driven landscape, software engineers must commit to lifelong learning and adaptability. The most critical step is mastering AI and machine learning fundamentals. Knowledge in these areas is becoming a non-negotiable skill, and engineers can gain expertise through certifications, online courses, or hands-on projects. Platforms like Coursera, Udemy, and even open-source communities are treasure troves of learning resources. Equally important is an understanding of DevOps and MLOps, as these domains are critical for deploying software and managing AI/ML pipelines. Soft skills like collaboration, leadership, and problem-solving will also play a pivotal role in standing out, as these are qualities no AI can replicate and employers increasingly value!

> **To remain relevant and thrive in this AI-driven landscape, software engineers must commit to lifelong learning and adaptability**

Curiosity and a commitment to continuous upskilling are essential in navigating this evolving ecosystem. Staying updated on emerging technologies such as quantum computing, blockchain, and augmented reality can open new avenues of innovation. Engineers must also actively engage in open-source communities, conferences, and industry events to exchange ideas and explore the latest trends. By building this dynamic skillset, developers can not only stay relevant but also position themselves as leaders in this transformative era.

Ultimately, the question is not whether software engineers are at risk in the age of AI but whether they are ready to evolve with it. Those who embrace this shift and adapt will find themselves not just surviving but thriving. AI might assist in writing code, but it is the human imagination that decides what to build and how to solve the problems that matter most. As AI redefines the boundaries of what is possible, it offers software engineers a choice: resist the change or ride the wave of innovation. For those ready to embrace the future, the answer is clear—adapt, innovate, and lead the way!

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