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Why the process of learning cannot be reactive anymore?

Achal Khanna

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For years, most organisations approached learning in a fairly predictable way. A new system was introduced, a tool changed, a gap appeared -- and then training followed. We called it reskilling. It made sense in a world where change happened in waves. Something shifted, we responded, and then things stabilised for a while.

■ That rhythm no longer exists.

Today, by the time a company identifies a skills gap, the business has already moved ahead. Roles are evolving faster than training calendars. Technologies are being adopted while people are still trying to understand the previous upgrade. In many organisations, learning still reacts to yesterday's problem while tomorrow's challenge is already taking shape.

This is where the conversation has started to change. It's no longer just about reskilling -- it's about future-skilling.

■ The distinction matters.

Reskilling fixes what is missing right now. Future-skilling prepares people for work that is still taking form. It assumes that disruption is not an event -- it is a constant.

Across industries, roles are quietly transforming. A marketing role today looks very different from what it was five years ago. Finance teams are expected to understand analytics. HR professionals are navigating data, technology and employee wellbeing simultaneously. Even operational roles require digital fluency that wasn't necessary before.

The challenge is that learning models have not always kept pace.

Too often, development happens after performance declines or after a new system is already live. Employees attend workshops to "catch up." That approach creates pressure rather than confidence. It positions learning as a corrective action instead of a growth investment.

Future-skilling asks a different question: what capabilities will define strong performance two or three years from now?

The answer is rarely limited to technical skills. Yes, digital literacy is essential. Yes, understanding automation and AI matters. But equally important are capabilities like adaptability, problem-solving, collaboration and judgement. These are not trends. They are foundational skills that allow employees to move across roles and absorb change without feeling displaced.

One thing has become clear in recent years: technical tools will continue to evolve. The human ability to learn, unlearn and relearn will determine who stays relevant.

Another shift is happening in how organisations think about career paths. The idea of a straight-line progression is fading. Employees move across functions. They build hybrid skill sets. They take on responsibilities that didn't exist when they first joined.

If learning remains reactive, internal mobility becomes difficult. If learning is forward-looking, employees are prepared for opportunities before they for-

mally appear. This requires leadership attention.

Future-skilling cannot sit only within HR. Business leaders must actively define what tomorrow's workforce needs to look like. That means asking uncomfortable questions: Which roles may disappear? Which new capabilities are emerging? Where are we vulnerable if change accelerates? These discussions are not always easy -- but again, avoiding them does not slow change.

In practical terms, future-skilling also means moving beyond one-size-fits-all programmes. Not everyone needs the same development. Some employees require deeper digital capability. Others need stronger stakeholder management. Some need exposure to cross-functional work.

Learning has to become more integrated into daily work. Stretch assignments, mentoring, project rotations and real-world problem solving often teach more than formal sessions. When employees are given space to experiment and grow before change forces them to, confidence builds.

There is also a cultural component. In reactive environments, learning is sometimes viewed as remedial. In forward-looking organisations, it becomes normal. People are encouraged to build skills even when they are performing well. Curiosity is not seen as distraction; it is seen as preparation.

This mindset shift matters more than any platform or training module.

Technology can certainly help; also digital learning tools

make content accessible. Meanwhile, skill-mapping systems provide visibility -- but no platform can replace a culture that genuinely values growth.

Employees notice the difference -- they can tell whether learning is something the company talks about or something it truly prioritises. There is also a business reality here. Organisations that invest early in capability-building tend to navigate disruption more calmly. They rely less on urgent hiring and more on internal talent. They experience fewer productivity dips during transitions.

On the other hand, companies that treat learning as an afterthought often find themselves scrambling -- trying to close gaps quickly, often at higher cost.

The shift from reskilling to future-skilling is not about abandoning current needs. It is about widening the lens. Instead of asking, "What is missing today?" organisations must also ask, "What will we wish we had built three years from now?"

The pace of change is unlikely to slow. If anything, it will increase.

In that environment, the most sustainable advantage any organisation can build is not a single skill set -- but it is the ability of its people to keep evolving. Reactive learning responds to disruption, but future-skilling anticipates it. And in today's workplace, anticipation is no longer optional -- it is essential.

The author is CEO, APAC & MENA SHRM

The first day of school, the start of a shared responsibility



DHARMENDRA PRADHAN

EVERY YEAR, when school gates open to a new academic session, India witnesses one of its most profound acts of collective resolve. Millions of children step into their classrooms with new aspirations and immense possibilities. It is a quiet yet powerful national moment. This year, too, nearly 2 crore children have enrolled in Class I, which carries both hope and a shared national responsibility.

The National Education Policy, 2020 has placed curiosity, understanding and holistic development at the centre of learning, moving beyond rote memorisation. Every academic year is a meaningful step forward in realising that vision.

With the implementation of Balvatika, early childhood learning is now integrated into the formal school system, ensuring children enter Grade I with better readiness and strong foundational skills. Schools must ensure a child's journey is rooted in joyful learning, well-being and a strong sense of belonging.

The first day of school is seldom uneventful. It carries a mix of hesitation and joys of new beginnings. When children feel safe and valued, they begin to open up. Their curiosity begins to flourish. The early years must centre on play, exploration and discovery, and define the beginning of a lifelong journey.

A caring teacher can change a child's path. A supportive classroom can turn silence into participation, and participation into confidence. A child who feels a sense of belonging begins to find her voice.

At the heart of these early years lies a strong national commitment to foundational literacy and numeracy. Through the NIPUN Bharat Mission, India has set a clear goal: Every child should be able to read with understanding and perform basic arithmetic by the end of Grade II. The focus shifts from memorising answers to understanding concepts. Classrooms must inspire children to ask questions, not just reproduce answers.

This vision goes beyond academics. Arts, sports and values are essential parts of the learning process. Education must shape the "whole child" — not just the mind, but also the body and the heart. A healthy child learns better, participates more and grows with a healthy sense of confidence.



Globally, children's lifestyles have shifted significantly, with changing dietary habits and reduced physical activity becoming a concern. India is responding proactively to this challenge. Measures like mandatory physical education, "oil boards" and "sugar boards" in schools to address obesity, and a strengthened PM-POSHAN scheme with a sharper focus on nutritional quality are reorienting schools toward health and active living.

While technology is a powerful enabler for access and learning, growing exposure to social media raises concerns around screen time, attention and mental well-being. Schools and families must ensure it is used as a tool for learning, not distraction.

Equally central to this vision is the mental and emotional well-being of our children. The school curriculum and pedagogy have integrated socio-emotional learning to support the child's journey in an age when children are navigating a more complex and stimulating world than any previous generation. Creating safe, stress-free environments requires a shared effort by schools, parents, teachers and communities.

Reform is implemented through teachers. They must teach in a multilingual setting and also ensure that a child's mother tongue is respected and used as a powerful tool for learning. By valuing this, we ensure that the transition to formal education is seamless, confident, and rooted in their own identity.

Education does not begin or end at the school gate. The home is the first classroom, and parents are the first teachers. What children experience at home shapes how they learn in school. Promoting reading habits and patient engagement with a child's questions are subtle acts to nurture the quest for knowledge. I urge parents to ensure children get balanced nutrition, adequate sleep, enough daily physical activity and outdoor exposure.

Education is a shared responsibility. It belongs to governments, schools, teachers, parents, and communities. Let us reaffirm our national commitment to building an education system that is inclusive, innovative and future-ready. Together, we can ensure that every classroom becomes a place where dreams take flight and where the leaders of tomorrow are shaped. The harbingers of a *Viksit Bharat* by 2047 are in our classrooms today. Let us give them the golden wings to soar.

Gandhi and Science~I

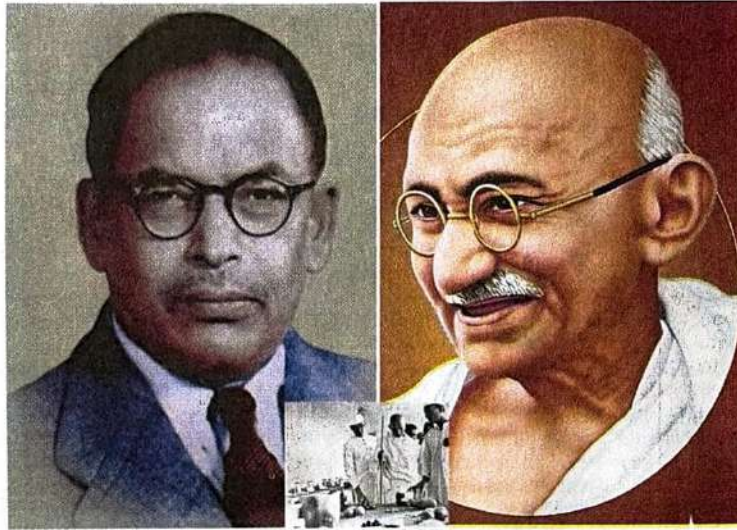
Meghnad Saha saw Gandhian science as entirely different. Saha believed that the primary task of science in India was in 'weeding out medieval passion' and training the populace for 'a proper grip and sufficient operation of the beauty and power of science'. According to Saha, though scientists had as little regard for Gandhi's economic and social theories as the Russians have for Tolstoy, Gandhi's views on science were important historically for the role he played in formulating the ideology of science policy in free India

In academia, critics have expressed different opinions about Gandhi's views on science. One of the reasons may be that Gandhi himself had contemplated the concept of machinery, the machine age and modern civilization differently at different times. Literary reviews of Gandhi also reveal that his views on science rarely find mention. While Nehru's views on science have been quoted extensively, Gandhi's have not received any scholarly attention.

Analyses of direct references to science in Gandhi's discussions with co-workers or talks with fellow countrymen strengthens the existing critique of modern science and corrects the situation of indifference, if not negation, of Gandhi's views on science. In this paper, an attempt has been made to answer some of Gandhi's critics who saw his views as retrograde, equalising the focus in Gandhian studies from an overemphasis on his political philosophy.

The person who branded Gandhi and his khadi movement as anti-science was Aldous Huxley. Huxley's criticism of Gandhi was representative of contemporary understanding of Gandhi on science. Even Nehru, one of Gandhi's closest followers, while seeking to explain Gandhi's attitude to science in response to Huxley's views, ends up furthering the divide between the so-called personal view of Gandhi and the public view of the Congress. Nehru's views acknowledged Gandhi's ability to mobilize people and rally them around the call for freedom. Introduction of the charkha, according to Nehru, was consequently important for its immediate economic and instrumental value in achieving freedom. Nehru made a clear divide between Gandhi as a science person and Gandhi as a religious man.

Nirmal Kumar Bose, as part of Gandhi's



Noakhali effort 1946, had confronted his own serious disagreements with some of Gandhi's experiments which led to his departure from Gandhi's camp. Bose unwittingly cast Gandhi as a political and religious person alone instead of a scientist. This image of Gandhi portrayed by Bose was similar to Einstein's views that Gandhi was a saint and politician who was well versed with the art, not the science of peace.

Many other scholars' opinions about Gandhi's views on science were similar to those of Huxley. They charged Gandhi with an attitude that was revivalist and hostile to modern science. Some scholars believe the Gandhian view, unlike that of Vivekananda, is primarily spiritual and ignores the material foundations of Indian civilisation. Their presentation conforms to the spiritual Gandhi ignoring the fact that the spirit and practice of the khadi movement was primarily grounded in the material culture of Indian civilisation. Others try to fit Gandhi into standard models of science and find him lacking in modern experimental methods.

The response by Indian scientists to Gandhi, on the other hand, shares none of this discomfort. Meghnad Saha, for instance, saw Gandhian science as entirely different. Saha believed that the primary task of science in India was in 'weeding out medieval passion' and training the populace for 'a proper grip and sufficient operation of the beauty and power of science'. According to Saha, though scientists had as little regard for Gandhi's economic and social theories as the Russians have for Tolstoy, Gandhi's views on science were important historically for the role he played in formulating the ideology of science policy in free India.

Opposing Huxley's views, many scientists argue that studies on Gandhi have largely focused on his political philosophy with little reference to his views on science, and that Gandhi had a distinct theory and practice

of the scientific experiment as well as a scientific explanation that pre-supposed the equality of man and nature. One scholar argues that Gandhi was not opposed to technology per se but to technologism, which was a condition that created a hierarchical relationship between man (those who possess technology) and man (those who do not), and man and nature.

Sahasrabudhe whose work exclusively focuses on what he terms the 'science question' argues that there is little work from the Gandhian angle on science though a lot has been written on his opposition to machinery. He sees Gandhi's 'life-work' as paving the way for a new dynamic theory of man-man and man-nature relations that do not separate fact from value. Visvanathan says that Gandhi, who was one of the most inventive scientists of the swadeshi era, had to subvert or transform science, playfully and politically. According to him, Gandhi's view was a fluid science of resistance in order to escape

the modern West. There is enough evidence of Gandhi expressing himself directly on the subject in many of his other writings, namely, his Collected Works and his autobiography, *My Experiments with Truth*. "The modern civilisation, instead of doing good to humanity, has encouraged mass destruction and frightful disputes between capital and labour" (CW 1: 189-91). "The wonderful discoveries and the marvelous inventions of science are, after all, an empty boast" (CW 3: 414). These statements indicate Gandhi's strong views on science very early in his public life. Gandhi felt that the prevailing practice of science had defects but this was

not necessarily intrinsic to the scientific quest, nor was such a condition irremediable warranting a total rejection. Gandhi believed that the scientific enterprise should undergo a course correction.

This qualified criticism becomes clearer in his response to members of the British Association for the Advancement of Science who visited South Africa in 1904. Gandhi suggested that the Association should meet in India and be renamed as the 'British Empire Association for the Advancement of Science'. According to Gandhi, it would be greatly to the advantage not only to India, but the Association as well (CW 5: 46).

The scientist, Gandhi believed, was to benefit equally from interaction with the colonies and its subjects. Gandhi emphasized that progress of science must lead to progress in morality. He often quoted the scientist Alfred Wallace to argue that people's moral sense had in no way improved as a result of scientific discoveries, nor had it reduced hatred and injustice (CW 12: 146; 16: 106-08 and 18: 235-36). During the Non-Cooperation movement of 1919-20 and the popularization of khadi, Gandhi clarified that he had no design on machinery and had no intention to put back the hand of clock of progress (CW 19: 241; 21: 114). In his letter to Daniel Hamilton in respect of the khadi movement, Gandhi said that "India need not to be industrialized in the modern sense of the terms, but India's need is to introduce the human spirit among the man behind the machinery" (CW 28: 188).

"Vivisection in my opinion is the blackest of all the blackest crimes that man is at present committing against God and his fair creation. We should be able to refuse to live if the price of living be the torture of sentient beings" (CW 19: 357-58). For Gandhi, the real challenge of science lay in carrying out experiments not on the 'other' – the colonised, the excommunicated brothers, or the dumb creatures – but on the self. Gandhi exhorted science students to work with their hands, as science was one of the few things that involved accuracy of thought and accuracy of handling (CW 29: 326-7).

Gandhi's position on science was not for empty revivalism. For example, Gandhi supported the Ayurvedic system and medicine. But he was not happy with the Ayurvedic physician because there were not many discoveries and inventions as against Western physicians and surgeons. He advocated the need to revitalise and reform the self-reflective tradition from the inside and not by a more competitive and organised system from the outside. An in-depth analysis of the detailed correspondence he had with individual practitioners, would reveal that he wanted them to undertake research taking a few satyagrahi scientists amongst them. He even offered himself and his own institutions as sites for experimentation.

(To be concluded)



DILIP DATTA

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An increase in colleges, students but not enough teachers

India's higher educational system must shift its focus from institutional expansion to ensuring equity and quality education

DATA POINT

Anand Kumar
M. K. Shrivani
Rosa Abraham

While India's higher education sector has expanded rapidly in recent decades, with many new institutions and more students enrolled than ever before, has this expansion truly translated into equitable access alongside adequate capacity for delivering quality education? The State of Working India 2026 report tries to answer this.

India's higher education sector has seen massive expansion in the last few decades, at least in terms of the setting up of colleges and universities. From about 1,600 colleges and universities in 1950, most of which were publicly funded, the number had grown to over 69,000 by 2022. Most of this expansion has been recent, and driven largely by private providers. College density has also increased nationally, from 29 colleges per lakh youth in 2010 to 45 in 2021. But large regional disparities remain. For instance, many districts in northern and eastern States have fewer than 18 colleges per lakh youth population.

However, college expansion has not been matched by a commensurate expansion in teaching capacity. Regulatory norms recommend between 15 and 25 students per teacher. Even at its best, the average college had about 24 students per teacher in 2010. The situation worsened to 35.4 in 2016 and stood at 32 in 2021. Many northern districts consistently report particularly high student-teacher ratios, despite substantial institutional expansion in these regions (Map 1). Faculty numbers have not kept pace with either the growth in institutions or the rise in enrolment. This is especially concerning since these regions account for a large share of India's youth population.

The Gross Enrolment Ratio (GER), which is the share of population aged 18-23 enrolled in higher education, has increased from 16% in 2011 to 28% as of 2022. India's GER in higher education is now broadly in line with countries at similar levels of per capita income. Importantly, enrolment rates for men and women have almost converged. Participation among disadvantaged social groups has also improved significantly over the past decade (Chart 2). Between 2011 and 2022, enrolment rates among Scheduled Castes increased from 11% to 26%, while for Scheduled Tribes they rose from 8% to 21%.

However, graduates in India are still disproportionately drawn from the richest households. While the share of graduates from poorer households has increased between 2007-2017, it is still a long way away from equitable access.

Cost barrier

What students study reveals another layer of inequality. As household incomes rise, the likelihood of entering engineering and other professional courses increases. Conversely, students from low-income households are more likely to pursue courses in humanities and commerce streams (Chart 3). Professional degree courses are significantly more expensive, and thus inaccessible for poorer, financially constrained households. A medicine degree costs ₹97,400 while an engineering degree costs ₹72,600 annually as of 2017-18. For poorer households, the annual fees for professional degrees often exceed their average per capita consumption expenditure.

Thus, expanding institutions alone is not sufficient. Bridging regional gaps, investing in faculty capacity, and addressing the cost barriers associated with professional education is critical to make higher education more inclusive. The focus must shift from expansion to equity, ensuring that higher education can translate into improved economic opportunities.

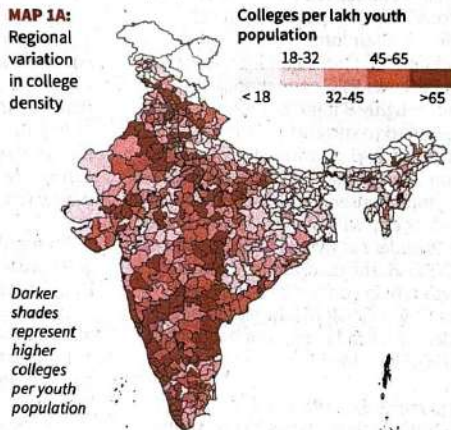
Course of privilege

AISHE and the NSS Social Expenditure on Education Surveys show that higher-income students prefer engineering/professional courses, while lower-income students choose humanities and commerce



MAP 1A:

Regional variation in college density



MAP 1B:

Regional variations in student-teacher ratio

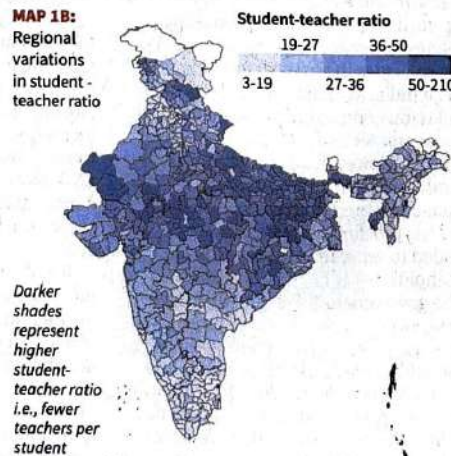


CHART 2: Gross enrolments across different social groups. Others include the General category and other groups not classified elsewhere

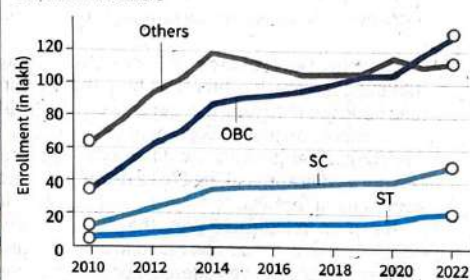
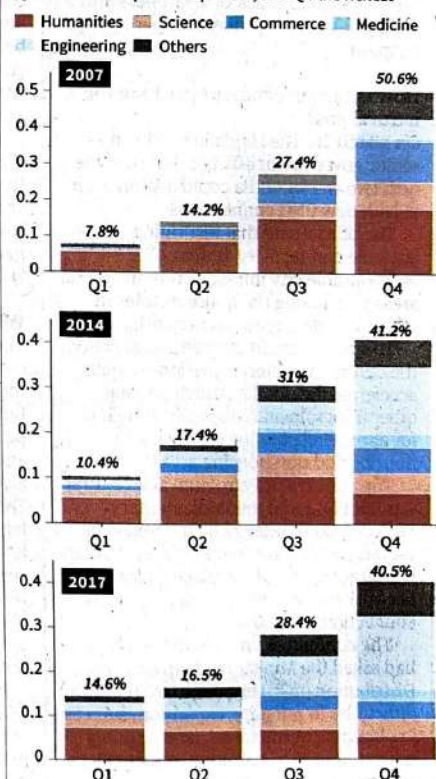


CHART 3: The proportion of households in respective monthly per capita expenditure quartiles which have a student enrolled in a graduate course, across different specialisations. Q1 refers to the poorest quartile, and Q4 the richest



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NEXUS OF GOOD

Bridging India's Guidance Gap

PathShila shows how structured career guidance can transform government school outcomes, reduce dropouts and align aspirations with opportunities across underserved communities



ANIL SWARUP

THE WRITER IS
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A FORMER
CIVIL SERVANT

Imagine standing at a major crossroads in your life with no map, no road signs, and no one to ask for directions. For thousands of underserved government school students in India, this is exactly what life looks like after completing 12th grade. Without the safety net of structured career guidance, a vast majority of these young, bright minds are left confused and anxious about their next steps. They find themselves asking foundational questions like, "What can I do with an Arts degree?" or struggling to answer when asked about their own hobbies, passions, or ambitions. For many of these youths, these concepts are entirely alien. Tragically, this profound lack of awareness and confidence leads to a massive dropout crisis. Instead of continuing their higher education, many students drop out and fall into the informal sector, where employability ratios are notoriously low and long-term career growth is severely stunted. The gap isn't a lack of talent or ambition; it's a lack of guidance to keep them in the formal system.

Bridging Gap with PathShila

Enter PathShila, a transformative and highly impactful social career guidance program designed by iDreamCareer & Aasman Foundation. Recognising that timely, correct guidance can keep students—especially young girls—in the formal education system, PathShila stepped in to directly solve this severe drop-off problem for 27,000 government school students across Uttar Pradesh.

What makes PathShila groundbreaking is its commitment to bringing elite-level educational support to public schools. Historically, services like robust psychometric assessment, group counselling sessions, access to detailed career information, and in-depth, one-on-one mentoring were privileges exclusively reserved for students in high-fee private or elite schools.

By democratizing access to this high-touch career navigation support, PathShila is actively levelling the playing field. Furthermore, the program aligns perfectly with India's National Education Policy (NEP) 2020, which explicitly emphasises the vital need for career counselling in schools alongside tradi-



A grassroots intervention in Uttar Pradesh reveals how guidance—not just education—can alter life trajectories

tional academics.

Power of Data: Measuring Real Impact

The results of this intensive, boots-on-the-ground intervention have been spectacular, proving beyond a shadow of a doubt that structured guidance changes life trajectories. In its very first year, partner schools where PathShila was implemented saw 74 per cent of their students pursuing higher education, compared to just over 60 per cent in comparison schools—an enormous 11.5 percentage point improvement. The momentum only accelerated from there. By the 2024–2025 academic year, the program achieved a remarkable 77.18 per cent average Enrollment, Employment, or Training Rate (EER) across five targeted districts: Lucknow, Varanasi, Kanpur, Meerut, and Ghaziabad. This comfortably beat their ambitious 75 per cent target.

When diving deeper into the numbers, the EER delta increased by 12.88 percentage points in Lucknow and Varanasi compared to the control group. Even more impressively, Kanpur, Meerut, and Ghaziabad witnessed a staggering 17.76

percentage point increase over the previous year's treatment group. This massive jump—which was 4 to 5 times higher than the other districts—was largely fueled by a specialised community drive specifically targeting the bottom 30 per cent of students in "high-risk" schools. Remarkably, these high-risk schools ended up growing 30 per cent faster than the average, proving that targeted intervention works where it is desperately needed most.

Quality over Quantity: Shifts in Admissions

The success of PathShila isn't just about getting students into any random post-school program; it's about getting them into the right programs that align with their skills and the modern job market. The data reveals a fascinating and highly encouraging shift in the types of courses students are choosing. While traditional professional courses like BA and BSc remain the dominant choice, vocational and short-term courses witnessed a massive—40 per cent growth compared to the control group. Of these vocational courses, ITI programs made up a signifi-

cant 59 per cent.

Furthermore, there was an impressive 12.5 percentage point increase in admissions to "high and medium quality" institutions—defined as colleges with top NIRF rankings, NAAC A++ ratings, or strong placement records. Top universities like Delhi University, Lucknow University, and Banaras Hindu University became accessible destinations for these students. The program also meticulously tracks "EER Plus," which measures students who are enrolled in professional or vocational courses and are also engaged in full-time or part-time work, hitting an overall rate of 78.30 per cent.

Real Lives, Real Change: Aliza's Story

Behind these impressive statistics and charts are real human stories of deep empowerment and shifting community mindsets. Take Aliza Ansari, for example. Before receiving counselling through PathShila, her path forward was murky and uncertain. But with the unwavering support of dedicated counsellors, the fog began to lift. She learned how to strategically think about her future, confidently developing a primary "Plan A" and a

backup "Plan B." Today, Aliza is happily enrolled in HCL TechBee.

Her success has sent waves of inspiration through her local community. Her father, who did not have the opportunity to attend school himself, beams with immense pride when he compares Aliza's upward trajectory to that of girls from more educated families in their neighbourhood who, unfortunately, lacked this crucial career guidance. Aliza has effectively become a powerful role model for other young women in her area, proving that with the right support, girls from underserved backgrounds can become deeply empowered, enter diverse professional fields, and bring ultimate glory to their communities and country. As Aliza herself notes with immense gratitude, without her career counselling teacher, she never could have imagined achieving so much or dreaming so big.

Looking Ahead

The monumental success of the PathShila program in these initial five districts is not merely an endpoint; rather, it is a robust blueprint for the future. Because this project has rigorously measured the true impact of guidance at the crucial exit point of 12th grade, it now stands as a proven, highly replicable model for widespread systemic change. The ultimate hope and vision is that this type of high-touch, elite-level career navigation support becomes an everyday reality for every single young person moving through the public school system. Local educational authorities are already taking serious note of these outcomes. The program's undeniable success provides the exact foundation and evidence required to confidently implement comprehensive career counselling across all schools in the entire state of Uttar Pradesh. As this initiative scales and expands, it promises to safely guide millions of students through life's most critical junctures, ensuring that every child, regardless of their background, gets to build for themselves—joyful careers and meaningful lives.

PathShila is a wonderful example of Nexus of Good, as it presents a model that is both replicable and scalable through public-private partnership.

Views expressed are personal

PathShila's intervention across five districts in Uttar Pradesh achieved a 77.18 per cent Enrollment, Employment, or Training Rate (EER) by 2024–25, surpassing its 75 per cent target

Gandhi and Science~II

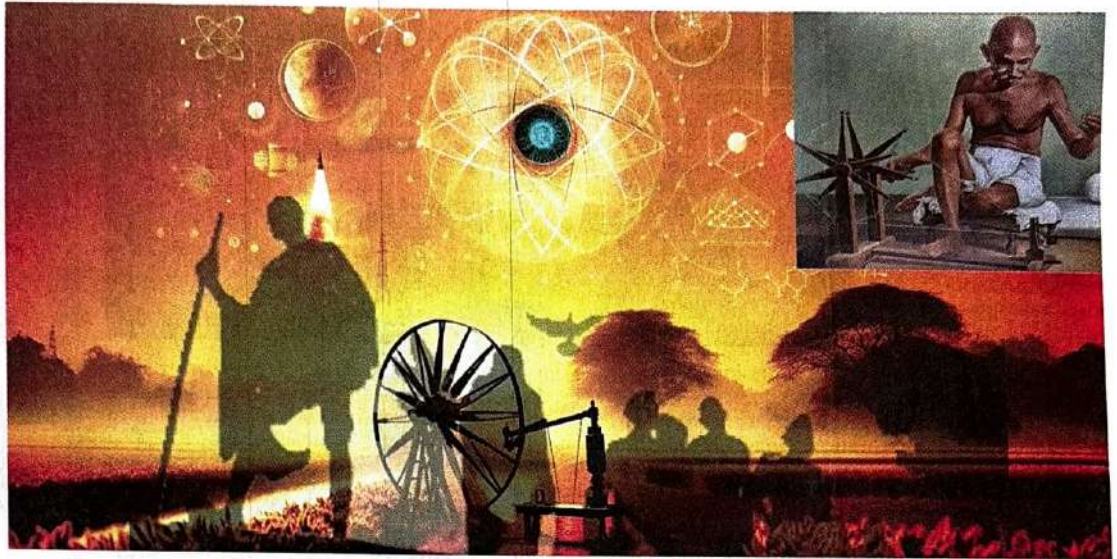
Gandhi wanted scientists to work on those areas that required 'tender nursing' which neither the state nor the market could institutionally provide for. This considered and deliberate choice of the subject matter was the first step in his science. To aspiring scientists, he pointed out the need to link external research to internal research. By internal research, Gandhi did not mean a private incommunicable domain of mystic experience but a public space where the questions of science, both moral and societal, would be kept within the purview of common persons

In khadi, Gandhi came closest to finding such a science and his ideal practitioner - the satyagrahi scientist, Maganlal Gandhi. In the khadi movement, Gandhian understanding of science was translated into practice leading to the coinage of new terms such as the 'science of the spinning wheel' and later 'khadi science'. Gandhi's extensive use of the term 'science' is found in speeches and discussions with khadi workers. He wanted these workers to become satyagrahi scientists.

The Satyagraha Ashram at Ahmedabad provided the necessary institutional base for training satyagrahi scientists needed for the khadi movement. Foremost amongst them was Maganlal Gandhi, the manager of the Satyagraha Ashram and a long-standing associate of Gandhi. The Ashram in Ahmedabad functioned as a laboratory, educational and training institution, and a production house.

For Gandhi, the knowledge of the 'science of spinning' was critical to the success of the khadi movement and he, therefore, urged all community workers to be well versed in it. Gandhi believed that only those who had a thorough knowledge of both theoretical and practical aspects of the science of spinning could become village workers. The rigorous technical criteria for khadi workers indicate how Gandhi envisaged the community worker as a scientist.

The worker was to know the different varieties of cotton and the method of picking cotton suitable for hand spinning. The worker had also to be able to test the strength, evenness, and counts of yarn, differentiate a good charkha from a bad one, be able to put dilapidated charkhas under repair and be able to straighten an incorrect spindle (CW 33: 151-52).



Apart from improvements in the spinning wheel, Gandhi was also on the lookout for a machine that would produce good spindles. It was this concern that made him and the All-India Spinners Association (AISA) search for a machine to straighten spindles. From the above, one would observe that he was no Luddite or traditionalist. Where 'absolutely necessary', he advised the khadi worker not to hesitate to introduce machinery (CW 36: 347; 37: 211, 41: 511).

One of Gandhi's earliest experiments, both at the Ashram and outside was in the field of science education. Gandhi's educational scheme was based on an emphasis on the role of manual work, practical training, and the use of the vernacular as a medium of instruction. He cited Japan as an example of an educational system that taught science in the vernacular. Amongst Gandhi's other major institutional innovations in the 1930s was Nai Talim (or basic education). It is in his writings on Nai Talim that we find Gandhi's unique explanation to the question that has troubled many sociologists of science, namely, "Why did India not have the industrial revolution?"

Significantly, most of Gandhi's attempts at institutional reorganization were based on scientific research. For Gandhi, India was an ideal site for experiments on the self and he saw himself as a scientist experimenting to prove the fallacies of the dominant argument on science. A month before his assassination, he wanted the various Sanghs to become research laboratories. He desired that members of the Sanghs become experts by doing research and discovering new things in the laboratories.

From being a serious critic of modern science in his early years, Gandhi later focused more on the possibilities of a new science and its practice. In Gandhi's scheme,

the agency of the scientist was of critical importance. The scientist had to be conscious and self-reflecting. He believed that the right place of the scientist lay with the people. All of Gandhi's experiments in science attempted to carve out and articulate this domain. (CW 89: 125). He wanted scientists to work on those areas that required 'tender nursing' which neither the state nor the market could institutionally provide for. This considered

and deliberate choice of the subject matter was the first step in his science.

To aspiring scientists, he pointed out the need to link external research to internal research. By internal research, Gandhi did not mean a private incommunicable domain of mystic experience but a public space where the questions of science, both moral and societal, would be kept within the purview of common persons.

Gandhi did not provide a blueprint for a scientific method but gave general guidelines for experimentation.

He saw his community workers as scientists. Though he was one of the foremost spokespersons of traditional technologies and the artisanal class in contemporary politics, he did not believe in a simple valorisation of the artisanal class. His community workers had, therefore, to go beyond learning the skill. They were to see spinning and weaving not as a trade but as a science. Mastery of the art of spinning was a necessary, but not sufficient condition in his scientific scheme. This mastery had to be transformed into a science and this was the duty, though not exclusive right, of the educated classes.

Gandhi emphasized that the practice of

science would need an attitude for research, more than scientific qualifications. More than money, Gandhi emphasised that there was a need for persons with strong faith and willing hands. By insisting that scientists are to provide meaning to what they do, he made clear that he was not interested in mere technical solutions to a problem.

The role of the scientist lay not in the realm of fact alone but in creating value. The charkha for Gandhi was the symbol of a new technology - a new relationship of man with nature, a relationship that could be brought into existence only by active, mutually cooperating persons.

We have in this paper shown that Gandhi is not anti-science as is commonly misunderstood. Through a look at his various experiments, many unrealised in his time, one would see that Gandhi's life defined a space for an alternative science for civil society that would operate with different methods. Gandhi's focus on the non-physical resources in organising for science, the satyagrahi scientist, for instance, is a radical departure from science policy as expressed by Nehru in his famous Scientific Policy Resolution of 1956 and followed in India since independence.

Gandhi also had a universal message by providing a new cosmology of man-nature and fact-value relations that he articulated and put in place through his various experiments. In Gandhi's science, the agency of the scientist was important.

If scientists are not conscious of the condition of society in the perspective of their self-reflecting nature, the basic purpose of using science as a tool of improvement and growth of intrinsic value of the society and its components is lost. Gandhi's concept of science needs to be understood with this basic tenet.

(Concluded)



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For top tech pay, a PhD is fast becoming essential

Akhil George & Sujit John | TNN

AI Career Edge

PhD in artificial intelligence is no longer just an academic pursuit – it can unlock some of the highest salaries in tech today. Globally, top AI PhD graduates are commanding compensation packages running into hundreds of thousands of dollars, even touching the million-dollar mark in some cases. For students weighing their options, that signals a clear shift: deep specialisation is becoming incredibly valuable in the AI era.

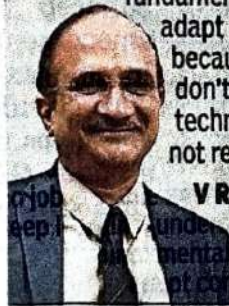
That is precisely why V Ramgopal Rao, vice-chancellor of BITS Pilani, believes more Indian students should consider going beyond a basic engineering degree. “There is often this misconception that doing a PhD is only to become a professor. That is far from the truth,” he said, adding that advanced expertise is critical for building foundational technologies, not just business models.

But Rao’s larger message goes beyond degrees. AI, he argues, is no longer a niche skill – it is becoming as fundamental as mathematics. “Irrespective of whether you are a civil engineer or a mechanical engineer, you need to start using AI in your own area,” he said. The real differentiator, however, is not simply using tools. “Everybody is using AI tools... but system-level thinking – solving a real problem using AI and making it work reliably – that is what will differentiate people.”

For students, that means shifting focus from passive usage to active building. Writing code or generating assignments with AI is no longer impressive. “These are skills that everybody will have,” Rao noted. What matters instead is whether you can create something meaningful – a full system, a working product, or even an AI agent that solves

“AI is no longer a niche skill; it is becoming foundational across every discipline. What will differentiate people is not just using tools, but solving real problems and building systems that work in real-world conditions. At the same time, no job is stable anymore. You must keep learning, understand

fundamentals deeply, and adapt continuously – because those who don’t evolve with technology will simply not remain relevant.



V Ramgopal Rao | VICE-CHANCELLOR, BITS PILANI

a real-world problem.

Domain Knowledge Is Crucial

This is where domain knowledge plays a crucial role. Rao does not believe AI will replace core disciplines. Instead, it will amplify them. “If you are designing a building and you are not using AI, you would take much longer,” he explained. The combination of domain expertise and AI capability can dramatically improve productivity, but only if students understand both.

At the same time, blindly relying on AI tools can be risky. Rao warned against treating them as “black boxes”. Students must understand how these systems work, their limitations, and when not to trust them. This is why institutions are now introducing AI education early, even in the first year, to build foundational understanding rather than superficial familiarity.

Equally important is exposure to the real world. Academic exercises, Rao pointed out, are often based on clean datasets and well-

defined problems. Industry is very different. “There are no clean datasets, the goals are ambiguous and deadlines are tight,” he said. This gap is why long-term internships and industry immersion are becoming critical. Students need to experience messy data, unclear objectives, and real constraints to truly become job-ready.

Why Soft Skills Is Key

Soft skills, often overlooked by engineering students in pursuit of grades, are also rising in importance. “Communication is becoming more important than ever,” Rao said. With AI tools improving written output for everyone, the ability to clearly explain ideas – especially to non-experts – has become a key differentiator. Teamwork and interdisciplinary collaboration are equally vital, as AI projects increasingly involve people from diverse fields such as healthcare, climate science and agriculture.

Underlying all of this is a deeper shift in how careers themselves are evolving. Rao emphasised that the idea of a “safe” job is quickly becoming outdated. Roles across industries are being reshaped by AI, and the expectation now is not stability, but adaptability. “No job is stable anymore,” he said, stressing that even traditionally secure professions are being redefined by automation and intelligent systems.

This has direct implications for students. It is no longer enough to qualify for a role and rely on that knowledge for years. Rao pointed out that technologies are changing so fast that what you learn in your first or second year of college may already be outdated by the time you graduate. So, continuous learning becomes the only real job security.

DUST TO DATA: THE LEAP FROM CHALK TO QUANTUM CODES

Rewiring HIGHER LEARNING through human ingenuity



DR. ALI KHWAJA

select which will ensure that they find gainful employment in the AI era.

Though it may sound very basic, let us understand what is Artificial Intelligence and Quantum mechanics, which is being discussed everywhere with widely different viewpoints. AI has evolved from computer science, but it has the ability to simulate human intelligence. It can learn without programming, do logical reasoning and solve problems without being guided by humans. This it does by accessing data from all over the world, classifying it and using its own logic to give what it thinks is the most appropriate answer. As it develops it will be able to perform more and more complex tasks taking major decisions in

all fields.

Developing along with AI is Quantum Mechanics which has gone beyond classical physics to break down physical systems to sub-atomic levels, which will enable sensing, overcome uncertainty and doing quantum computing.

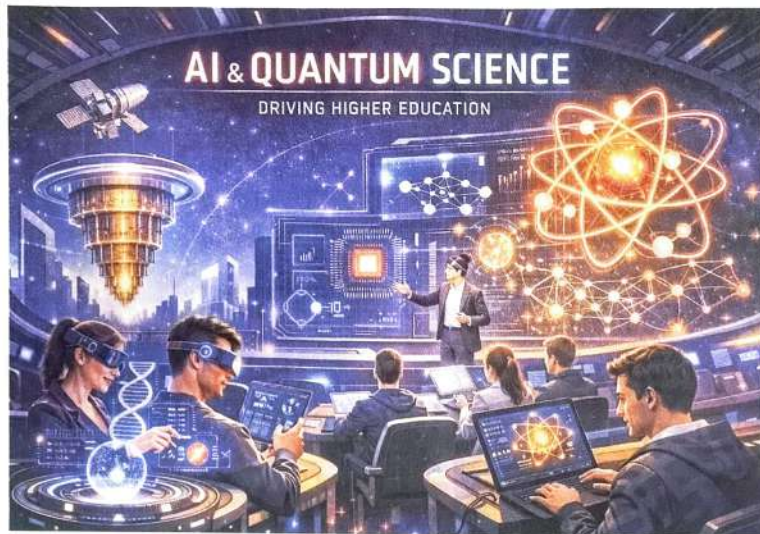
In the last one year itself there has been a spurt in employers of various fields insisting on employing freshers who are skilled in the above two domains. Starting with engineering colleges, even those offering degrees in management, commerce, science, design and others have added AI as a

subject. One cannot deny the fact that knowledge of AI is becoming essential in most professions, in the same way as knowing how to use computers had become necessary three decades ago.

Let us evaluate why AI is so important for everyone. Every time a new development evolved in technology or lifestyle progressive people learnt and imbibed it. Development went from mechanical to electrical to electronics to IT in the last 100 years. Some of the inventions did create a scare of job losses, but most people adapted by simple learning to incorporate the new methodologies and

often found themselves earning more than before.

The reason why AI is creating a much bigger scare compared to earlier innovations is because AI is a self-developing and growing tool, which evolves independent of human knowledge and guidance. It picks up from every nook and corner of the world. If you have created a small gadget which makes your work easier and have shared it with a friend, AI has picked it up and has made it part of its knowledge without any acknowledgement or compensation to you. If people anywhere have tackled



AI IMAGE

“Courses in AI will give you grounding, fluency, and foresight for what lies ahead. So, do keep updating yourself on all aspects of AI at a fundamental level.”



adversity, wars or natural calamities using their primitive instinct, now AI has made it part of its skill-set.

Major technological developments that developed in the previous century took many years to settle down in their proper and stable format. Automobile started by being a horse-drawn carriage without the horse, and was used for entertainment till Model-T Ford converted it into a useful common-man's transport – and then evolved vans, buses, trucks and motorcycles. A century later when the mobile phone was invented, it was a big heavy instrument which could only be used for voice calls, and even incoming calls were charged per second. It took more than a decade for the mobile to evolve into what it is today. The same is likely to happen with AI. Newer changes and developments will keep coming, and much later we will know what can survive and stabilise.

Rewiring higher learning through human ingenuity

Continued from P 1

When I studied in IIT-Bombay we had a huge Russian mainframe computer occupying an entire building, which could do perhaps 5% of what your smart-phone does now. Hence, it is wise to keep closely observing the developments, and not rush into something that may be outdated in no time. Courses in AI that are

being offered now will give you an overview of the concept, make you literate in its functioning, and prepare you to absorb what will come in future. When computers were invented, many typists and stenographers lost their jobs. But the enterprising ones picked up new skills and actually increased their incomes!

At present global investments

in AI and quantum education are racing ahead, and India is striving to keep pace and remain relevant. Many employers are demanding skills in AI and quantum mechanics along with domain expertise. But this may be short-lived as these very technologies transmogrify into new avatars. Students need to have a long-term vision of how these transforma-

tions can possibly evolve, and what will create strong foundations to make the transition smooth. Similarly, you can explore the industry of chips used for powering AI data centers. Nvidia, the leading chip manufacturer has emerged as the largest company in the world overtaking Google, Microsoft, Amazon and Meta, with market capitalization that touched \$4.5 trillion.

You can use your common sense to determine which vocations are likely to be affected and which will actually gain in significance with the usage of AI. The jobs that will suffer most will be the ones that were at the top for the past two decades i.e. software and IT related – except for those who adapt, change and grow. Zoho co-founder Sridhar Vembu says programmers, including himself, must seriously consider alternative livelihoods.

On the other hand, blue-collar jobs which had limitations of income will obviously increase in demand. Those who can learn to use

both sides of their brain and do multi-tasking will not only survive but progress faster. Whether educational institutions have the vision to provide long-lasting skills or not, it is up to you to identify your core strengths, evaluate how strong they will be in the AI era, and pursue your dreams steadily instead of looking at short-term gains and following the herd mentality. Do keep updating yourself on all aspects of AI at a fundamental level as they keep evolving, as only then you will be equipped to maneuver into this bright new world regardless of what career you wish to pursue. Every young person need not become an AI professional, but should be able to use the benefits of AI in the profession selected based on interest and aptitude.

The writer is a Human Technologist and counselor

Disclaimer: These are my personal opinions as I wrote this entire article without taking the help of AI. The author this article is a Human Technologist.

Digital Wealth Management

A pathway for job opportunities

With Artificial Intelligence (AI) rapidly spreading its wings across sectors, wealth management is not an exception, as the financial services sector is witnessing high AI adoption. A few years ago, wealth management was considered as more relationship-led

advisory, but now it is moving towards data-led and wealth managers can now offer comprehensive and personalised advice to manage as well as grow one's assets. Digital wealth management is no

longer about just a finance career; it is a more technology-driven financial architecture profession.

How does digital wealth management work?

The country's fintech sector is projected to cross \$150 billion in market opportunity by 2025, and digital investment platforms are expanding beyond metro HNIs (High-Net-Worth Individuals) to mass affluent and retail investors through mobile-first distribution. AI-driven portfolio analytics, robo-advisory models, fractional investing and goal-based planning are becoming mainstream features rather than differentiators.

For students, this opens pathways at the intersection of finance, technology and regulation. Careers increasingly demand hybrid capability i.e. financial markets knowledge plus data literacy, platform understanding and compliance awareness. Degrees in finance, economics or business combined with certifications in financial modelling, fintech,



FOR REPRESENTATIONAL PURPOSE ONLY

Students who combine financial knowledge with technology fluency and regulatory awareness will find themselves uniquely positioned."

data analytics or regulatory frameworks create a strong entry point, Shantanu Roj, Founder and CEO, TeamL.ease Edtech said.

Traditionally, wealth management in India was relationship-centric and largely limited to HNIs through private banking channels. Today, mobile-first platforms and discount broker ecosystems have democratised access. India now has over 150 million demat accounts, reflecting mass retail participation. Globally, robo-advisory assets under management are projected to exceed \$2 trillion in the coming years, and AI-led portfolio optimisation, predictive

risk assessment and automated compliance are reshaping advisory workflows. The role of wealth managers is evolving from transaction execution to behavioural coaching, complex financial structuring and AI-assisted advisory, Roj added.

Shreya Krishnan, Managing Director of AnitaB.org India, said digital wealth management is being reshaped by hyper-personalisation, where AI and data analytics tailor investment strategies to individual goals and spending patterns. They are seeing growing interest among women technologists in fintech careers.

For students, this opens interdisciplinary career paths blending finance with technology. Krishnan said that we need to look at careers in finance not as bank tellers but as orchestrators of the backend technology driving the fintech industry. They recommend students to pursue certifications in financial modelling, data analytics, and AI fundamentals alongside traditional finance degrees. Internships at fintech startups provide crucial hands-on experience in designing solutions for real-world investors.

Sustainable and ESG-focused wealth management

Another interesting aspect in digital wealth management is sustainable and Environmental Social Governance (ESG) focused wealth management that is now becoming central to portfolio management. Capgemini in its recent research highlighted that high net-worth investors now want to not only preserve their wealth but ensure their investments have a positive impact and strong financial return.

Capgemini's World Wealth Report pointed out that 47% of HNIs under 40 said sustainability influences their investment decisions.

For ESG impact, relationship managers need more data. Wealth managers can get more data insights with the help of AI, ML and advanced analytics. While automating wealth is now much talked about, robo-advisors help in providing financial planning and portfolio management with low cost and minimal human intervention. Skilled wealth advisors are always in demand and students should focus on acquiring skills that they can combine with automation to grow investors' assets.

Opportunities galore

Opportunities now span traditional and new-age formats. Roj explained that private banking is inte-

grating digital dashboards and AI-driven client analytics. Fintech advisory firms require product managers, risk analysts and digital portfolio specialists and regulatory technology is growing as compliance becomes more technology-enabled. Also, SEBI's increasing focus on investor protection, suitability norms and algorithmic transparency means compliance and risk roles are expanding in banks/fintech firms.

Students with strong grounding in finance combined with exposure to AI tools, data interpretation and regulatory frameworks will be particularly competitive.

Opportunities are expanding significantly across private banking, fintech advisory and compliance. "Students who combine financial knowledge with technology fluency and regulatory awareness will find themselves uniquely positioned," Krishnan added.



By Uma Kannan

Recontextualising NEP in the Age of Artificial Intelligence

The National CoE will work with top universities and industries to create specialised curriculums, train faculty and develop AI learning labs in the higher education sector.



By Prof V N
Rajasekharan
Pillai

Over the past five years, rapid advances in Artificial Intelligence (AI)—both globally and nationally—have dramatically reshaped human learning

and the world of work. The scale of this transformation demands that the context for implementing the National Education Policy (NEP) be updated to reflect the emer-

gence of AI. Such recontextualisation is not a rejection of NEP's vision but rather its evolutionary operationalisation, ensuring that its goals are realised through technol-



AI Generated image

ogy-driven approaches that prepare students to thrive in a world of artificially augmented intelligence. The recently announced national programmes, highlighted at the Global AI Impact Summit in Delhi, provide decisive evidence of this strategic shift.

The Visionary Foundation for Technology

NEP 2020 anticipated the centrality of technology in education. It recommended that contemporary subjects such as AI be introduced where appropriate, and that digital tools be leveraged to enhance teaching, learning, and assessment. Crucially, NEP envisaged the use of AI and data analytics to create competency-based, personalised learning environments—bridging geographic inequities and addressing diverse learner needs.

This foundational vision now serves as the ideal launchpad for deeper AI integration. Platforms like DIKSHA, already reaching over 200 million students, are being equipped with AI-enabled features that personalise learning pathways and identify individual gaps, thereby transforming scale into precision.

India's Strategic Plan

NEP 2020 provides the conceptual framework for education, and its implementation is being advanced

that combines flagship programmes, substantial budget allocations, and the development of indigenous technology. This multi-pronged approach is not merely administrative—it is the scaffolding for an actionable plan that positions India at the forefront of AI-enabled education.

By aligning NEP's visionary goals with the country's AI strategy, India is laying the groundwork for an education system that is adaptive, inclusive, and future-ready.

Financial Investment and Institutional Structure

In the past two Union Budgets, the Government of India has allocated several hundred crores to establish a National Centre of Excellence (CoE) in Artificial Intelligence (AI) for education. This central hub, created by the Ministry of Education, will serve as the foundation for a network of decentralised, state-level CoEs.

The National CoE is envisioned as a collaborative platform, working with leading universities and industries to design specialised curricula, train faculty, and develop AI learning labs across higher education. Its role is not only infrastructural but catalytic—ensuring that AI integration in teaching and learning is both systematic and scalable.

Recontextualising NEP in the Age of Artificial Intelligence

Continued from P4

Complementing this, the broader IndiaAI Mission fosters innovation through public-private partnerships. Flagship initiatives such as AI4Bharat at IIT Madras, which develops open-source AI models for Indian languages, exemplify how national funding is being channelled into projects that combine technological advancement with cultural inclusivity.

Reforming Curriculum & Developing Skills

Curriculum reform is central to India's AI readiness. The Skilling for AI Readiness programme, launched in July 2025 by the Ministry of Vocational and Skill Development, targets students in grades 6-12 along with their educators. Its modules emphasise both the fundamentals of machine learning and the ethical use of AI, cultivating a generation with baseline AI literacy.

At the higher education level, AI is reshaping professional fields:

- **Medicine:** AI-assisted diagnostics, precision medicine, and simulation-based training are equipping future doctors to be both technologically adept and patient-focused.

- **Engineering:** Degree programmes are embedding interdisciplinary approaches, data science, and intelligent systems design to prepare graduates for innovation-driven industries.

- **Agriculture:** AI applications in climate modelling, precision farming, and supply chain optimisation are enhancing sustainability and productivity.

Together, these transformations are producing a new cadre of industry-ready students—tech-savvy, research-oriented, and committed to addressing societal needs.

Acquisition of Infrastructure and Indigenous Tools

To democratise access, the government is supporting

Composite Skill Labs at the school level, equipped with tools for AI, 3D printing, and other emerging technologies. Parallel efforts such as Bhashini and indigenous large language models (LLMs) like BharatGen and Sarvam-1

are breaking down linguistic barriers, enabling students to access AI-powered educational materials in their mother tongue.

This emphasis on indigenous tools ensures that India's AI ecosystem is not only

globally competitive but also locally relevant, empowering learners across diverse linguistic and cultural contexts.

**The writer is Advisor & Professor of Eminence at Reliance Jio Institute, Navi Mumbai.*

BEYOND MEMORY

Adaptive intelligence enters India's medical classrooms

From rote memorisation to adaptive intelligence, medical students in India are learning alongside AI as the curriculum is evolving.



By Amar Naik

The lecture halls of India's premier medical institutions have reached a digital inflection point. While the traditional white coat remains a symbol of the profession, it is now increasingly paired with tablets and VR headsets that simulate surgical procedures in remote corners of the country.

Artificial intelligence graduates from Silicon Valley buzzword to a core pillar of

clinical practice, medical education is undergoing its most significant transformation in a century — and India, with its staggering healthcare deficit, has more at stake. India has approximately 0.7 doctors per 1,000 people, against the World Health Organisation's recommended minimum of 1 per 1,000 — yet it bears roughly 20 per cent of the world's disease burden. AI is not replacing doctors. It is enabling those who reach patients they never otherwise could.

According to Dr V K Paul, Member (Health) of NITI

Medical studies now formally encompass Clinical Validation of AI, where students are trained to identify "algorithmic bias" — ensuring that a diagnostic model built on Western patient datasets is actually accurate for India's genetically and demographically diverse population.

Across, AI is no longer just an "add-on" but a strategic necessity for reaching universal health coverage in India.

From rote learning to "AI-inclusive intelligence" For decades, success in India's medical entrance examina-

tions was synonymous with an extraordinary capacity for memorisation. In 2026, the calculus has shifted. The National Board of Examinations in Medical Sciences (NBEMS) has formally launched specialised programmes that ensure postgraduate trainees not only use AI tools, but critically

evaluate them — a move that reflects a seismic pedagogical realignment.

Medical studies now formally encompass Clinical Validation of AI, where students are trained to identify "algorithmic bias" — ensuring that a diagnostic model built on Western patient datasets is actually accurate for India's genetically and demographically diverse population.

Separately, an area called Ayurgenomics is emerging as uniquely Indian: the use of AI to catalogue indigenous Ayurvedic texts, map their pharmacological relevance



against genomics, and explore intersections with modern therapeutics.

Students are also being taught Medical Data Stewardship, learning to manage interoperable standards such as FHIR and HL7 — the plumbing that makes the Ayushman Bharat Digital Mission's 799 million digital health IDs actually functional.

A systematic review published in *Frontiers in Artificial Intelligence* (2025) surveyed the landscape starkly: while 86.95 per cent of Indian medical students reported knowing how to use AI tools, 53.6 per cent demonstrated limited knowledge of AI's clinical applications, and a startling 91.2 per cent had never undergone any formal AI training. The review identified a fundamental tension — students are already using large language models like ChatGPT for self-directed learning (60.32 per cent reported LLM chatbots as a primary learning tool), but they are doing so without the scaffolding of ethical or technical literacy.

The Adaptive Student: Three Tiers of AI Literacy The Forward-Looking Medical Students should be focused on the following areas:

1. Metacognitive Learning: Students should embrace AI-driven adaptive platforms that map their individual knowledge gaps across subjects like Pathology and Pharmacology, dynamically adjusting the difficulty and focus of study material. The shift, as captured in a major pedagogical study, is from "learning through acquisition" (textbooks) to "learning through inquiry" (AI interaction) — but with critical human oversight baked in.

2. The "Verify, Then Trust" Mantra: Treating AI output as a second opinion rather than a final verdict is now a core professional competency. This is partly driven by sobering data: a 2026 Nature Medicine trial found that 6.5% of AI cardiology responses contained clinically significant hallucinations. Students are taught to cross-reference, challenge, and document their reasoning independently of the model's output.

3. Human-Centric Focus: As AI automates administrative tasks — clinical notes, appointment scheduling, lab result summaries — students are deliberately redirecting freed-up time toward bedside manner, complex clinical reasoning, and empathetic patient communication. The goal is not efficiency for its own sake, but a reallocation of human attention toward what machines cannot replicate.

The Curriculum Gap

Structural problem persists. A study published in the *Journal of Education and Health Promotion* (2025), drawing on medical student surveys across India, found that most institutions lack mandates from regulators to formally incorporate AI into undergraduate programmes.

This means that the majority of AI learning happening today is unsupervised — students navigating these tools independently, without ethical frameworks or validation training. The ethical dimension is particularly urgent.

Guidelines from the Indian Council of Medical Research (ICMR, 2023) already call for embedding AI ethics into medical curricula — including training to recognise algorithmic bias, maintain explainability in clinical use,

and understand patient data rights under the Digital Personal Data Protection Act.

A student survey at Tufts Medical School (2025) found that students globally are not only aware of AI's potential but actively interested in ethical frameworks — requesting forums and coursework on AI's implications for patient privacy and clinical decision making. For aspiring students, 53.5 per cent of surveyed Indian medical students expressed desire for interdisciplinary teamwork between medical and computer science or data science students — a signal that the next generation instinctively understands that AI fluency requires collaboration across disciplines, not siloed expertise.

The self-diagnosis risk

As consumer AI tools normalise self-diagnosis, doctors and educators are sounding alarms. Dr. Shreshth Mukherjee of the Wadhvani Foundation has warned that misuse — such as taking antibiotics for viral fever based on AI recommendations — directly exacerbates antimicrobial resistance (AMR). India already records approximately 2.67 lakh direct deaths annually from AMR. Teaching the limits of AI is as important as teaching its uses.

A *Frontiers* AI study found that 70.5% of students identified AI algorithms for medical image analysis as a priority curriculum area, followed by AI in healthcare (62.2%) and mental health (59.4%). 52.5% want collaborative learning with computer science peers — a call for structural curriculum reform.

What industry demands

The Indian healthcare industry is evolving faster than ever. A 2025 report revealed that 40 per cent of Indian clinicians already use AI in their daily clinical work — a three-fold increase over the preceding year. This pace of adoption has created a significant and urgent demand for graduates who combine clinical credibility with technological competence. Institutions that continue producing graduates without AI literacy are, as one commentator put it, "preparing their students for a world that no longer exists."

This rapid adoption has created a massive demand for a new type of professional. The modern Indian medical student needs to move away from being a "passive recipient of knowledge" to becoming a "steward of technology." At the AI Impact Summit 2026, Union Minister Anupriya Patel emphasized that "AI will reduce the burden of doctors, not replace them."

Make AI work for India

The direction of travel is irreversible. India's AI diagnostic market is projected to triple in size by 2030, according to a March 2026 analysis by ResearchAndMarkets, and the government's Strategy for AI in Healthcare for India (SAHI), unveiled in March 2026, has provided the first national ethical and operational framework for this integration.

The Ministry of Health and Family Welfare is leveraging artificial intelligence (AI) to drive transformative change in public health services across India. The Ministry of Health has designated AIIMS Delhi, PGIMER Chandigarh and AIIMS Rishikesh as 'Centres of Excellence (CoE) for Artificial Intelligence' with an aim to promote development and use of AI-based solutions in Health.

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Adaptive intelligence enters India's medical classrooms

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The Ministry has collaborated with key organisations such as the Central Tuberculosis Division, National Centre for Disease Control, CDAC-Mohali, ICMR, MeitY, Ministry of Higher Education, Indian Institute of Science (IISc), and National Health Systems Resource Centre for a variety of AI projects. The Ministry has also collaborated with Wadhvani AI to provide technical support to the three COEs. The Ministry has developed AI solutions, including the Clinical Decision Support System (CDSS) in e-Sanjeevani, a Diabetic Retinopathy (DR identification solution), and the Abnormal Chest X-ray Classifier Model, among others.

With AIIMS Delhi, PGIMER Chandigarh, and AIIMS Rishikesh now designated as Centres of Excellence for AI development, the institutional scaffolding is being erected. For the generation of students now entering medical colleges, the challenge is not whether to engage with AI — that decision has been made for them by the pace of clinical adoption.

The challenge is to engage with it wisely: to develop the critical appraisal skills to challenge algorithmic outputs, the ethical literacy to protect patient rights, and the human empathy that no model can replicate. As the Philips Future Health Index noted, 92 per cent of global healthcare leaders believe automation is critical to addressing staff shortages. But that automation will only deliver its promise if the humans working alongside it are trained to demand accountability from it.

The medical students of today carry a stethoscope and a smartphone. Tomorrow, they will carry the weight of a healthcare system that cannot function without them — or without the AI they have learnt to lead.

or online certifications in healthcare AI fundamentals and data ethics.

- Cross-discipline — collaborate with engineering and data science peers; the future is interdisciplinary by design.
- Practice critical appraisal

— for every AI tool encountered, ask: who trained this model? On what population? What are its failure modes?

- Follow ICMR and NBEMS guidelines — stay current with India's evolving regulatory framework for AI in

medicine.

- Protect the human core — bedside manner, empathy, and complex clinical reasoning are your irreplaceable advantages.

**The writer is a AI Leader driving transformation with products and engineering*

What students should do now

- Seek formal AI coursework — electives, workshops,

Pure Sciences: Integrate integrity with intelligence



By S Radha
Prathi

The pursuit of excellence has been the driving force of mankind. The enthusiasts of the Sciences have experimented inexorably to seek and understand the nuances of life on earth and human

life itself.

Over a period of time the sciences diversified into various categories to facilitate research and study. Physics, Chemistry, Mathematics and Biology were identified as the Pure

Sciences. Soon, they became the cornerstone of all scientific studies. The fact that four out of six Nobel Laureate awards have been assigned to these haloed streams speaks in volumes about the impact of these sub-

jects on the all-round progress of life on earth.

It is certainly no wonder that young minds from all over the world are introduced to these subjects in increasing scales of difficulty right through their

formative years. Learners are familiarised with the basic aspects of pure sciences, their application and scope. This basic foundation gives the young pupils opportunities to delve deeper into the area of their



Young minds must stay grounded and master the essence of pure sciences intelligently and integrate it with integrity to harness the potential of AI and DS to introspect, innovate and scout unknown horizons

interest when they pursue higher education.

Different dimensions of sciences have been conceptualised, structured and shaped as courses to cater to the needs of the industry. As a result, the world has been populated with a whole range of professionals like doctors, engineers, scientists, architects, psychologists, astronomers, mathematicians, technicians among others who help the world to run on well-oiled wheels.

What began as a journey of pure sciences, soon diversified itself into a plethora of application-based learning. Students of each genera-

tion who chose to study the sciences for various reasons found themselves discovering various shades in the widening spectrum of scientific studies. Research based upgradations and changes have been made from time to time.

Today, Artificial Intelligence- AI and Data Sciences (DS) have aced the race of scientific progress. Now, scientists can avail the help of this novel aspect when dealing with time consuming activities like data collection, calculations, logistics, documentations et al.

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Pure Sciences: Integrate integrity with intelligence



vidya na tad dhanam."

Meaning: The knowledge in the book and money in another person's hand can be of no use to you when you need them.

Interpretation: So also, AI and DS will lose its purpose and can even become detrimental to humanity if it

Young minds must stay grounded and master the essence of pure sciences intelligently and integrate it with integrity to harness the potential of AI and DS to introspect, innovate and scout unknown horizons

is used irrationally without the understanding of the pure sciences.

When you delve deeper

into the study of sciences, it is impossible to miss its metaphysical and spiritual nature which endeavours to

find answers to the unravelled mysteries of life on earth.

■ The Taitareeya Upanishad says Satyam Jnanam Anan-

tam - Infinite nature of True knowledge.

■ Adi Shankaracharya arrived at the understanding of Quantum Physics philosophically.

■ Aristotle wrote extensively on the significance of mathematics and physics which can lead us into the realms

of Metaphysics.

■ Albert Einstein said "We still do not know one thousandth of one percent of what nature has revealed to us."

■ Abdul Kalam voiced, Science is a beautiful gift to humanity; we should not distort it." ■

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AI has conveniently circumvented the man hours invested in data analysis, structural prediction, simulation material sciences and even the need for elaborate laboratories by speeding up experimentation. Experiments, experiential learning, augmentation of information, prediction of possibilities and such other dimensions of research have accelerated beyond imagination. Machines and robots have been programmed to take care of specific tasks to help people from all walks of life to save their time and energy.

This magical development is but the result of years of collective methodical research of brilliant minds towards creating a more comfortable and convenient world, leaving man to scout for fresher degrees of knowledge and more possibilities for making life easier and exciting.

However, this scenario cannot be considered as a happy

ending of a science fiction or a fairy tale. Actually, science has reached a point where we have to be collectively careful from becoming complacent users of technology lest we are enslaved by our very creation. It is important to battle the lurking challenges which can corrode creativity, erode ethics, eat away our efficiency and decimate our empathy to the point of becoming null and void.

For doing so, young minds must stay grounded and master the essence of pure sciences intelligently and integrate it with integrity to harness the potential of AI and DS to introspect, innovate and scout unknown horizons with scientific spirit to make the world a safe and healthy place to live in.

Chanakya in his Chanakya Neethi has encapsulated the essence of AI and DS in this verse.

"Pustakastha tu ya vidya para hasta gamat dhanam. Karyakale samutpanne na ka-

Careers in Defence and Space Technologies

Dr. Ali Khwaja

Defence and warfare has moved from the battlegrounds to space and technology - electronic intelligence gathering, satellite

surveillance, drone attacks, surface-to-air missiles, supersonic jet fighters, and air-dropping of commandos. Space travel is also increasing at a rapid pace, and even private players are gearing up to send manned space-

ships beyond the earth's gravity.

Hence the development of technology in these sectors has gained significance, and many countries are competing to be in the forefront. India too has been making major strides

and is likely to emerge as a leader in the coming years.

To understand careers in these fields, let us delve into the history and development of the sector:

Initially India was dependent on

technologically advanced countries to supply armaments, ammunition, aircraft, radars, missiles and other high-tech equipment. Similarly, we did not have a space programme of our own, and our first Cosmonaut Squadron

Bright Indian students now have many opportunities in both military and civilian sectors, though entry is highly competitive.



REPRESENTATIONAL IMAGE

Leader Rakesh Sharma flew in a Russian spacecraft in 1994. Aircraft industries like Hindustan Aeronautics (HAL) went through a long journey of development before they could successfully manufacture airplanes and helicopters. A few reputed institutions earlier offered courses in Aeronautical Engineering, but none in Aerospace Engineering.

Similarly, our Ordnance factories developed and started manufacturing various forms of weapons and ammunition, and Defence Production evolved as a separate Ministry in the Government. Subsequently many reputed foreign companies have set up R&D and manufacturing units in India, which are doing very well.

If you have a technical bent of mind, are physically fit, and are adventurous with a strong patriotic inclination to serve the nation, there are various options to serve fruitfully while earning a decent salary. Bright Indian students now have many opportunities in both military and civilian sectors, though entry is highly competitive. Let us take the military service first, where you can be a Commissioned Officer starting as a Lieutenant or equivalent, and with opportunities to go up to level of Generals, or take voluntary retirement after 20 years of service.

Those who have studied up to 12th with Math, Physics and Chemistry can aspire to

particularly in the Indian Air Force or Indian Navy. The Indian Naval Academy also takes cadets through JEE (Advanced). Most of the other admissions are through various exams conducted by the Union Public Service Commission (upsc.gov.in).

Similarly, those who have studied engineering in various branches are eligible to join the three branches of Military through Combined Defence Services Exam (CDSE) and other exams conducted by UPSC, after which they are trained for a year and appointed as commissioned officer. In either case they can work till the age of superannuation, which has recently been enhanced to late-fifties. Those who take early retirement get very lucrative jobs in the civil sector since they have been involved in state-of-the-art technology, opportunities for higher studies, and even foreign missions.

Boys and girls who have studied up to 12th starting with Math, Physics and Chemistry, and cannot or do not want to pursue higher academics can join the Armed Forces as 'Agniveer', non-commissioned for-year employment, after which they are discharged with a handsome lump-sum payment. While in service they can pursue IGNOU's 3-year skill-based Bachelor's degree specifically for Agniveers. 25% of those who complete 4 years successfully are given permanent employment, and can aim for higher ranks also.

Careers in Defence and Space Technologies

Continued from P10

Civilian careers:

One need not necessarily be in the armed forces to serve the nation through technology. Many universities, including the IITs, offer courses in Aeronautical as well as Aerospace Engineering. Go through their syllabus and be clear about the difference between the two, and which field would be more interesting for you.

IISST, Indian Institute of Space Science and Research (iist.ac.in), sponsored by ISRO, offers B.Tech. in Aerospace as well as in ECE Avionics. Admission is through JEE (Advanced). Indian Institute of Astrophysics (IIA) Bangalore offers good post-graduate programs. IISc and IISERs too are very good gateways for students wanting to make a career in space related fields (iiseradmission.in).

Many MNCs who have set up centers in India absorb technologists from various fields both in research and product development of aerospace. Many Indian companies have also made their mark, including Tata Advanced Systems, Mahindra Aerospace, Taneja Aerospace, Samtel Avionics, BrahMos Aerospace. Employment is also available in HAL, NAL (National Aerospace Laboratory), ISRO (Indian Space Research Organization), BEL (Bharat Electronics Limited), DRDO (Defence Research and Development Organization), Bharat Dynamics, to name a few. Job openings are generally announced in the Department of Defence Production (ddpmod.gov.in)

In the Aeronautical sector, India has been consistently expanding airports and air services even in smaller cities and remote areas. Many professionals are required including aircraft maintenance engineers, air traffic controllers, fuel experts, Propulsion Engineer, Flight Test Engineer, and Quality Inspectors.

Those who are not science students but have a love for these sectors can find employment in aerospace, aeronautical and defence units which employ many non-technical personnel in areas such as

administration, finance, logistics, training, transport and estate management – and they can work for the progress and development of the nation. Even the armed forces employ both uniformed and civilian

officers who have qualified in these vocations.

As I mentioned above, entry is highly competitive, but if you do get selected you can look forward to a very rewarding and fulfilling career. ■

Rooted in Innovation

Why Agriscience is the New Career Powerhouse



By Neetu Sarangi

A few months ago, I walked into a classroom, locked students, and asked them a simple question: "How many of you would ever consider studying agriculture?"

The silence that followed wasn't just quiet—it was almost clinical.

A few students smiled awkwardly. One boy finally said, "Ma'am, I'm aiming for the IITs. I want to build AI, not drive a tractor. Agriculture is for farmers, right?" Another student added,

Agriscience has become one of the most interdisciplinary fields. It draws from biology, artificial intelligence, robotics, climate science, genetics and business. And for students willing to look beyond old stereotypes, that future is full of opportunities they may never have considered.

"We want something modern—data science, machine learning. The future is tech, not farms." I didn't blame them. Their answers were honest. But those responses also revealed something deeper: we have failed to show young people what agriculture

actually looks like today. Most students still imagine a man standing in a field with a plough. What they do not realise is that some of the most advanced technologies in the world—drones, artificial intelligence, genetic engineering, and

satellite imaging—are already transforming how food is grown. The future of farming is no longer confined to soil and fields. It now lives in laboratories, data centres, startup offices, and research stations. And for students willing to look beyond old stereotypes, that future is full of opportunities they may never have considered.

Feeding a Planet Under Pressure
According to the United Nations, the global population could

reach nearly 10 billion by 2050. At the same time, climate change is disrupting the very systems that sustain agriculture. Temperatures are rising. Rainfall patterns are becoming unpredictable. Water resources are shrinking. These are not problems that traditional farming methods alone can solve.

Agriscience is no longer simply about growing more food—it is about growing food smarter. It means using data to predict crop diseases, designing seeds



that can survive drought, and developing technologies that reduce water usage while increasing productivity.

Agriscience has quietly become one of the most interdisciplinary fields in the modern world. It draws from biology, artificial intelligence, robotics, climate science, genetics and business.

India and the Next Agricultural Revolution

For India, the importance of agriscience is even greater. Despite rapid urbanisation and the growth of technology sectors, agriculture continues to sustain a large portion of the population and remains a crucial pillar of the economy. Yet the sector faces enormous challenges—declining soil health, falling groundwater levels, and the growing impact of climate change and shortage of trained graduates.

The encouraging news is that India has been investing in agricultural science for decades.

The Indian Council of Agricultural Research (ICAR) leads a vast network of research institutes and agricultural universities across the country. Institutions such as Punjab Agricultural University, Tamil Nadu Agricultural University, and the Indian Agricultural Research Institute in Delhi have long been centres of innovation.

These were the institutions that powered the Green Revolution of the 1960s and 1970s, transforming India from a food-deficient nation into one of the world's leading agricultural producers.

Today, these same institutions are preparing for the next agricultural revolution—one driven not only by improved seeds and fertilisers, but by technology, sustainability and scientific research.

India's Quiet Agri-Tech Boom

There is another story unfolding in India that many students rarely hear about.

Over the past decade, the country has built one of the world's most dynamic agri-tech startup ecosystems. More than a thousand startups are now working to modernise agriculture using technology.

Companies like Ninjacart, DeHaat, AgroStar and CropIn are building digital platforms that connect farmers directly with markets, improve supply chains, and provide real-time advisory services.

Some startups use satellite data and artificial intelligence to monitor crop health and predict yield. Others develop smart irrigation systems and soil sensors that help farmers conserve water and optimise inputs. Some platforms even

deliver hyper-local weather forecasts tailored to specific villages.

These companies are not looking only for agriculture graduates. They need software developers, data scientists, engineers, economists and entrepreneurs.

For a student interested in innovation or building a startup, agriculture is quietly becoming one of the most exciting frontiers.

Careers That Didn't Exist a Generation Ago

Perhaps the most fascinating aspect of agriscience is the emergence of careers that simply did not exist a decade or two ago.

Precision agriculture specialists analyse large volumes of data collected from drones and satellite imagery to guide farmers on when to irrigate, fertilise or harvest.

Plant biotechnologists are developing crop varieties that can withstand drought, resist pests and adapt to changing climate conditions.

Agricultural drone operators now monitor thousands of acres of farmland using high-resolution aerial imaging.

Engineers are designing vertical farms inside urban buildings, where vegetables grow in controlled environments under LED lighting without soil or sunlight.

Researchers are also converting agricultural waste into biofuels, biodegradable plastics and sustainable materials, creating new industries from what was once discarded.

Agriscience is not becoming high-tech. It already is.

Young people who wait their careers to have a tangible impact on the world, agriscience offers something rare: the chance to combine scientific innovation with real societal value.

Ironically, the biggest challenge facing agriscience today is not a lack of opportunity. It is a lack of awareness.

Many students still believe that success heavily relies on glass-walled corporate offices in Gurugram, Bengaluru or Mumbai. They see agriculture as something traditional and outdated.

What they do not see in the laboratories, research centres, drone technologies, data platforms and startups quietly reshaping the sector. This perception needs to change as the next generation of agricultural professionals will not only be farmers. They will be scientists, engineers, entrepreneurs, coders and climate innovators.

The roots of agriculture will always remain in the soil. But its future belongs to the young minds willing to reimagine what is possible.

Agriscience once defined our past. Agriscience will define our future.

The writer is Education counselor @



Civil Services: The right career choice for you

Choosing a career in Indian Civil Services is not just about securing a prestigious position; it's about becoming a catalyst for change in society in the era of Artificial Intelligence. As an IAS, IPS, or IFS officer, you have the opportunity



By Harish P

to influence policies, address pressing issues, and contribute to nation-building. This profession offers unparalleled job security, respect, and personal growth while empowering you to directly impact millions of lives. If you're driven by the idea of public service and making a difference, the Indian Civil Services might just be the perfect path for you.

Also, a career in Indian Civil Services comes with a wealth of benefits that make it highly desirable. Here are some of the key perks:

- 1. Prestige and Respect:** Civil servants hold positions of high esteem in society, gaining immense respect for their contributions.
- 2. Job Security:** Government jobs offer unmatched stability, ensuring a steady career path even in uncertain times.
- 3. Influence and Impact:** As decision-makers and administrators, civil servants have the power to shape policies and directly address societal issues, making a tangible difference.
- 4. Diverse Opportunities:** The services encompass roles like IAS, IPS, and IFS, each with unique responsibilities ranging from governance to law enforcement to diplomacy.

- 5. Attractive Salary and Perks:** Along with a competitive salary, civil servants enjoy benefits such as official accommodation, healthcare, pension, and travel allowances.
- 6. Personal Growth:** The job offers immense learning opportunities, leadership experiences, and exposure to various challenges that contribute to personal and professional development.
- 7. Nation-Building:** It's a career that aligns with a sense of purpose—serving the country and its people.

What are All India Civil Services

- 1. Indian Administrative Service (IAS)**
- 2. Indian Foreign Service**
- 3. Indian Police Service (IPS)**
- 4. Indian Forest Service (IFS)**
- 5. Indian Accounts and Audit Services (IAAS)**
- 6. Central Services**

These services are considered the backbone of India's administrative machinery and are responsible for maintaining law and order, implementing government policies, India's foreign policy ensuring effective governance at both the Central and state levels and global levels.

Historical Background

The concept of All India Services dates back to the British Colonial era when the "Indian Civil Service (ICS)" was established to administer British India.

After independence, the need for a unified administrative framework led to the creation of the Indian Administrative Service (IAS) and the Indian Police Service (IPS) under the "All India Services Act, 1951".

The Indian Forest Service

(IFS) was added later in 1966 to address the growing need for environmental conservation and forest management.

Key Features of All India Services

Unified Recruitment and Training: Recruitment to the

All-India Services is conducted through the "Civil Services Examination (CSE)", organized by the Union Public Service

Commission (UPSC). Selected candidates undergo rigorous training at the "Lal Bahadur Shastri National Academy of

Administration (LBSNAA)" in Mussoorie (for IAS), "Sardar Vallabhbhai Patel National Police Academy (SVPNPA)"

in Hyderabad (for IPS), and the Indira Gandhi National Forest Academy (IGNFA) in Dehradun (for IFS).

Fashion Technology & Jewellery Designing are Game-Changers



E.M.K.

Fashion and jewellery have always been powerful forms of self-expression.

From clothing that reflects personality to jewellery that tells stories of culture and identity, these creative fields continue to evolve with changing lifestyles, and consumer preferences. Today, however, the industry is going through a major transformation.

Technology, digital platforms, sustainability concerns and global connectivity are reshaping how fashion and jewellery are designed, produced and sold. As a result, specialised courses in fashion technology and jewellery designing are gaining growing importance for students who want to enter these creative industries with the right blend of artistic and technical skills.

A Rapidly Changing Industry

The fashion world has never been static. Trends shift constantly, influenced by culture, social movements, technology and global events. What makes the current phase particularly interesting is how rapidly technology is becoming part of the creative process.

Artificial intelligence, digital design tools and 3D visualisation are increasingly being used in the design and development of garments.

Designers can now create digital prototypes, experiment with colours and textures virtually, and test designs before a single piece of fabric is cut. This not only speeds up the process but also reduces material waste.

Even in high-profile fashion events and celebrity wardrobes, technology-driven design concepts are becoming more visible. Large global celebrations and luxury events often showcase experimental couture, highlighting how innovation is slowly blending with traditional craftsmanship.

Fashion technology courses therefore, focus not only on design but also on tools such as computer-aided design (CAD), digital pattern making, garment construction and textile innovation. Students learn how creativity and technology can work together to produce designs that are both practical and forward-looking.

Jewellery design education has also expanded in a similar direction. While traditional skills like stone-setting, metal work and enamelling remain essential, many institutes now introduce students to 3D jewellery modelling, digital rendering and advanced manufacturing techniques. These tools allow designers to experiment with complex shapes and intricate patterns that would have been difficult to visualise earlier.

Sustainability Takes Centre Stage

Another major factor influencing fashion and jewellery education today is sustainability. Consumers are increasingly aware of how products are made and where materials come from. This awareness has pushed brands and designers to rethink their practices.

Many educational programmes now include modules that explore sustainable design approaches, responsible sourcing of materials and ethical production processes. Students are encouraged to work with eco-friendly materials.

Fashion and jewellery are no longer just about creativity and craftsmanship. With technology, sustainability and digital platforms reshaping the industry, modern courses in this field are equipping students with the skills needed to thrive in a fast-evolving global market.



By Anushka Sarkhel

Designing Your Career in Fashion Tech

One of the biggest advantages of studying fashion technology or jewellery design is the variety of career options available. Graduates are not limited to becoming designers alone.

They can explore roles such as: Fashion designers, Jewellery designers and craftsmen, Pattern makers and garment technologists, Fashion stylists, Merchandisers and buyers, Trend forecasters, Fashion marketers and brand strategists.

With technology playing a larger role in the industry, there are also new opportunities emerging in areas like digital fashion design, virtual garment development and online fashion retail.

For many students, entrepreneurship is also an attractive path. Starting a small label, launching a handcrafted jewellery brand, or selling customised designs online has become more accessible than ever before.

'Sikhya kranti' reality check



DP SINGH

PROFESSOR, SOCIAL WORK DEPT,
PUNJABI UNIVERSITY, PATIALA

WITH elections due in less than a year, the Punjab government has rolled out a publicity campaign — from streets to pages of newspapers. The scale of outreach ranges from drugs and corruption to governance, health and education. In the education sector, the flagship slogan 'sikhya kranti' stands out, projecting a claim of comprehensive transformation. It is worth examining how deep and comprehensive this change really is.

The initiatives under the 'sikhya kranti' have largely focussed on school-level improvements, with limited reference to higher education. A genuine 'kranti' or revolution in education would ideally touch every level — from primary schools right up to universities.

It should extend to learning outcomes, institutional capacity and continuity from schools to higher education. Progress at one stage becomes truly effective only when the next stage is ready to support and build upon it.

At the school level, a closer look at enrollment, teacher availability, infrastructure and retention suggests gaps. Despite the government's efforts, the preference for private schools shows little sign of decline.

This pattern is not just about choice, but about perceived quali-

ty of education in government schools. Recent data indicates a decline in government school enrolment, while the transition from elementary to secondary classes remains a concern.

Only a limited number of schools report adequate infrastructure and access to essential learning resources. Teacher availability illustrates the gap between policy claims and ground realities, with many schools operating with unfilled vacancies. Uneven deployment means that staffing shortages persist in many schools.

In the college sector, the government has introduced programmes and emphasised skill development. Yet, structural difficulties persist, with many colleges functioning with shortages of regular faculty and relying on temporary teachers.

Sanctioned posts remain unfilled, departments operate on ad hoc arrangements, affecting academic quality. In aided colleges, more than 2,000 of the roughly 3,600 sanctioned teaching posts remain vacant.

Also, the disbursement of grants remains irregular because of which many colleges operate in dilapidated buildings with under-resourced libraries and labs.

Scholarship delays have affected students from poorer families.

Universities across the state are facing financial stress. Recruitment of new faculty has been limited for several years and salaries or pensions have occasionally faced delays.

While overall education spending has increased in nominal terms, a significant portion in universities goes towards meeting salary and pension obligations, leaving relatively less for research, infrastructure upgrades and new academic initiatives.

The combined grant-in-aid to major public universities leaves limited room for upgrading laboratories, libraries and research activity. The recently reported budget deficit of Rs 125 crore at Punjabi University highlights the financial pressures.

Such constraints do not remain confined to finances alone; they affect research output, academic innovation and the ability of institutions to respond to emerging needs. In such a scenario, the government's claims of a 'kranti' in education appear overstated.

These challenges impact the day-to-day functioning and perceived reliability of public education. 'Sikhya kranti' calls for a coordinated progress at all levels.

Strengthening human resources, institutional capacity and predictable funding remain essential if these improvements are to translate into durable academic outcomes.

Upgrading schools, developing schools of eminence, enhancing infrastructure and strengthening teacher training alone are unlikely to deliver comprehensive transformation. It is balance and depth of reform that the idea of a 'sikhya kranti' can find fuller meaning.

A genuine 'kranti' in education would ideally touch every level — from primary schools to universities.



Shashi Warriar

Off the beaten track

The meaning of education: Full bellies, empty minds?

My ex-professor friend Raghavan turned up the other day, looking hungover. Turned out he wasn't he was merely depressed, so I brought out some good Scotch to try to get him at least to talk about whatever troubled him. He had just started on his first when Murthy's infallible nose led him to my house, and I settled him down, too, while my wife Prita went off to make samosas to cheer him up.

The samosas didn't cheer him up but they did get him talking. "The institute where I teach part-time," he explained, finishing a samosa in two large mouthfuls, "has been taken over by a new university that's very close by!"

That didn't seem too much of a disaster, and I said so. "Little do you know," he moaned. "The old university was too far away to interfere with what I taught: I had to keep them informed. All that's gone now. We have standards for my course now, and external examiners and a bureaucratic procedure for question papers for the end-semester exams."

It still didn't seem to be so bad, and I began to say so. Prita shushed me, whispering, "Let him finish, poor guy!"

Murthy asked the question that was bothering me. "What's wrong with standards?" he asked.

"Nothing," replied Raghavan, sadly, "if they support learning."

"What's that mean?" asked Prita.

"The university lets me do what I want to do with the course," replied Raghavan. "So, I define the course objectives, design the course, set up the assignments and so on, and give it to the university... You know, modern communication is quite complicated. You can write, or make a presentation, or a video, or whatever. I'm sure technology will bring even more change. Students have to learn to adapt. So I try to teach them one simple principle: If you learn to think clearly, your words will take care of themselves. So when they come across some new tech, they'll be able to take it in their stride. That's at the core of my teaching: thinking clearly."

"Sounds good," said Murthy.

"That's what I thought," said Raghavan. "Trouble is the external examiners don't bother to find out what I'm trying to do, so they assess students any way they think fit. So I might give someone good marks although they've misspelt a few words but thought matters through. They deduct marks for spelling or bad grammar. You see the difference?"

"Yes," said Prita, "but so what?"

"Well," said Raghavan, "if the difference between my marks and the external examiner's marks is more than 15 per cent, the paper goes to a third examiner... And that's a person who has no idea what either I or the regular external examiner is trying to do. So a student who happens to suffer this fate ends up in the hands of a complete stranger."

Murthy interjected here. "But don't all teachers face this problem?" he asked.

"In principle, yes," said Raghavan, "but not in practice. You have so much material in other courses that reading material is standard, techniques are standard, tests are standard."

"Don't you have similar standards in communication?" asked Murthy.

"Yes," said Raghavan. "They tell you how to make a good presentation, how to dress for an interview, how to be 'positive', what your body language says about you, and things like that. I don't want to teach that. I want to teach students how to think. I want them to take a position, anticipate objections, understand an audience, and present an idea with clarity and force."

"So?" asked Prita.

"One way to do this," Raghavan said, "is to teach students to look at the same thing from different points of view. Let them think up the positives and negatives on all sides. I like to check how well they've brought up their points and put them together in an argument. That's what matters, after all."

"So why can't you do that?" asked Murthy.

"Because the university doesn't allow it!" said Raghavan. "This semester, when the university asked me to set the end-semester question-paper, the most important question asked students to compare the pros and cons of two alternatives. There was no clear answer. Students had to argue which was better. Since the university insists that the paper setter give a sort of model answer, I gave them two model answers, one for each alternative."

"They cut it out," continued Raghavan. "They replaced it with some stupid thing about how to use fonts in a PowerPoint presentation." He seemed on the verge of tears.

"What!" said Prita, sitting up straight in outrage. "Don't they want students to think?"

"Of course not!" said Murthy. "It's only the good universities that they do that. The average university is an extension of school. You sit in the class, absorb what the teacher tells you, and read the textbooks. When exams come around, you prove that you've done that."

"But the students will be in trouble the first time they come across different opinions and have to choose!" said Prita.

"Exactly!" said Raghavan. "Thinking clearly helps them make good decisions, too! I always thought business schools, and therefore universities, intended to show them that!"

"That's not the idea," said Murthy.

"What do you mean?" asked Prita.

"The average university doesn't teach what it can't test," said Murthy.

"So?" asked Prita.

"So students learn not to have thoughts that can't be graded easily," said Murthy. "Universities make thinking irrelevant, and certify the result as education!"

"Ah!" said Prita. "Taoist universities!"

"What!" said Raghavan.

"The Tao tells you how to govern people," she replied, an edge to her voice. "Empty their minds and fill their bellies..."



You know, modern communication is quite complicated. You can write, or make a presentation, or a video, or whatever. I'm sure technology will bring even more change. Students have to learn to adapt. So I try to teach them one simple principle: If you learn to think clearly, your words will take care of themselves. So when they come across some new tech, they'll be able to take it in their stride. That's at the core of my teaching: thinking clearly.

Shashi Warriar is an author and a columnist

3RD LANGUAGE ROW

'Could've been backup like in CBSE' vs 'Good step for 2-language policy'

Lame duck of a language for a leaner curriculum?

RASHMI BELUR
BENGALURU, DHNS

The recent and sudden announcement by the state government to do away with the marks system for third language subjects in SSLC board exams and shifting to grading system has received mixed reactions.

Though the private schools affiliated to the state board have raised objections to the decision expressing concerns from the students' point of view, academicians, Kannada Development Authority and pro-Kannada activists have welcomed it.

They say that this decision is the first step towards the introduction of two-language policy in the state.

The reason for private schools to oppose this decision is mainly because of the policies followed by other boards, especially Central Board for Secondary Education (CBSE), the main competitor for state board schools.

"The number of schools affiliated to the Indian Certificate of Secondary Education (ICSE) board is very few in the state, but CBSE schools are our main competitors. This sudden decision by the government threatens the state board schools as there are high chances of migrant population from other states, specially Hindi-speaking ones, shifting to CBSE schools," said the representative of a private unaided school from Bengaluru.

The Associated Management of Primary and Secondary Schools in Karnataka has submitted a petition to Chief Minister Siddaramaiah, demanding that the government drop the decision.

D Shashi Kumar, general secretary of the Association, said, "Kannada is mandatory first or second language in the state,

Figures for 2025-26

Third language	No. of students
Hindi	7,52,000
Kannada	11,400
English	32,000
Urdu	5,544
Sanskrit	5,159
Tulu	845
Konkani	34
Marathi	03

Fail percentage up

The number of students failing in third language, including Hindi, in SSLC examination is increasing every year.

In the 2024-25 SSLC exam, a total of 1.64 lakh students failed in third language (1.48 lakh in Hindi).

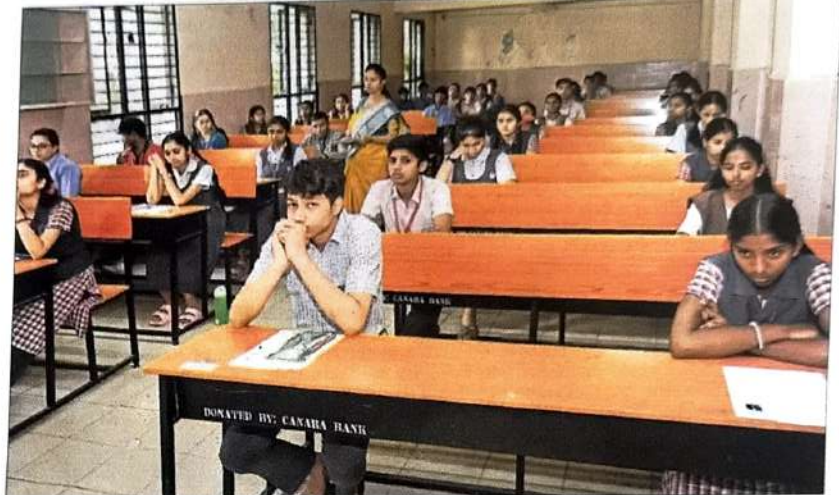
even at other board schools and there is no threat to the language of the land. Schools are teaching English also as a first or second language as it is the global language. Along with this, a third language is a must to foster well-rounded development of the child. Instead of shifting to a grading system, the government should have reduced the overall marks for third language, keeping it as a back-up subject, like in CBSE."

He said, before taking the decision, the government did not discuss with any of the stakeholders.

"We feel the decision was taken to fulfil the demands of a particular group of people and such decisions will turn suicidal for the state education system," he added.

However, developmental educationist V P Niranjanaradhya said this decision was the first step to implement a two-language policy.

"The government has made a very good decision. But



With grades and not marks being awarded for third language in the SSLC examination from the current academic year itself, stakeholders say the decision could have been taken after discussing with all concerned.

From this year itself

As announced by School Education and Literacy Minister Madhu Bangarappa recently, the grading system for third language will be applicable from the current year itself. With this, students will get grades instead of marks in third language. The SSLC pass percentage

from now on will be calculated for 525 marks instead of 625, though students will write exams for 625.

When asked whether it is an indication of a two-language policy, the minister said, "I will not talk about it now. It has to be discussed on a larger platform".

What CBSE follows

In CBSE, third language helps students enhance overall results in class 10. Though a third language is not mandatory, it is a supplement after class 8 and if students opt for a third language, it will act like a backup if they score less in any subject in board exams.

In class 10, if a student fails in first or second language, marks of third language will be considered.

Even if they have passed first and second language, and

the highest score is in third language, the board considers the third language score.

Disadvantages of grading

As explained by many teachers, the percentage of students in board exams is very important to get admissions for PUC.

"We have seen many students losing PUC seats because they fall short by a few percentage points," a college principal said.

Some said not awarding marks for third language, specially Hindi (as a majority of the state board schools offer Hindi as third language) will deprive their competitiveness.

"Most competitive exams, recruitment exams are in English and Hindi. As English is not that easy for Kannada-medium state board children, they can try their luck in Hindi. Also, there are exams which are only in Hindi, especially in banking and defence sectors. There, our youths will lose opportunities," said the head of a leading competitive exams training centre.

PM seeks varsity role in govt surveys

**BASANT KUMAR
MOHANTY**

New Delhi: Prime Minister Narendra Modi wants universities to get involved in various government surveys and to review their journalism courses “to make them more effective”, an education ministry letter forwarded to all vice-chancellors says.

It does not explain what specific changes, if any, to the journalism courses the Prime Minister wants or why and in what capacity the universities should associate themselves with surveys.

Following education ministry instructions, University Grants Commission secretary Manish R. Joshi wrote to all vice-chancellors about this on March 23. Attached with his letter was a letter from the ministry, issued under

the subject line “Suggestion of Hon’ble Prime Minister regarding association of HEIs with surveys and review of journalism syllabus”.

“Universities and Higher Educational Institutions (HEIs) may be associated on a challenge mode with various surveys being conducted by Government of India, Ministries/ Departments (such as MoSPI, MoHFW, etc). They may even be entrusted with the responsibility of undertaking certain surveys,” the ministry letter said.

The National Sample Survey Office under the ministry of statistics and programme implementation conducts periodic national surveys on the employment or industrial situation, spending patterns and other subjects. The ministry of health and family welfare conducts the National Fam-

ily Health Survey. “Syllabus in Journalism course may be reviewed to make them more effective. UGC & AICTE are requested to issue suitable advisories to institutions under your jurisdiction regarding the same matter,” the ministry letter said.

While the UGC regulates general courses, the AICTE regulates technical courses such as engineering, management and pharmacy.

The letter does not specify whether students of all or certain specific courses should join the surveys, and whether they should be doing fieldwork or analysis or both.

Academic and former UGC vice-chairperson Bhushan Patwardhan welcomed the directive to review journalism syllabuses while suggesting that all higher-study courses undergo similar reviews to im-

prove their quality. “Journalism is supposed to bring out the true picture of society.... With time, the syllabus should be revised,” Patwardhan said, without elaboration.

He said the quality of higher education was falling in general, one key reason being the “quality of content”.

“The syllabuses of all courses should be revised,” he said. Patwardhan advocated the implementation of the UGC Quality Mandate of 2021 that emphasised teacher training, faculty development programmes, accreditation and assessment of institutions, examination reforms and industry linkage.

P.C. Mohanan, former acting chairperson of the National Statistical Commission, expressed scepticism about the deployment of university students in government sur-

veys, saying they lacked the expertise. However, he said, universities can revise their syllabuses to include survey methodologies and findings.

“Universities can popularise survey and survey data. This will help get students ready to pursue careers in survey projects,” he said. “The statistics courses in universities currently teach mainly mathematical concepts. Their syllabus should be revised to add more content on survey design, implementation, and data processing and analysis. Students of disciplines like economics, sociology and similar subjects can be sensitised on data interpretation.”

Amitabh Panda, former NSSO additional director-general, advocated a middle path — that of training students in survey techniques before letting them join such exercises.

Value of conscientiousness

What educators and students can learn from the International Day of Conscience (April 5)

Walk for Peace by the Dhammacetiya monks and their dog, Aloka, in the U.S. Juxtaposed, however, are video games, media, and social media, comprising violence in different formats, in different genres, and spread across local to international locations geographically.

In contemporary education, the unethical use of generative Artificial Intelligence (AI) in research and assessment in

higher education and PK-12 schools respectively begs the need for conscientious individuals. When violent and/or dishonest means are normalised and begin to replace basic human values, it becomes imperative to make the International Day of Conscience more relevant and deliberate than ever in educational institutions.

For educators

What can educators do in their spheres of influence to encourage students to become conscientious individuals and citizens?

While the cliched phrase in education states that "Values are to be caught, not just taught", there is value in both. Educators can teach students about conscience via the three hats they wear: the unique positions that they hold, their subjects, and teaching courses such as value education, service-learning, global perspectives, life skills, and the like. Subjects other than languages or Social Science teach values. Sciences, Maths, and so on possess inherent potential to teach about conscientiousness.

Typically, students look up to teachers who teach, grade, and mentor conscientiously. Experiences have shown that students who want to take it easy, who see a conscientious teacher as "strict to work with", and who "hang out" with educators who provide fun sans conscientiousness turn around when life and age

teach them hard lessons. There is no doubt that conscientious teachers leave an indelible mark on the minds of their students.

For students

What can students do in their spheres of influence to become conscientious individuals? A student's ability to recognise and respond to the needs of those in the margins is a hallmark of conscientiousness. The act of giving is not confined to monetary donations; it extends to skill and time that students can give in service to society.

Conscientiously using the planet's resources and living in harmony with nature are crucial today. Peace and partnerships are vital to a smoothly functioning society. Engaging with civility in "difficult dialogues" can foster peaceful relations and understanding.

Everyday life happens in the context of language, social and emotional interactions and is necessary even for professional settings.

The lesson from the marshmallow experiment can be extrapolated to leading a conscientious life. In the 1960-70s, Walter Mischel, a professor of psychology at the U.S.' Stanford University, studied how the self-control skills of four year olds could relate to future success. Children were offered a choice of "one marshmallow now or two marshmallows if they waited for 15 minutes". Follow-up studies found

that children who had waited for the second marshmallow by exercising self-control had obtained higher scores, had fewer health issues, and were better in social skills and stress response.

Taking short cuts seldom leads to permanent solutions and success! Conflict resolution and community engagement ought to go beyond requisites for credits, college admissions, and job CVs.

The art and science of self-reflection is a must for educators, students, and

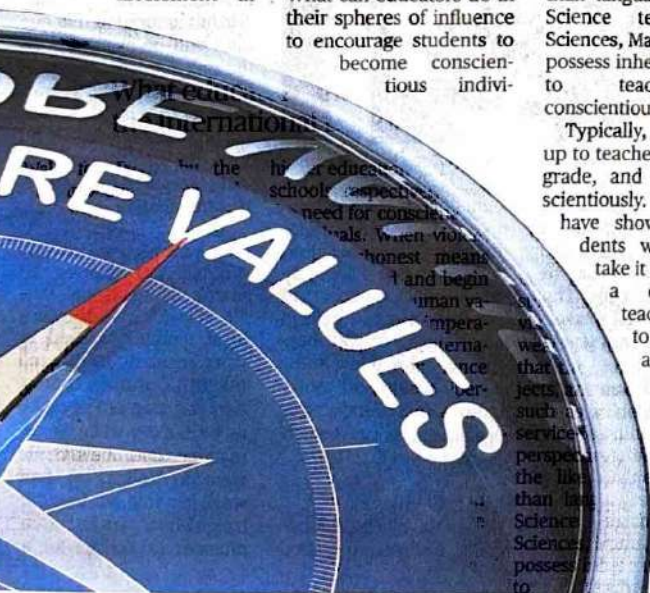
everyone. Self-reflection can make a person deeply conscientious. Journaling should not become a mere check in the checklist for "Becoming a More Productive Person." Reflection and journaling must pave the way for greater empathy and conscientiousness.

One day of observing the International Day of Conscience is not a panacea. Conscientiousness, when deeply rooted in individuals, can help transform the collective. This needs application of critical think-

ing and deliberate action.

Conscientious families, neighbourhoods, communities, academics, businesses, and other social institutions are the bases for a healthy world. Educational institutions can use the International Day of Conscience as a springboard to recommit to being more and more conscientious, and to spread the word and deed in the community.

The writer is a retired associate professor, Education and Psychological Sciences, Christ University, Bengaluru.



We need to find ways to make Indian languages talk to each other



PEGGY MOHAN

S CROLLING THROUGH my internet feeds one morning, I happened upon a video interview with an Iranian woman, a legal scholar who had previously been a student at Yale University in the US, saying that she made the decision to leave North America and return to Iran to be "freer" to do her research. As an academic, she said, she wanted to help "relocate knowledge production" and be among Iranians "inside", so that they would no longer have to understand themselves through the lens of the outside world.

When one reads of public figures in Iran, one often hears of how educated they are, with postgraduate degrees and publications. So I searched out the books by Ali Ardashir Larijani, secretary of the Supreme National Security Council, who was killed in a targeted assassination in March 2026. They were all in Farsi. The philosophical issues he discussed, and for which he was famous, were part of a discourse that was happening in Iran in Farsi. Not only were his writings accessible to ordinary Iranians, they were also already part of a national conversation about these issues.

When we write in English in India and think our books are doing well, we have no idea how much better book sales are in places like China or Iran, where the penetration goes far beyond the tiny layer of population that reads English without dictionaries close at hand. All this time, publishers in India have assumed that the things we write about in English would not be of interest to the people who don't know English and depend for their reading on what is written in Indian languages. But in the last few years, there has been a change.

All of a sudden, there is a rising demand for some of these books to be translated into Indian languages, a demand not coming from the government, or publishers with their eyes on the bottom line, but from readers. Small publishing houses and maverick translators are now approaching some of us who write in English for permission to translate our books into various Indian languages.



We do not need to "awaken" Indians outside the citadel of English to all that they are missing: They are approaching us on their own to find out. There is now a huge demand for translation, and the right people to do this are, ironically, the same students in our universities who are being told that without English they will face unemployment after they graduate with degrees in Indian languages, or in subjects taught with Indian languages as the medium of instruction. As it

happens, they are exactly who we need for the mammoth task of translation that would integrate the rest of our society into "knowledge production".

What would it take for India, with our many languages and different scripts, to have a robust "Indosphere", where, like in China, a mind-boggling 900 million internet users would communicate every day to link this diverse land and build an open-ended future? The simple answer is a home-grown AI focused not on translating from English into Indian languages, or from individual Indian languages into English, but on translating input in any written Indian language into output in any other written Indian language in real time. Where Indian languages would, at last, be "talking to each other".

This is not a difficult proposition, nor is it anywhere near as computationally heavy or energy-consuming as the AI that is required for mass surveillance and military applications. And far from causing unemployment, it would actually add to job opportunities by creating a whole new employment stream, one that specifically seeks out the sort of Indians who know Indian languages best, to use them as translators, revisors of AI-translated text, and as the designers of the system itself.

It is not that Iranians and Chinese are vastly more intelligent than us. It is simply that Iran and China have been using their human resources more efficiently. India is like a car that is unable to fire on all its cylinders, and must watch the others racing ahead despite all our best efforts. When all of our population is able to participate in "knowledge production" we will pick up speed and move forward to take our place in the coming Asian century.

Mohan is a linguist who writes on the history of Indian languages. Her forthcoming book, Framing The Future, will appear as a Penguin publication in September 2026

Leading softly with humility

Humble leaders invariably shape culture in ways that loud, ego-driven leadership cannot, writes John J Kennedy



Many of us easily fall for the stereotype that great leaders must necessarily be towering personalities. We think they must be bold, assertive, and endlessly confident. How often have we imagined our leaders as people who make their presence felt and push their teams forward with sheer force of will! However, once we go past that perception, we realise that what truly strengthens teams and keeps institutions thriving is something far more powerful than any of these: humility, a simple yet difficult virtue to practise.

Research has shown that humble leaders invariably shape culture in ways that loud, ego-driven leadership cannot. In fact, the influence of humility extends

across various sectors, from classrooms and hospitals to corporate offices and public institutions, creating workplaces where people feel respected, motivated, and capable of delivering their best work.

Two important myths to be discarded while discussing humble leadership. The first is the notion that humility in leadership is a weakness. Or that it reflects indecisiveness; worse, such leaders lack ambition. In contrast, humble leaders are grounded in the profound truth that they are learning and not omniscient.

In other words, a humble leader is aware that every team member is unique and brings something valuable to the table. Such leaders also recognise

that listening is often more important than speaking. Because, for these leaders, feedback is not a threat but a valuable gift. They would always share credit, welcome honest conversations, and even encourage members to challenge their ideas. Most importantly, they feel no need to dominate the spotlight. They create space for others to shine.

The positive impact humble leaders have on daily work is impossible to ignore. People working under such leaders report feeling heard, valued, and supported. They feel confident enough to share ideas, participate fully, and acknowledge their errors without hesitation. Fear, authority, and pressure are tools these leaders never use. They strive to create a space centred on trust

that gradually translates into meaningful engagement, ultimately providing satisfaction to employees. Naturally, therefore, in such workspaces, no time is wasted either in defending oneself or in impressing anyone. These spaces become truly open, collaborative, and innovative.

Needless to say, this kind of openness also inspires creativity. When ego and tight control are set aside, people think more freely, and solutions emerge through collective effort rather than from individuals working alone. It is in such a setting that real innovation begins to blossom.

By working, learning, and growing together, these teams are strengthened and become adaptable. In fact, even in difficult situations, they stay steady, confident in the power of joint problem-solving.

Humility, it must be remembered, is not just a soft, feel-good idea meant only for ethical debates, but it has a direct impact on results. Leaders who remain humble would never shy away from feedback. They remain open to learning and can handle uncertainty with greater clarity because they are unburdened by ego. They admit to mistakes and tend to recover faster from setbacks because their focus is on learning rather than blaming others.

A humble leader continually learns and adapts, which in turn encourages the team to grow in the same way. Such leaders help all types of institutions grow by building respect, trust,

and a sense of belonging. No wonder employees stay longer in such spaces. The simple reason is they feel supported and valued.

Today's workspaces are very diverse. The problems encountered are so complex that the leader alone cannot provide solutions. The all-knowing, towering leader myth, therefore, needs to be busted. True leadership is no longer about being the strongest or the loudest. It's about helping others believe in themselves and grow. A leader who can honestly say "I don't know" and is willing to learn from the team is the need of the hour.

The second myth to be dispelled is that humility is something people are born with. Studies have shown that it is something leaders develop over time by trying, learning, and practising. By asking for honest feedback, owning up to mistakes, and ensuring that the people who do the heavy lifting receive the credit, the leader matures.

When leaders listen closely, stay present, and treat their team as partners, the culture around them slowly changes. Trust grows stronger. People feel more invested in their work, and the institution becomes their second home in the real sense. Let's not forget that what gives organisations their strength, their continuity, and perhaps even their soul are these quieter qualities, rather than the dramatic speeches or grand displays of authority.

(The author is an educator with over three decades of leadership experience)

07/7/14

07/7/14

Fresh courses, new era for Behala College

**SUBHANKAR
CHOWDHURY**

Calcutta: Behala College, which gained autonomous status last year, will admit students at the undergraduate level independently from the 2026-27 academic year, stepping away from the state-run centralised admission portal.

The college could not admit students independently last year because undergraduate admissions had already begun by the time the college

gained autonomy from the UGC, despite alleged resistance from the CU.

"Like St Xavier's College and the autonomous colleges under RKM, we will start our admission process once the Plus II board results are out," principal Sudip Kumar Chakrabarty said.

Last year, the centralised admission portal became operational one and a half months after the publication of the Plus II board results in May, triggering protests

from colleges, many of which blamed the delay for not being able to attract bright students.

This year, Behala College is introducing a BBA (Bachelor of Business Administration) programme at the undergraduate level.

"We have the necessary approval from the AICTE. We are working on a plan to introduce programmes in artificial intelligence and web designing from 2026-27," the principal said.

The college plans to introduce a three-year under-

graduate law programme and a certificate course in drone technology.

Behala College is campaigning on social media platforms such as YouTube and Instagram, announcing that it is embarking on its autonomous journey. It plans to put up placards outside schools so that students who have written their school-leaving examinations are aware that the college will now admit students on its own.

After obtaining autonomy last year, the college

constituted its own boards of studies, which oversaw the programmes and moderated question papers and evaluated answer scripts.

"One of the reasons why we are seeking to expand by introducing courses like the BBA and web designing, is because these are the courses in sync with time and a must to attract bright students. Traditional courses do not attract bright students anymore," said Sharmila Mitra, the former principal of the college.

Standing for medical science, together with AIIMS

Democratising world-class healthcare by expanding medical education, correcting regional imbalances, and ensuring accessible, affordable, and equitable care for all Indians



M. Srinivas

Director of All India Institute of Medical Sciences, Delhi

For over a billion Indians, world-class healthcare is no longer a distant dream centred in New Delhi; it is now a reality closer to their homes. Over the past decade, the Government of India has pursued a coherent strategy to make healthcare accessible, affordable, and consistent for every Indian, irrespective of where they live. This transformation marks a shift from a model in which medical excellence, the beacon of hope, was concentrated in one city to one in which it is distributed across every region, working as a unified national system.

Medical education

The journey toward equitable healthcare begins with the creators of care – our doctors. India has witnessed a rapid expansion in medical education infrastructure to meet the needs of the country. Since 2014, MBBS seats across India have surged from around 50,000 to approximately 1,20,000. Similarly, postgraduate

seats have expanded from around 30,000 to roughly 80,000. By significantly increasing the number of medical colleges and specialty seats, the government has ensured a steady pipeline of healthcare professionals.

The instrument of this structural transformation is the Pradhan Mantri Swasthya Suraksha Yojana (PMSSY). Launched with the explicit mandate of correcting regional imbalances in tertiary healthcare, PMSSY has gained unprecedented momentum since 2014. Of the 22 AIIMS approved under the scheme, the majority were sanctioned and operationalised in the last decade.

The strategy was clear: establish institutions of the highest national standing in regions that needed them most. These are not mere satellite campuses; each is an Institute of National Importance (INI), mandated to deliver world-class clinical care, education, and research, the trinity mission of AIIMS.

The impact on patient care has



By significantly increasing the number of medical colleges and specialty seats, the government has ensured a steady pipeline of healthcare professionals. GETTY IMAGES

been staggering. In the last few years alone, the new AIIMS have collectively treated crores of outpatients and millions of inpatients. AIIMS New Delhi, the first AIIMS, recorded approximately 50 lakh OPD consultations in a single year. Services that once required patients to travel hundreds of kilometres are now available locally. This has led to a substantial reduction in Out-of-Pocket Expenditure (OOPE), preventing millions of fa-

milies from falling into poverty due to catastrophic health costs.

The AIIMS expansion sits within a broader architecture of reform. While AIIMS ensures the availability of care, Ayushman Bharat PM-JAY guarantees affordability by providing financial protection to over 55 crore citizens. Complementing this is the Ayushman Bharat Digital Health Mission (ABDM).

The new AIIMS institutions have consistently topped the

charts for the highest ABHA (Ayushman Bharat Health Account) registrations and have utilised the "Scan and Share" facility to reduce wait times, ensuring that patients' health records follow them seamlessly across the country.

The evolution of these institutes is supported by a unique "hand-holding" model. AIIMS New Delhi, as the "Mother AIIMS," has played a pivotal role in mentoring new institutions, supporting them in establishment, recruitment, teaching, learning, and fostering research collaboration. This ensures that the "AIIMS Brand" of excellence is maintained and the "AIIMS work culture" is propagated.

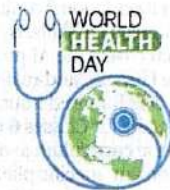
This collaboration reached a milestone in January 2026, when directors and deans from all operational AIIMS gathered at AIIMS New Delhi to sign a Memorandum of Understanding establishing the Pan-AIIMS Research Consortium.

This framework formalises joint clinical trials and shared patient data focused on India's specific epidemiological priorities, cancer, metabolic disorders and the integration of AI in medicine.

Government commitment

With an allocation of around ₹11,000 crore for PMSSY in the Union Budget 2026-27, the commitment to health remains steadfast. The Government of India is not merely expanding services; it is democratising tertiary medical services. This is what equitable healthcare looks like in practice – a system where the

quality of care is determined by clinical need, not by a patient's geographical location or income. AIIMS New Delhi, supported by the government's annual budget of around ₹5,500 crore, continues the legacy of the trinity mission: patient care, medical education, and medical research.



Are students ready for CBSE's AI push?

The CBSE curriculum on Computational Thinking and AI aims to build foundational computational skills. However, concerns remain over the extent of students' grade-appropriate cognitive abilities, which are prerequisites for all subjects. A child who cannot read at grade level is likely to face challenges with AI learning too

EXPLAINER

Aasif Iqbal J.

The story so far:

On April 1, 2026, Union Education Minister Dharmendra Pradhan launched a new CBSE curriculum on Computational Thinking and Artificial Intelligence for students from Classes 3 to 8.

How does the curriculum build AI knowledge among children?

For Classes 3 to 5, there is no AI content. The focus is entirely on Computational Thinking (CT): pattern recognition, decomposition, abstract thinking, and algorithmic reasoning. These skills are not taught as a separate subject. They are embedded into subjects such as Mathematics and The World Around Us (TWAU), through worksheets and activity-based resource books. Fifty hours are allocated annually.

AI enters in Class 6. Students are introduced to foundational AI literacy alongside advanced CT skills. By Class 8, the curriculum covers the AI project lifecycle, data fairness, and real-world applications. One hundred hours are allocated annually for Classes 6 to 8. Throughout, the curriculum avoids dependence on any specific platform or device. Unplugged learning is built-in for schools with limited infrastructure.

How does the curriculum intend to achieve its goal?

The initiative is designed to develop foundational computational thinking skills: logical reasoning, problem-solving, and pattern recognition. It will familiarise students with the role of artificial intelligence in everyday life, starting from the 2026-27 academic session.

The curriculum document states that learning standards for CT are integrated into Mathematics, Science, Language, and Social Sciences in the lower classes. CT is



Classroom goals: The learning outcomes for Classes 3 to 5 include: solving puzzles and daily-life problems through visual representations and analysing given information. GETTY IMAGES

not a standalone subject sitting beside language. It is designed to be delivered through language. The resource book for Classes 3 to 5 consists of additional questions and activities embedded into existing textbook chapters. Every puzzle, pattern exercise, and decomposition task is mediated through text that a child must read, interpret, and respond to in writing.

The learning outcomes for Classes 3 to 5 include: solving puzzles and daily-life problems through visual representations, interpreting texts, and analysing given information. The assessments for this stage include written tests involving CT questions and puzzles, group activities, and teacher observation journals.

Are our students prepared for it?

Meaningful learning is based on LSRW — Listening, Speaking, Reading, Writing. These are not soft skills. They are the cognitive infrastructure through which a student processes information, builds understanding, and communicates

thought. Every subject sits on top of this foundation. So does Computational Thinking and AI.

The CT curriculum for Classes 3 to 5 is, at its core, a literacy instrument. A child who cannot read at grade level will not experience it as a thinking exercise. They may experience it as a reading barrier.

The Annual Status of Education Report 2024 (ASER), published by Pratham, surveys children across rural India. More than half of Class 5 children in government schools cannot read a Class 2-level text. The ASER reading task has remained unchanged since 2006: can a child read a simple story written for a seven-year-old? After five years of schooling, more than half of Class 5 children cannot clear that bar.

It can be argued that the domain of CBSE is largely urban, and private school students will not have too many problems. But the PARAKH Rashtriya Sarvekshan 2024, the Ministry of Education's own national assessment goes

against that. The survey covered nearly 23 lakh students across approximately 88,000 schools, including government, aided, and private schools. At Grade 3 level, urban and suburban students in private schools fared poorly compared to their rural counterparts. Students in State government schools scored higher in both Language and Mathematics. The students walking into CBSE classrooms this academic year are not exempt from this crisis. They are in the middle of it.

What are the challenges?

The CT curriculum's aims state that it seeks to develop cognitive capacities: logical thinking, critical thinking, and analytical reasoning. These depend on comprehension as a prerequisite. Abstract reasoning cannot be developed in a child who cannot understand the text presenting the reasoning task.

At Class 6, for instance, CT assessments move to project presentations, reflective journals, and written assignments. Teachers are expected to create rubrics to evaluate student performance. This is where AI concepts are also introduced for the first time. A child who spent Classes 3 to 5 struggling to read the CT resource book will arrive at Class 6 without the computational thinking foundations those years were supposed to build. The pipeline breaks quietly, and it breaks early. We will discover the failure at Class 6, the same way we discovered the reading failure through ASER: through data.

The curriculum document also notes that from Class 6 onwards, evaluations will focus on project presentations and assigned tasks. Each of these requires a level of written and oral articulation that is built on years of strong LSRW practice. Without that practice, the assessments become a test of literacy deficits rather than computational thinking ability. (Aasif Iqbal J. is an author, educator, and former COO of iamneo Edutech Private Limited. He has served for 15 years in the technology and education sector. Views expressed are personal.)

THE GIST

On April 1, Union Education Minister Dharmendra Pradhan launched a new CBSE curriculum on Computational Thinking and AI for students from Classes 3 to 8.

For Classes 3 to 5, the skills are embedded into existing subjects. From Class 6 onwards, students are introduced to foundational AI and advanced CT skills. By Class 8, the curriculum covers the AI project lifecycle, data fairness, and real-world applications.

India's powerful educational practices push youth with momentum



DR T SENTHIL SIVA
SUBRAMANIAN

India has moved into the space of computational era in 21st century. Today there is a great demand for talented youth to perform and manage routine tasks at home which prepares them to solve complex assignments at the workplace. India needs youth to be self-driven, curious learners, problem solvers, conscious towards their duties and most importantly responsible for the society and nation. Overall, our nation needs holistic thinkers and implement them successfully with optimized resources and infrastructure. A holistic development of youth meets the objectives of Viksit Bharat@2047.



India is preparing itself against the local and global challenges through imbibing various educational framework models which is being practiced successfully across institutions starting from schools.

Comprehensive and Holistic approach: Learn by Doing (*Kar Ke Seekna*)

National Educational Policy 2020 being a revolutionary educational framework introduced in India five years before, bridges the gap between learning and practice. We are steadily and swiftly implementing the best practices of our National Education Policy 2020 which starts from school to higher education through national qualification framework: School (Level 1 to 4) and higher education framework (4.5 to 8).

The modern age best practices in institutions reinvents the education systems in India. Additionally, educational institutions, especially schools of today, are making the students perform daily home assignments [DHAs], everyday class tests / class Assignments [CAs]. Schools are even preparing to implement the best practices of "OPEN BOOK EXAMINATION."

These exercises consciously prepare the students to follow disciplined and meticulous routine learning practices. Today

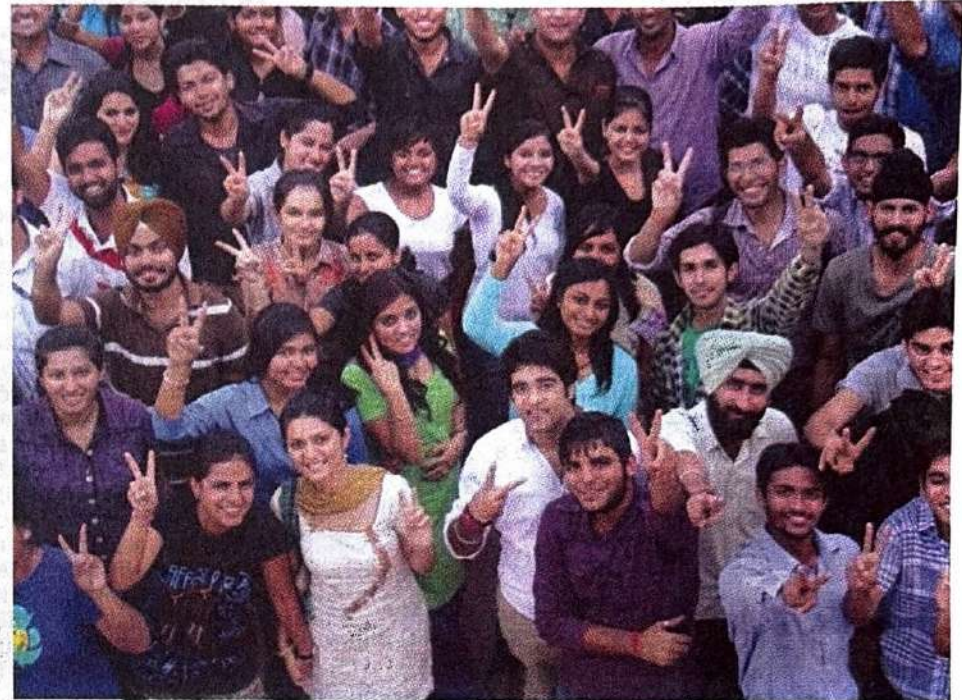
even schools are preparing the students to make a journey from classroom to boardrooms through making them deliver seminars/talks and model making on current trends and technologies. Educational institutions across our nation are practicing workbased skills through firsthand experiential learning so called work experience laboratory learning like clay modeling, candle making, craft work, painting. Most importantly it makes young students adapt to the mantra: learn by doing (*Kar Ke Seekna*).

The schools of today are enabling the students to choose Sanskrit, music, languages and drawing as open elective subjects in addition to their science subjects. This develops holistic development among the students. Schools of modern age are giving opportunities for social service, winter/summer camps, NSS and NCC, perform regular activities through student clubs.

The students are trained to tinker at various real-world problem statements and design small skillbased science projects which create a culture of skill-based learning. The best working example is the Atal Tinkering labs established under Atal Innovation Mission by Niti Aayog.

Ministry of Skill Development and Entrepreneurship, Government of India is creating ample opportunities to explore the student's inner talents through making the students to participate in the World Skills Competition conducted annually which involves the process of making the student to take theoretical and practical tests in different traits at the industrial training institutes which are conducted across PAN India. It focuses on:

- Construction and Building Technology
- Creative Arts and Fashion
- Information and Communication Technology
- Manufacturing and Engineering Technology
- Social and Personal Services
- Transportation and Logistics.



The world skill competition follows the guidelines of OECD (Organization for Economic Cooperation and Development) which includes organising work and self-management, time management, problem solving, innovation and creativity, team building and most importantly the collaborative and cooperative efforts making.

Preparing Next Generation Youth for Viksit Bharat@2047

Ministry of Education, Government of India has successfully launched the pathbreaking First-of-its kind course curriculum on computational thinking and Artificial intelligence for classes starting from third to eighth standard. It clearly follows the guidelines of innovative teaching and learning pedagogy of National Educational Policy 2020. The revolutionary curriculum aligns it with National Curriculum Framework for School Education. The core curriculum recommends 50 hours and one hundred hours of learning for class 3-5 and 6-8, respectively.

India is preparing the youth to be the next generation leaders in technology by integrat-

ing the strong mantra 'AI in Education' and 'AI for Education.' The Central Board of Secondary Education

has played a vital role in changing the dimensions of thinking practices of students by making them to be 'AI-Ready Learners. The computational thinking concept is a subset of subjects like The World Around Us (TWAS) and mathematics underlying the principles of learning through workbooks.

A step-by-step approach is being adapted in the learning pedagogy in schools starting from worksheets based on games, puzzles in class third leading to solving real-world problems in class eighth through computation and AI approach. The younger generation will rewrite/rewrite and code/decode real-time complex problems leading to building AI enabled Community and AI integrated Society. India has made a bold step by making 'AI for ALL.'

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Limits of neutrality in addressing caste



Priya Chaudhary

Research Associate,
CLPR

The UGC guidelines must be supported by monitoring, regular audits, and meaningful oversight

The interim stay by the Supreme Court on the UGC Promotion of Equity in Higher Education Institutions Regulation, 2026, as reported by the Supreme Court Observer, arrives at a pivotal moment. These regulations emerged from *Abeda Salim Tadvi v Union of India*, a pending case before the Supreme Court concerning caste-based discrimination and student suicides in higher educational institutions. The case highlights institutional failures in creating an equal and inclusive learning space.

When discussing caste discrimination in higher education, it is essential to clarify what is being addressed. The 2026 regulations under 3(c) define "caste-based discrimination" as discrimination based on caste or tribe against members of the Scheduled Castes, the Scheduled Tribes, and Other Backward Classes. This specificity is not exclusionary; rather, it is necessary to recognise caste as a continuing structure of marginalisation rather than isolated incidents.

Why neutrality fails

The definition has been criticised for excluding 'general category' students, with suggestions to adopt a caste-neutral definition that includes them, in line with Article 14 of the Constitution, which guarantees equality before the law. However, this reasoning misunderstands both how caste discrimination operates in practice and how equality is understood under the Constitution.

The Constitution does not mandate an abstract, one-size-fits-all neutrality. Article 15 not only prohibits discrimination but also empowers the State to make "special provisions" for socially and educationally backward classes, SCs and STs to ensure substantive equality. Equality, in this framework, is substantive rather than formal.

Formal equality assumes that discrimination operates symmetrically and that all social groups require identical protection. However, caste discrimination is structural, embedded in graded hierarchies that shape access to dignity, resources, and institutional power. Including "general category" groups into a caste-neutral definition risks collapsing this structural inequality into a universal grievance framework, where systemic oppression is equated with isolated interpersonal bias. Such neutrality does not expand protection; it dilutes the law's ability to address caste as a system of power.

For decades, SC and ST students have experienced social exclusion, unequal treatment, humiliation, and institutional bias. In several cases, such structural discrimination has led to mental distress and suicides. These realities, reflected in the pending case under which the equity regulations were formulated, show that the framework is grounded in systemic concerns, not isolated incidents.

A caste-neutral definition would flatten unequal social positions into a formal notion of sameness that the Constitution itself does not endorse. Articles 14 and 15 permit differential treatment precisely to remedy historical and social disadvantage. Treating caste-based oppression as symmetrical across groups disregards the hierarchies through which caste operates and shifts the focus away from structural exclusion to abstract individual grievances. Therefore, defining caste-based discrimination through historically marginalised groups is not arbitrary. It recognises that discrimination operates through power structures that advantage some while disadvantaging others. This is not "reverse discrimination," but an acknowledgement that equality requires fairness in practice. A caste-neutral approach would obscure these structural

realities and weaken the law's capacity to address caste-based exclusion in higher education.

Enforcement matters more

The equity regulations in higher education, including a focused definition of caste-based discrimination, are not meant to exclude others from protection. Rather, they aim to create a baseline of dignity and inclusion for those who have historically been excluded. This approach aligns with Articles 14 and 15, which allow differential treatment to remove disadvantage and achieve substantive equality. In a society shaped by caste, constitutional equality cannot be achieved through context-blind neutrality.

More importantly, the question is how effectively they may function on the ground. The failure to address caste-based discrimination lies largely in weak implementation and poor institutional accountability.

Instead of diluting the scope of the UGC regulations, the focus should be on strengthening them – by ensuring independent complaint mechanisms, time-bound inquiries, transparency in outcomes, and clear consequences for institutional non-compliance. The UGC guidelines must be supported by monitoring, regular audits, and meaningful oversight. A framework meant to prevent caste-based harm cannot succeed unless institutions are made answerable for how they respond to discrimination in practice.

Shifting the debate away from enforcement and towards abstract concerns about neutrality risks missing the core issue. For students facing everyday exclusion, the question is not inclusive definitional purity, but whether the system will respond when discrimination occurs. Strengthening the functioning of the UGC framework is therefore essential to fulfilling the constitutional promise of equality and dignity in higher education.

CU tweaks entry rules for UG honours

SUBHANKAR CHOWDHURY

Calcutta: Calcutta University has announced that a candidate will be admitted to the undergraduate honours programme for BA and BSc based on the marks of the best four subjects and the marks obtained in the "subject/related subject" in the board examinations.

The university announced the admission regulations days after a section of CU-affiliated colleges, such as Lady Brabourne and Gokhale, opposed the university's proposal to admit undergraduate students solely based on an aggregate score calculated from the marks of the best four subjects in the board examinations.

Many principals said they want to admit students based on a combination of the best four subjects and a screening formula of their own, which includes factoring in the marks of the related subject, as this allows them to identify students who have the proficiency to pursue a particular subject.

A notification signed by the university's registrar, Debasis Das, on Wednesday evening, stated that when an undergraduate aspirant has studied the subject or the related subject in the previous school leaving examinations, the marks obtained in the subject/related subject in the board examinations will be considered.

"For the merit index calculation to determine the eligibility for admission to BA/BSc..., aggregate marks shall be calculated by adding marks in the top four subjects and marks obtained in the subject/related subject, which is opted as the major (honours) subject....", the regulation says.

The university has yet to announce anything on

BCom admission.

Lady Brabourne College principal Siuli Sarkar said while admitting students to physics, statistics and economics, the college, while considering the marks in the respective subjects at the Plus-II level, also takes into account the mathematics marks.

Then the college draws a merit index.

"We don't have the scope of admitting students based on an admission test, so this pattern gives us a chance to identify a student who has proficiency in the subject," said Sarkar.

Calcutta University proposed screening students solely based on the best of four in a meeting with the principals of the affiliating colleges last week.

The formula was proposed by the education department, apparently to ensure uniformity in eligibility across affiliated colleges.

A CU official said the education department was insisting on a uniform eligibility criterion in the hope of completing the admission process faster.

"It would not require a department to feed different eligibility criteria for individual colleges into the centralised admission portal, which takes time," the official said.

Natasha Dasgupta, the principal of Vidyasagar College, said that as her college has "a demand for geography honours", they double the weightage in geography scores at the plus-II level while drawing the merit index.

"If the weightage in geography is doubled while drawing the merit index, it will help those who want to pursue geography emerge at the top of the merit list even though the student failed to register the highest score at the Plus-II level in that subject" she said.

No honour in vanity degrees

Former Chief Minister Basavaraj Bommai's decision to decline an honorary doctorate from Haveri University is a rare assertion of principle in a system that has steadily devalued academic honours. His reasoning is clear: public service is not a credential to be decorated, and honorary doctorates must be reserved for exceptional, lifelong contributions in a defined field. Such restraint stands in sharp contrast to the prevailing culture across Karnataka's universities, where honorary doctorates are handed out with troubling ease. Institutions that ought to be citadels of scholarship have, in effect, turned into dispensing counters often rewarding proximity and patronage over real merit. The Karnataka State Universities Act permits such degrees only in "exceptional cases" of "eminent attainment" or "conspicuous service," and not as a matter of course.

However, recent events point to a collapse of this meritocracy. At the Karnataka State Open University, the unilateral finalisation of eight names by the Vice-Chancellor triggered a boycott of the convocation by some members of the Board of Management. At the Mangaluru University, an inflated list was forwarded to the Chancellor, bypassing the Syndicate. Honorary doctorates are now distributed as institutional largesse to actors, hoteliers, businessmen, seers, and politicians, with little evidence of rigorous scrutiny. The practice of conferring awards in bulk has reduced universities to doctorate-churning factories, stripping the honour of both meaning and value. Vice-chancellors using these titles to gain proximity to power are not aberrations but symptoms of a deeper malaise. Worse, this casual proliferation actively undermines those who have earned their doctorates through years of painstaking research, intellectual rigour, and peer review. The obsession with these honours is driven largely by the allure of the "Dr" prefix. While there is no explicit legal bar in India, the University Grants Commission is categorical that an honorary degree is a distinction, not an academic qualification. In the United Kingdom and the United States, recipients rarely use the title in professional contexts.

The Governor and Chancellor, Thaawarchand Gehlot, remains the ultimate gatekeeper. While he has occasionally exercised restraint, the system remains porous and demands far firmer oversight. In this context, Higher Education Minister M C Sudhakar's proposal to constitute an expert committee to frame uniform guidelines is both timely and necessary. Standardised criteria, transparent evaluation, and independent scrutiny can restore credibility to a system that is perilously close to being trivialised. A doctorate should be a testament to rigorous intellectual labour or a lifetime of selfless service, not a vanity plate for the well-connected.

The proliferation of honorary doctorates in Karnataka necessitates standardised criteria and stricter scrutiny

RESILIENCE CREDIT

A curriculum for the internal world

Burnout is sweeping across college campuses.

Universities must embed resilience into academic systems

VIJAY KANURU

A recent visit to my university for a distinguished alumni felicitation during its platinum jubilee prompted an unexpected moment of reflection. Walking through familiar corridors decades later, I was struck not just by nostalgia but by a subtle shift in the psychology of students. We experienced competition, anxiety and academic pressure, but rarely the persistent emotional exhaustion students today describe as burnout. Stress existed, yet it seldom translated into the pervasive fatigue now visible across campuses. That contrast raises an important question: what has changed in the student environment?

The previous generation benefited from stronger community buffers – extended families and neighbourhood networks that acted as emotional shock absorbers. University life today differs in several important ways.

First, academic competition has intensified. Admission pathways, internships, and career opportunities have become more selective. Students now feel compelled to build extensive portfolios – academic performance, research, and extracurricular achievements – while managing demanding coursework.

Second, digital technology has reshaped how students perceive progress. Social media and professional platforms create constant visibility of achievements. While they offer opportunity, they also amplify comparison.

Third, daily routines have shifted. Earlier student life included more unstructured time, outdoor activity, and informal social interaction. Today, academic schedules combined with digital engagement compress time for rest, reflection, and connection. Individually, none of these fully explains burnout. Together, they create an environment where mental recovery becomes increasingly difficult.

Conversations with students reveal a deeper layer. While technology and lifestyles have evolved rapidly, the biological systems that regulate stress and recovery have not. Human cognition evolved in environments defined by cycles – daylight, movement, and social interaction. These rhythms supported emotional regulation and cognitive endurance. Our neurons and mitochondria remain wired for these patterns. The result is a biological mismatch – a collision between slow-evolving biology and a hyper-accelerated environment.

Over time, this erodes the rhythms that support mental balance.

The consequences are increasingly visible. As per the National Crime Records Bureau's last report, nearly 13,900 students died by suicide in 2023, with academic pressure and psychological distress frequently cited. These represent the most severe outcomes of a broader wellbeing crisis.

Universities have begun responding. Wellness centres, counselling portals, and peer-support initiatives have expanded across campuses. Policy initiatives encouraged by the University Grants Commission (UGC) have emphasised mental-health systems. These are important steps. However, counselling often addresses stress after



it has accumulated.

The next step is structural: integrating resilience-building into the academic framework rather than treating it as optional support. One approach is a Resilience Credit within university curricula. If institutions evaluate intellectual competencies through credits, they can also create structured opportunities for students to build resilience, recovery skills, and sustainable work habits.

A structured resilience module can be built around a few practical, repeatable elements. Regular guided breathing or relaxation sessions help students recognise stress responses and develop techniques to calm the nervous system. These simple practices build awareness of how stress manifests physically and how it can be regulated.

Scheduled time away from devices reduces cognitive overload and restores attention capacity. Stepping away from screens allows for uninterrupted thinking and more meaningful, real-world interaction. Participation in sports, environmental initiatives, or community service introduces physical movement and shared purpose – both essential for emotional balance.

In March 2026, the UGC mandated mental-health support systems across campuses. To prevent this from becoming a "checkbox exercise," universities should consider introducing a formal Resilience Credit. This would

shift mental hygiene from a remedial response to a foundational component of education. It institutionalises what modern academic life often suppresses: physical interaction, peer dialogue, and reflective time without guilt.

A resilience credit could be structured around recurring interventions:

Weekly: The cellular reset

Short guided breathing sessions help the nervous system shift from stress-driven alertness to a restorative state. The hack: 10 to 15 minutes of guided physiological regulation. These breathing practices shift the nervous system from sympathetic "fight-or-flight" activation towards parasympathetic recovery, allowing the body to reset.

Fortnightly: The digital circuit breaker (Dopamine fasting)

Scheduled time away from screens encourages peer interaction, hobbies, and collaborative learning. Universities could also revive student interest groups similar to those at institutions such as the University of Cambridge. This can reduce digital triggers while creating space for deeper human interaction that recalibrates attention and reward systems.

Monthly: The grounding protocol

A few hours of earth-touch activity, such as urban plantation drives or community service. Just as electrical systems require grounding to prevent overload, humans benefit from "biological earthing." Physical engagement with natural environments and community activity can reduce stress and restore a sense of collective purpose.

In many ways, we have created a world faster than the biological systems designed to inhabit it. If universities can credit students for mastering complex algorithms, they can also recognise the importance of mastering themselves. Integrating resilience into the curriculum is not just preventive; it builds the capacity to navigate an accelerated world without losing equilibrium.

The pace of modern professional life will only intensify. Graduates will face demanding schedules, rapid technological shifts, and complex social challenges. Education must therefore equip students not only with knowledge but also with the ability to manage pressure, recover from setbacks, and sustain long-term productivity.

Introducing resilience-oriented practices signals that mental wellbeing is integral to academic success, not separate from it. A university's role is not only to cultivate intellectual excellence but also to prepare individuals for a balanced and sustainable life.

(The writer is a Gates Cambridge Scholar, Helmholtz Research Fellow, and Lowry Prize Winner)

Making scholarships integral to India's academic culture

If India is to take its Gross Enrolment Ratio (GER) in higher education to 50%, the question is not only how many institutions the country can build, but who is actually able to walk through their gates and graduate.

India has been making gradual progress to expand capacity; the number of higher educational institutions has grown from 51,534 (2014-15) to over 70,000 last year, as per the 2025-26 Economic Survey. Yet the national GER stands at 29.5 (2022-23). Such limited participation highlights that seats alone do not create students. Education transforms lives when access, affordability, and academic quality come together. For many young Indians, especially in second-and third-tier towns, the binding constraint is not aspiration; it is the cost and risk of participation. This is why scholarships cannot remain a peripheral add-on to the system. They need to be designed, and tailored as an integral and embedded pathway into higher education.

A pressing need

The country is witnessing three intersecting challenges. There is an access challenge across regions and social groups; an affordability challenge that turns higher education into a long-term investment for families; and a quality challenge that determines whether and to what extent enrolment translates into true learning and occupational pursuit. Enrolment rises when those who qualify can afford to participate, and when institutions are confident that diversity and merit will strengthen, not dilute, academic life.

India knows this well: there is a lot of talent that is widely distributed, but with no opportunity. Increasing enrolments will depend less on convincing already advantaged families and more on releasing the pool of capable students who are currently held back by cost, distance, and uncertainty about the benefits of enrolment. Scholarships sit precisely at this hinge point. They are not only instruments of financial support; they can also mould a student's life, ensuring academic fulfilment as well as overall individual enhancement through provisions beyond material aid, such as leadership development, exposure to a wider world of interests, and career guidance.

The Department of Higher Education supports students through scholarships, interest subsidies on education loans, and credit guarantees. The National Scholarship Portal functions as a common window for State schemes, and hosts information on scholarship programmes across



Pramath Raj Sinha

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Scholarships sit at the intersection of equity, quality, and growth. They influence who and how many enter higher education, and who persists

ministries, departments and regulatory bodies. One such programme is the Central Sector Scheme of Scholarship for College and University Students that provides up to 82,000 scholarships each year across undergraduate, postgraduate, and professional courses. Alongside this, corporate foundations, trusts, and non-profits have also created well-known programmes, often focused on merit-cum-means in fields such as engineering and management.

While this is meaningful progress, most scholarships are limited in number, and are still treated as financial plug-ins. The deeper question is whether scholarships can become a pathway which students actively opt into not only for financial reasons, but also for academic community and mentorship.

Lessons from history

India's own history should be the first source of inspiration. In the ancient institution of higher learning, *Takshashila*, students were known to have had as many as five options to pay their education fees: pay up front; work with and learn from the teachers; defer and pay after graduation; receive scholarships from home regions; or rely on support from a charitable community for disadvantaged students. The principle was straightforward – ability should not be turned away for lack of means, and that institutions should find ways to welcome talent.

The opportunity before India is not only to improve scholarships, but to reimagine what a scholarship represents. One can imagine scholarships that are designed as multi-year commitments rather than annual renewals, giving students the confidence to plan their academic lives with a certain stability. Institutional density and enrolment can be studied in order to design region-based scholarships that focus on underserved States and districts. One can also imagine programme-specific pathways that link scholarships to areas of national and regional need. A scholarship attached to a vocational degree in artificial intelligence, advanced manufacturing, or healthcare, anchored in a district with low participation but high demand, could raise enrolment while strengthening skills and employability.

Public policy and regulation can gently encourage this shift. Incentives such as tax benefits for endowments, or matching funds through private philanthropy, can attract long-term capital into scholarships that are designed to grow and sustain.

Performance-linked frameworks can recognise and reward institutions that demonstrate outcomes across merit, need, and potential. India already has early examples of what such thinking can look like. Ashoka University evaluates financial aid independently of academic admission, following a need-sensitive process where a student's ability to pay is assessed separately from the admission decision. About 20% students receive free education owing to a 100% scholarship, and roughly half of the students receive some form of financial support, while maintaining strong academic standards. The Indian School of Business (ISB) has built a donor-supported scholarship ecosystem across categories that reflect merit and need, including support for those from the armed forces and those who are returning to the development sector. Every year, the ISB awards between 250 and 280 scholarships across its programmes, and notably, 40% of the founding class of the recently launched PGP-Young Leaders programme is supported by scholarships. In both cases, scholarships are not an afterthought. They are critical to the kind of academic community these institutions are trying to build.

International experience reinforces the point. Whether it be multidisciplinary scholarship programmes at U.S. universities or provincial and city-level scholarships in China aligned to local development priorities, the most effective systems treat scholarships as a core part of their academic cultures.

From the margins to the centre

India still needs to expand and diversify its higher educational system. But expansion alone will not deliver a 50% enrolment ratio that also deepens learning and social mobility. Meaningful absorption can only happen when capable students are supported and inspired to look ahead, regardless of where they come from.

This is not a narrow funding conversation; it is about building an ecosystem. Scholarships sit at the intersection of equity, quality, and growth. They influence who and how many enter higher education, and who persists. They shape the social and intellectual life of campuses and the credibility of institutions. They also contribute to the nation's trajectory, throwing light on how its talent is discovered, understood, and developed.

If the goal is not only more students, but also more mobility and national capability, then scholarships deserve to move from the margins to the centre of our higher education strategy.

SYSTEM
CHECK

CSAT and Structural Bias

Concerns over CSAT, skewed selection patterns, and declining humanities representation raise fundamental questions about fairness, diversity and the future of India's civil services

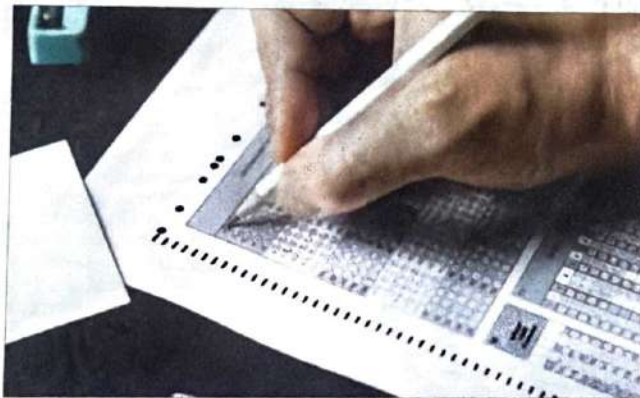


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A very relevant issue regarding the selection of candidates in the UPSC-held examination for the civil services came up for discussion in the Rajya Sabha the other day. The point of contention was the Civil Services Aptitude Test (CSAT). The civil services examination is held in two parts. The first stage is the preliminary examination, which a candidate must qualify to be eligible to take the main examination. It is basically an exercise in elimination. From about 7-8 lakh students who apply for the civil services, about 80 per cent take the preliminary examination. From these candidates, about 10,000 to 15,000 qualify for the main examination. The idea is that evaluating more than five lakh students for the main examination would become a cumbersome exercise and a logistical nightmare. The marks of the prelims are not added to the overall score, but there is a cut-off, and only candidates who clear this can write the main exam.

Before 1980, the qualifying barrier of prelims was not in existence. A totally different scheme of examination existed. Prelims were introduced from 1980 onwards, and a candidate had to appear for a general studies paper and an optional paper of his choice. This system continued till 2010. Thereafter, the optional paper was removed and replaced by a CSAT paper, with the idea being that the aptitude of a candidate for civil services should also be tested, apart from his subject matter knowledge. The objective behind such thinking had a rationale because any profession requires a certain aptitude, and civil services are no exception. Initially, both general studies and CSAT papers were of 200 marks each, and a combined score was calculated, and a cut-off was declared. There was a lot of agitation against this on the grounds that the system discriminated against non-engineers and humanities students, and also those coming from rural backgrounds. The UPSC responded by making the CSAT paper purely qualifying, meaning that a candidate must score more than 33 per cent marks to be eligible for the mains if their score in the general studies paper is above the cut-off. Now, once again, this issue has been raised that CSAT should be abolished completely, as it is the engineers and science students who are better equipped to handle the pattern of this paper, as evidently it has questions on



The CSAT debate exposes deeper structural distortions in how India selects its future civil servants REPRESENTATIONAL IMAGE

quantitative aptitude, data interpretation, and logical reasoning, which suits science and engineering students.

The pattern of the CSAT paper is such that it covers language comprehension, logical reasoning, analytical ability, basic numeracy, and data interpretation at the Class 10 level. There are eighty questions with negative marking. Candidates can take this paper in both English and Hindi, but the percentage of those doing so in English is much higher. It is alleged that the CSAT paper is, in some way, responsible for a lesser number of students with Hindi as the medium qualifying. One will have to look at the data to ascertain this, but it is a fact that, of the candidates ultimately selected in civil services, the percentage of those using the Hindi medium is very low. However, there are various reasons for this, which include things like the non-availability of preparation material in Hindi, and CSAT cannot be said to be the only contributory factor.

A scrutiny of the CSAT papers over time shows that ever since CSAT was made only qualifying, the difficulty level of the paper has gone up considerably. In particular, the questions on numeracy are definitely of a higher level than Class 10, and students of humanities, who have been out of touch with mathematics for several years, would find it difficult to handle. There can be no argument

over a civil servant requiring logical reasoning and critical thinking skills to do justice to his job. Also, the ability to interpret data and be comfortable with basic mathematics is an essential requirement, as policymaking today requires an in-depth analysis of data for evidence-based solutions. I feel there is no harm in having a qualifying CSAT paper, but the questions on numeracy should be such that even students of humanities can handle them, and engineers do not have an unfair advantage. The UPSC would need to collect a group of experts to go into this issue, and I am sure a solution can be found which is fair and objective and does not discriminate against anyone.

Moving away from the CSAT paper, I feel the UPSC does need to review the current scheme of the examination because it is a fact that the majority of the candidates being selected today are from engineering or science backgrounds, and the field has considerably narrowed for humanities students. According to the data shared by the government in 2017, 2018, 2019, 2020, and 2021, a total of 715, 528, 595, 566, and 497 candidates selected in the civil services have been from engineering and science backgrounds, while the corresponding figures for humanities students were 106, 81, 77, 84, and 88. This is definitely an extremely skewed distribution, which must be looked into. Clearly, the

entire scheme of the examination appears to be working against humanities students. It may be pointed out that the civil services was one of the main career options for students of humanities, and they are being deprived of this by the current examination system.

I am not against students of engineering and science entering the civil services. In fact, most of them are brilliant and bring scientific rigour to administration, which is very much required in the modern age of technological disruption. Their training puts them in a better position to introduce AI and modern technology, along with data-based decision-making, in the civil services. However, the beauty of the civil services lies in its diversity. Students of humanities carry with them a better knowledge of Indian history, culture, and society, and bring to administration a lot of emotional intelligence and a human touch, which is essential for citizen-centric administration. Ideally, the candidates selected should have an optimum mix of engineers and candidates from other disciplines.

It is argued by supporters of the current system that engineers, by their academic training, present their answers in a more logical and analytical manner and are to the point, which enables them to score higher marks. Some others say that after school, some of the best students opt for engineering, which gives them a natural advantage when they choose to write the civil services later on. I am not going into a detailed discussion on these points, but I do feel that the current system is not giving proper representation to students coming from different academic and social backgrounds.

In the light of the above, I feel the time has come for the UPSC to constitute a high-level body of experts to review the current examination scheme. I may also add that it must be evaluated whether the current system is selecting the best talent for civil services. The issues of maximum age allowed and the number of attempts allowed must also be looked into critically. The UPSC must examine why very few candidates are succeeding in their first attempt and why many are spending the best years of their youth in civil services preparation, when their talent can be used in other areas required for the development of India.

Views expressed are personal

The civil services examination must balance aptitude with equity, ensuring no discipline holds an unfair advantage

Turn, learn and earn to survive the AI age

ANDREW SHENG

Have you wondered why small start-ups (mostly the young) have to fight to survive, whereas the rich or those at the top get richer?

Capitalism is in trouble because the social divide is widening in terms of both income and wealth. Furthermore, the planet is being eaten alive by excessive consumption financed by unstoppable debt (borrowing from tomorrow to consume today).

At the same time, aspirations such as dealing with climate change are going nowhere. Who cares about NetZero when you can bomb your way to grab more oil and gas? The most profitable stock picks in the last three years are not green or inclusive – they are exactly the opposite – oil and gas and defense stocks, plus tech that make weapons more lethal or accurate.

The reason why the 17 Sustainable Development Goals (SDGs), proclaimed by the United Nations to be delivered by 2030 are only 18 per cent on target for achievement, is due to the inability of governments and communities to translate these aspirations into concrete projects or programmes that deliver visible impact on NetZero or the wellbeing of people and the planet.

Traveling in Sabah in the north part of Borneo last month, I observed how the perennial fern, which is today served as a delicious vegetable dish, is an ancient hardy plant that managed to thrive and survive for 360 million years. Instead of flowering, the fern shoots sprout through a spiral sequence that follows a Fibonacci mathematical sequence, which then reproduces

through releasing microscopic spores (rather than seeds) that spread through wind and stay dormant in soil. Their rhizomes (deep horizontal roots) allow them to resprout even after forest fires. They also live in low-light, surviving in deep caves underground. In short, ferns teach us to 'turn, learn and earn' to sustainable development.

We are at a turning point in our mindset. The scientific, logical thinking prevalent since the Industrial Revolution is breaking down in the face of illogical, chaotic systemic change due to unseen, unintended consequences of human action, sometimes called Black Swans. This is because the linear, optimizing logic of science which offers the comfortable idea that the future is predictable is breaking down into the complexity of an eco-system emerging through chaos and the unknown, unpredictable order or disorders.

We must confront a future of unknown unknowns. Except for the aging survivors of the atomic bomb dropped on Hiroshima and Nagasaki in 1945, no one else has experience of the horror of nuclear warfare. So deranged leaders may press the nuclear button to send us all into mutually assured destruction (MAD). Covid has taught us that another wave of pandemic may be coming, with perhaps even more devastating impact. Our mindset is slowing turning towards an eco-system way of thinking, not confined by a narrow linear mindset of what simply follows next. Systems thinking means we must think about how we must act as a whole, with our individual actions impacting not only other human beings, but also the planet and other living

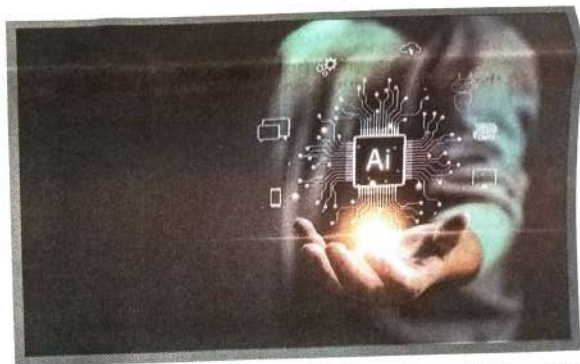
things. Life will eventually find a way, but humans may not survive self-destruction.

The turn in mindset then moves into the learning stage. Learning comes from deep observation (to see), deep listening and deep feeling (emotionally and spiritually) as a group. When we realize that individuals often survive through groups, then we must learn to co-share and co-create. We are not masters of others, but stewards of life for the next generation.

Artificial Intelligence (AI) is seen as a revolution in thinking and learning. Machines are now able to summarize, digest and even predict. But digital machines can only read and learn so far from digitized data but cannot yet access the tacit knowledge that exists in collective human minds. The bulk of human experience lies in human (often emotional and social) intelligence, so those who rely only on AI are Artificial Imbeciles.

AI Large Learning Models (LLMs) need to be taught and therefore they contain human biases, which explains why American LLMs produce answers different from Chinese LLMs.

One of the biggest Eureka moments for me personally was the sudden awareness after the Ukraine war that power, energy, money and data are one and the same thing. The war was fought over food, energy and rare minerals that exist in Ukraine, known as the breadbasket of Europe. Bitcoin or cyber-money can be mined using energy. Political or military power is command over energy. Everything runs on energy, largely derived from the sun and gravity. Without energy, nothing moves or changes.



Systems need energy to survive. Systems cannot survive if they cannot earn energy, deriving parasitic energy from others or transforming energy from one form into another through innovation. The fern survives because it collects energy from the sun through photosynthesis, extracts nutrients from the soil and needs less water than other plants.

Capitalism as a system is Darwinian in survival of the few exploiting the many through profits. But linear growth through efficiency alone is not sufficient, because winner-take-all loses eventually through fragility. Thus "sustainable development" is really a trade-off between efficiency and resilience, the ability to adapt and survive over a longer time.

Eco-system resilience is built through the successful helping the less successful to co-survive circularly. The young and poor communities all go through the J-curve of requiring more energy (negative cash-flow) before they learn to adapt, and produce the successful business models where they become profitable and take-off into the S-curve of

highly positive cash-flow. Most start-ups fail because they cannot scale and get out of their poverty trap. Blended finance is therefore the mixture of seed and venture capital from friends, relatives and charitable foundations; then more formal financing from private equity, banks and eventual take-off through public listing, where they benefit from branding, credibility and scale. Life is a circular cycle of failure before success, then decline and renewal.

In short, earning is all about resilience and sustainability. Charity alone is not sustainable for any start-up or community. Self-help and then help from state, business or communities will build sustainable growth. AI is only a new tool to help the young turn, learn and earn.

Is AI a bubble? All tools go through its fashionable phase, when they are cool to use. One day, we will treat AI as normal, then we are no longer artificial imbeciles.

(The writer is Adjunct Professor at Tsinghua University, Beijing and University of Malaya, and former Chairman of the Securities and Futures Commission, Hong Kong.)
Special to ANN.

In the golden age of misinformation, where libraries have been replaced by search tools and newspapers by headlines that fit the 'Breaking News' notification, a new, prestigious institution has emerged. It has no campus, no faculty, and absolutely no fact-checkers.

It is WhatsApp University, a premier center of higher learning where everyone is a professor, and truth is entirely optional. In fact, WhatsApp University is the only ivy-league institution that requires no tuition fee, no entrance exams, and absolutely no critical thinking.

Its campus is located in your pocket, which makes it very, very convenient.

Admission to WhatsApp University is simple: you must own a smartphone, be a part of a few chat groups, and hold a firm belief that "the media" is lying to you. There are no entrance exams, but you must pass the "Forward to People" initiation ritual.

The faculty consists entirely of 'Uncle Sam', 'Auntie Jins', and friends such as the one who discovered 'the truth' about enduring childhood. These esteemed professors are highly qualified. They are experts in political strategy, ancient history, modern medicine, and conspiracy theories, all learned during the 15 seconds it takes to read a forwarded message. They don't need textbooks; they have the 'Forwarded Many Times' tag. Unlike traditional universities, where students graduate after four years, WhatsApp University offers a lifetime course in 'Forwarded as Received' education.

The curriculum at WhatsApp University is breathtakingly diverse. One minute

you are learning that drinking hot water with lemon kills a virus that has baffled global scientists, and the next, you are informed that the 500 rupee note has a GPS chip that can track you through a sealed safe. Not to forget, you have the opportunity to do a course in The Secret History of UNESCO declaring our National Anthem the best in the world.

WhatsApp University also teaches you Advanced Health Remedies. This is really invaluable. Why go to a doctor when your third cousin twice removed can send you a message suggesting a diet of garlic, honey, and cow dung to cure everything from the common cold to existential dread?

Then, there is a very popular course on Alternative History. Did you know that ancient Indians were actually testing nuclear missiles 5,000 years ago, but the British stole the blueprint?

Political Science is, expectedly, the most popular course. The curriculum here is simple: if the news is good, it's a masterstroke. If the news is bad, it's a conspiracy planned by a shadowy cabal. The Department of Political Science & Geo-politics is highly active, often predicting World War III every second Tuesday. It specializes in unverified claims about neighboring countries and deep analyses of international relations by people whose biggest geopolitical achievement is managing the Housing Society parking lot or ensuring that the overhead water tanks are kept clean.

Campus life is exhilarating. It consists mainly of waking up to 45 "Good Morning" messages featuring colourful roses or religious chants, followed by heated debates over a conspiracy theory someone posted at 3:00 am.

"Research" at this university is a rigorous process. It involves getting a message in Gujarati, translating it to

Hindi, adding a few exclamation points, and forwarding it to the family group with the caption, "Forwarded for awareness!"

The research facilities are state-of-the-art, comprising primarily the "Forward" button. The university thrives on the "6x rule"—false news travels six times faster than genuine information.

The grading system is simple. If you reply "True!" or "Wow" to a message, you're an honor student recognised for high grades. If you dare to post a link to a fact-checking website, you are immediately expelled from the group—or worse, met with the ultimate academic sanction: the "Blue Tick Silence." Over time, you learn that "Blue Tick Silence" occurs when a message is marked as "read" (blue ticks) but no reply is sent, signalling digital apathy and creating anxiety. The grading system is also revolutionary. If you share a post, you get an A+. If you ask

Research methodology at this prestigious WhatsApp University is cutting-edge. Why spend years in a lab when a 30-second video with dramatic suspense music tells you that the pyramids were actually giant silos built by aliens who spoke fluent Sanskrit?

The professors of WhatsApp University are dedicated researchers. They don't need evidence: they have a 'feeling'. Their primary method of teaching is to start a message with 'This is a secret message' or 'I am sharing this because I care' followed by shocking information that definitely didn't happen.

WhatsApp University does not believe in standard exams. Instead, your academic standing is determined by the "forwarded" label. If a message has the "forwarded many times" tag, it is considered authentic, peer-reviewed research. If a message is a simple text, it is considered a conspiracy theory spread by "the other side."

Graduates of WhatsApp University are easy to spot. They are the ones who start sentences with, "I don't trust the news, but I got this on a group..." They are also highly adept at identifying fake, doctored, or totally irrelevant videos as the absolute truth.

While mainstream universities teach you how to think, WhatsApp University teaches you what to think—usually in a very loud, bold font with multiple emojis. It is a world where misinformation spreads faster than a viral meme, and a place where, ironically, the 'University exposed' moment is quickly forgotten by the next morning's 'Good Morning' photo of a lotus, a sunflower, roses, jasmine or marigold. In the end, WhatsApp University proves that knowledge isn't power—sharing is. Because in this digital ivory tower, it doesn't matter if the news is fake, as long as the 'Good Morning' image has a squealing rose on it.

Graduating from WhatsApp University is a rite of passage. You may not gain real knowledge, but you will definitely

gain a very strong, often wrong, opinion on absolutely everything. So, the next time your phone pings at 6:00 AM with a video about how magnetic banknotes are spying on you, accept the wisdom, forward it to five friends, and celebrate your honorary doctorate from the most prestigious, unverified university in the world.

So, here's to the professors of WhatsApp University—long may they forward, long may they believe, and may our phones never run out of storage space.

Disclaimer: This essay was written after attending a 30-second seminar on "How to Write an Essay Using Only WhatsApp Messages."

The writer is a retired officer of the Indian Foreign Service (1976 Batch). He served in a number of countries, including as Ambassador in Kuwait and Morocco and as Consul General in Dubai and New York.



System reset: The PUC turnaround

Karnataka's second Pre-University Course (PUC) results this year offer a rare moment of collective optimism in the state's education landscape. With an overall pass percentage of 86.48—a sharp rise from last year's 73.45—the improvement is substantive. At a time when public discourse often dwells on systemic failures, these results demonstrate what focused governance and academic discipline can achieve. Predictably, scepticism has centred on the decision to reduce the minimum pass percentage from 35 to 30. However, according to School Education Minister Madhu Bangarappa, of the 5,46,698 students who passed, only around 5,500 have benefited from this relaxation. The improvement, therefore, is rooted in deeper structural interventions. Several encouraging trends stand out. Girls have continued to outperform boys, but more striking is the edge secured by rural students over their urban counterparts. One of the most heartening aspects is the turnaround in government institutions. As many as 74 government PU colleges recorded a 100% pass rate, a dramatic jump from just 13 last year. This points to improved accountability and academic oversight. The stellar performance of residential institutions, particularly the Karnataka Residential Educational Institutions Society (KREIS), further reinforces this narrative. With a pass percentage of 93.99, these colleges—catering to marginalised communities—have outperformed even private unaided institutions.

Results validate Karnataka's push towards stronger academic oversight, even as regional disparities persist

However, disparities persist, with at least 15 districts—nearly half of Karnataka—lagging behind the state average, though many have shown improvement over the last year. Yadgir, for instance, remains at the bottom with 71.21%, but it has climbed from a dismal 48.45% last year. In contrast, Udupi, Dakshina Kannada, and Kodagu continue to dominate the upper tier. Notably, Vijayapura has emerged as the most improved district, leaping from 58.81% last year to an impressive 92%, underscoring what focused district-level interventions can achieve.

Policy interventions—including early syllabus completion and rigorous monitoring mechanisms—have created this turnaround. Crucially, the timely appointment of guest lecturers at the start of the academic year ensured that classrooms did not suffer from disruptive vacancies. Regular academic audits and increased lecturer accountability have ensured the system remained responsive throughout the year. The challenge now is to sustain this momentum while addressing the remaining gaps. Karnataka's PUC results are a reminder that with intent and execution, public education can deliver and benefit even the most marginalised.

Staying employable in an unpredictable job market

ALI KHWAJA

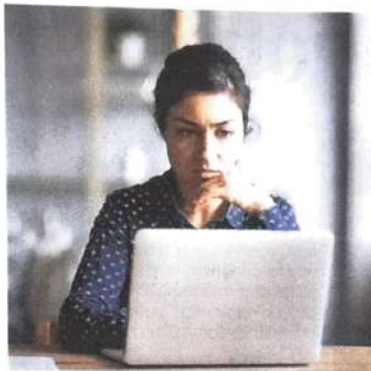
Suresh* opted for engineering four years ago because he was convinced that the best jobs go to technology professionals. He secured admission to a reputed college, and his grades were consistently high. Entering his final year, he was excited that he would get a job offer through campus recruitment and looked forward to earning.

He was shocked when some of the companies that used to regularly offer jobs to students from his college did not even visit. The second blow came when he learned that some of his seniors, who had been recruited long ago, still had not received their joining orders. His world was shattered.

Not knowing what to do, he hurriedly prepared for management entrance exams and joined a very average B-school to pursue his MBA. His hopes were shattered again when he saw that the jobs being offered were routine and mundane, with salaries hardly better than those gig workers earned.

Suresh is not the only one in this situation. A recent survey conducted by the hiring platform Unstop found that 85% of engineering students and 74% of B-school students graduating this year remain unplaced. The report also said that only 16% of internships convert into full-time jobs. Even among the job offers received, 27% were declined due to a lack of salary transparency.

This is one of the major disappointments that students in engineering and other professional



courses face. While many students continue to struggle and undergo rigorous coaching to gain admission to reputed colleges (read "IITs"), their seniors are already realising that an engineering degree is no longer a passport to success. In fact, in today's fast-changing world, there are no "safe careers". It is not that engineers will not get jobs or will keep losing existing ones. AI has created fears and confusion, and it has also slowed hiring in some sectors.

A glance at the past few decades shows that certain professions, once considered highly desirable, have periodically declined. However, it was mainly those who entered these fields without aptitude or genuine interest who suffered the most. Those

with expertise—and, more importantly, the ability and willingness to adapt—weathered downturns and continued to progress.

Dr. Nikhath chose dentistry out of genuine interest, despite it being a less common path than medicine. With strong fine and gross motor skills, she was well-suited to the precision the field demands. Graduating during a time of intense competition and low patient inflow, she faced early challenges but remained driven by her passion. She developed a special interest in working with children, learning to put them at ease during procedures. Today, she runs a successful practice and is also trained as a counsellor, supporting the emotional needs of children with special needs and their parents.

The lesson: when choosing a course of study, one should prioritise aptitude and skills over perceived demand or scope. Do not rely solely on campus placements for your first job; instead, trust that your expertise will open doors. Acquire additional skills that help you stand out. Consider qualifications beyond your basic degree to improve employability, and pursue meaningful internships that provide practical exposure and the ability to handle corporate work pressure. Strong recommendations or certificates from internships can impress prospective employers.

Before selecting a course, assess your strengths, personality, and social traits, and then decide which domain you would like to spend the next 40-50 years working in. Avoid the herd mentality. For instance, if you choose technology, explore the wide range of engineering branches available

rather than opting for only the most popular ones. The COMEDK website lists 88 choices, and similar diversity exists across CET and private universities.

For employment, overall development and abilities are as important as academic performance. Build life skills, communicate effectively, express yourself clearly, and learn to listen attentively. Develop the ability to handle difficult people and stressful situations.

Dinesh* realised in his first year of college that he would never be a topper. While others focused on rote learning, he engaged in extracurricular activities, built networks, and developed persuasive skills. As a student, he took short-term courses in public speaking, negotiation, and leadership. After graduation, he applied specifically for sales and marketing roles. With his technical background, he understood the products well, enabling him to sell and negotiate effectively. Within a year, he was promoted and is now on a path toward a rewarding and enjoyable career.

Another factor that contributes to a strong career start is not limiting oneself to large, reputable companies. Smaller firms often provide better all-round learning and growth opportunities, building confidence and motivation to progress. If 80% of your peers do not secure campus placements, aim to be among the 20% who do—chosen not just for your degree or CGPA, but for your ability to enhance productivity and quality within an organisation.

(The author is a career counsellor. Names have been changed to protect privacy)

Ambedkar & Education

Ambedkar's Thoughts on the Education of Backward Classes

SUKANTA PAUL

Regarding the education of the masses, the great Indian philosopher Swami Vivekananda once said: "A nation is advanced in proportion as education and intelligence spread among the masses." The words are very significant, without the

times, the ruling class consistently provided educational opportunities only to the higher and middle classes. To them, education was meant only for the privileged, and for this reason, power was always held by these classes. Consequently, backward and marginal people were pushed to the lower positions of the state and society. They have historically had to depend upon the consideration of the upper classes and castes.

This situation pained Ambedkar, and he tried to eradicate these differences. Ambedkar's social and educational thoughts remain surprisingly neglected in Indian educational discourse. Education was assigned a revolutionary role in Ambedkar's conception of social progress. This essay attempts to understand Dr. Ambedkar's thoughts on the education of the backward classes in particular and the masses in general.

Swami Vivekananda wanted to erase the differences between the upper and backward classes in every sense. In the same vein, Ambedkar also cherished the goal of uplifting the backward classes through education. He tried his best to impart education among these classes and created various facilities to support them. He realized that without education, the future of the backward classes would not change. Based on his own life experience, he said: "I came from the lowest strata of Hindu society; therefore, I fully realize the importance of education. It is a misconception that the emancipation of the lower classes is solely an economic problem. That is a big mistake. The emancipation of the downtrodden does not mean merely providing them with enough food, clothes, and shelter while leaving them to serve the higher castes. The real issue is to make them aware of the importance of their existence for the progress of the nation; to make them aware of their reasons for their backwardness, which has made them subservient to the higher castes; and to make them aware of the reasons for their inferiority complex. These problems cannot be solved without proper higher education. In my opinion, higher education is the only remedy for our social ills."

Here, we find that Ambedkar never segregated the interests of the backward classes from the interests of the nation. He wanted to educate the backward classes in particular and the nation in general. Ours is a class-ridden society, and a society like this has many evils and vices. Ambedkar very rightly said that these evils and vices could be erased only through education. Thus, he emphasized education for a better and more enlightened society and nation. Education is essential not only for social justice and the upliftment of the mind but also for political and economic power. In a public meeting organized by the Scheduled Castes Federation on December 9th, 1945, he stated clearly: "We should give the same importance to the spread of education as we give to our political movement. Because unless we get educated, we cannot capture key positions of power; and unless key positions are in our hands, we cannot

say that real political power has been achieved by us." He linked education here to the achievement of real political power and status. He correctly pointed out the problem of the backward classes: without political power, a true position in either society or the state cannot be achieved. To attain and hold political power and position, they must educate themselves properly. Thus, we see that education is the foundation of all kinds of power. If they can educate themselves, then mass education will be complete, and this mass education can make the nation advanced and modern.

The questions and problems of primary education were also within his purview. In 1927, he delivered a speech in the Bombay Legislative Council on March 12th. In his speech, he argued that the Primary Education Act was a great wrong. While the government took some steps for the educational development of the Mohammedan community, Ambedkar argued: "I think there is an equal urgency for special inspecting staff to look after the education of the depressed classes. I feel that this Council, in transferring education to local bodies, has practically postponed the spread of education among the masses sine die and, in doing so, has gravely erred, the people who are the greatest sufferers of this wrong are the depressed classes."

He carefully observed that students from backward and depressed classes were unable to access scholarships or opportunities provided by the Government in primary or higher education. He identified three primary reasons. First, a child from a depressed class grows up in an underprivileged environment; consequently, the child and their parents may not understand the utility of scholarships, often using the funds for their immediate livelihood instead. This was a great setback.

Secondly, according to him, "the responsibility of education is transferred to the hands of those who are not enlightened enough to understand that education is a great necessity. Uneducated members of local boards failed to realize the importance of education, leading to the deterioration of mass education infrastructure."

Thirdly, in higher education, students from depressed classes suffered due to the university examination system. In a caste-ridden society, students from backward classes were not on par with those from higher castes. Quoting Dr. Ambedkar's speech to the Bombay Legislative Assembly on July 22, 1927: "I say that the policy of Bombay University... has not been encouraging to the backward or depressed classes." He argued that raising examination standards was not equivalent to raising the standard of education, but rather served to keep backward communities out of the university's portals.

Dr. Ambedkar examined the causes which kept the backward classes out of the educational field, and he argued for the removal of these hindrances. To him, mass education would not be complete if women did not get the chance for

education. From his early days, he realized that women's education is essential for the betterment of the community as well as for the nation. During his studies in New York, he wrote a letter to his father's friend, where he wrote: "We shall see better days soon and our progress will be greatly accelerated if female education is pursued side by side with male education. He emphasized female education for the development of society and the nation, and overall for the progress of the female domain. On 18th July 1927, he addressed a meeting of about three thousand women from the depressed classes."

He clearly said: "I measure the progress of a community by the degree of progress which women have achieved... Never regard yourselves as untouchables... send your children to school. Education is as necessary for females as it is for males." To him, education was the primary weapon to break the bonds of social servitude and the economic dominance of male partners. Only education can empower women in every respect. It is the most powerful tool for the empowerment of the individual. For generations, marginalized sections and women in Indian society were denied the opportunity for education. For this noble cause, he dedicated all his efforts to guaranteeing educational opportunities without discrimination to all citizens of the country.

He realized that without education, political power cannot be achieved. Education was a key factor in his Dalit movement. "Education was assigned a revolutionary role in Ambedkar's conception of social progress and in his vision of a just and equal society." It was identified as a key instrument of liberation from oppressive structures—specifically the Hindu caste system—as well as for the reconstruction of a new social order. Women were integral to this visionary equalization and were mobilized as political factors in the Dalit liberation movement led by Ambedkar in the early decades of the twentieth century.

In fact, Ambedkar's thought, participation, and leadership in the Dalit liberation movement constituted the bedrock of Dalit women's education. The arena of formal education was a significant focus of women's political movement and empowerment.

To Ambedkar, the question of women's empowerment was paramount. He realized that without the empowerment and liberation of women, society cannot achieve any progress. Therefore, he placed great emphasis on women's education programs. However, researchers have often failed to recognize Dr. Ambedkar as an ardent spokesperson for the women's liberation movement in India. This is a great misfortune for India and its people.

Finally, we can say that the backward, depressed, downtrodden, and untouchable classes, as well as the women of India, realized the importance of education for upliftment and empowerment in society and the state due to the lifelong struggle of Dr. Ambedkar. They raised their heads as equal human beings; herein lies the success of Dr. Ambedkar.

When Reading Becomes a Sunrise

SNEHA DAS

"Revolutions can and often have begun with reading."—Arundhati Roy.

To begin with reading is to begin with refusal. It is to turn a page and find, not comfort, but a quiet insurrection unfolding within the self. This is where Bhimrao Ramji Ambedkar still lives most urgently, not only in statues or anniversaries, but in the act of reading that unsettles inheritance and demands a reckoning with what we have been taught to accept.

Ambedkar read against the grain of a civilisation that had normalised graded inequality as sacred order. His rebellion was not merely political; it was epistemic. He asked not only who rules, but who writes the rules, who sanctifies them, and who is denied the right to question them. In this sense, reading becomes an act of defiance, a way of dismantling the

authority of texts that have long governed bodies and destinies without consent.

In none of his letters, he writes with a clarity that feels almost elemental in its force. Only darkness is there. There is a sea of sorrow. "We will have to bring sunrise ourselves, Rama. We have to make our path. We have to become a gaud of lamps on that path as well. We also have to travel the path to victory on that road. We do not have any world. We have to make our world." Here, education is not ornamentation. It is illumination. It is the labour of becoming both the path and the light upon it.

Ambedkar's insistence on education was never about mere access to literacy. It was about the creation of modern citizens who could interrogate tradition, who could refuse the comfort of inherited hierarchies, and who could imagine justice not as an abstraction but as a lived, material condition. To read, for Ambedkar, was to unlearn obedience. It was to acquire the courage to stand outside the sanctioned truths of one's time. This is why his critique of caste was so unsettling. It did not negotiate

with the idea of sacredness. It questioned the very foundations upon which such sacredness was constructed. If the shastras have been understood in ways that perpetuate humiliation and exclusion, then their authority must be challenged, not reinterpreted into harmless lessons. Reading, then, becomes an act of ethical clarity: it forces us to confront not what I wish to claim to say, but what they have done to people.

Even today, Ambedkar is often described as utopian, as someone who imagined a society too distant from the realities of faith and tradition. But perhaps what is truly imperishable is not his vision, but our willingness to inhabit it. His so-called utopia is, at its core, a demand for dignity. It is a refusal to accept that injustice, even when divinely sanctioned, must be endured.

To read Ambedkar today is to feel that demand pressing upon us still. It is to recognise that the sunrise he spoke of is not an event that arrives on its own. It is something we must continue to bring into being, through thought, through dissent, through the quiet and radical act of reading that refuses to leave the world as it

is. If revolutions begin with reading, then Ambedkar teaches us that they must also continue with it. Each page turned is a small act of courage, a flicker of light in the long night of inherited inequality. And perhaps that is where his enduring power lies, in reminding us that before we can change the world, we must first learn to read it differently; and in doing so, begin to write it anew.



CISCE PROGRAMME AIMS TO BUILD ENTREPRENEURIAL MINDSETS

Council starts AI course for physics teachers

JHINUK MAZUMDAR

Calcutta: The Council for the Indian School Certificate Examinations (CISCE) has introduced a six-month course on artificial intelligence (AI) for physics teachers at the ICSE (Class X) and ISC (Class XII) levels.

The course on "AI-Native and Entrepreneurial Education" is to equip teachers with a comprehensive

framework for an "AI-native generation" and to build an entrepreneurial mindset, the council said in a circular addressed to school heads.

"In response to the rapidly evolving educational landscape shaped by advancements in artificial intelligence, it has become essential to redefine the role of education beyond the traditional transfer of knowl-

edge and skills," the council said in the circular.

The council wants to enable physics educators to transition from content-centric instruction to transformational mentorship, a council official said.

"The course would build teacher capacity to design and facilitate experiential, interdisciplinary, and entrepreneurial learning environments and aims to empower CISCE teachers as future educators, capable of nurturing AI-native learners equipped for self-actualisation and meaningful contribution to society," Joseph Emmanuel, chief executive and secretary, told Metro in a text message.

AI-enabled teaching refers to the use of artificial intelligence as a supportive tool for instructional delivery, assessment and content generation.

AI-native teaching, in contrast, represents a systematic pedagogical transformation, wherein learners are prepared to collaborate effectively with AI systems while simultaneously developing AI-complementary capabilities such as critical thinking, creativity, ethical reasoning and entrepreneurial insight, a council official said.

"In essence, AI-native education moves beyond tool usage to redefining learning processes for the AI-interated world," the official said.

The CISCE course will equip teachers to promote effective use of AI as a thinking, coding, creative, and personal assistant while retaining the teacher's identity, the council said in the circular.

The course aims to apply



principles of physics to introduce design thinking and real-world problem-solving, strengthen teachers' ability to develop start-up concepts grounded in the fundamental laws of physics, and support them in designing physics laboratories aligned with AI-driven and entrepreneurial education.

The course would enable teachers to equip educators with the ability to derive "seed ideas (know-why) and seed skills (know-how) from the CISCE physics syllabus and enable teachers to adopt entrepreneurial pedagogy to foster an entrepreneurial identity among learners, the council said.

The council has aligned itself with the NEP (National Education Policy), 2020, to equip teachers with digital pedagogy skills to effectively utilise technology for engaging and interactive learning, the council said.

AI is making its presence felt across teaching content, methodology, and evaluation, said Suman Chakraborty, director, IIT Kharagpur.

"When it comes to content, AI is technology-oriented, and there is not much scope for misuse. The AI is used for transaction of

teaching and learning; the same AI tool is accessible to a student as well," said Chakraborty.

It is widely acknowledged that AI has the potential to revolutionise education, with students across classes increasingly using AI tools to complete assignments and prepare speeches and presentations.

A student might use ChatGPT to understand a physics concept or a history question. There is no point in objecting to it, or the student will be left behind. However, if the student lacks maturity or sufficient knowledge of the subject, the implications could be many, said Suman Chakraborty.

"AI can be used to improve teaching and learning, and simultaneously safeguard against the consequences of building a wrong conceptual foundation or the danger of being dragged into unethical practices using AI," he added.

AI can support students who wish to move beyond core subjects into innovation and entrepreneurship, assisting them in areas ranging from business creation to a wide range of related activities, he said.

Tele/15/12

Coaching centres, 'dummy schools' & schools



AVJIT PATHAK
SOCIOLOGIST

ATEACHER of a reasonably progressive school recently told me: "In my school, nobody from Class XI is willing to opt for the humanities and social sciences." I could feel her angst and pain. Possibly, she was worrying about the danger confronting the realm of education, or, to put it more specifically, the way this generation is growing up with a fractured and fragmented understanding of life and the world.

Before we reflect on this danger, it is important to understand why liberal arts and humanities are not attracting this generation of young students. There are three reasons. First, in the age of techno-science, with all sorts of grand narratives like "development" and "progress", it is easy to get carried away by the idea of what I would regard as a carefully constructed hierarchy of knowledge traditions — 'hard' sciences vs 'soft' humanities, 'logico-mathematical reasoning' vs 'imaginary/subjective fictions'

and 'economically productive' technology vs 'non-productive' social sciences.

With the internalisation of this hierarchy, many of us begin to think that science is for "intelligent" students, whereas those who cannot do physics or mathematics are forced to opt for humanities and social sciences.

Not only that. Our children grow up with a belief that not to opt for the science stream is a sign of failure; it is almost like carrying a stigmatised identity! Hence, it will not be entirely wrong to say that whether or not a student is inclined to science, many parents force their children to opt for the science stream.

Second, as techno-capitalism is the most dominant variant of modernity, there is a tremendous appeal of science for its instrumental and utilitarian value. Science, as it is perceived by many, is essentially a bridge one needs to pass through in order to acquire the "skills" needed for expanding the "productivity" of the rapidly expanding tech-no-corporate empire.

Whereas your skills in science, engineering and management can fetch you a lucrative job, there seems to be no 'economic utility' of liberal arts and humanities. No wonder, as the market-driven metrics decide what is worth learning, we see the accelerating decline of enrolment, funding and cultural value placed on



STIGMA : Our children grow up with a belief that not to opt for the science stream is a sign of failure. ISTOCK

arts, literature and philosophy.

And third, the appeal of techno-science is so strong that even many well-meaning teachers of humanities and social sciences tend to get demotivated, lose their zeal and confidence, and fail to inspire young students to fall in love with what enriches the inner world — say, literature, fine arts, history, sociology and philosophy.

In fact, it will not be wrong to say that in India, the PCM (physics-chemistry-mathematics) syndrome has almost colonised the minds of young students, and robbed them of their creative surplus.

Yet, despite these "pragmatic" reasons for justifying the prevalent hierarchy of

When students escape from humanities and social sciences, they miss something very deep and profound — the power of critical thinking.

knowledge traditions, it is high time we began to acknowledge the intensity of psychic and aesthetic impoverishment of young minds this sort of instrumental and one-dimensional education has caused.

In this context, let me make three points. First, we are witnessing the way even one's approach to science is getting distorted and purely market-driven. Where is the ecstasy of science as a realm of critical thinking, a way of living and a process of emancipating one's mind from all sorts of dogmas and prejudices?

If you study science only to become an engineer, join a corporate house and earn a huge 'package', it does by no means indicate that you are

evolving as a responsible and democratic citizen with critical thinking. In fact, it is not uncommon to see many techno-scientists becoming an integral component of a system that promotes environmentally destructive neoliberal global capitalism as well as the violence implicit in the discourse of religious nationalism.

Second, we should not forget that for many students, science is often a 'forced' choice as their parents pressure them to opt for it. No wonder, as we see every day in India, these students, instead of engaging with a great pedagogue, and studying physics and chemistry with wonder, joy and curiosity, begin to rely heavily on coaching centre strategists for mastering the "techniques" required for cracking the standardised tests like IIT-JEE and NEET.

In fact, the other day, while conversing with a brilliant teacher of physics, I could sense his frustration. "My students are not interested in attending my classes; instead, they prefer to go to coaching centres" — his helplessness indicates that not everything is fine even in the science stream of our schools.

Is it the reason for the normalisation of "dummy schools" in the country? Or, is it the reason why our schools do not have sufficient money to improve their libraries and

science labs, whereas, as a report indicates, the net worth of the much-celebrated "PhysicsWallah" founder is Rs 14,510 crore?

And finally, when students escape from humanities and social sciences, they miss something very deep and profound — say, the power of critical thinking to comprehend the dynamics of society, or, to put it specifically, the dialectical play of power, privilege and dominant politics; the sensitivity needed to understand others with empathy and the art of listening and the sharpening of the spirit of democratic citizenship; and above all, the quest for what is essentially non-measurable: art, music, spirituality.

When do we realise that a good society needs not merely engineers and techno-managers but also poets, historians, philosophers and, above all, great teachers who can inspire the new generation to see the world beyond the STEM (science-technology-engineering-mathematics) fixation and walk with the likes of Fyodor Dostoyevsky and Rabindranath Tagore, Charlie Chaplin and Satyajit Ray or Karl Marx and Martin Luther King Jr? Or, when do we realise what social philosopher Martha Nussbaum says so convincingly: "Not everything is for profit; democracy needs humanities"?

Artificial Intelligence is not Information Technology

PRAVIN KAUSHAL

Artificial Intelligence is often described as the next phase of Information Technology. This idea has gained widespread acceptance across boardrooms, universities, and policy discussions. Yet, it is fundamentally flawed.

Artificial Intelligence is not an extension of Information Technology. It is a different paradigm altogether.

This confusion matters. It shapes how organisations invest, how systems are deployed, and how outcomes are measured. When AI is treated as IT, its potential is misunderstood and often lost.

Information Technology is built on rules. It operates through explicit instructions written by humans. These systems are deterministic. The same input produces the same output every time.

This predictability is the strength of IT. It enables reliability, consistency, and control. Banking systems, enterprise software, and network infrastructure depend on this certainty.

Artificial Intelligence operates differently. It is based on learning rather than rules. AI systems are trained on data, not programmed line by line. They identify patterns and generate outputs that are probabilistic.

The same input may produce slightly different outputs. This is not a flaw. It is a defining feature.

IT eliminates ambiguity. AI works within it.

The difference between IT and AI can be understood through their core mechanisms.

IT relies on explicit logic. Every possible scenario must be anticipated and encoded. This makes it effective in structured environments.

AI relies on learned patterns. It can handle complexity and ambiguity that cannot be fully captured through rules.

A simple analogy illustrates this difference. IT is like a calculator that follows exact instructions. AI is like a student who learns from examples and improves over time.

This distinction shapes everything from system design to real world application.

There is a common belief that IT will gradually evolve into AI. This assumption is incorrect.

IT systems are designed to remove uncertainty. AI systems are designed to operate within uncertainty. These are opposing principles.

IT systems remain static unless updated by humans. AI systems evolve as they are exposed to new data.

IT stores knowledge explicitly in code and databases. AI encodes knowledge in model parameters that are not directly interpretable. This creates what is often described as a black box.

IT aims for precision and zero deviation. AI operates within acceptable levels of accuracy.

Because of these differences, IT cannot become AI, and AI cannot be reduced to IT.

When organisations fail to recognise this difference, they make predictable mistakes.

AI initiatives are often handed over to IT departments to be managed like traditional software systems. The focus shifts to stability, control, and risk minimisation.

These are important goals, but they are not aligned with how AI creates value.

AI requires experimentation. It improves through iteration. Its outputs must be evaluated, refined, and contextualised.

When forced into rigid systems, AI is reduced to a narrow set of use cases. Its ability to transform processes is lost.

One of the biggest consequences of this confusion is that AI is treated as a tool for automation.

Organisations focus on reducing costs and improving efficiency. While these are valid outcomes, they represent only a small part of AI's potential.

The real value of AI lies in transformation. It enables new ways of working, new products, and new markets.

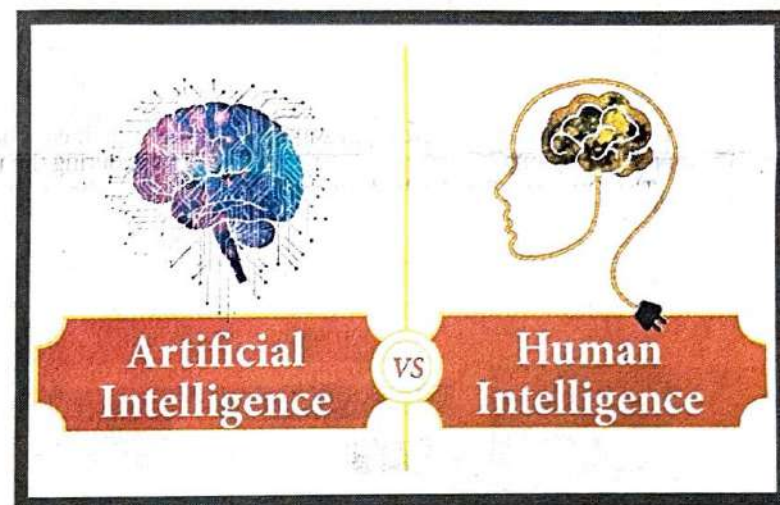
When productivity improves, the question should not only be how much cost can be saved. The more important question is what new capabilities can be created.

This shift from optimisation to transformation is where AI differs most from IT.

Artificial Intelligence depends on Information Technology. It requires infrastructure for data storage, computing, and deployment.

However, this dependency does not make them the same.

IT provides the foundation. AI provides intelligence.



IT ensures stability. AI introduces adaptability.

A useful way to understand this relationship is to think of IT as the body of a digital system and AI as a layer of cognition built on top of it.

The misunderstanding between IT and AI creates challenges within organisations.

Employees often use AI tools informally, outside official systems. This creates a gap between actual usage and formal strategy.

Leadership may not fully understand how AI is already transforming workflows. This limits the ability to build coherent strategies.

To unlock AI's potential, organisations must rethink how they deploy it. This requires involvement at the highest levels, not just technical implementation.

The future is not about replacing IT with AI or merging them into a single discipline. Both will coexist, each serving a distinct role.

IT will continue to provide reliability, scalability, and security. AI will drive insight, adaptability, and innovation.

The key is to use them together without confusing their functions.

Artificial Intelligence is not Information Technology and will never be. IT is about certainty, control, and structure. AI is about learning, probability, and exploration.

Confusing the two leads to poor strategy and lost opportunity. Understanding this difference is not a technical detail. It is a strategic necessity.

As organisations and countries invest heavily in AI, the real question is not whether they adopt it, but whether they understand it.

Because without that understanding, even the most advanced technology can end up being used in the most limited way.

(The writer is a director-Mrikal (AI/Data Center) and a young alumni member, Government Liaison Task Force, IIT Kharagpur.)

A message to US university — rebuild trust

A MIDST GROWING scepticism in the US regarding the value of higher education and declining enrolment rates, comes a report this week that lays a large part of the blame squarely on American colleges and universities. The findings published by the Yale University committee are unsparing: High tuition fees, murky admissions processes, uneven academic standards and anxiety related to free speech on the campus are reasons for the shift. Yale itself is among the institutions indicted by the report, which notes that issues like a “subjective and hard to explain” undergraduate admissions system have led to what university president, Maurie McInnis, described as an “erosion of public trust”.

The committee was formed last April during a particularly tumultuous time for US universities. President Donald Trump had ordered a pause in federal funding to several institutes, linking it to investigations into alleged antisemitism on campuses or refusal to fall in line with his administration’s attempts to dismantle DEI programmes. Immigration rules for international students were tightened and investigations into several universities were launched, allegedly for violating civil rights through racial preferences in admissions. The disenchantment is also driven to a large extent by perception: Most American schools are far removed from elite institutions like Yale, Harvard and Columbia, but the latter’s skyrocketing tuition and opaque acceptance criteria have contributed heavily to the idea of inaccessible higher education. In a subdued job market, many American families are also weighing the costs of attending college against the possibility that they may see little return on their investment.

Restoring trust calls for deep reform. The report offers several recommendations, including greater budget transparency and a renewed commitment to free expression on campus. For India, there are lessons from the American experience — not least of which is that public trust once lost is not easy to regain.

NMC proposes to ease norms for establishing new medical colleges

Bindu Shajan Perappadan
NEW DELHI

The National Medical Commission (NMC) has now proposed significant draft amendments to its 2023 regulations, focusing on easing the norms for establishment of medical colleges – allowing in more trusts and societies. It is also looking at tightening postgraduate (PG) medical education standards, and introducing a single-State licence for Armed Forces Medical Services (AFMS) doctors to practise nationwide.

The Commission, in its latest notice, has invited comments until May 7, on its proposed amendments to the “Registration of Medical Practitioners and Licence to Practice Medicine (Amendment), Regulations 2026”.

“The draft regulations aim to tighten regulatory



A total of 43 new medical colleges have been established across the country for the academic year 2025–26. FILE PHOTO

control over the quality of education while streamlining the processes for setting up institutions and regulating military medical personnel,” said a senior Health Ministry official.

Addressing the administrative burden of frequent transfers, the NMC has proposed easing transfer-related paperwork by allowing AFMS doctors to register once with a State medical council at commissioning,

with the licence valid nationwide during active service. Retired doctors will need to re-register in their State of practice.

The annual renewal of licence will be centrally managed so that licences will not go inactive due to delayed, individually filed renewals and the registration council will handle professional misconduct cases, with recommendations from the State where

the incident occurred.

For more stringent standardisation in PG medical education, the Commission has asked all medical colleges to adhere to updated infrastructure, faculty, and clinical facilities criteria with standalone PG institutes to have 220 beds, with at least 80% bed occupancy, a revised senior faculty-student ratio of 1:2 and limiting non-government colleges to a maximum of four seats when starting a new PG course or increasing intake.

A total of 43 new medical colleges have been established across the country for the academic year 2025-26 and the Centre has approved 11,682 MBBS seats and 8,967 PG seats across the country for the said academic year, Union Minister of State for Health and Family Welfare Anupriya Patel said in a written reply in the Rajya Sabha.

John J. Kennedy

For decades, higher education across the globe sold a fairly standard dream: secure admission to a prestigious institution, earn a marketable degree, and move smoothly into employment. Rankings, brand value, and placement statistics were treated as proxies for success. However, the *Annual Student Quest Report 2025* released by the International College and Career Counselling (IC3) Institute suggests that today's students, across regions and socio-economic contexts, appear to be recalibrating what they expect from higher education and are prioritising well-being, safety, purpose, and long-term relevance over institutional prestige.

This shift reflects a generation coming of age amid overlapping crises: a pandemic that exposed mental health fragilities, economic uncertainty that unsettled linear career paths, rapid technological change that renders skills obsolete faster than degrees can certify them, and a global climate of anxiety shaped by conflict, climate change, and political instability. In such a context, it is hardly surprising that students ask a different set of questions: Will this institution protect my mental health? Will I feel safe here? Will my education have meaning beyond short-term employability?

However, this recalibration also exposes a trou-

bling gap between student expectations and institutional preparedness. While over 80% of students reportedly rely on AI-powered tools for career exploration and university selection, a significantly smaller proportion of counsellors use similar technologies. Even more telling is the finding that family members remain students' most trusted advisers. This reliance reflects both cultural realities and systemic inadequacies. Formal guidance structures in many countries, including India, remain under-resourced, sporadic, and exam-centric.

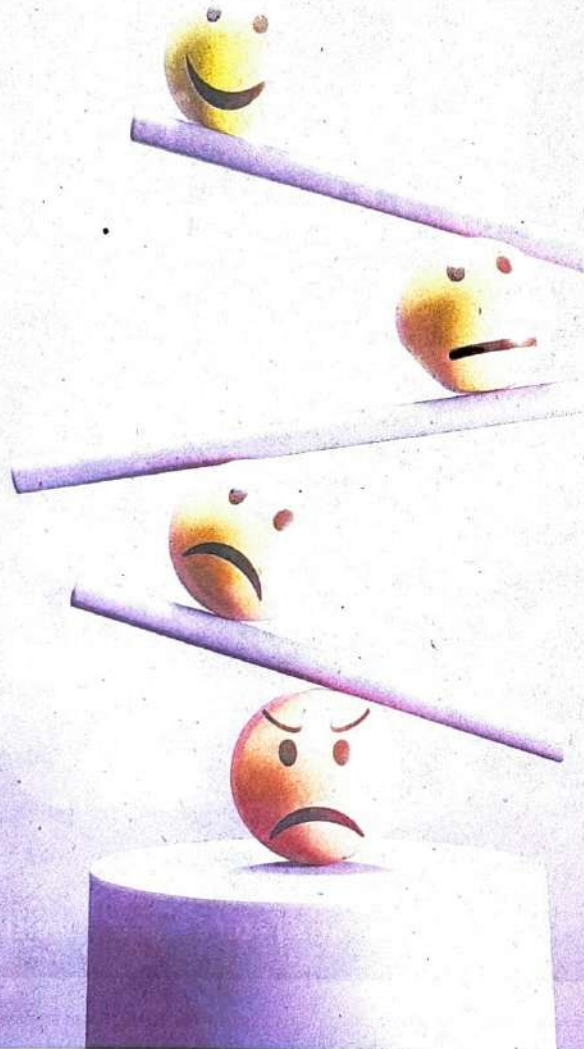
Have students thought this through fully? In part, yes. Their emphasis on well-being and purpose is backed by strong evidence linking mental health to academic success and life outcomes. But there is a danger in over-individualising responsibility. Student preferences alone cannot drive institutional change. The latter requires funding, trained personnel, and a radical shift in academic culture. Without these, well-being risks becoming a slogan rather than a reality.

Indian context

In India, these findings resonate with deep ongoing concerns. Indian campuses – both elite and state-run – continue to witness alarming reports of student stress, anxiety, and suicide. Competitive academic cultures, rigid evaluation systems, caste discrimination, financial

Mind over marks

Why student well-being matters as much as degrees



pressure, and inadequate psychological support form a combustible mix. Against this backdrop, students' insistence on safety and mental well-being is not a choice but a necessity.

However, the feasibility of implementing this student-centred vision in Indian higher education remains contested, primarily because capacity is uneven. While a handful of private and central institutions have begun investing in counselling centres, mentorship programmes, and flexible curricula, the vast majority struggle with basic staffing, infrastructure, and governance deficits. Often, inclination is missing. Mental health is still viewed as peripheral, remedial, or individual rather than institutional and preventive.

In this context, the IC3 report's call for "Counselling as a Culture" is significant. It suggests moving beyond token counsellor appointments towards embedding guidance within pedagogy, leadership practices, teacher training, and parental engagement. In India, this requires a decisive break from the exam-centric mindset that dominates schooling and higher education. Faculty members will need training not only in subject expertise but also in student mentorship and emotional literacy.

Additionally, government policy plays a critical role. Regulatory bodies such as the UGC must move beyond issuing advi-

sories and insist on enforceable standards for student support systems. Funding mechanisms should recognise counselling services, mental health infrastructure, and faculty development as core academic investments, not optional add-ons. Equally important is reducing structural stressors: unrealistic syllabi, compressed academic calendars, punitive assessment practices, and opaque grievance redressal mechanisms.

Institutions, for their

part, must confront uncomfortable questions. Do they see students primarily as rank-holders and placement statistics, or as young adults navigating complex personal and social transitions? Are they willing to sacrifice a measure of performative excellence to create humane academic environments? Without such introspection, well-being will remain a policy buzzword rather than an institutional ethic.

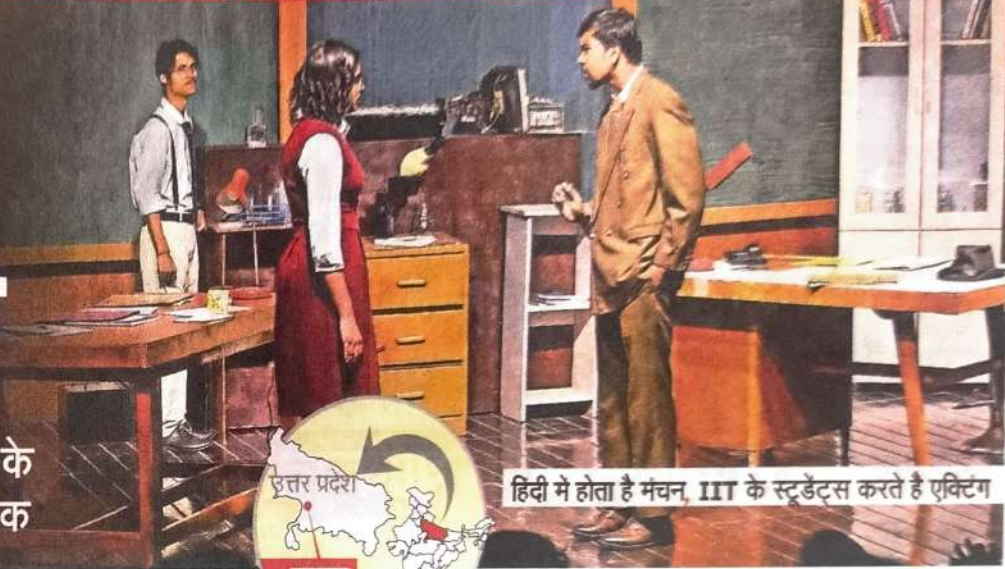
The writer is former Professor and Dean, Christ University, Bengaluru.

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नाटकों से सुलझेंगे विज्ञान के मुश्किल टॉपिक

विज्ञान का रंगमंच

क्वांटम मेकेनिक्स के सिद्धांत समझने के लिए 2022-23 में हुआ था पहला नाटक



हिंदी में होता है मंचन, IIT के स्टूडेंट्स करते हैं एक्टिंग

Praveen.Mohta

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■ **कानपुर** : भारत में स्वांग, नौटंकी और नाटकों की विधा का विकास आम लोगों के मनोरंजन के लिए हुआ था लेकिन आईआईटी कानपुर में अब नाटकों के जरिए छात्र-छात्राओं को कभी क्वांटम मेकेनिक्स तो कभी डीएनए की संरचना के बारे में बताया जाता है। प्रोफेसर डॉक्टर मनोज कुमार हरबोला के अनुसार 3 साल से हर साल हमारी नाटक मंडली प्रसिद्ध वैज्ञानिकों और उनकी खोजों पर नाटक बनाती है। सभी नाटकों की भाषा हिंदी होती है।

प्रोफेसर हरबोला ने बताया कि 2021-22 में आईआईटी कानपुर में पाठ्यक्रम की समीक्षा के बाद प्रैजुएशन फर्स्ट इंयर के लिए क्वांटम मेकेनिक्स कोर्स जोड़ा गया। क्वांटम

से जुड़े सिद्धांत बेहद कठिन माने जाते हैं। आम जनजीवन में फिलहाल इसका कोई प्रयोग या चर्चा नहीं दिखती। क्वांटम के सिद्धांतों को स्वीकार छात्र-छात्राओं के लिए थोड़ा मुश्किल भी होता है। ऐसे में इस कोर्स को पढ़ाने के लिए जरूरी है कि बच्चों के

बीच इसके बारे में माहौल बनाया जाए। इससे जिज्ञासा पैदा होगी, जो आगे की राह आसान करेगी।

इसके लिए एक पहल करते हुए एक ड्रामेटिक्स क्लब या फुर्सत मंडली बनाई गई। इस क्लब ने 2023-24 में क्वांटम

मेकेनिक्स पर आधारित नाटक कोपेनहेगन किया। माइकल फ्रेन के लिखे इस नाटक में क्वांटम सिद्धांत के दो महान वैज्ञानिक नील्स बोहर और वर्नर हाइज़ेनबर्ग का चित्रण है। इस नाटक को संस्थान में बेहद बढ़िया प्रतिक्रिया

मिली। प्रोफेसर हरबोला के अनुसार इसके बाद तय किया गया कि हर साल एक नए विषय पर नाटक होगा। 2025 में सेटर फॉर एजुकेशनल रिसर्च एंड टैक्नोलॉजी एक्सप्लोरेशन (CERTEX) की स्थापना के बाद वैज्ञानिक एलन ट्यूरिंग के जीवन पर आधारित नाटक ब्रेकिंग द कोड किया गया।

इस साल 2026 में 90 मिनट का नाटक फोटोग्राफ 51 का मंचन हुआ। इस नाटक में डीएनए की डबल हेलिक्स संरचना की खोज से जुड़े वैज्ञानिकों के जीवन को दर्शाया गया। नाटक में विशेष रूप से रोसालिंड फ्रैंकलिन पर ध्यान दिया गया। फ्रैंकलिन के द्वारा ली गई एक महत्वपूर्ण एक्स-रे तस्वीर, जिसे फोटो 51 के नाम से जाना जाता है, इस खोज में निर्णायक साबित हुई। इस नाटक के मुख्य अतिथि सीडीआरआई के पूर्व वैज्ञानिक डॉ. अनिल रस्तोगी थे।



प्रसिद्ध वैज्ञानिकों और उनकी खोजों पर होते हैं नाटक

Understanding the struggle behind defiance in classrooms

ALVINA CLARA

Not all students obey rules outright, and managing them in the classroom can be challenging at times. When you spot patterns — saying no adamantly, refusal, baiting, throwing temper tantrums — you may wrongly judge these students as mischief mongers in the classroom.

However, beneath their outward stubbornness, bad mood, or behaviour lies an underlying personality diagnosis or disorder that we seek to explore. Deep within, they are only seeking to be seen or understood differently, and when understood in the right light, they are likely to cooperate and respond positively.

Oppositional Defiant Disorder (ODD) is a frequent and ongoing pattern of anger, irritability, arguing and defiance toward parents, teachers and other authority figures. Typically diagnosed in childhood, it is characterised by a persistent pattern of argumentative/defiant behaviour and vindictiveness towards authority figures lasting at least six months. It affects how students interact with authority figures, like parents and teachers at school. The signs in students may include:

- Often arguing with adults or people in authority
- Defying rules or refusing to follow adults' instructions
- Frequent temper tantrums and anger that lead to heated arguments or outbursts
- Angry and irritable mood when provoked or asked to do something
- Deliberately annoying people
- Often blaming others for their own mistakes or misbehaviour
- Saying mean and hateful things when upset
- Vindictive in nature. Trying to hurt the feelings of others and seeking revenge
- Consistent avoidance of challenging tasks or assignments

For some children, symptoms may first be seen only at home and during the school years. But with time, the behavioural issue may also extend to other settings, such as social gatherings and events. Sometimes ODD may develop later, but mostly before the early teen years, leading to impulse control problems, substance abuse, or anti-social behaviour. Oppositional defiant behaviours are frequent and ongoing, causing problems for both the child, parents and teachers.

Let us understand what ODD looks like in school, why it surfaces, and how teachers can intervene with thoughtful strategies that respect the child's upbringing and dignity while realigning their focus on learning, progress and achievement.

Causes of ODD

The causes for ODD include a combination of genetic and environmental factors:

- **Genetics** - A child's natural personality or character — also called temperament — may contribute to the development of ODD. Differences in the way nerves and the brain function may play a role.
- **Parental abuse or neglect**: A child who experiences abuse or neglect, harsh or inconsistent discipline, or a lack of proper supervision/guidance in childhood develops opposition to authority figures.
- **Family issues**: Unstable or unpredictable family relationships or a parent with narcissistic personality disorder or substance use disorder further aggravate their defiance mode.
- **Tough environment**: An erratic home environment, such as neglect, constant punishment or abuse, may lead to the development of ODD.

It's important to distinguish ODD from typical short-term adolescent outbursts or temporary situational stress. A qualified psychologist can diagnose ODD in students with certain tests.

While there's no sure way to prevent oppositional defiant disorder, teachers can play a crucial front-line role by applying informed, supportive strategies. Also, positive parenting, counselling, and early treatment can help improve behaviour and prevent it from worsening.

Managing such students at school

■ **Being firm, showing you care**: Establish clear routines at school to follow. Give step-by-step instructions that reduce anxiety and opposition. Speak in a soft, assuring tone and neutral language to reduce power struggles or retaliation. For example, "I noticed you are choosing to wait. I know you can do it, and you can start when you're ready" reinforces cooperation without escalation.

■ **Positive relationships through mentoring**: Show genuine concern and interest in the student's progress, strengths, and areas for improvement. Ongoing mentoring sessions build trust and lower defensiveness. Ensure you speak in a

warm, comforting tone with thoughtful eye contact—to signal safety and presence.

■ **Problem-solving through collaboration**: Provide students with options to complete a task or choose a study method. This empowers the student and reduces internal resistance. Invite their input, brainstorm solutions to a problem, and collaboratively agree on a plan, with set follow-up dates to complete the assignment.

■ **Teaching coping strategies**: Identify triggers for defiance (peer dynamics, fatigue, overstimulation) and adjust the environment or schedule to minimise them. Teach the student to cope with rules and instructions with a set of calming and think-before-acting techniques. Include tools like meditation, deep breathing, counting to ten, short breaks, or a quiet "calm corner". Conduct mentoring sessions or one-to-one talks on relationship-building, anger management, and impulse control to help them internalise their importance.

■ **Expectations and reward systems**: Set clear, observable expectations for good behaviour and achievement of milestones/goals. Always offer constructive, consistent feedback free of blame and criticism. Accommodate

their unique learning needs and study patterns. Assign differentiated tasks to reduce frustration and keep students engaged. Break assignments into smaller steps, offer step-by-step instructions, and provide exemplars or rubrics to guide performance.

■ **Create an inclusive environment**: Welcome their differences and help them adjust to group norms, guided by principles of mutual respect and support. Highlight the student's achievements, strengths and successes publicly to build confidence, motivate change and reduce defensiveness.

Maintain open, non-judgmental communication with parents or guardians about their progress and bottlenecks at school. Collaborate with school counsellors, psychologists, or special education staff to provide needed interventions and monitor progress. If concerns persist, collaborate with mental health professionals to obtain a formal assessment and tailor interventions to the student's needs.

Handling ODD students may seem challenging, but with early intervention and informed strategies, teachers can bridge the gap.

(The author is an academic based in Dubai)

Research honours needs PhD

**SUBHANKAR
CHOWDHURY**

Calcutta: Calcutta University told principals of affiliated colleges on Monday that for an undergraduate student to pursue honours with research during their fourth year, the relevant department must have at least two teachers with PhD degrees.

The UGC (University Grants Commission) requires that there be at least two PhD holders within a department for a student to be allowed to undertake honours with research.

"The vice-chancellor said he will not deviate from what the UGC has mandated. He asked the college heads about the availability of PhD teachers in their institutions. The VC told us that if a student

wants to pursue honours with research, the college must inform the candidate whether the department has two teachers with PhDs," said Siuli Sarkar, the principal of Lady Brabourne College.

"If the department does not fulfil the criteria, the student will graduate with just an honours degree," Sarkar said.

In the four-year UG programme, a student can exit at the end of the third year with a "graduated with a major" degree.

CU regulations state that students obtaining a CGPA of 75% after the first six semesters "may opt for honours with a research degree course in the 7th and 8th semesters".

Students with a CGPA less than 75% may pursue an honours degree only.

Students pursuing a four-

year bachelor's degree (single major with research course) are required to undertake research projects under the guidance of a faculty member.

The students are required to complete the research in the 7th and 8th semesters.

"The condition set by the UGC has to be complied with," VC Ashutosh Ghosh said.

Natasha Dasgupta, the principal of Vidyasagar College, said the VC proposed on Monday that if a student does not find the required infrastructure to pursue an honours with research in a particular college, the candidate can migrate to another CU-affiliated college with the facilities.

"There are legal issues which would have to be resolved before this can be implemented," said VC Ghosh.

STUDY ABROAD

CAMPUS CORRECTION

How Trump's zeal to curb international students impacted a college in Chicago, undoing a decade of careful planning and smart work. **Alan Blinder** reports

International students used to crowd the hallways of Lewis University, surrounding school president David Livingston when he would stride through. The campus near Chicago, US, is quieter now, months into the Trump administration's campaign to curb the number of international students at US schools. Few places have been as shaken as Lewis, a Catholic university of about 7,000.

Zheng Zhou, among the professors Lewis hired as enrolments from abroad surged, has seen some colleagues' jobs vanish. The international students' lounge has become emptier. Campus officials are answering more anxious questions than usual from the students who remain.

In the fall of 2024, when Trump was elected, Lewis had 1,397 international students who accounted for nearly one-fifth of the university's total enrolment. A year later, that number was down to 870. By this fall, it may drop below 500.

"We didn't anticipate this rapid of a change, or this severe of a change," said the provost, Christopher Sindt. Despite plenty of interest from abroad, Sindt said, US officials were not issuing enough visas to match the demand.

The US government's issuances of the predominant visa for international students dropped about 36 per cent just before the fall 2025 semester. Some countries were hit harder than others. India had a decline of roughly two-thirds from 2024 to 2025. Visas for Iranians dropped 99 per cent, from 1,118 to just 13. And Nigeria saw a decline of 57 per cent.

Lewis spent much of the last decade building an apparatus for international students. It has spent much of the last year cutting it down. With fewer students in need of instruction and support services, and a sudden budget hole of about \$9 million, Lewis trimmed its workforce.

"If we thought it was going to be a one-year thing, we'd absorb the losses," said Livingston, who oversees an endowment



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worth about \$135 million, far smaller than the multibillion-dollar funds some Illinois universities control. "We don't think it's going to be one year."

Until Trump returned to power, universities historically saw international students as boons. Many paid full tuition, easing budget strains, and enriched campus cultures as they earned degrees in fields propelling academic research. Roughly 30 years ago, the US had about 3,44,000 international students. Except for a period around the pandemic, it has had more than 1 million since the 2015-16 academic year, according to the Institute of International Education, though the explosive growth softened during Trump's first term.

Some American schools that are among the leading destinations for international students, such as Columbia and the University of California, have been top targets for Trump administration scrutiny. But international students

also enrol at schools that attract little attention from Washington — places such as Lewis and public universities such as Wright State and Central Missouri.

Soon after Livingston became Lewis' president in 2016, officials developed a strategy to entice students from around the world. The university then had an international enrolment of 162.

Sindt said international students had not taken slots that would have otherwise gone to Americans because Lewis, which typically admits more than 70 per cent of applicants, expanded the number of seats.

Lewis officials had foreseen hazards like currency swings. They had not foreseen a far-reaching effort by Washington to cut international enrolments drastically. So they poured in resources, deploying recruiters around the world.

They found people like Mark Tabasan, a graduate student from the Philippines, who said he first learned about Lewis at

a university fair in the Manila area and felt drawn to its Catholic roots and its proximity to Chicago. Leanne Peter, who is from India and like Tabasan works in the university's international students operation, said Lewis' "homely feel" had attracted her as she scouted places for an American master's degree.

"Their values kind of aligned with mine," Peter said, adding that the university had been deeply welcoming once she arrived. That was, in part, because of a hiring spree to accommodate Lewis' 604 per cent rise in international enrolment between 2016 and 2022.

For the students still at Lewis, worries have replaced peers. Angie Rodriguez, the university's director of international student and global scholar services, said her office heard from nervous students far more frequently. "They're afraid that things can change at any moment," said Rodriguez, who has worked with international students for two decades. She added, "In my entire career, it's been pretty stable in terms of what students can expect when they're here, and now with so much rapid change, they're anxious."

Peter said she wondered if the federal government would shift policies again and what that might mean for her future.

Still, Livingston said he had no regrets about how much Lewis had done to bring students to America, even if, for now, officials expect more than usual to study in Britain and Australia. Lewis is looking ahead, considering where recruiters could make inroads for the future, betting that the US will eventually prove more open.

"We don't control the gateway," Livingston said, "but I think our belief is, over time, it's such a good thing for the globe to have people that interact with each other, understand each other, learn in each other's cultures."

John J. Kennedy



The slow death of the university in India; as academic freedom is lacking

There is something deeply disturbing about the latest Academic Freedom Index (AFI) 2026 update. Prepared by researchers at the Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) and the V-Dem Institute, it clearly points to a slow, steady erosion of academic freedom at universities and other institutions across the world. In fact, according to the data, more than 50 countries have seen a decline in the past decade, while only nine have improved. India's story sits squarely within this troubling pattern.

What makes it particularly worrying is not the scale of the decline but its nature. Unlike the sharp, visible setbacks seen in some countries, India's academic freedom has been slipping quietly, almost imperceptibly, since around 2013. There have been no singular moments of rupture. Instead, there has been a gradual accumulation of pressures, each small enough to be explained away, but together powerful enough to reshape the system. A crisis that unfolds slowly rarely feels like a crisis at all.

The AFI data makes one point with striking clarity: academic freedom is inseparable from institutional autonomy. The correlation between the two stands at an astonishing 0.91, about as strong as it gets in social science research. Where universities retain control over internal decisions such as appointments, funding priorities, and curriculum, scholars can think, teach, and research freely. Where that autonomy gets weaker, freedom follows. This is where India's trajectory becomes deeply concerning. The country is now in the bottom 10-20 per cent globally in terms of academic freedom. That is not a marginal slip; it is

a structural shift. And it aligns with the data: a consistent, year-on-year decline in institutional autonomy over more than a decade.

What does this decline look like in practice? It rarely comes in the form of outright bans or dramatic crackdowns. Instead, it operates through subtler mechanisms: leadership appointments that signal ideological preference, funding decisions that reward conformity, and administrative controls that shape what can be researched or taught. As the AFI report notes, governments do not always need to repress directly; they can exert influence indirectly, through the architecture of the institutions themselves. Over time, this changes the university's character. Scholars begin to anticipate boundaries even when they are not explicitly stated. Departments avoid contentious topics. Research questions become safer. Classrooms grow quieter. The most effective form of control, after all, is not censorship but self-censorship.

To understand why this is happening, it is important to look beyond policy and into the broader ecosystem. Higher education in India remains deeply entangled with governmental structures through funding, regulation, and appointments. This creates opportunities for influence that go far beyond formal policy. When institutional autonomy is not robustly protected, these levers can be used to shape academic priorities.

But the responsibility does not end there. University administrations often become complicit, sometimes out of necessity, sometimes out of convenience. Faced with competing pressures, many

choose compliance over resistance. Faculty members, too, are part of this story. When scholars withdraw from difficult questions, avoid public engagement, or internalise the limits imposed upon them, the space for freedom shrinks further. And then there is society. When public discourse becomes polarised, when dissent is equated with disloyalty, academic spaces are inevitably affected.

This is why India's situation cannot be dismissed as routine institutional friction. The AFI report groups India with "autocratising" contexts, where a combination of political, administrative and social pressures is reshaping academic freedom. What makes the Indian case distinctive is the gradual nature of this transformation. Unlike sudden crackdowns, slow declines are easier to normalise. They do not provoke outrage or dominate headlines. Instead, they seep into the system, becoming part of how things are done, and that is what makes them so difficult to reverse.

The implications reach far beyond universities. When academic freedom weakens, education narrows, research grows cautious, and public debate suffers. Universities cultivate critical thinking, which is the ability to question and imagine alternatives, and when that capacity is diminished, society as a whole loses. There is also a deeper contradiction here. India aspires to be a global knowledge leader, yet such ambitions are impossible where academic freedom is constrained. A country in the bottom 20 per cent globally cannot realistically lead the world in knowledge creation.

So, what can be done? The starting point must be

institutional. Universities need to strengthen their internal governance, ensuring that decisions around hiring, promotions and research are transparent and insulated from external pressures. Autonomy is not an abstract ideal; it is built through everyday practices that reinforce independence. University leaders have a particularly critical role. Vice-chancellors and administrators are not merely managers; they are custodians of academic integrity. Their responsibility is to safeguard the institution's core values, even when doing so is difficult. This means resisting undue interference and ensuring that academic decisions remain in academic hands. Faculty members, too, must resist the quiet pull of self-censorship. The health of a university depends on its scholars' willingness to ask difficult questions and to pursue uncomfortable truths. Silence may feel safe in the short term, but it comes at a long-term cost. Finally, there is a role for civil society and the broader public.

Academic freedom cannot survive in isolation. It requires a culture that values inquiry, tolerates dissent, and recognises the importance of independent thought. The AFI 2026 report is a warning. Indian universities are not collapsing. Yes, they continue to teach and produce research. But that is precisely the danger. Academic freedom is being diminished so quietly that its loss risks becoming normal. And when that happens, the very idea of the university begins to change.

The writer is retired professor and former dean of the School of Arts and Humanities at Christ University in Bengaluru

Internships: Compulsory and voluntary

Vijay Prakash Srivastava
writes about the
why and how of
choosing an internship,
the problems and
opportunities

Come April, May, and June, students in professional courses look forward to completing their mandatory internship assignments. An internship is a significant part of the curriculum for undergraduate courses in engineering, management, design, architecture, and related fields. In most cases, educational institutions take the initiative to secure internship opportunities for their students.

Usually, an institute's training and placement department carries out this task of identifying internship opportunities for the students. However, instances in which students are left to fend for themselves are also not uncommon. Students are required to submit a comprehensive report related to their internship for evaluation and marking. A good score on an internship may significantly improve the grade of the student intern.

Simply put, an internship is a stint of practical training undertaken by a student within a company or an organisation. An internship gives students

the opportunity to gain real-world experience and develop valuable workplace skills. Students also have the opportunity to network with professionals and others, developing new connections. Through observation and interaction, interns learn things that may have significant implications for their career and career progression.

Making the most out of it

Although internships are beneficial in many ways, their three major contributions can be in the following areas:

- **Learning about a job before committing to it:** Secondary information about careers is abundant and accessible to everyone. Through an internship, a job, a role, or a career, one can see it up close and decide how well it matches one's aspirations and whether it is the right fit. For example, a management graduate keen to pursue a career in consultancy may experience the work environment at a consultancy firm through an internship, which can inform their career decision.

- **Strengthening the resume:** An internship can be highlighted on a resume, which may advance one's case for inclusion in a further selection process. Here, one has the opportunity to mention the contributions made during the internship, the lessons learned, and how the internship has better equipped her for a particular role. However, the candidate needs to be modest in her description of the foregoing.

- **Possibility of being offered regular employment:** Public sector companies and government departments may not offer regular employment to interns, even when performance has been ex-



emplary, whereas this may well happen in private organisations. A few private firms, including global companies, use internships as one of the modes for sourcing potential employees, by closely observing an intern's behaviour and giving psychometric tests sometimes.

Incentivising internships

Not all students approach their internship in the same way. Some consider it a formality, and aim to complete the internship to submit a report with minimum effort. But some of them take the internship very seriously, are fully engaged, and try to maximise their learning from it.

Also, companies offering internships may differ in how they handle interns. In some, providing internships is considered a formality.

In such cases, no significant effort is made to guide or mentor the intern. Even though interns are assigned to a senior employee, this employee is found to be reluctant and is hardly helpful to the intern. Sometimes the employee may be busy with her own work and can find it difficult to look after the interns.

Except in cases where the institute has full control over selecting internship opportunities for its students, students should proactively search for internships that align with their interests. Many companies are willing to consider such requests from students, though they may ask for the institute's recommendation. In a few cases, the application must be routed through the institute or include the institute's recommendation.

Colleges need to be just. Their intent shouldn't be to impose the internship they identified at random. Instead, an effort should be made to explore an internship that best suits an individual student's needs.

There are paid and unpaid internships. For paid internships, the stipend amount ranges from a few thousand to a lakh or so. Though an internship shouldn't be chosen solely on the basis of the stipend, students should avoid internship offers that provide little value and are structured to exploit unpaid or low-paid labour. Surprisingly, internship notifications with such a motive are on the rise. It is always better to be discreet.

Interning with public sector

As government jobs dwindle, more young people are shifting their focus to opportunities in the private sector. In fact, a significant section of

job seekers in our country doesn't seek jobs in government. In such a scenario, it's not surprising to find students oblivious to internship opportunities with government and public sector organisations. While these opportunities can be considered for compulsory internships, willing students may also undertake such internships voluntarily.

Details of the above internships can be found on the organisations' websites. In most cases, internships offered year after year have been found to be well-structured, with a reasonable stipend for interns and a transparent selection process. PSUs/government departments operate in a number of areas, and one can check for an opportunity in their area of interest.

Such an internship will also add value to your resume and your perspective.

Reserve Bank of India, National Bank for Agriculture and Rural Development, National Highways Authority of India, Indian Space Research Organization, Shipping Corporation of India, Bharat Earth Movers Limited, Securities and Exchange Board of India, National Institute of Nutrition, Indian Institute of Geomagnetism, NITI Aayog, International Financial Services Centres Authority, Centre for Development of Telematics, State Bank of India, Indian Institute of Spices Research, Indian Statistical Institute are amongst well known public organisations offering internships to young people.

The Ministry of Electronics and Information Technology has a portal for the Digital India Internship Scheme.

(The author has led the learning and development function in a top nationalised bank)

Resilience, an underrated softskill

MAULLIKA SHARMA

For most young professionals, the first job is more than a career milestone—it is a culture shock. One day, you are a final year student, juggling assessments and placement stresses. A little later, you are navigating daily meetings, client emails, reports for seniors, and performance reviews. Suddenly, words like ownership, visibility, impact and falling short carry real consequences.

A 22-year-old engineer at a Bengaluru IT firm who prefers to be anonymous said, "It hit me in my second week at work. My manager said my work was 'fine but not client-ready'. I smiled in the meeting and cried on the way home." If this sounds familiar, you are not alone.

The transition from campus to corporate life is one of the most stressful phases of a young professional's experience. And while technical skills matter, what truly determines who struggles, who merely survives and who thrives is a life skill that doesn't feature in most résumés: resilience.

Resilience is not about being tough. It is often mistaken for emotional toughness or "just dealing with it". It is the ability to recover, regroup, and respond wisely when things don't go as planned.

At work, resilience shows up in small, everyday moments: When your code breaks five minutes before deployment; when a client rejects weeks of effort; when your manager's feedback feels harsh and unjustified; or when you compare yourself to peers who seem to be racing ahead.

For many, the hardest part is not the workload, but the self-doubt—the thought that maybe they got hired by mistake. Resilient professionals don't avoid these feelings. They learn to work through them.

Understand and identify emotions

Most Indian students grow up in systems that reward correctness, speed, and marks. Emotional awareness rarely makes the syllabus. So, when one makes a mistake at work, the internal dialogue can be brutal: "I should have known this." "I can't afford to mess up." "Everyone else seems much smarter."

The result is panic, overthinking, or withdrawal. Resilience begins with a pause to recognise what you are feeling

without judging yourself for it. Nervousness before a presentation, disappointment after feedback, fear of failure: these are not weaknesses. They are signs that you are human.

"When my senior pointed out errors in my report, I felt ashamed," admits Sneha, a first-year consultant. "But once I named the underlying feeling—fear of looking incompetent—it stopped controlling me."

Understanding your emotions gives you the choice of how to respond. And that choice gives you power.

Focus on things in your control

Many freshers feel overwhelmed because they worry about everything at once: office politics, appraisal cycles, market conditions, peer comparisons, and parental expectations. Resilient people mentally separate what they can control from what they cannot.

You cannot control company restructuring, constantly changing client demands or how fast others get promoted.

You can control how prepared you are, what questions you ask, how you respond to feedback and how you invest in learning. The only things you can control are your own thoughts and behaviours—how you interpret what is happening outside of you, and how much you allow it to affect you.

"When our project was suddenly pulled, I felt angry," says Arjun, a new analyst. "Then I realised I couldn't control the decision—but I could control how I used the free time. I enrolled in an internal certification."

That shift—from helplessness to agency—is what resilience is about.

Leverage your strengths

Resilience grows when you lean into your strengths. Your strengths may not always be obvious. They could be curiosity, persistence, empathy, optimism, problem-solving, or calm under pressure.

"I always thought my strength was technical skills," says Neha, a design graduate. "But during crunch time, my team valued that I stayed calm and encouraged others. That surprised me."

When challenges arise, try to leverage what you are naturally good at to handle the situation.

Strengths make effort feel purpose-

ful—and setbacks less personal.

Become more mindful

Attention at work is constantly fractured—due to open-plan floors, constant pings, and overlapping deadlines. Mindfulness trains you to stay fully present on the task at hand and improves emotional regulation.

■ Taking one deep breath before responding to a tense email

■ Listening to what is being said instead of mentally rehearsing your reply

■ Noticing when stress shows up as tension in your body.

"I used to react immediately when things went wrong," says Kunal, a fresher. "Now I pause—even if only for ten seconds. That pause saves me from saying things I regret."

Attitude of gratitude

Now psychology backs it up as the basis for our age-old practice of humility and gratitude. Gratitude helps the mind notice what is working alongside what isn't. It doesn't deny stress—it balances it out.

A simple habit you may find useful is to write down three things that went well each night before you sleep. It doesn't have to be big things—a colleague helped you; you understood a new concept; you handled a tough conversation better than before! It stops you from replaying your mistakes before bed and lets you shine a light on the positives.

Gratitude calms the nervous system, improves sleep, and strengthens relationships—all essential for resilience.

Build resilience

Resilience is built, not inherited, and it outlasts your first job. It is a muscle, strengthened through use. Each time you survive embarrassment, rejection, or failure, your capacity grows. The first mistake feels devastating. The fifth feels manageable. Bouncing back becomes the norm!

Degrees may open doors, but resilience keeps you standing when things take a nosedive unexpectedly. As you enter a competitive, changing, and demanding professional world, resilience is not optional. It is foundational.

And the good news? It can be learned, practised, and strengthened—every single day.

(The author is a counsellor)



SKILLS ARE THE NEW CURRENCY While the number of universities has surged to over 1,300, the current focus is on raising quality to meet global benchmarks and improve graduate employability.

AIMING FOR HIGHER DEGREE OF SKILL

India has mastered the ‘scale’ of higher education and now the challenge is ‘substance’. For students, the degree is becoming a secondary credential, the primary asset is now a verifiable, AI-augmented skill set



Dr. MEENA CHINTAMANENI

AS India aims to educate its demographic, the challenge is no longer just access to higher education, but ensuring that higher education translates into highly skilled and employable graduates.

The economic journey in India has undergone a remarkable transformation over the past few decades. India was an economy once anchored in foundational sectors, such as agriculture, banking, and manufacturing. But by the late 1900s the country transitioned into a globally integrated economy with stock market listings and IPOs. Now, India has positioned itself as a technology-driven powerhouse in the era of artificial intelligence, data science, and global ecosystems.

This corporate evolution has essentially altered the fundamental skills required in any industry. At a managerial level, what was once acceptable is no longer the expectation. Now, it is not sufficient for graduates to just possess domain knowledge and basic skills as the global expectation now demands professionals with domain knowledge along with the ability to operate in dynamic and complex work environments. This has put pressure on the higher education system in India, calling for not merely employable graduates, but for graduates who have been nurtured to become global leaders capable of shaping the future of industry.

UNEMPLOYABILITY, THE REAL CRISIS

It is often said that India does not face an unemployment crisis, but rather an employability crisis. Many graduates passing out from reputable higher education institutions possess strong theoretical knowledge but lack the practical skills required to thrive in a professional environment.

There is a gap between what is taught and what is needed. Studies have shown that more than half of the management graduates in India are not skilled managers. A survey titled 'National Employability Report: Engineers Annual Report 2019' by Aspiring Minds, showcased that more than 90 per cent of the graduating engineers in India are not employable because, even though they have the theoretical skills, programming and algorithm skills are lacking making them unemployable.

In the real world, problems are not standardised; traditional education focuses on knowledge acquisition, but modern workplaces require adaptability, communication, problem-solving, and real-world application.

Whether we consider BBA, management or

STRUCTURAL CHALLENGES & 'LOOPHOLES'

- **THE RANKING-PEDAGOGY PARADOX:** A major loophole identified in recent analyses is the “Ranking-Centric Culture”. Many institutions prioritise publication counts and patent filings to climb NIRF rankings, sometimes at the expense of quality teaching and student mentorship.
- **THE 5% RESEARCH TRAP:** While the top 100 institutions show stellar growth, they cater to barely 5% of the total student population. The remaining 95% study in teaching-focused colleges that lack modern research infrastructure and industry links.
- **FACULTY STAGNATION:** There is a critical shortage of faculty trained in modern pedagogical tools. While AI is being integrated into curricula, many educators lack the “digital pedagogy” skills required to facilitate it effectively.
- **OUTDATED CURRICULUM:** Despite the National Education Policy (NEP) 2020, many state-run universities still operate on curricula that do not align with the rapid shifts in AI, cybersecurity and green energy sectors.

engineering graduates, it is essential to look at the work environment along with the role of a specific job description, to create professionals as per industry requirements. Many graduates possess skills like motivation, drive, entrepreneurship, global mindset, decision making, and risk taking, but these are often overlooked. The skills that are usually sought after in the corporate world during the hiring process are limited to analytical thinking and the ability to work with a team. However, the sweet spot of skills, which are highly valued, is often communication, leadership skills, creative problem solving, and strategic thinking. These attributes are what distinguishes exceptional professionals from mere graduates.

Yet, these skills are never the focus of a conventional education curriculum. It is the need of the hour for colleges and universities to focus on these skills to make India a superpower while converting the demographic into a ‘Make in India’ advantage.

BRIDGING THE GAP: EMBRACING AI AND TECHNOLOGY

It is essential for higher education institutions in India to embrace technology. This can be done by adopting artificial intelligence into the curriculum — courses like technology, management, pharma, and commerce need to focus on artificial intelligence as they are no longer just niche areas, but the norm.

A commerce student must go beyond reading balance sheets; with data analytics tools, a commerce student should be able to predict company performance, assess risk, and make informed investment decisions. A management student should be able to forecast market trends and interpret large data sets using predictive AI. Using virtual simulations, predictive modelling, and AI-driven

designs, engineering students should know not just how to create, but how to improve efficiency and innovate continuously. Pharma students must learn to use AI and data analytics for drug discovery and better healthcare management. Across every discipline, being able to work with AI, and more importantly, being able to leverage AI for betterment, is the key factor that makes a professional stand out. An FICCI-EY-Parthenon Survey 2025 (Future-Ready Campuses) found that over 57 per cent of higher education institutes in India already have institutional AI policies, with around 60 per cent allowing students to use AI tools.

DOMAIN KNOWLEDGE AND REAL-WORLD APPLICATION

Introducing hands-on training in the curriculum is crucial; the emphasis needs to shift towards project-based learning, internships, workshops, and industry collaborations to provide real-world experience. Students should not have to wait to get their first job to

understand how industries work; this should be taught at the educational level. A balanced model is one where approximately 80 per cent of the focus is on domain knowledge, while 20 per cent of the focus lies on skill development.

SKILL ENHANCEMENT THROUGH ADD-ON COURSES

Skill enhancement extends far beyond the boundaries of traditional classroom learning. Integrating industry certifications and promoting experiential learning is the need of the hour. This can be done through add-on courses and workshops during the duration of the degree so that graduates become employable.

SWAYAM, a portal launched by the Ministry of Human Resource Development, offers over 110 free AI courses, and data suggests that over 40 lakh students have already self-enrolled to learn these courses. Consider IBM courses or online platforms like Coursera, which can be added to the curriculum, essentially focusing on experiential learning.

This way, when students graduate, they have a holistic approach with real-world experience. Essentially, this is what a university should be preparing students for — adaptability in the real world!

CASE FOR CURRICULUM COMMITTEES

One of the most effective ways to keep curriculum up-to-date and relevant is through structured feedback. This involves forming curriculum advisory committees with students as the primary stakeholders who can provide insights into the effectiveness and relevance of the courses. Faculty members, also primary stakeholders, can share their feedback on teaching methodologies and academic trends. Asking the students questions about the employability advantage of a course, the relevancy of a course in today's dynamic business landscape, and the classroom implementation in terms of assimilation and absorption can provide valuable feedback.

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DON'T CHASE THE NUMBER, CHASE THE FIT

Rankings tell you where a university stands in the world. They don't tell you where you will stand after it. Here's how to read the lists

EVERY June, someone in your class group chat posts it. IIT-Bombay moved up three spots in QS. Thirty fire emojis. Three crying ones. One confused shrug. But nobody asks the question that actually matters: Ranked by whom, measured how and useful for what?



RAVNEET KAUR

Global university rankings — QS (Quacquarelli Symonds), Times Higher Education (THE), and the Shanghai-based ARWU (Academic Ranking of World Universities) — are powerful, widely cited and deeply misunderstood. India's own NIRF ranking, published by the Ministry of Education, adds another lens to the mix. Before these lists shape your choices, you owe it to yourself to understand what they're actually counting.

WHAT GOES INTO THE SCORE

The methodology behind global rankings is more complicated and more contested than the tidy numbers suggest. Each ranking body makes deliberate choices about what to measure and how much weight to give it and those choices consistently favour certain kinds of institutions over others.

QS — the list most Indians track — gives 60 per cent of its score to just two things: surveys of academics and employers worldwide. Older universities in the US and UK have spent decades building those networks. Indian institutions are playing catch-up on someone else's court.

The rest of the QS score looks at research citations, faculty-to-student ratio and international diversity on campus. India bleeds points on all three. Faculty vacancies run chronic. International students are rare. And India spends just 0.65 per cent of GDP on research — compare that to China's 2.4 per



RANKING vs REALITY A university's ranking is a generalised score that may not reflect your specific needs, learning style, or career goals. It is important to remember that while rankings offer a quick baseline for quality, they are not the last word about an institution.

cent or America's 3.4 per cent. That gap doesn't stay in a spreadsheet; it shows up in the rankings every year.

THE GREAT INDIAN EXPORT PARADOX

It is a well-established fact that India's IIT graduates are running engineering teams in Silicon Valley. They hold doctorates from MIT and Stanford. Yet IIT-Bombay hovers around 100th rank when it comes to global rankings. How?

Because rankings measure institutional output — papers published, researchers retained, citations earned. India trains brilliant people and then exports them. Those graduates go on to boost foreign universities'

research numbers, not ours. It's a loop and it's expensive.

Meanwhile, IIT-Madras tops India's own NIRF list — because NIRF rewards teaching quality, student outcomes and inclusivity. Same institution, different mirror, different story.

WHAT RANKINGS SIMPLY CANNOT SEE

Numbers are good at counting what can be counted. They are poor at capturing what actually shapes a life. Rankings can tell you how many papers a university's faculty published last year. They cannot tell you whether a student felt seen, supported or challenged in ways that mattered.

Here's the part no algorithm

captures. The first-generation student from a small town who earns a degree in her mother tongue and returns to transform her community. The professor at a regional college who teaches 40 students with no air conditioning and extraordinary dedication. Equity. Access. The social return on education.

Rankings also struggle with context. A university built to serve a specific regional population, train teachers for under-resourced schools or provide affordable professional education to students who would otherwise have none - that institution may be doing exactly what it should and doing it well, while placing nowhere

near the top of any global list.

NIRF at least tries to ask those questions. QS - a private commercial product that institutions pay to join - does not.

YOUR ACTUAL TAKEAWAY

Rankings matter. They shape visa decisions, scholarship eligibility and how your degree is perceived abroad. Ignore them entirely at your own risk.

But use them as one input, not the verdict. Ask what the ranking measures. Ask whether those measures match your goals. A university ranked 400th globally might offer the exact specialisation, mentorship or financial support that changes your life. Look beyond the composite

score - dig into subject-specific rankings, which are often far more relevant than an institution's overall position. Check whether the departments you care about are actually strong or whether the university's reputation rests on faculties you

will never set foot in. Cross-reference rankings with placement data, faculty profiles and alumni networks. Talk to people who actually studied there. No spreadsheet will tell you whether a campus feels like the right place to spend three or

four formative years - only you can answer that.

The right question isn't where does this college rank?

It's: valuable to whom - and is that person you?

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SKILLED FOR TOMORROW From critical thinking to creative problem-solving, humanities students aren't just learning history — they're building the future.

ART OF BUILDING A GLOBAL FUTURE

The Arts stream has become a lucrative launchpad for tomorrow's leaders, blending cultural depth with strategic skills required to thrive in the modern, fast-paced professional landscape



Dr ASHITA CHADHA

STUDYING humanities in today's world involves a strong blend of tradition and innovation as this stream provides students with a vast array of choice-based academic options combining depth of thought, embedded critical thinking and creativity for societal applicability. Universities are actively developing programmes that not only maintain the tradition of classical courses but also incorporate contemporary methods of pedagogy, interdisciplinary forms and corporation-specific skillsets. Along with the traditional Bachelor of Arts (BA), BA (Honours) there is a more modern model with flexibility in choosing majors-minors, ability and skill enhancement courses, integrated-degree models and technology-enhanced Liberal Arts models where the field is quickly changing in response to the demands of an ever-evolving global environment. Humanities, now, is no longer a secondary choice; it has become a strategic pursuit for India's most ambitious students. Driven by the rise of AI, a global demand for "soft skills", and the emergence of prestigious liberal arts universities, Humanities courses are witnessing a renaissance that is reshaping the nation's academic identity.

BY THE NUMBERS

The surge in interest is reflected clearly in recent admission data and entrance exam trends. **CUET dominance:** In the Common University Entrance Test (CUET) UG 2025-26, sub-



jects like political science, psychology and English saw a record-breaking number of applicants, rivaling traditional commerce and science streams. **Postgraduate interest:** Data from GATE 2025 (which now includes Humanities papers) showed a 30% increase in candidates opting for Humanities and Social Sciences compared to its inception year, with psychology and economics leading the charge.

Private growth: Leading liberal arts institutions like Ashoka University and FLAME have reported a year-on-year increase of over 20-25% in undergraduate applications, signaling a shift in where India's elite choose to study. **LAUNCHPAD OF LEADERS** The rise of the humanities in India is not merely a trend; it is a correction. As the 2026 academ-

ic year unfolds, the blurring lines between technology and society have made it clear that understanding how to build is no longer enough — we must understand why we build. For the modern Indian student, the Arts stream has evolved from a quiet sanctuary of scholars into a vibrant, competitive, and highly rewarding launchpad for the leaders of tomorrow. The writer is Director, University Institute of Liberal Arts and Humanities, Chandigarh University, Gharuan

THE CHANGING FACE OF ARTS

- **THE "AI-PROOF" CAREER PATH:** In an era where Generative AI can write code and perform data analysis, the "human" element has become a premium commodity. Employers are increasingly seeking critical thinking, ethical reasoning, and narrative building — skills core to Humanities.
- **DIVERSIFIED CAREER OUTCOMES:** The stereotype of "Arts means teaching or UPSC" is no longer applicable. Humanities graduates are now entering high-growth sectors:
 - UX Research & Design:** Psychology majors are leading user experience teams at tech giants.
 - Public Policy & Corporate Affairs:** Political science and sociology students are shaping ESG (Environmental, Social, and Governance) goals for MNCs.
 - Content Strategy & Digital Marketing:** Literature and media students are the architects of the multi-billion dollar creator economy.
- **THE LIBERAL ARTS MODEL:** The National Education Policy (NEP) 2020 has institutionalised "multidisciplinary" learning. Major universities now allow a physics student to minor in philosophy or a history major to study data analytics. This flexibility has stripped away the "stigma" of the Arts, making it a versatile foundation for any career.

Traditional Courses

- 1 BACHELOR OF ARTS:** The Bachelor of Arts (BA) is a flexible undergraduate degree that helps students learn how to think critically, communicate well, and analyse things. The programme gives students a strong background in history, literature, culture, and political science. Students learn more about society, how people act, and problems around the world through discussions, research, and project work.
- 2 BACHELOR IN FINE ARTS (BFA):** The Bachelor in Fine Arts (BFA) and Performing Arts studies revolves around creative expression in the form of painting, sculpture, music, dance and theatre.
- 3 BA (JOURNALISM AND MASS COMMUNICATION):** Degrees like BA in Journalism, BJMC (Bachelor of Journalism and Mass Communication) provide an opportunity to learn about news reporting, media production, online journalism and communication strategies.
- 4 BA (PSYCHOLOGY):** Psychology courses provide knowledge of the human mind, behaviour and mental health. Students participate in laboratory activities, case studies, psychological tests and dissertations.
- 5 BA (POLITICAL SCIENCE AND PUBLIC ADMINISTRATION):** These subjects provide students with the basic understanding of political theory, comparative politics, public administration, and global diplomacy. Project-based learning can involve policy formula-



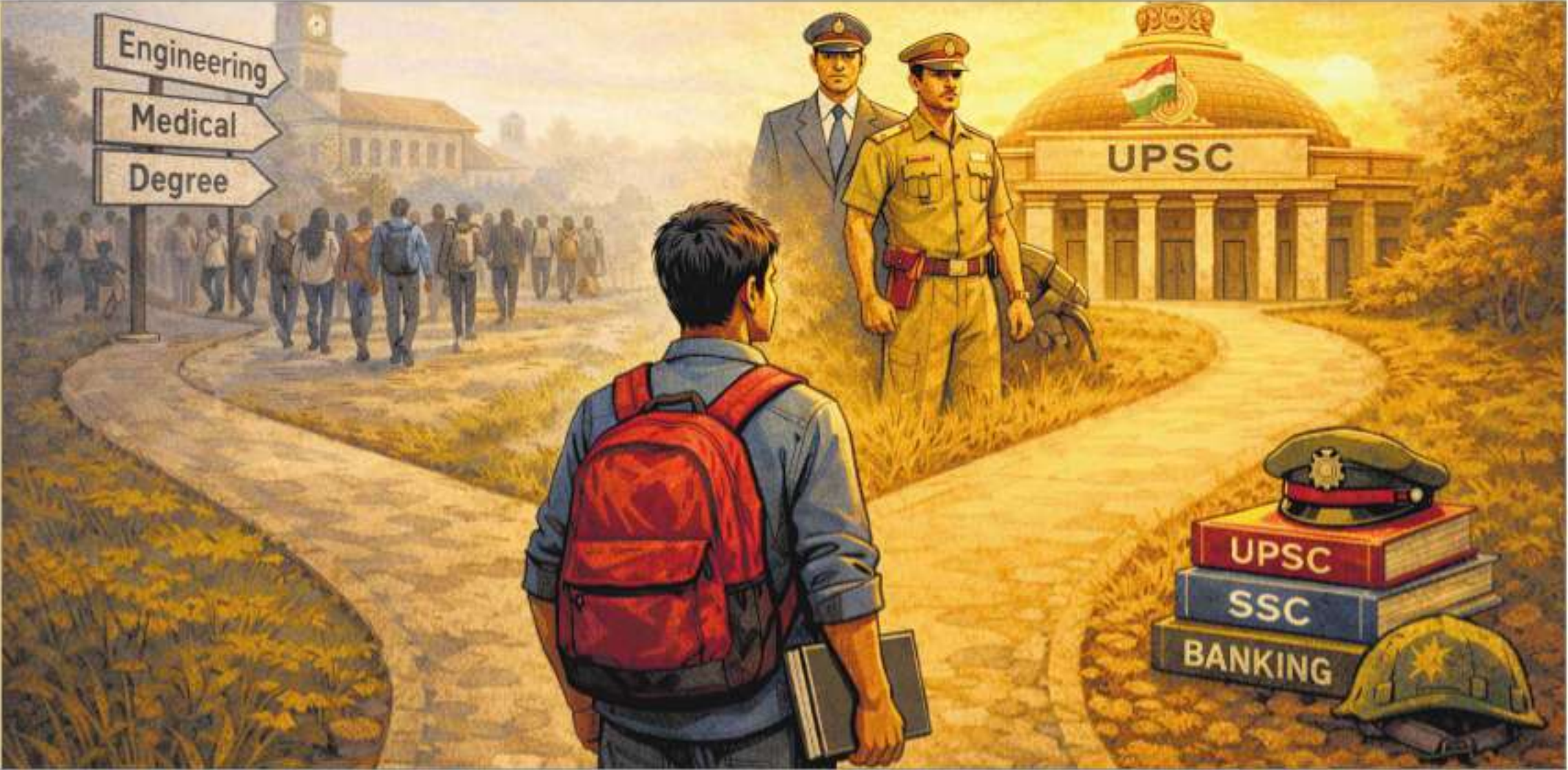
- tions, model parliaments, case studies on international relations and internships with think-tanks, government or non-government organisations.
- 6 BA (ECONOMICS):** Economics provides a good foundation in the areas of microeconomics, macroeconomics, econometrics, development studies, etc. Research projects, data analysis, policy reviews and field surveys are undertaken with a dissertation possibly being the finished product. Such courses provide career options in financial services, banking, policy think tanks, government agencies and international agencies. Compared to more technical finance degrees, Economics in Liberal Arts promotes critical thinking of economic systems, socio-political environments and the ethical aspects of growth and development.
 - 7 BSc FASHION DESIGN:** Fashion design deals with creativity, aesthetics, material knowledge and trends in the market. It includes fashion illustration, textile science, making clothes, making patterns, draping, fashion history, and selling clothes.
 - 8 BA/BSc INTERIOR DESIGN:** It is a professional course that focuses on planning, designing and enhancing interior spaces. The course covers subjects such as design principles, space planning, colour theory, furniture design, lighting, materials and construction techniques. Students can learn software tools like AutoCAD and 3D modeling to create design layouts and presentations.

Applied Avenues

- 1 BA LIBERAL ARTS:** Liberal Arts is a multidisciplinary programme, which gives an understanding of numerous subjects in humanities, social sciences, and sometimes natural sciences. The course trains the students with critical thinking, communication skills, research, and problem-solving abilities through essays, presentations, and projects.
- 2 ANIMATION, VFX AND GRAPHIC DESIGNING:** Programmes BA/BSc in Animation, Multimedia and Digital Film Making teach students visual storytelling, 3D modeling, graphic design and film production. The courses are very project-oriented and students submits portfolios, short films and digital campaigns. Students are trained to use standardised software like Adobe Photoshop, Illustrator, After Effects, Premiere Pro, and 3D tools to create digital designs and effects.
- 3 BA DESIGN:** The course covers subjects such as design principles, visual communication, colour theory, typography, illustration, digital design, and UX concepts. The programme combines theoretical learning with practical work through studio projects, workshops, and internships, helping students build a strong portfolio.
- 4 BA HOTEL MANAGEMENT:** The course covers subjects such as food and beverage service, front office operations, housekeeping, hospitality management, tourism, customer service, and hotel accounting.
- 5 BA APPLIED ARTS WITH DIGITAL INTEGRATION:** This course focuses on visual communication and creative expression through subjects such as drawing, painting, illustration, advertising design, typography, and art history, along with digital tools like graphic design, animation, multimedia and basic UI/UX design.



A new generation of students is setting its sights on something bigger — the competitive exams that hand you not just a qualification, but a career, a uniform and a chance to shape the nation



SHARPEN YOUR COMPETITIVE EDGE

There is a moment that comes for almost every student sitting in Class XI or XII when the big question lands squarely on their desk: What next? For generations, the answer followed a well-worn script. Science students chased engineering colleges or medical seats. Commerce students eyed CA firms and business schools. Humanities students drifted toward law or journalism. The degree was the destination. The college was the dream. But walk into any serious library in a small town today or scroll through the study groups buzzing on any student forum and you will meet a different kind of aspirant altogether. These students are not cramming for college entrance tests.

They are preparing for something that most of their peers haven't even considered yet. They are preparing for the examinations that hand you not just a certificate, but a career — complete with a government job, a salary, a position of authority and, in many cases, a genuine shot at changing the world around them.

These are the students chasing the civil services, the banking sector exams, the Staff Selection Commission tests, the railway recruitments and the defence services. And their tribe is growing, fast.

WHY JOB EXAM BEATS COLLEGE EXAM

Here is a distinction that does not get talked about enough in school counselling sessions. There are two very different kinds of competitive examinations in India.

The first kind — think JEE or NEET — gets you into a course. You clear the exam, you get a seat, you spend four or five more years studying and then you begin the actual search for a job. The exam is an entry ticket to more education. The second kind — the UPSC Civil Services Examination, the IBPS banking exams, the SSC Combined Graduate Level exam, the RBI Grade B recruitment, the NDA for defence — gets you a job.

Clear the exam, complete



IVNINDER PAL SINGH

the selection process and you are employed. Often well-paid, often with extraordinary job security, often with benefits and a social standing that very few private sector positions can match.

The competitive exam that leads directly to a job is not a fallback plan. For a growing number of sharp, ambitious young people, it is the plan.

PATIENCE IS NOT A WEAKNESS

It would be dishonest to pretend that competitive exams are easy or that success is guaranteed after a few months of effort.

The Civil Services Examination has a success rate that hovers around 1% of those who appear. Banking exams draw hundreds of thousands of applicants for a few thousand seats. SSC and railway exams are fiercely contested.

What this means is not that you should be discouraged. It means you should be strategic and patient. The journey typically takes two to four years of serious, committed preparation. Some candidates take longer. The candidates who ultimately succeed are rarely the most brilliant in the room. They are the most resilient, the most consistent and the most willing to learn from failure.

Patience here is not passivity. It is strategic persistence, which is one of the most valuable professional qualities you can build.

MINDSET SHIFT MAKES ALL THE DIFFERENCE

Competitive exam preparation asks you to think differently about education itself. In school, many students learn to study for marks. You read what is in the chapter, you memorise what the teacher said, you reproduce it in the exam and you move on. The goal is a percentage. Competitive exam preparation demands something deeper: genuine understanding, the ability to apply knowledge to new situations and the habit of connecting information across subjects.

A student preparing for

DAILY HABITS THAT BUILD THE RIGHT MINDSET

These small, consistent habits, practised daily from an early stage, can make a decisive difference over time.



1 Solve at least 15-20 aptitude or reasoning questions daily to maintain sharpness.

2 Maintain a monthly current affairs digest so revision before exams is swift and structured.



3 Write one short paragraph every day - on a current event, a topic from your syllabus or an opinion you hold. Writing builds clarity of thought.



4 Revise one topic from your subject of choice each evening - even a 20-minute focused revision builds long-term retention.



5 Read a national newspaper every morning (30-45 minutes). Note important events in governance, economy, defence and science.



6 Sleep at least seven hours. Fatigue is the enemy of retention and reasoning.



7 Exercise three to four times a week. Physical fitness directly supports mental performance.

civil services cannot afford to treat economics as a separate box from current events or history as disconnected from politics. The examina-

tion rewards integrated, curious minds that see patterns across disciplines. A student preparing for banking exams must not just

know the formula for compound interest — they must be able to apply it under time pressure to a problem they haven't seen before.

This shift from learning for marks to learning for understanding is one of the most valuable things competitive exam preparation does to a student. It makes you not just a better exam-taker, but a sharper, more capable thinker in every room you walk into.

A WORD BEFORE YOU BEGIN

The examination is waiting. The syllabus is published. The dates are announced.

The seats are real. What is also real is that tens of thousands of students just like you are preparing right now — in libraries, in coaching centres, at kitchen tables at midnight, on buses with a current affairs magazine open on their laps.

You do not need to be the smartest person in that group. You need to be the most consistent, the most strategic and the most committed to the long game.

Choose your target. Understand the pattern. Build your preparation one day at a time. Read widely. Think deeply. Rest well. And return to the desk every single morning. The exam that changes your life is not waiting for a genius. It is waiting for you.

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BEYOND THE LAB Enrolling into a science stream course is now not just about memorising formulas, it's about getting a 'Universal Remote' for the modern world.

THE SCIENCE OF EVERYTHING

From research labs to tech startups and design studios, the Science stream offers a diverse array of paths. It equips students with a versatile mindset to pivot, build and reinvent themselves in virtually any industry



FOR decades, the Indian education narrative for science students was a binary choice: Engineering or Medicine. However, as we move through 2026, the landscape has shifted dramatically. With the rise of the data economy, climate consciousness, and interdisciplinary research, “Plan B” options have become “Plan A” for many of India’s brightest minds.

Each year, approximately 5.5 to 6 million students enroll in various science-related undergraduate programmes across India. But now there is a noticeable migration towards “Applied Sciences” and “New-Age Technology” courses, as students move away from the saturated engineering market to pursue niche specialisations.

Basic sciences such as biology, mathematics, statistics, astronomy, earth sciences and their combinations are paving the way for scientific innovations and engineering marvels be it quantum computers, semiconductors chip, space explorations, high speed communication or AI revolutions.

PURE & NATURAL SCIENCES

If you have a deep-seated curiosity about how the universe works, pure sciences offer a pathway into high-level research and academia.

Physics, chemistry, mathematics: Beyond teaching, graduates now work in quantum computing, material science and financial modeling.

Astrophysics: With India’s burgeoning space sector (ISRO and private startups), specialised BSc. programmes in astrophysics are gaining traction.

Statistics: One of the most lucrative “pure” paths as statisticians are the backbone of the insurance (Actuarial Science) and data analytics industries.

If a student has a good analytical mind-set and problem-solving skills, BSc. (Non-Medical) might turn out to be a wise choice for him. If you like to study human anatomy and living things, then BSc. (Medical) could suit

your requirements.

1 BSc. (Non-Medical): It is an important and valuable course for students who have a strong interest in physics, chemistry and logical reasoning. This course not only strengthens conceptual knowledge but also opens doors to a wide range of career opportunities in fields such as information technology, data science, research, education and government services.

2 BSc. (Medical): In this course, students study botany, zoology and chemistry. Students can opt for specialisation of their choice from second year onwards.

Students develop expertise in plant sciences, including biodiversity and conservation, plant ecology, economic botany, wildlife conservation, phytochemicals, ethnobotany. In zoology students gain strong expertise in animal sciences, including basic and applied fields like biodiversity and conservation of animals, vertebrate and invertebrate, toxicology, fishery, medical anthropology, health sciences etc.

3 BSc. Hons (physics/chemistry/mathematics) with Research: Physics provides the conceptual and mathematical framework for a deeper understanding of various scientific disciplines. Physics involves the study of areas such as classical mechanics, semiconductor physics, electrodynamics, quantum mechanics and modern physics, which form the backbone of key areas of research. Chemistry provides strong foundation to understand molecular structures and chemical reactions which are important for development of pharmaceutical compounds or drug designing, fertilisers, textiles. Students can check out industry-oriented courses like analytical chemistry, fluorescence spectroscopy, polymer chemistry.

Mathematics, through its various branches, trains students in logical thinking and analytical skills. In this programme, students get trained in advanced courses having applications in modelling



DESIGN & CREATIVE TECHNOLOGY

- **Courses:** BDes, BSc in Fashion Technology, Product Design, Interior Design, Animation, Multimedia
- **Entrance exams:** NID DAT, UCEED, NIFT.
- **Duration:** 3-4 years.
- **Career path:** UX designer, product designer, animator, VFX artist, fashion technologist
- **Best for:** Students good at physics/math but with a visual/creative bent

ARCHITECTURE & PLANNING

- **Course:** BArch – Bachelor of Architecture
- **Duration:** 5 years
- **Entrance:** NATA or JEE Main Paper 2
- **Career path:** Architect, urban planner, landscape architect, sustainable design consultant
- **Why consider:** Blends physics, math, and creativity. Demand is growing with smart cities.



of real-world problems, optimisation, structural designing, signal processing, control systems, cryptography, finance and strategic decision making, inventory model, logistic planning.

4 BSc. (Hons.) agriculture/horticulture/fisheries science/dairy tech: This is right choice for students who would like to develop their skills in agriculture and farming.

Duration: 4 years for most

Entrance: ICAR AIEEA, state-level CETs

Career path: Agri-officer, food technologist, research in IARI/ICAR, agri-business, FPO management

5 BSc. (Hons.) environmental science: This is a relatively new course in tune with the demand for sustainable solutions which address climate change.

The programme teaches students three main subjects: ecology, environmental management and conservation. The field provides valuable employment opportunities.

6 BPharmacy: This course provides strong knowledge of pharmaceutical sciences concepts such as drug formulations, pharmacology, and clinical study. The programme curriculum includes disciplines such as pharmaceutical chemistry, pharmacology, pharmaceuticals, pharmacognosy and biochemistry to ensure that learners understand drug discovery, testing, and administration.

Disciplines such as drug regulation, quality control and clinical pharmacy are also included. This programme equips with various career paths such as pharmacists, drug inspectors, clinical research associates, medical writers and researchers.

7 BSc zoology/botany: These are three-year courses that focus on the scientific study of plants and animals.

It helps students for employment in various professions including those of wildlife management, environmental science, agriculture, teaching, among others.

OWING to the implementation of National Education Policy (NEP) 2020, the focus of UG programmes is now more on skill development through project-based and experiential learning. The four-year degree programmes have a multi-disciplinary approach and students are allowed to opt for minor courses across disciplines. The fourth year in these courses places emphasis on research training and projects. Students of science courses have a choice to opt for Honours or Honours with research degrees in specific domains.

Many universities are offering options which cater to recent technological developments in renewable energy, semiconductor fabrication techniques and quantum computing & technologies. These technological advancements are shaping the future of human lives.

Such emerging domains are either a part of course or are being offered as additional minor certifications. Here’s a look at some such courses:

1 BSc. (Hons./Hons. with Research) Forensic Science:



TECH TWIST TO SCIENTIFIC TEMPER

Forensic Science teaches students how knowledge of biology and chemistry can be used in solving criminal cases. The basic scientific knowledge combined with practical techniques is used to analyse the evidence and support the legal system. The admission to this course is through an entrance exam. A majority of graduates choose to join government sector through competitive exams, while others work at private forensic laboratories.

2 BSc. (Hons./Hons. with Research) Food Technology: This course involves study of food processing, food safety measures, and food quality control systems which serve the expanding food and agricultural sector. Graduates can find employment in food companies, quality assurance labs, and production units.

3 BSc. (Hons./Hons. with Research) Biotechnology: Biotechnology is a multi-disciplinary field that focuses on application aspects of biological agents for improving the quality of human life. This is a rapidly growing domain with applica-

tions in healthcare, agriculture, environment, and industrial processes. It equips students with skills in genetics, molecular biology, bioprocess technology, biopharmaceuticals, nano biotechnology etc., preparing them for careers in pharmaceuticals, healthcare, and research industries. Graduates commonly find employment as lab technicians, quality control, quality assurance, production and R&D.

4 BSc. (Hons./Hons. with Research) Materials Science & Nanotechnology: This is an advanced inter-disciplinary course that focuses on the study of materials at atomic and molecular scales which includes nanomaterials and semiconductors and advanced functional materials. Graduates can work in roles such as materials analyst research assistant or in semiconductor and manufacturing industries. The course provides highly effective career advancement opportunities in high-tech and research-oriented industries.

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BEYOND THE BALANCE SHEET Commerce students are leading the new corporate order trading traditional ledgers for high-tech strategy and global impact.

DIVERSE DOMAINS OF BUSINESS

The ‘Commerce’ label is no longer just about tallying balance sheets, it is a gateway to diverse roles in global finance, corporate law, data analytics and digital entrepreneurship



JASKIRAN ARORA

THE narrative surrounding the Indian education system is undergoing a visible shift. For decades, the “Science or nothing” mindset dominated middle-class aspirations. The 2020s have, however, ushered in what can only be described as a defining moment for the Commerce stream students.

Commerce is no longer seen as a fallback or Plan B — it is increasingly becoming the first choice of students. With India’s ambition of becoming a \$5 trillion economy, the rise of fintech, startups, and global business ecosystems has elevated the demand for individuals who understand not just numbers, but how businesses actually operate and grow.

For today’s Class XII student, choosing Commerce courses in college is not about limiting oneself to accounting or finance. It is about entering a world of possibilities, ranging from corporate law and investment banking to product management, analytics, entrepreneurship, and digital strategy.

BEYOND TRADITIONAL PATHWAYS



For decades, professional courses like Chartered Accountancy (CA), Company Secretary (CS), and Cost and Management Accountancy (CMA) formed the backbone of commerce careers. They continue to hold strong relevance, offering structured pathways into auditing, taxation, compliance, and financial management. Alongside these, university-based

programmes such as BCom and BBA have evolved as flexible entry points into the world of business. Increasingly, students are also exploring integrated programmes and global pathways, recognising that careers today are not linear, but fluid.

However, what is truly redefining commerce careers is not just the variety of options-but the nature of work itself.

LEARNING THAT REFLECTS THE REAL WORLD



Another defining shift is the integration of AI as a working layer, not as a standalone subject. Students actively use AI tools to research markets, analyse data, test scenarios, and refine decisions-preparing them for how modern organisations function.

Equally important is the emphasis on interdisciplinary learning. Modern business challenges rarely fall neatly into one domain. Strategy is shaped by technology, regulated by law, and executed through people.

Exposure to diverse disciplines, engineering, law, liberal studies enables students to develop broader perspectives and stronger judgment.

FROM KNOWLEDGE TO CAPABILITY



In the age of AI, the definition of competence is changing. The most valuable skills are no longer about recall or routine execution. They include:

- Critical thinking and problem framing
- Emotional intelligence and empathy
- Communication and storytelling

HOW TO CHOOSE? A STRATEGIC FRAMEWORK



Choosing a career in 2026 requires more than just following a trend; it requires a self-audit.

STUDENT INTEREST	RECOMMENDED PATH
Global Finance Ambitions	CFA
Interest in Legal Frameworks	CS or B.Com LL.B
Love for Management & Leadership	BBA, IPM (IIMs), or MBA
Love for Numbers & Tax	CA, CMA, or B.Com (Hons)
Tech-Savvy & Analytical	Business Analytics, FinTech, or Digital Marketing

- Data interpretation and contextual decision-making
- Creativity and innovation
- Adaptability and lifelong learning

These are not skills that can be developed through lectures alone. They require immersive, real-world learning experiences, continuous feedback, and opportunities to take ownership of outcomes.

WHAT THIS MEANS FOR STUDENTS

For students considering commerce and management today, the implications are significant. Choosing the right path is no longer about selecting a degree with the highest perceived prestige. It is about choosing an environment that prepares you for:

- Uncertainty rather than predictability
- Application rather than memorisation
- Capability rather than credentials

The future will not reward those who sim-

ply accumulate knowledge. It will reward those who can apply it meaningfully, adapt continuously, and lead responsibly.

THE ROAD AHEAD



The rise of commerce as a preferred stream reflects a deeper shift in how careers are being imagined. It signals a move away from rigid pathways towards more dynamic, opportunity-driven journeys. At the same time, the integration of AI into every aspect of business is not reducing the importance of management-it is amplifying it. Because in a world where machines can process information, it is human judgment that will define outcomes.

In the end, the question is no longer just what you study, but how you learn to think, decide, and act. And that is what will truly shape careers in the age of AI.

THE WRITER IS DEAN - EDUCATION QUALITY, BML MUNJAL UNIVERSITY, GURUGRAM



IT PAYS TO SPECIALISE With the evolving needs of the industry and rapid advancements in the world of technology, the demand now is for more specialised engineers.

GET SET TO CODE, BUILD, SOLVE

From the surge in electric vehicle technology to the specialised corridors of Agentic AI, the engineering landscape of 2026 has evolved into a high-speed intersection of disciplines



THE field of engineering is undergoing a rapid transformation. In 2026, the traditional divide between “core” and “technology-driven” disciplines is fading, giving rise to a new generation of engineers who combine domain knowledge with digital intelligence. Today’s engineers are not just builders or coders — they are problem-solvers who integrate multiple technologies to address real-world challenges. For students planning their future, choosing the right path requires more than analysing placement trends; it demands an understanding of evolving industry needs.

TOP ENGINEERING BRANCHES TO WATCH IN 2026

While computer science remains a dominant force, several specialised and evolving branches have emerged as high-growth corridors for aspiring engineers.

- 1. ARTIFICIAL INTELLIGENCE (AI) AND MACHINE LEARNING (ML):** AI and ML have emerged as powerful, standalone domains. With India alone projected to require over one million AI professionals by the end of this year, this branch focuses on creating intelligent systems capable of learning and decision-making.
Career opportunities: AI Engineer, Machine Learning Specialist, Data Scientist.
- 2. COMPUTER SCIENCE & ENGINEERING (CSE):** CSE continues to be a preferred choice due to its versatility. The curriculum today emphasises Cloud Computing, Cybersecurity, Blockchain, and emerging areas like Agentic AI.
Career opportunities: Software Developer,

HOW TO SELECT THE RIGHT COLLEGE AND COURSE?

Selecting a college is a four-year investment that dictates the next 40 years of your career. Avoid the “ranking trap” and focus on these four pillars:

- **ACCREDITATION AND CURRICULUM:** Ensure the college is UGC/AICTE approved. More importantly, check if the syllabus is updated for 2026. Does the ECE department teach 5G? Does the Mechanical department have an EV lab?
- **INDUSTRY LINKAGES:** Look for “Centres of Excellence” tied to companies like Google, IBM, AWS, or Tata Motors. A college that facilitates internships in the third year is far more valuable than one that only offers “campus placements” at the end.
- **FACULTY AND RESEARCH:** In the age of AI, you need mentors, not just lecturers. Check the faculty’s research papers or their industry experience.
- **RETURN ON INVESTMENT:** Don’t just look at the highest package. Look at the average package relative to the total four-year fees.
- **PRO TIP:** Location matters. Colleges in tech hubs like Bangalore, Pune, or Hyderabad offer a “shadow curriculum” through easy access to weekend hackathons, industry meetups, and internships.



evolved significantly, with a strong focus on Electric Vehicles (EVs), robotics, and industrial automation. Specialisations in Mechanical and Automation Engineering prepare students for modern manufacturing and smart systems. Interdisciplinary branch Robotics and Automation Engineering integrates mechanical, electronics, and software engineering to design intelligent systems. With increasing adoption across industries, it offers strong career potential.
Career opportunities: Design Engineer, EV Specialist, Production Engineer, Automation Engineer, Robotics Engineer, Automation Specialist, Control Systems Engineer.

5. RENEWABLE & SUSTAINABLE ENERGY ENGINEERING: As the world races toward “Net Zero” goals, this branch is critical. It involves designing systems for solar, wind, and green hydrogen power.
Career opportunities: Energy Analyst, Sustainability Consultant, Solar Design Engineer.

LAST WORD

Engineering in 2026 is no longer about just staying in your lane, it’s about merging lanes. Whether you choose the stability of a core branch or the thrill of a new-age specialisation, success lies in being a “T-shaped” professional — having deep knowledge in one area while possessing a broad understanding of digital tools and human-centric skills. Choose a course that excites your curiosity and a college that provides the playground to experiment. The future belongs to those who can build, code, and adapt simultaneously.

THE WRITER IS DEAN SCHOOL OF ENGINEERING, DESIGN AND AUTOMATION, GNA UNIVERSITY, PHAGWARA

Cloud Engineer, Cybersecurity Analyst, Blockchain Developer.

3. ELECTRONICS & COMMUNICATION ENGINEERING (ECE): With advancements in semiconductor technology and 5G/6G networks, ECE is witnessing renewed growth. Key focus areas include VLSI design, IoT, and embedded systems. Students with a blend of electronics and

programming skills are highly sought after.
Career opportunities: VLSI Design Engineer, Embedded Systems Developer, Network Engineer.
Industries: Telecom, consumer electronics, defence, and semiconductor manufacturing.

4. MECHANICAL ENGINEERING (ROBOTICS & EVS FOCUS): Mechanical Engineering has



IN PERFECT HEALTH MBBS or BDS is not the only option for students who have opted for the PCB track, several UG options offer excellent career trajectories, high earning potential and the opportunity to serve society.

WHEN HEALING IS YOUR CALLING

India’s medical dream is bigger, bolder and more complicated than ever. Here’s what you should know before betting your future on a stethoscope



DR RAVI GUPTA

SINCE ancient times, medical profession has stood out as the most revered and noble profession. Although, there are other lucrative professions available now, getting qualified to wear the white coat, however, is still dream of millions of students. Let’s dive deeper into some of the facts related to choosing a medical career.

EXPANSION OF MEDICAL EDUCATION IN INDIA

Over the past decade, medical education in India has expanded significantly. The number of medical colleges has increased from about 387 in 2014 to nearly 780-800 institutions today. Correspondingly, MBBS seats have risen to over 1.25 lakh, with approvals for the 2025-26 academic cycle crossing approximately 1.26 lakh seats across government, private institutions and AIIMS. In addition, there are approximately 26,000-28,000 BDS seats available nationwide. Despite this substantial expansion, the gap between aspirants and available MBBS seats remains wide, compelling many students to explore alternative yet meaningful career pathways.

THE NUMBER GAME: NEET AND THE ILLUSION OF SUCCESS RATE

The “success rate” in NEET is a nuanced concept and varies depending on how success is defined. If success is considered as merely qualifying for the counselling process-by scoring above the 50th percentile for general category candidates-the success rate appears relatively high, typically around 50-55%. In 2025, approximately 12-13 lakh candidates met the qualifying criteria. However, if success is defined as securing an MBBS seat, the scenario becomes far more competitive. With about 1.25-1.30 lakh MBBS seats available for roughly 22-23 lakh aspirants, the effective success rate drops sharply to around 5-6%, highlighting the intense level of competition.

THE JOURNEY AND INVESTMENT

While the medical profession offers financial stability and considerable social prestige, it demands a prolonged and rigorous period of training. In India, the MBBS course requires 5.5 years, including a one-year compulsory internship. This is followed by 3 years of postgraduate training (MD/MS) for specialisation. For those pursuing super-specialisation, an additional 2-3 years (DM/MCh) is required, bringing the total structured training duration to approximately 10-12 years. Moreover, a significant bottleneck exists at the postgraduate level. Each year, approximately 70,000-75,000 PG (MD/MS/DNB) seats are available, compared to about 1.2-1.3 lakh MBBS graduates. Furthermore, fresh graduates compete with candidates from previous years who reappear for entrance examinations, further intensifying competition. Consequently, the probability of securing a postgraduate seat in the first attempt is estimated to be around 20-30%, depending on rank,

WHAT DEFINES A ‘GOOD’ MEDICAL COLLEGE

While infrastructure and prestige often grab headlines, the true value of a medical institution lies in its clinical and academic ecosystem

Clinical Exposure and Patient Inflow: A college is only as good as its teaching hospital. Look for institutions with a high daily “bed occupancy” and a diverse range of cases. Seeing a wide variety of pathologies in person is more valuable than any textbook.

Faculty Mentorship: Beyond their degrees, the best faculty members are those actively involved in research and clinical practice who prioritise student interaction over rote lecturing.

Library and digital resources: Modern medicine evolves rapidly. A top-tier college provides access to the latest international journals, digital databases (like UpToDate or PubMed), and a 24/7 quiet study environment.

Alumni network: A strong alumni base is a silent engine for career growth, providing mentorship, residency insights, and professional networking opportunities across the globe.

Making the most of your college years

Early clinical curiosity: Even if your curriculum is heavy on theory in the early years, find time to shadow seniors in the wards. Observing how a doctor talks to a patient is a skill that cannot be learned from a book.

Engage in research: Don't wait until post-graduation to start researching. Even a small observational study or a literature review helps develop the analytical “scientific temper” required in modern medicine.

Maintain a life outside medicine: Burnout is a real risk. Whether it's sports, music, or writing, keeping a non-medical

hobby is essential for long-term mental resilience.

Master communication: A doctor's job is 50% knowledge and 50% communication. Practice explaining complex medical terms in simple language — it will make you a far more effective clinician.

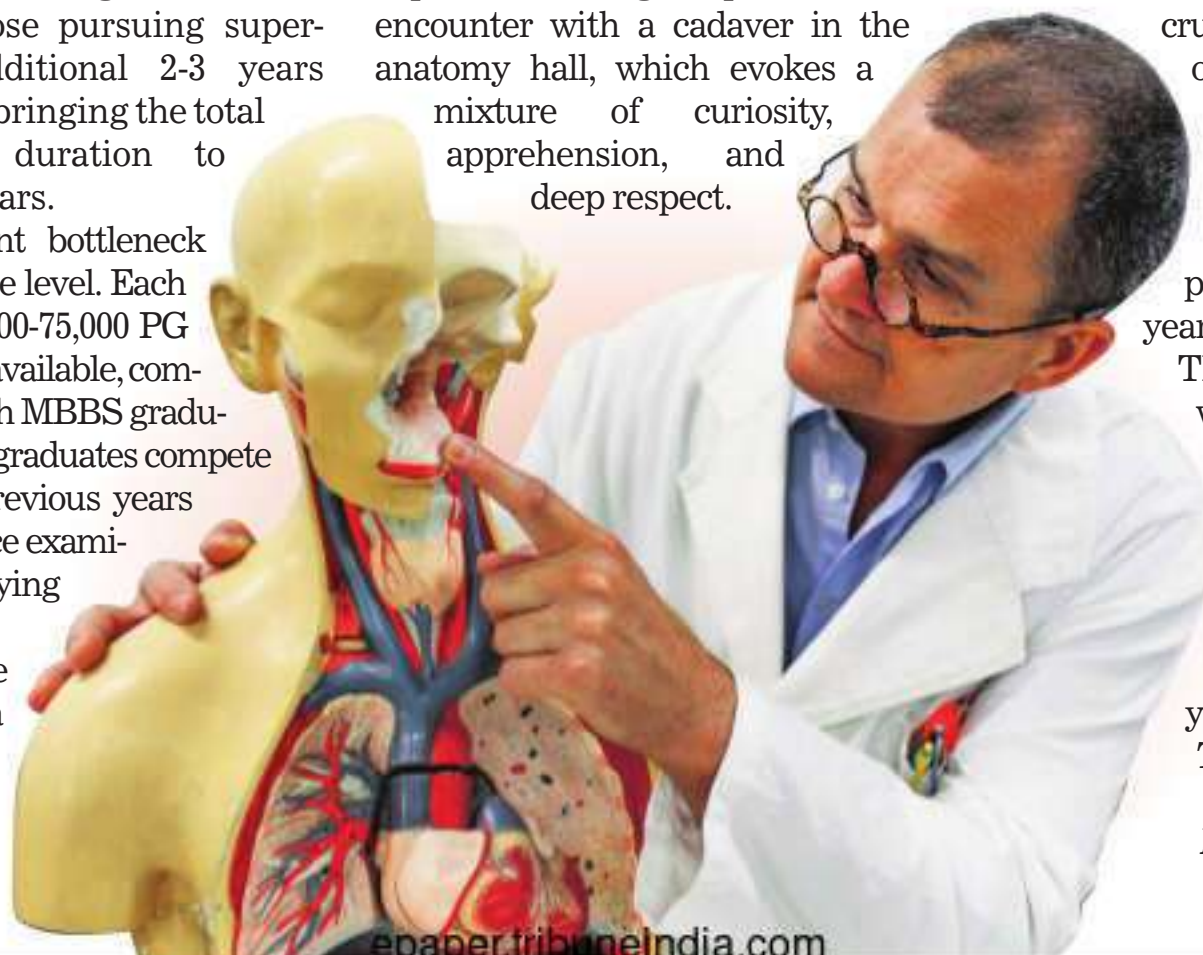
Final thought: Medicine is a marathon, not a sprint. The first year is about building a foundation of discipline and empathy. If you can manage your time and maintain your curiosity, the challenges of the “fire hose” eventually turn into the rewards of a meaningful career.

To graduate as a well-rounded physician, you must look beyond the syllabus

branch preference, and institutional choice.

NAVIGATING THE FIRST YEAR: WHAT TO EXPECT

After entering the medical profession, the intense workload and stress of preparatory coaching give way to the demanding rigor of an extensive curriculum, often described as “drinking from a fire hose.” The first year of MBBS, comprising anatomy, physiology, and biochemistry, requires sustained effort, discipline, and long hours of study. The sheer volume of information is immense, and unlike many other fields, one cannot afford to skip topics, as a doctor is expected to have comprehensive knowledge. A defining experience during this phase is the first encounter with a cadaver in the anatomy hall, which evokes a mixture of curiosity, apprehension, and deep respect.



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Here, the dead teach the living. Historically, early anatomists often ventured into graveyards under the cover of night to study human anatomy. In contrast, today's students learn in structured laboratories through the noble act of body donation, gaining a three-dimensional understanding that no textbook or digital model can replicate. This experience fosters not only anatomical knowledge but also humility and reverence for the human body. An important psychological challenge during this phase is “imposter syndrome.” Students often find themselves surrounded by peers who were all top performers in their previous schools, leading to self-doubt and a sense of inadequacy. Recognizing that this feeling is common is crucial. A shift from competition to collaboration can be highly beneficial-forming study groups helps build a support system and reinforces learning, as teaching others is one of the most effective ways to master a subject. As students progress into the second, third, and final years, their outlook evolves. The initial overwhelm gradually gives way to confidence and clinical curiosity. With increasing patient exposure, the study of disease and its treatment becomes more meaningful. Witnessing patients recover provides a deep sense of satisfaction and reinforces the purpose behind the years of rigorous training. *The writer is Chairman Orthopaedics, Paras Health, Panchkula. Formerly: Professor and Medical Superintendent, GMCH, Chandigarh*

BEYOND MBBS: DIVERSE UNDERGRADUATE PATHWAYS

While MBBS remains the “gold standard”, the healthcare ecosystem in 2026 is vast. For students who have opted for the PCB (physics, chemistry, biology) track, several undergraduate options offer excellent career trajectories, high earning potential, and the opportunity to serve society.

1. THE ALLIED HEALTH SCIENCES (AHS)

These courses focus on diagnostic, technical and therapeutic support.

BSc. Nursing: Far from being just “assistants”, nurses today are specialised clinicians. With the global shortage of healthcare workers, a degree in nursing offers immediate employability and immense opportunities for working abroad.

Bachelor of Physiotherapy (BPT): With the rise of lifestyle diseases and sports injuries, physiotherapists are in high demand. Careers range from working in multi-specialty hospitals to setting up independent clinics or working with sports franchises.

BSc. Radiology & Medical Imaging Technology: As diagnostic technology becomes more sophisticated (MRI, CT, PET scans), the need for skilled technicians who can operate these machines and interpret preliminary data is skyrocketing.

BSc Occupational Therapy: This field focuses on helping people with physical or mental disabilities lead independent lives through therapeutic activities.

2. AYUSH: THE TRADITIONAL REVIVAL

The Indian government’s push for integrative medicine has breathed new life into traditional systems. Admissions to these courses are also conducted through NEET.

BAMS (Ayurvedic Medicine and Surgery)
BHMS (Homeopathic Medicine and Surgery)
BUMS (Unani Medicine and Surgery)

Graduates are now often integrated into mainstream healthcare systems, especially in rural health missions and wellness centers.

3. APPLIED LIFE SCIENCES & BIOTECH

For students with a penchant for research and laboratories, these fields are the frontiers of modern science.

BSc. Genetics: With the cost of genome sequencing dropping, clinical geneticists and researchers are becoming central to “Precision Medicine”, where treatments are tailored to an individual’s DNA.

BSc. Microbiology: Vital for the food industry, clinical diagnostics, and environmental protection.

4. EMERGING AND NICHE FRONTIERS

Bachelor of Audiology and Speech-Language Pathology (BASLP): A highly specialised field dealing with hearing and speech disorders, offering roles in hospitals, schools, and private practice.

BSc. Psychology: While not strictly “medical”, many PCB students gravitate toward Clinical Psychology, focusing on the biological basis of mental health. The evolution of the education sector, marked by a massive increase in colleges and the diversification of course offerings, means that a PCB student in 2026 has more agency than ever before.



RULE OF LAW Law degree is a powerful toolkit for global leadership, policy-making, & tech-driven advocacy, that offers students prospects that are diverse & recession-proof.

THE BENCH AND BEYOND

From the courtrooms to the boardrooms of Fortune 500 companies, a law degree in India today opens more doors than ever. But the path demands strategy, stamina & right choices from the very start



DR JYOTI RATTAN

IMAGINE this: an advocate has been handed a brief, exactly a hundred words, to be presented before a judge the following morning. In those hundred words must live weeks of research, airtight logic, persuasive language and an instinct for the crux of the matter. This is not merely professional competence. This is the daily reality of legal practice in India — a profession that demands intellectual precision, emotional resilience and the ability to think clearly under intense pressure.

These qualities, whether displayed in the robes of an advocate or from the elevated bench of a judge, are not inherited. They are cultivated through years of study, practice, mentorship and exposure. And they form the bedrock of one of India's most dynamic and evolving professions.

In the 21st century, a career in law is no longer synonymous with the image of a lone litigator arguing before a crowded district court. Today, it spans corporate boardrooms, technology startups, international arbitration tribunals, government ministries and the hallways of academia. For students finishing school or completing their graduation, few professional paths offer the same combination of intellectual challenge, social impact and financial reward.

THE ROUTE TO A LAW DEGREE

To practise law in India, a recognised law degree is mandatory. There are three principal pathways for this:

5-year integrated LLB (BA LLB / BBA LLB / BCom LLB): Pursued directly after Class XII, this is the preferred path for those certain about a legal career from the outset.

3-year LLB: Open to graduates of any discipline, this route allows students from engineering, commerce, humanities, or science to transition into law after their undergraduate studies.

1-year LL.M: A postgraduate specialisation degree for those wishing to deepen expertise in a particular area of law — from constitutional law to international trade.

PATHS A LAW DEGREE CAN LEAD YOU TO

The breadth of career options available to a law graduate in India today is remarkable. Some of these are:

Judicial services: For those drawn to the Bench rather than the Bar, state-level judicial services examinations offer the route to becoming a Civil Judge or Magistrate. These positions carry considerable prestige, job security and the weight of public responsibility.

Litigation: The traditional path, representing clients across district courts, High Courts and the Supreme Court of India, remains the most common entry point. For the exceptionally gifted, international forums such as the International Court of Justice represent the pinnacle of advocacy.

Corporate and specialised practice: This is where the most dramatic growth has occurred in recent years. Corporate lawyers working with top-tier law firms or as in-house counsel handle mergers and acquisitions, contract negotiations, due diligence exercises and regulatory compliance for some of India's largest companies.

Alongside them, intellectual property (IP) lawyers specialise in patents, trademarks, copyrights, geographical indications and trade secrets, an area of explosive growth in India's innovation economy. Tax lawyers

WHY LAW IS A HIGH-VALUE CAREER CHOICE

- One of the few careers that spans both public service and private enterprise
- Top NLU graduates regularly secure placements at ₹ 18-25 LPA in premier law firms
- New laws like *Bharatiya Nyaya Sanhita* are creating fresh specialisation opportunities
- Rise of LegalTech, AI, and ADR is expanding the scope of the profession rapidly

SALARY STRUCTURE

Earnings vary considerably depending on the sector of employment, institution, and specialisation. The table below provides a realistic overview for 2025-26:

Career Path	Expected Salary (INR)
Tier-1 Law Firms (Freshers)	₹18-25 LPA
Corporate In-House Counsel (Entry)	₹6-12 LPA
Corporate In-House Counsel (4-5 yrs)	₹20-30 LPA
Independent Litigation (Initial)	₹3-8 LPA
Government/Judiciary (Entry)	₹35,000-65,000/month
Specialised Law (Banking, IPR, Tax)	₹30-60 LPA+
Assistant Professor (Private College)	₹30,000-40,000/month
Senior Academician (Premier Institute)	₹1,00,000+/month



LAW & UPSC: A STRATEGIC COMBINATION

- Law syllabus overlaps significantly with GS Papers I-IV (Polity, Rights, Ethics, Environment)
- 50% of law optional questions are repeated or theme-based from previous years
- Many candidates score 270+ marks in law optional — well above average optional scores
- Law optional success rate: 16% among the highest across all optional subjects
- Structured legal reasoning sharpens essay writing, interview answers, and policy analysis

practise across income tax, GST, customs, excise and international taxation.

Legal consulting, government service & public sector: Legal consultants and advisers serve corporations and individuals who need expert guidance without going to court. Government service offers roles as Public Prosecutors, Law Officers at institutions like the Reserve Bank of India and SEBI or as legal advisors across various ministries, combining legal expertise with public policy impact.

Academia, research & civil services: Law professors, researchers at premier institutions, Legal Researchers (LRs) attached to the Supreme Court and High Courts, and legal journalists represent a quieter but equally vital branch of the profession. Additionally, law has emerged as one of the most strategic optional subjects for the UPSC Mains examination.

Alternative & emerging careers: Legal Process

Outsourcing (LPO), mediation and arbitration (national and international), compliance officer roles, legal technology startups and advocacy work with NGOs and international organisations represent the newest frontier of the legal profession, one that is growing faster than most traditional paths.

WHAT STUDENTS MUST KNOW

A law course is not a passive learning experience. Students entering law school should anticipate a demanding environment that prioritises critical thinking, deep reading and independent analysis. Communication, both written and oral, is central to legal education. Moot court competitions, mock Parliaments, Model UN simulations, project presentations and pro bono legal aid clinics are not extracurricular luxuries; they are integral to forming a competent legal professional. Internships at courts, tribunals and

commissions provide the practical grounding that no classroom can fully replicate.

CHOOSING YOUR SPECIALISATION

Some students arrive with a clearly defined career goal; others take time and that is equally valid. A three-year or five-year law programme naturally exposes students to the full range of legal disciplines, allowing informed choices to emerge.

Good law schools use the Socratic method, a question-driven, student-centred approach that replaces passive lectures with dialogue, pushing students to examine assumptions, analyse complex ideas and reach their own reasoned conclusions. Changing one's specialisation preference over the course of the programme is often a sign of intellectual growth, not indecision.

ADD-ON COURSES

Since a foundational law degree provides broad rather than deep knowledge, students are encouraged to pursue add-on courses in areas such as Intellectual Property Rights, Cyber Law, Taxation, or Labour Law. These targeted specialisations sharpen employability and signal genuine expertise to prospective employers.

PROSPECTS

The Indian economy's rapid growth across fintech, e-commerce, artificial intelligence, data protection and sustainable development has generated unprecedented demand for skilled legal professionals. Corporate houses, startups, and multinational companies are actively hiring lawyers for compliance, contract management, regulatory advisory and cross-border transactions. The introduction of landmark new criminal legislation — the *Bharatiya Nyaya Sanhita*, the *Bharatiya Nagarik Suraksha Sanhita* and the *Bharatiya Sakshya Adhiniyam* — has created fresh demand for lawyers who can navigate transitional legal frameworks.

THE VERDICT

A career in law offers something rare in the contemporary professional landscape: the combination of intellectual depth, social purpose and genuine financial reward. But it demands an equal measure of commitment. Success depends not merely on academic performance, but on practical exposure, communication skills, professional networking and the adaptability to thrive in a changing legal environment. Whether the goal is the bench, the boardroom, the classroom, or the civil services, law remains, one of India's most dynamic, respected, and consequential professions.

THE WRITER IS PROFESSOR, DEPARTMENT OF LAWS, PANJAB UNIVERSITY, CHANDIGARH

No honest assessment of a legal career can ignore the significant challenges that await new entrants

CHALLENGES

INDIA'S LEGAL PROFESSION IS INTENSELY COMPETITIVE: Over 1.5 million advocates are registered with the Bar Council of India and thousands of new graduates enter the market every year. Freshers, particularly those from non-NLU colleges or opting for traditional litigation, often face difficult early years marked by modest stipends, irregular income, and the painstaking work of building a client base. Long working hours, sustained intellectual pressure, frequent court appearances and the constant need to stay current with evolving legislation and judicial decisions

demand exceptional time management and emotional resilience.

The cost of legal education at premier institutions is substantial and while scholarships and education loans are available, financial pressure remains a reality for students from modest backgrounds.

Structural challenges — Gender disparity at the Bar, inadequate infrastructure in lower courts and uneven adoption of technology across the judiciary — persist.

The integration of AI in legal research, contract analysis and document review now requires lawyers to evolve.



Undervalued work

BIJU DHARMAPALAN

For many doctoral scholars, the moment of completing a PhD is supposed to mark the beginning of professional freedom — a transition from supervised research to independent intellectual and career choices. Instead, for a growing number of PhD holders, this moment triggers a profound sense of dislocation. Trying to transition out of academia brings with it a unique frustration: after years of intense dedication, skill acquisition and responsibility, one is treated by industry recruiters as if one has no 'real' work experience at all. The message is blunt and demoralising — your years of doctoral training do not count.

This systematic disregard for doctoral studies as work experience reveals a deep misunderstanding of what a PhD actually involves. A doctoral scholar is not a student in the conventional sense. During those four to eight years, scholars design research questions, manage projects, analyse complex data, write grant proposals, publish peer-reviewed papers, mentor junior students, teach classes, and often collaborate with industry or government agencies. Even the supervisor's office work, including managing the Public Financial Management System portal, is done by the scholars. A research scholar does a multi-faceted job. In any other professional setting, this would be recognised as substantial work experience. Yet, paradoxically, once scholars step outside academia, their labour is rendered invisible. Then they work hard to secure a postdoctoral fellowship, either in India or abroad. Even after this, they struggle to get a good position.

This invisibility feeds directly into what can be called an early-career crisis after the PhD. Is this crisis inevitable? Many doctoral graduates find themselves questioning not only their career trajectory but also their values and identity. How does one navigate a career when passion and skills con-

lict with the narrow definitions of employability imposed by the market? Does passion for research have to be all-consuming, demanding personal sacrifice without recognition or stability? And, most important, must one choose between pursuing research and maintaining a reasonable work-life balance?

These questions are not abstract philosophical concerns. They emerge from lived experiences within doctoral training itself. In many institutions, PhD scholars occupy the lowest rung of the academic hierarchy. Despite being highly educated, sometimes more qualified than their supervisors and permanent employees, and intellectually productive, they are often denied basic respect. Supervisors and professors, consciously or unconsciously, treat scholars as subordinate beings rather than as early-career professionals in training. Their time is assumed to be endlessly available, their personal lives irrelevant. Even when the professors and lab attendants have the freedom to take leave, enjoy holidays and leave office space by stipulated hours, the scholars are not provided such a liberty. Like a slave, they are made to work 24 hours a day, throughout the year. In some labs, scholars are so pressurised that they are not even provided sufficient leave to attend their marriage or manage their health situations.

This irony is further accentuated when examining other organisational kinds, particularly governmental entities. In numerous such enterprises, class IV employees, typically possessing only a high school certificate, receive respect, job security, and defined working hours. This does not justify a lack of respect for these workers; rather, it highlights a concerning inconsistency. A PhD scholar, perhaps holding multiple postgraduate degrees, clearing national-level tests and directly contributing to national knowledge production, often experiences degraded dignity, curtailed rights, and a lack of official recognition as a worker.

In extreme cases, this imbalance degenerates into exploitation. Some



supervisors operate with the mentality that PhD scholars are unpaid labourers — or worse, personal assistants. Stories of scholars being asked to perform and manage personal errands, or even take care of supervisors' domestic responsibilities, including pets, are not rare anecdotes but recurring realities whispered in corridors. In some national laboratories, scholars are not even allowed to sit in front of supervisors. Such practices blur professional boundaries and normalise abuse under the guise of 'academic culture' or 'training'.

This culture of exploitation yields enduring repercussions. When researchers internalise the notion that their activity lacks legitimacy, they find it challenging to express their value outside of academia. Industry recruiters, consequently, perpetuate this narrative by favouring narrowly defined corporate experience over a PhD. The outcome is a detrimental cycle: scholars receive little or no compensation throughout their PhD, thereafter facing repercussions for lacking 'real' experience.

Acknowledging doctoral studies as work experience is not only a matter of equity; it is also a strategic imperative for advancing research and innovation. If people keep talking about doctoral training as a prolonged period of giving up things with little professional credibility, no one will take this career path. Many potential researchers are already hesitant by looking at the perils of their seniors

because they see how emotionally drained, financially unstable, and disrespectful current PhD students are. In this case, we might lose the next generation of researchers, thinkers, and inventors.

No civilised society can afford this loss. Doctoral scholars play a vital role in shaping policy, advancing technology, promoting public health, enhancing education, and fostering cultural understanding. Their work often addresses complex societal challenges that require long-term, rigorous enquiry — precisely the kind of work that short-term corporate projects cannot replace. If we fail to recognise doctoral training as work experience, we devalue not only the scholars but also the knowledge systems that sustain societal progress.

Policy-level interventions are urgently needed. Universities should officially recognise PhD candidates as employees-in-training, providing explicit job descriptions, equitable working hours, grievance resolution processes, and social security benefits. The industry must amend employment standards to recognise PhD research as pertinent professional expertise expressly. Job descriptions should recognise skills, such as research design, data analysis, project management, and scientific communication, as transferable competencies rather than academic abstractions. Within academia and the scientific community, a drastic culture shift is needed. Supervisors in academic and scientific institutions should be provided with annual human resources-based training to maintain decorum in research, especially by fostering cordial, respectful relations with their scholars.

Doctoral students are the pillars of the scientific progress of any nation. Without them, neither innovations nor country progress would have happened. The passion and dedication of a scholar should be rewarded properly. The time they dedicated to their research should be accounted for in their jobs and salary package. Until we address this structural blind spot, the academic ecosystem will continue to bleed talent, and society will have to pay a high price for the erosion of research scholars in future.

Biju Dharmapalan is the Dean, Academic Affairs, Garden City University, Bengaluru, and adjunct faculty at the National Institute of Advanced Studies, Bengaluru

How to boost real intelligence with AI

From JEE preparation to college work, students can enhance understanding with low-cost tools — just don't let AI think for you



NOT too long ago, a quiet edtech revolution was already brewing in India. Alakh Pandey made JEE and NEET prep accessible to students far beyond big cities through PhysicsWallah on YouTube. Khan Sir turned complex GK and reasoning into something every government exam aspirant could actually understand (and afford). Platforms like Unacademy brought hundreds of top educators under one roof, opening doors for students in tier-2 and tier-3 cities. In short, they flipped the script. Quality education was no longer just for those who could pay big coaching fees.

And now? Plot twist. Artificial Intelligence (AI) just took that revolution and hit fast-forward. Today, a whole squad of AI tools is chilling right there on your phone and laptop, ready to be your smartest study partner, research buddy and note-making machine. And the best part? Most of them are either free or cost less than your monthly Swiggy bill. Whether you're prepping for JEE, battling college assignments or trying to survive a 60-page PDF at 2 am, there's an AI for that. No cap.

Let's break down the coolest AI models that students can actually use.

NOTEBOOKLM: PERSONAL NOTES

If you haven't used NotebookLM yet, you are genuinely missing out. Upload your PDFs, lecture notes and articles, and it reads

and indexes everything so you can ask questions across all your sources at once.

Ask it "What do my notes say about the French Revolution?" and it pulls answers with citations from your actual material, not made-up fluff. The real showstopper? Its audio feature generates podcast-style summaries, perfect for listening while commuting on the Metro or taking a walk.

HOW TO USE: Go to notebooklm.google.com.

Create a notebook, upload your PDFs/notes, start asking questions. Done.

COST: Free | Google AI Plus ₹199/month

CHATGPT: THE OG AI COMPANION

This is the one AI model everyone has heard of, and for good reason. It explains complex topics; helps with coding and generates practice questions. Stuck on thermodynamics? Struggling with a Python loop? Just ask.

HOW TO USE: Visit chatgpt.com, sign up, type your question or paste your notes.

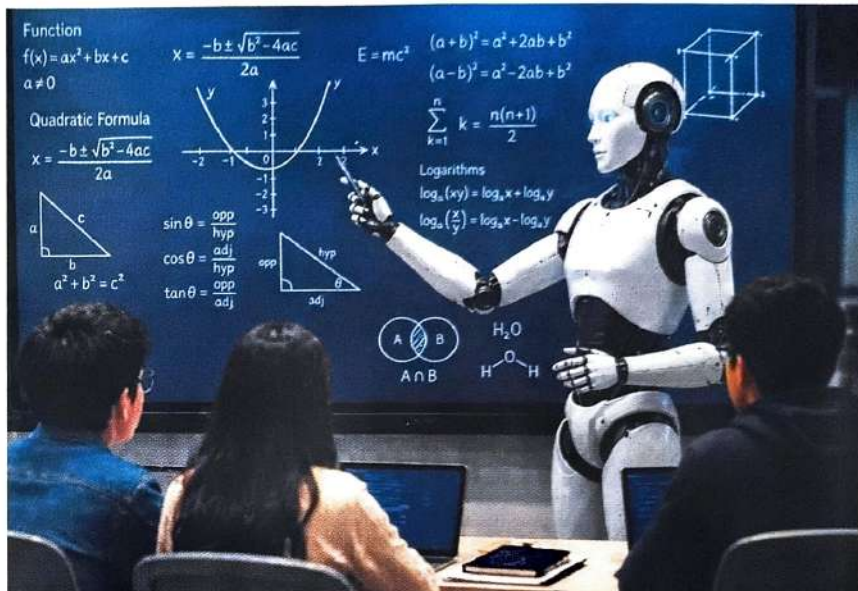
PRO TIP: Tell it "Explain this like I'm 16" or "Give me 10 MCQs on this topic" for exam prep.

COST: Free tier | ChatGPT Go: ₹399/month | ChatGPT Plus: ₹1,999/month

GEMINI: SMART RESEARCHER

If your life runs on Google Docs, Slides and Drive, Gemini is your natural AI upgrade. It integrates seamlessly with the Google ecosystem and provides enhanced writing, research and productivity tools. It is especially useful in India because it handles Hindi and regional languages smoothly.

HOW TO USE: Sign in with your Google account, visit gemini.google.com, ask it to help draft assignments, summarise



research papers or create study outlines.

COST: Free | Gemini Pro: ₹1,950/month | Free 1 year for students via SheerID

PERPLEXITY: NO-NONSENSE TOOL

Think of Perplexity as the cooler, more reliable version of Google. It draws from trusted academic journals and news outlets and offers clear, source-cited summaries, no random blog results, no sketchy websites. Every answer comes with links so you can verify things yourself.

HOW TO USE IT: Visit perplexity.ai, type any question in plain English, get cited, real-time answers. Use it for current affairs, research and fact-checking.

COST: Free tier | Pro: ₹1,700/month | Student discount: 50 per cent off

GITHUB COPILOT: FOR CODERS

If you're into coding, this is basically your

bestie. It auto-suggests code, fixes bugs and helps you build faster, so you spend less time stuck and more time shipping.

HOW TO USE: Visit education.github.com/pack, apply with your college email or student ID, get verified, then install the Copilot extension in VS code or any JetBrains IDE and start coding with AI by your side.

COST: Free tier (2,000 completions/month) | Copilot Pro: ₹850/month | Free for verified students

BUT REMEMBER, AI IS JUST A TOOL

So whether it's NotebookLM summarising your notes or ChatGPT helping you structure answers like a pro, the real advantage lies in how creatively you use them. The students who will truly benefit are not the ones who let AI think for them, but the ones who use it to think better.

Prof Darpan Anand, Dean (Computer Science), Chitkara University, points out that while AI tools can adapt to a student's learning pattern, they do not understand the pattern of examinations, something only teachers can guide. He adds that without consistent time and practice, students are less likely to excel, even though AI can help them study more efficiently.

"Students shouldn't become too dependent on AI," says Richa Bhaskar Chhiber, a professor of botany at PhysicsWallah. "Many look for readymade answers, but that can hurt their understanding and weaken the learning process over time." Chetan Bhalla, another PhysicsWallah educator, adds, "Do your own research first, then use AI. It's fine to get your PDFs summarised through AI tools, but not at the cost of actually reading and building a solid understanding."

The RTE Act and the idea of social inclusion

In its January 2026 judgment, the Supreme Court of India reaffirmed the purpose of Section 12(1)(c) of the Right to Education (RTE) Act, 2009, the landmark provision that reserves 25% of seats in private schools for students from economically weaker sections and socially disadvantaged groups. In words that are deeply symbolic, the Court observed that this provision makes it possible for “the child of a multi-millionaire or even of a Judge of the Supreme Court of India to sit in the same classroom and at the same bench as the child of an autorickshaw driver or a street vendor”. The judgment reasserted that this provision is a deliberate constitutional strategy to operationalise equality of status by creating shared learning spaces for all children.

This sentiment of social integration often comes alive in thousands of stories across the country. Take Karthik, a footwear vendor, and his wife, Sunita, for example. They always dreamed of providing their children with quality education despite their modest income. This became possible when their younger son joined a reputed private school through this provision. The boy thrived in the new environment, excelling in academics and his favourite sport, kabaddi. Teachers nurtured his growth, while classmates became close friends. For Karthik and Sunita, the RTE Act did not just change their son's future; it altered their family's life trajectory, with the potential to lift them out of poverty. Stories such as Prem's are often told as narratives of access – of doors opened and opportunities unlocked. But at stake is not simply where a child studies, but whether the circumstances of their birth continue to determine the boundaries of their social world.

A constitutional strategy

Despite its intent, Section 12(1)(c) is frequently mischaracterised as a tool to promote private



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The Supreme Court of India's judgment strengthens the vision of a socially integrated education system

schooling or to allow the state to outsource its constitutional duty to public education, citing falling government school enrolment alongside rising private school admissions.

This reading is misplaced. First, Section 12(1)(c) does not dilute the state's duty to invest in public schools, but recognises that the right to free and compulsory elementary education, and the creation of shared learning spaces, must be realised within a schooling ecosystem where private schools are not incidental actors but natural participants in fulfilling a constitutional mandate. The RTE Act does not create a zero-sum contest between public and private institutions; it seeks to foster integrated educational spaces.

Second, the shift towards private schooling predates the RTE Act. The Annual Status of Education (ASEE) Report of 2006 documents significant movement into private schools “at the expense of government school enrolment”. Declining admissions in government schools are rooted in deeper concerns around infrastructure, teacher presence, and perceived quality – not in Section 12(1)(c) itself.

Evidence from the ground

Since its rollout, over five million children have walked through the doors of educational spaces previously out of reach, with retention rates averaging over 90%. In cities such as Delhi and Ahmedabad, blended classrooms are no longer exceptions; they are the norm. Research (such as that by Rao, Gautam, 2019) indicates that mixed classrooms lead to increased generosity, reduced discrimination, and stronger pro-social behaviour, without any adverse impact on academic outcomes or classroom discipline. At scale, implementation has also stabilised: reimbursements under Section 12(1)(c) are centrally streamlined, and State-level online Management Information Systems (MIS) ensure

transparent, low-discretion processing.

For children from disadvantaged backgrounds, these classrooms offer more than just academics. They provide access to social capital, previously unexplored aspirations, peer networks, and institutional cultures. These experiences translate into higher self-belief, enhanced ambition, and a broader worldview.

Acknowledging challenges

There is no denying the challenges that persist in the implementation of Section 12(1)(c). Some private schools continue to resist full inclusion, while families often bear hidden costs for uniforms, books and materials. Implementation remains uneven across States, with persistent gaps in transparency, grievance redress, and last-mile outreach and disbursements.

These challenges do not change the fact that Section 12(1)(c) was not meant to rely solely on moral persuasion – it requires clear, enforceable rules to succeed. Encouragingly, recent experience demonstrates that these gaps are neither inevitable nor insurmountable. State-driven digital admission systems and improved monitoring mechanisms – particularly in Rajasthan, Gujarat, and Delhi – have significantly strengthened access and accountability.

The Court's reaffirmation of Section 12(1)(c) makes clear that it is neither a retreat from public education nor an endorsement of private schooling. The challenge now is administrative. States must ensure timely reimbursements, remove hidden costs by private schools, strengthen grievance redress, and enforce inclusion norms so that equality is experienced. The real test is whether we can operationalise the constitutional promise of social integration with the seriousness needed to match the ambition we hold for our children.

Information asymmetry in higher education

Every admission season in India feels like a marketplace of promises. Brochures look impressive and websites highlight success stories. Yet, even then, students are making some of the most important decisions of their life with limited and uneven information.

India's higher education system has expanded rapidly; enrolment increased from 3.42 crore in 2014-15 to 4.33 crore in 2021-22. The Gross Enrolment Ratio has also improved. The higher education landscape has enlarged from standalone degrees to multidisciplinary ones, and that too of various management categories. However, expansion has made choices more complex.

Making the right choice

Students and families often face trade-offs between cost, quality, and location when choosing an institution. The core problem is that institutions know far more about their quality than students do. They have detailed knowledge about their faculty, teaching-learning processes, infrastructure, student support systems and placement outcomes. In contrast, students depend on brochures, advertisements, informal advice, and selective placement data. Much of this available information is incomplete or unverifiable. In economics, this situation is called information asymmetry. When one party has more information than the other, decision-making becomes distorted. George Akerlof's idea of the "market for lemons" explains how, in such situations, lower-quality providers can imitate the signals of higher-quality ones. In higher education, this means that institutions offering weaker academic quality can still appear attractive through marketing, branding, or selective disclosure. As a result, students may end up choosing institutions that do not meet their expectations. Simultaneously, good institutions



Inyanranjan Sahoo

is associated with the National Council for Teacher Education. Views are personal

may not be able to distinguish themselves clearly. This creates a situation of adverse selection, where the market does not reward quality effectively.

The problem is not just about individual choices. It has wider implications. It affects graduate outcomes, employability, and trust in the education system. It also has implications for achieving national goals such as the SDG-4 (ensuring inclusive and quality education) by 2030 and Viksit Bharat by 2047 with a skilled and employable workforce.

Overload of information

One may argue that there is now more information available than ever before. However, institutional websites, rankings, data portals, and social media may offer vast information, but not necessarily better information.

A large part of the data available is self-reported and often promotional. Definitions of indicators such as faculty strength, research output, and placement outcomes vary across institutions. Some rankings use methods that are not fully transparent. For students and families, this creates confusion. In such situations, students tend to rely on visible signals such as brand name, campus infrastructure, or fees. These signals are easy to observe but they do not always reflect academic quality. When these signals dominate decision-making, institutions may focus more on visibility than on improving provisions related to teaching-learning processes. This is where public ranking frameworks and verified data portals become important.

India's National Institutional Ranking Framework (NIRF), introduced in 2016, is one such effort to standardise information. It uses a common set of indicators such as teaching and learning resources, research output, graduation outcomes, outreach, and perception. It also requires institutions to disclose data in a structured format, the value of

which lies in comparability. When institutions report data using common definitions and formats, it becomes easier for students to make informed choices. Similarly, centralised data portals that provide verified information on enrolment, accreditation, and faculty strength can reduce dependence on informal and unreliable sources.

Room for improvement

These tools also have limitations. Rankings depend on how indicators are selected and weighted. If too much importance is given to easily measurable factors, institutions may try to improve scores rather than actual quality. Many important aspects of education, such as classroom experience, mentoring, and work-integrated learning, are difficult to measure. There is also a risk of over-interpreting ranks. Differences between institutions may be small, but ranks can create the perception of large gaps. This is why rank bands and methodological transparency are important. Despite these limitations, the absence of credible public information would be far worse. Without verified data, students would continue to rely on biased information. Information asymmetry would remain high, and poor-quality signalling would persist.

If India aims to build a strong and inclusive higher education system, information systems must be a priority. This includes better data verification, clearer definitions, transparent methodologies, accessible platforms and appropriate visualisation. For students, this is about making informed choices. For institutions, it is about credibility and accountability. The key question is simple: can students choose well if they cannot clearly see what they are choosing? Until that gap is reduced, the higher education market will continue to reward not only quality, but also the ability to present quality convincingly.

Institutional websites, rankings, data portals, and social media may offer vast information, but not necessarily better information

CAREER COUNSELLOR

Blend human strengths with tech skills to stay future-proof in AI era



Wildlife Beckons

I am extremely passionate about birds and animals. Can I make a living as a wildlife photographer?

Yes, although it is competitive and often starts as a passion project. Many professionals begin with general photography and then specialise. You will need technical skills (cameras and editing software) plus patience and field knowledge. Work can come from magazines, wildlife channels, NGOs, tourism boards, or stock photography platforms. Consider a natural course in photography and subsequently interning with nature/wildlife organisations or expert wildlife photographers to master the tricks of the trade.

Resilient Roles

I am in college and worried about AI taking over most jobs. In this scenario, which careers will remain safe?

While AI is reshaping work at an unprecedented rapid pace, roles that need human empathy, judgment, creativity, and physical presence will remain resilient. Think healthcare (doctors, nurses, physiotherapists, psychiatrists, psychologists), skilled trades (electricians, plumbers, chefs, designers), education, and mental health. Even tech careers that design, train, and manage AI will grow. Focus on hybrid skills, combining human strengths (creativity, problem-solving) with tech literacy, to stay future proof.

Gift of the Gab
I am good at public-speaking and have a hardy any stage fright, unlike many of

Get your doubts cleared. Post your query on the Get Unstangled section at www.educationtimes.com

my friends. What careers can use this skill?

Your gift for communication can shine in careers like journalism, public relations, corporate training, anchoring, law, making YouTube videos, acting and stand-up comedy. It would be a good idea to start with a degree in mass communication, English, or law, and gain practical exposure through debating, theatre, or hosting events. Strong communication is also an asset in sales, education, and diplomacy.



Blending Arts and Science

Can I combine art and science in the same career?

Yes, you can. Fields like medical illustration, UX design, scientific communication, and AR/VR content creation blend creativity with technical knowledge.

Additional tip: Stay skilled in storytelling and empathy. AI can render images, but human insight is what makes them truly impactful.

Drop the Idea
If I do not get the course I want in college, should I drop a year or take what is available?

Monica Pillai, Bengaluru

Unless you are targeting a very specific, high-stakes course (like medicine or architecture) and are confident of improving your score, it may be wiser to start with what is available. You can switch streams, acquire add-on certifications or upgrade later. Our education system now allows a lot of flexibility. Moreover, you will find many successful professionals on the path with Plan B courses and pivoted towards their true interest. Remember, a career is a marathon, not a sprint. Flexibility and continuous learning matter more than your first step or first course of study.

Industry-aligned Courses
Are short-term courses respected in the job market?

Rohit Yadava, Cochin

Absolutely, provided they are from recognised institutions and match industry needs. Employees value skills, speed, and adaptability. It would help to choose programmes with internships, certifications, and placement support.

Bonus tip: Many short-term courses (like digital marketing or culinary arts) allow you to freelance or start a small business alongside a job. That is double income with double potential.

Quick Entry

I have just finished class XII and want to start working within a year due to family considerations. What are the possible options?

Anant Mahto, Chandigarh

Plenty, not all good careers require 3+ years of college. Short-term, skill-based courses can get you job-ready in months. Examples: Emergency Medical Technician (EMT), graphic design, hospitality operations, digital marketing, and aviation ground staff. These offer quick entry, practical skills, and growth potential, especially if you keep upgrading your knowledge and skills while working. However, I suggest you pursue a bachelor's degree partially albeit online.

Building Portfolio

I am a humanities student but would like to pursue a tech-related career. Is that possible?

Rinku Bhasin, Baroda

Absolutely. Today, tech is not just the exclusive domain for engineers. Fields such as UX/UI design, digital content creation, game design, and data visualisation welcome students from non-science backgrounds. You learn the right tools (including those in AI). You can do short certifications in design, coding, basics, or data tools to build your portfolio. This blend of creativity and tech is in high demand. Whatever you do, do not stop learning.

Fueling Your Passion

Everyone says I should follow my passion. In the age of AI, would it be safe to do so?

Piyush Gautam, Jaipur

Not blindly. Passion is wonderful, but it is also a bit of a fad, bubbling one day, ghosting you the next. Many people start with a passion and burn out when it stops paying the bills or when they get bored of it. Others start with something routine, grow good at it, and then feel passionate because mastery is intoxicating.

So, here is a contrarian take: follow your curiosity first. Try many things. See what you keep coming back to even when it is hard. Build skills that make you valuable, then weave your passion into the mix, not the other way around. Also remember, AI can mimic enthusiasm, but it cannot experience joy, frustration, or creative breakthroughs. Those messy human emotions will serve as your rocket fuel.

PSYCHOLOGICAL COUNSELLOR

Present distress can reopen unhealed emotional wounds



OR HARISH SHETTY

Child Psychologist, Mumbai

Caught in the Parental Crossfire

I am a law student living in a hostel and facing emotional strain due to the ongoing conflict between my parents. Frequent early morning calls filled with complaints and grievances make me distressed. I feel emotional space, and there is constant pressure of academic performance from a distance, which gives a sense of gradually losing control.

-A.J. Muzumdar

Value of Total Dedication

My son has been asked to leave his PhD due to his casual approach. After his supervisor raised concerns about his superficial work routine despite his strong academic potential, disciplinary action was taken against him. I want to support my son, who is bright and ambitious.

SR, Bengaluru

Have a calm, direct conversation to help him recognise that sincerity, discipline, and respect for expectations are essential in a PhD environment. Encourage him to take responsibility for how his routine may have been perceived and to offer a genuine, unqualified apology to his supervisor, along with a clear commitment to change.

It would also help if he spent more time around peers who follow academic norms and maintain consistent work habits. Given that he may already be feeling guilty or discouraged, a one-on-one conversation with a psychologist could give him space to process his emotions and rebuild his confidence. If he demonstrates sustained improvement in his conduct and work ethic, there is a reasonable chance that his supervisor will be viewed more favourably.

Dealing with Memories of Trauma

I am doing a bachelor's course in a foreign university and have not visited home for the last two years due to visa uncertainties. I am coping with loneliness, memories of past trauma are resurfacing when my schoolteacher gave me a tough time. I am hesitant to let my parents visit me, so as not to burden them.

TK, Baroda

It is important to recognise that distress in the present can reopen old emotional wounds that may not have fully healed. Seeking immediate support from your university psychologist can help you understand what you are experiencing, whether it is situational stress and emotional strain or something deeper that may require more structured care. Addressing painful memories is not a sign of weakness but a necessary step towards long-term well-being.

You may also benefit from allowing at least one parent to visit and support you during this time. Additionally, it may be worth discussing flexible options with your university, such as taking a short break or even pausing a semester if needed.

Difficulties with attention and impulsivity can significantly affect a child's memory, learning, and overall academic performance. While medication has been prescribed, it has not been administered regularly. Considering his ongoing challenges, the school has suggested he shift to the NIOS board.

UN, Delhi

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Role of scientific tools for career guidance in digital age

Psychometric assessments are enabling schools to support students, writes Sushil Jha

The rise of AI has made it crucial for students to choose their career paths carefully and prepare early for future jobs. Even as Indian students are required to select streams as early as 14 or 15, shaping their academic and career trajectories.

A career-readiness study conducted by deploying a scientifically validated psychometric assessment tool across nine CBSE schools in tier-I and tier-II cities, covering over 2,000 students, offers a revealing snapshot.

Academic grades may have remained steady, but underlying trends point to a decline in human skills. A career-readiness study conducted by deploying a scientifically validated psychometric assessment tool across nine CBSE schools in tier-I and tier-II cities, covering over 2,000 students, offers a revealing snapshot.

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Gamified skills make learning more active, structured and meaningful

Rather than just learning a concept, students are required to apply it immediately, they can receive instant feedback, and improve before moving forward, writes Sushrut Tenkond

No longer a typical classroom looked like this. A teacher explaining from the front, students copying notes, and learning measured by how well answers were reproduced in exams. It was a system designed around content and memorisation, not a contemporary application. But today, that same student lives in a completely different world. They interact with apps, receive instant feedback, and solve problems in real time. But while the world around them has evolved, the way they are taught in many classrooms has not kept pace. Students are still expected to sit, listen, memorise, and repeat.

Gamified skill learning is not about turning education into entertainment. It is about using game-like elements to make learning more active, structured, and meaningful. For example, instead of solving ten problems from a textbook, a student might complete a challenge where they unlock levels by solving logic puzzles.

A student learning coding might build small projects step-by-step, earning rewards for applying concepts correctly. Instead of waiting for exams, they receive instant feedback as they progress. This changes the experience of learning, from a tedious task to an interactive and engaging journey. But behind it is a structured

system designed to build real skills such as problem-solving, decision making, and logical thinking. The focus shifts from memorising answers to applying concepts.

Unlocking Next Level
Traditional learning models have largely focused on delivering content. Teachers explain, students take notes, and exams measure how much information is remembered. While this approach has been widely followed, it often leaves little room for active participation or real-world application.

As a result, many students struggle to stay engaged. Even when they understand a concept, they may not

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Can middle school students engage with AI?

Recently, the Central Board of Secondary Education (CBSE) decided to introduce a Computational Thinking (CT) and Artificial Intelligence (AI) curriculum for classes 3-8, which will begin from the 2026-27 academic session. CT skills generally refer to abstraction, decomposition, pattern recognition, and algorithmic thinking. These skills are required to reason about intelligent systems and to understand how machine learning differs from rule-based computation. As with any transformational reform in education, it is necessary to examine the practicality of introducing computational concepts to middle school learners. Will it align with age-appropriate pedagogy for engaging with emerging digital and computational environments?

Global precedents

One first has to examine whether CBSE's curriculum clearly links CT and AI, since such a relationship is conceptually necessary. The foundational design principle behind the Organisation for Economic Co-operation and Development and the European Commission's AI Literacy Framework identifies CT as a precursor to AI learning. This framework recommends CT competencies across age bands beginning from early primary school. Similarly, the AI4K12 Initiative in the U.S. places CT-related competencies at the base of its "Five Big Ideas in AI." Their CT-competencies progression plan spans K-2, 3-5, 6-8, and 9-12 grade bands. The CBSE's sequencing broadly aligns with these comparative curricular architectures. However, its curriculum is designed independently in line with the National Education Policy (NEP), 2020 and the National Curriculum Framework for School Education (NCF-SE), 2023.

UNESCO also identifies topics such as "What is AI?",



Mamidala Jagadesh Kumar

Chairman, Review Committee for NEP 2020, Ministry of Education and former Chairman, UGC. Views are personal

The CBSE curriculum includes introductory discussions on AI fairness, responsible use, and digital safety. This focus is broadly consistent with cross-national practices

"Foundations of computing", and "Data literacy" as necessary for school students. Learners need to start cultivating logical thinking from an early stage and gradually build problem-solving skills. They also need opportunities to develop a basic understanding of AI as part of their broader digital learning.

Tackling inherent risks

There are, of course, risks associated with children interacting with AI. The CBSE curriculum includes introductory discussions on AI fairness, responsible use, and digital safety. This focus is broadly consistent with cross-national practices. For instance, the AI4K12 guidelines include topics such as recognising when AI systems may mislead; identifying bias in datasets; and distinguishing between AI and human capabilities across all age groups. But can children meaningfully engage with such content at a young age? Classroom-based interventions, including studies conducted in U.S. middle schools, led to interesting outcomes. They suggest that learners in the 11-13 age group can engage with AI ideas when supported by structured pedagogical interventions. These studies reveal that introducing ethical dimensions of AI at this stage can be pedagogically feasible.

A growing body of empirical research suggests that introducing concepts such as supervised learning or predictive modelling is viable for learners in the 11-14 age group. Many comprehensive research studies on AI in K-12 education suggest that school-age participants as young as 10-12 years can work with fundamental AI concepts. Thus, the CBSE's CT-AI framework appears compatible with the learning capacities observed in this age group.

Many international initiatives encourage the use of no-code tools for introductory AI learning. Multiple empirical studies show that by using such tools, middle

school learners can design, build, test, and reflect on their projects without coding. For this reason, the CBSE's expectation that Class 8 students can attempt to solve real-world problems using no-code tools is supported by several international initiatives.

However, children may start attributing human-like traits or capabilities to AI tools, although these tools do not actually possess them. Does the CBSE curriculum address this challenge by creating awareness among children? The CBSE's curriculum contains topics discussing ethical use, fairness, and responsible digital behaviour. Such discussions can help reduce children's misconceptions about AI. These modules can support better understanding and the prudent use of AI systems.

The CBSE curriculum follows a cross-disciplinary design by integrating CT into Mathematics and 'The World Around Us' course for Classes 3-5. Global experiences which involved cross-disciplinary instructional models reported improvements in students' reasoning and problem-solving in several contexts. The CBSE's pedagogical orientation reflects similar design principles.

Away from rote learning

One problem in Indian education is the habit of rote learning. CT and AI learning have the potential to encourage inquiry-driven, reflective learning rather than traditional rote-based methods. The CBSE curriculum emphasises practical modelling, reflection, and ethical reasoning. This approach can therefore contribute to ongoing efforts to move classroom practices away from rote-based methods.

International practices and available research suggests that middle school is an appropriate stage to introduce foundational CT-AI elements. The CBSE's CT-AI curriculum is structured to make thoughtful and effective use of this developmental stage in learners' growth, and it exhibits coherence with the vision of the NEP 2020.



SEEMA CHARI

IGREW up in the '70s and '80s speaking Marathi and Tamil and comprehending Bengali. In Class VIII, I chose French as the third language. We were, I remember vaguely, lured by the promise of a "high-scoring subject" and a language in which you rolled your R-s in a satisfyingly sophisticated manner. French grammar was a breeze. My love affair with languages had just begun.

From high school on, I started amassing

language certificates at Alliance Française, Max Mueller Bhavan, and the Italian Cultural Centre. By the time I had completed an MA French at JNU, a Master's in Didactics at the University of Venice, and a Master of Philosophy, I was in the grip of philological love.

Through theatre, cinema, cuisine, business, tourism, I discovered worlds through the lens of language. Funnily, when I met native speakers, I was called upon to explain "Indian stuff": Bindis, Bollywood, food, gods, castes, costumes. I was asked to speak "Indian", and saw bemusement turn into delighted amazement when a handy Indian currency note displayed our dizzying variety

of scripts and languages.

Interestingly, my understanding and vocabulary of Indian languages also expanded. In Europe, we Indian (or even South Asian) students would break into Hindustani, Bangla, Tamil, enjoying a private joke, or a comment about the cute guy across the street. We strove to speak in a *shuddh* way to

Describing my world through a foreign language opened me to its beauty, even as I fostered friendships across continents

keep our commentary strictly amongst us.

Our training in not just a foreign language but also its sociolinguistic aspects and syntax found us taking notes and introspecting about our own languages. Presented with otherness, we can appreciate what is us and ours in a more analytical way. Describing my world through a foreign language opened me to its beauty, even as I fostered friendships across continents. I ended up teaching French and Italian for nearly three decades.

In an increasingly AI-dominated world, apps and AI can teach grammar, vocabulary, or sentence structure. But they cannot teach humans to connect with others. Whether our

first view of a different culture is through a class in middle school or a course in an institute, I can confidently say that exposure to foreign cultures through their language(s) makes us better global citizens.

Our highly interdependent world is yet marred by geopolitical strife. There is no better way to build bridges than through intercultural exchanges. And no intercultural communication is as warm, precious, and durable as that which engages the "other" through the sounds of their languages.

The writer is a quizmaster, author, and pedagogue.

Choosing the Right College in 2026: What Parents and Students Should Look Beyond Rankings



ANKUR JAIN

Ask most parents what worries them during admission season, and the answer is rarely unclear. The anxiety usually comes down to making the “right” choice, one that feels safe, credible and future-proof. Rankings have traditionally filled that role. They simplify a complicated decision into a number that appears objective.

But higher education decisions today are becoming harder precisely because the future is less predictable than before.

A decade ago, choosing a highly ranked college often meant choosing a relatively defined career pathway. Today, students are likely to work across multiple roles, industries and even skill domains during their professional lives. In that context, rankings provide reassurance, but they do not necessarily indicate readiness for change.

What families are beginning to realise is that the experience inside the classroom matters as much as the institution's reputation outside it. Colleges that expose students to industry environments early, through projects, internships or practitioner-led learning, tend to reduce the gap between education and employment far more effectively than traditional academic models.

This shift is also visible in hiring behaviour. Employers increasingly evaluate graduates on their ability to apply knowledge rather than simply possess it. Communication skills, adaptability and problem-solving often influence hiring decisions more strongly than institutional pedigree alone. As a result, students benefit

from institutions that prioritise practical engagement alongside academic learning.

Support systems within colleges are gaining importance for similar reasons. Mentorship, career counselling and structured guidance frequently determine how confidently students navigate their early professional years. These factors rarely appear in rankings, yet they shape outcomes in meaningful ways.

Financial considerations are further changing how families approach college selection. With education

representing a significant long-term investment, conversations are moving beyond brand perception toward measurable outcomes, consistency of placements, role quality and opportunities for sustained career growth.

Equally significant, though harder to quantify, is cultural fit. Students tend to thrive in environments that encourage participation, experimentation

and independent thinking. Confidence and leadership often develop not through institutional prestige, but through opportunities to engage, fail, learn and try again.

The broader higher education landscape in India is already reflecting this transition. Employers are gradually placing greater emphasis on skills and applied capability, signalling a move away from credential-led hiring toward

performance-led evaluation.

Choosing a college in 2026 therefore demands a different mindset. Rankings may still serve as a starting point, but they cannot be the deciding factor. The more important question is whether an institution equips students to adapt, grow and remain relevant long after graduation.

Because the real value of education becomes evident not in admission lists or league tables, but in how prepared students feel when the world of work inevitably changes around them.

THE WRITER IS CO-FOUNDER & CBO, SUNSTONE



The Rise of Practice-Based Learning: Why Internships Are Becoming the New Entrance Exams



Vinay Maheshwari

India's higher education system is undergoing a quiet but profound transformation. For decades, academic success was defined by performance in entrance examinations and university assessments. Today, a new benchmark is emerging, one less about marksheets and more about demonstrable competence. Internships, once considered optional add-ons, are rapidly becoming the real entrance exams for the world of work.

At the heart of this shift lies a persistent and well-documented paradox: the employability gap. According to the India Skills Report 2025, only 54.81% of Indian graduates are employable despite years of formal education. High educational attainment, low job readiness. The contradiction has forced both academia and industry to fundamentally rethink how talent is identified and evaluated.

The root cause is a structural disconnect between classroom learning and workplace requirements. Employers today are not merely scanning for degrees; they seek problem-solvers, communicators, and individuals capable of adapting to rapidly changing environments. Soft skills, critical thinking, learning agility, the ability to collaborate under pressure are increasingly prioritised over theoretical knowledge. These are competencies that cannot be acquired through textbooks alone. They require practice, exposure, and consequence.

This is where internships have moved from the margins to the centre. The India Skills Report 2025 reveals that over 93% of students now actively seek internships before taking up full-time roles, a statistic that signals a genuine generational shift. Students no longer treat internships as optional enrichment. They understand them to be essential.

Industry behaviour is evolving in tandem. Companies are increasingly adopting a "try before you hire" approach, treating internships as extended evaluation periods rather than cheap labour arrangements. In many sectors, internship performance now outweighs academic scores in hiring decisions, and pre-placement offers have become a standard pipeline. The résumé is being quietly displaced by the portfolio.

Policy and institutional reform are catching up. Regulatory bodies are integrating internships into the academic framework through mandatory industry exposure and credit-based structures. National schemes have created over one lakh internship opportunities in recent phases. These efforts reflect a growing official recognition that employability must be deliberately built not passively assumed at the point of graduation.

Yet a structural challenge persists: demand far outstrips supply. Millions of students enter higher education each year, but only a fraction secure meaningful, hands-on industry exposure. This imbalance has made internships intensely competitive mirroring, in their own way, the high stakes of the entrance examinations they are beginning to replace. Students now compete not just for college seats but for credible internship berths that can determine their career trajectories.

The broader implications of this transition deserve serious attention. The shift from credential-based evaluation to competency-based assessment is not merely a hiring trend, it is a quiet restructuring of how merit is defined and rewarded in India. It also, encouragingly, holds democratising potential. The rise of remote and hybrid internships has opened access for students from Tier 2 and Tier 3 cities who were previously locked out of metropolitan professional networks. As India positions itself as a global talent hub, this wider participation will matter enormously to the realisation of its demographic dividend.

But the transition will not be self-correcting. Universities must move beyond curriculum delivery to become active facilitators of industry engagement. Employers must invest in structured internship programmes that take learning seriously, rather than treating interns as a cost-arbitrage opportunity. And policymakers must ensure that access to quality opportunities remains equitable lest internships become yet another filter that advantages the already-advantaged.

The future of work is experiential. In an economy reshaped by artificial intelligence, automation, and technological disruption, the ability to apply knowledge is more valuable than the knowledge itself. Internships are not merely training grounds. They are testing grounds.

In the past, entrance exams determined who was ready to enter institutions. Today, internships are determining who is ready to enter the workforce. The examination hall has not disappeared, it has simply moved into the workplace, and the test has already begun.

The RTE Act and the idea of social inclusion

In its January 2026 judgment, the Supreme Court of India reaffirmed the purpose of Section 12(1)(c) of the Right to Education (RTE) Act, 2009, the landmark provision that reserves 25% of seats in private schools for students from economically weaker sections and socially disadvantaged groups. In words that are deeply symbolic, the Court observed that this provision makes it possible for “the child of a multi-millionaire or even of a Judge of the Supreme Court of India to sit in the same classroom and at the same bench as the child of an autorickshaw driver or a street vendor”. The judgment reasserted that this provision is a deliberate constitutional strategy to operationalise equality of status by creating shared learning spaces for all children.

This sentiment of social integration often comes alive in thousands of stories across the country. Take Karthik, a footwear vendor, and his wife, Sunita, for example. They always dreamed of providing their children with quality education despite their modest income. This became possible when their younger son joined a reputed private school through this provision. The boy thrived in the new environment, excelling in academics and his favourite sport, kabaddi. Teachers nurtured his growth, while classmates became close friends. For Karthik and Sunita, the RTE Act did not just change their son's future; it altered their family's life trajectory, with the potential to lift them out of poverty. Stories such as Prem's are often told as narratives of access – of doors opened and opportunities unlocked. But at stake is not simply where a child studies, but whether the circumstances of their birth continue to determine the boundaries of their social world.

A constitutional strategy

Despite its intent, Section 12(1)(c) is frequently mischaracterised as a tool to promote private



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The Supreme Court of India's judgment strengthens the vision of a socially integrated education system

schooling or to allow the state to outsource its constitutional duty to public education, citing falling government school enrolment alongside rising private school admissions.

This reading is misplaced. First, Section 12(1)(c) does not dilute the state's duty to invest in public schools, but recognises that the right to free and compulsory elementary education, and the creation of shared learning spaces, must be realised within a schooling ecosystem where private schools are not incidental actors but natural participants in fulfilling a constitutional mandate. The RTE Act does not create a zero-sum contest between public and private institutions; it seeks to foster integrated educational spaces.

Second, the shift towards private schooling predates the RTE Act. The Annual Status of Education (ASEE) Report of 2006 documents significant movement into private schools “at the expense of government school enrolment”. Declining admissions in government schools are rooted in deeper concerns around infrastructure, teacher presence, and perceived quality – not in Section 12(1)(c) itself.

Evidence from the ground

Since its rollout, over five million children have walked through the doors of educational spaces previously out of reach, with retention rates averaging over 90%. In cities such as Delhi and Ahmedabad, blended classrooms are no longer exceptions; they are the norm. Research (such as that by Rao, Gautam, 2019) indicates that mixed classrooms lead to increased generosity, reduced discrimination, and stronger pro-social behaviour, without any adverse impact on academic outcomes or classroom discipline. At scale, implementation has also stabilised: reimbursements under Section 12(1)(c) are centrally streamlined, and State-level online Management Information Systems (MIS) ensure

transparent, low-discretion processing.

For children from disadvantaged backgrounds, these classrooms offer more than just academics. They provide access to social capital, previously unexplored aspirations, peer networks, and institutional cultures. These experiences translate into higher self-belief, enhanced ambition, and a broader worldview.

Acknowledging challenges

There is no denying the challenges that persist in the implementation of Section 12(1)(c). Some private schools continue to resist full inclusion, while families often bear hidden costs for uniforms, books and materials. Implementation remains uneven across States, with persistent gaps in transparency, grievance redress, and last-mile outreach and disbursements.

These challenges do not change the fact that Section 12(1)(c) was not meant to rely solely on moral persuasion – it requires clear, enforceable rules to succeed. Encouragingly, recent experience demonstrates that these gaps are neither inevitable nor insurmountable. State-driven digital admission systems and improved monitoring mechanisms – particularly in Rajasthan, Gujarat, and Delhi – have significantly strengthened access and accountability.

The Court's reaffirmation of Section 12(1)(c) makes clear that it is neither a retreat from public education nor an endorsement of private schooling. The challenge now is administrative. States must ensure timely reimbursements, remove hidden costs by private schools, strengthen grievance redress, and enforce inclusion norms so that equality is experienced. The real test is whether we can operationalise the constitutional promise of social integration with the seriousness needed to match the ambition we hold for our children.

BIBLIOGRAPHY



GETTY IMAGES



Everyone is busy building intelligence, but no one can define what it is

In their books, Karen Hao, Max Fisher, and Dworkesh Patel explore the AI industry that has become a juggernaut even as it still struggles to define intelligence, measure its costs, or agree on its end goal

Areena Arora

American journalist and author Karen Hao spent years reporting from inside and around OpenAI, and what she found was less a portrait of a company and more an autopsy of the larger idea of artificial general intelligence (AGI).

OpenAI was founded on the premise that if AGI was coming regardless, it was better to have safety and ethics-conscious researchers at the frontier than to cede it to those with fewer compunctions. The CEO, Sam Altman, even went as far as to design the company's board such that it could fire him too if he ever came in the way of its core mission. That board, briefly did fire him, but reversed the decision quickly. Hao traces this arc not as a scandal, but as something inevitable; as an outcome of the ideas that come from Silicon Valley founders who have vast resources and the freedom to push boundaries. OpenAI is described in the early chapters of her book, *Empire of AI*, as "a rare intellectual playground without strings attached, a haven for fringe ideas." By the time she finished reporting, it had become one of the most powerful and least accountable corporations on earth.

No clear definition

What is artificial intelligence? Alan Turing's 1950 paper is widely considered the founding document of AI. In it, he begins with the question, "Can machines think?" and quickly reframes it as the imitation game. He proposes that any machine with the ability to convince a human of its sentience more than 30% of the time, passes his test. He never defined what intelligence really is. By his test, most agentic AI models today seem to "think". But what thinking actually is, remains unresolved, even among those

who have staked billions on replicating it.

Hao spends a chapter of her book trying to pin down a definition of intelligence with impressive intensity. The AI industry's working answer, for now, borrows from the "pure language" hypothesis: the idea that all human knowledge is encoded in language, and that AGI might therefore emerge from language alone. The cost for training a generative AI model is already approaching a billion dollars, and projections for the coming years are only shooting up. All this money is being spent on a process whose foundation and end goal both remain largely unarticulated.

The consequences

Max Fisher, in *The Chaos Machine*, shows us that this pattern is not new, but that its consequences have grown manifold. While Fisher's book is ostensibly about social media algorithms and radicalisation, it also holds up a clear mirror to what happens when a technology that shapes human behaviour is deployed before anyone has asked what it is shaping us towards.

The early conventional wisdom about platforms such as Facebook, he argues, vastly understated their power. Their algorithms amplify moral fury, compress complexity into viral fragments rewarded with small doses of digital dopamine, and make polarisation not a bug but an intended, even celebrated, output.

By the time insiders began to acknowledge this, the architecture was global and deeply embedded. Facebook's founding president, Sean Parker, eventually admitted the goal was to consume as much of conscious human time and attention as possible. By then, a billion people were already inside the wormhole.

Max Fisher wrote about a previous

technological wave, but there are parallels in the inherited arrogance. The same incentives – engagement maximisation, attention as a commodity, and uncontrolled growth as the only metric of success – now underpin the expansion of AI. Fisher's book, read alongside Hao's reporting, gives readers both a long view and a more immediate story: this pattern has played out before, and in building disruptive technologies, their makers are often aware of the very real human cost of progress – and continue anyway. To be clear, neither author rejects scientific progress, but both hold up an important mirror to what it costs to get there.

The God complex

Dworkesh Patel's *The Scaling Era* is an oral history stitched together with conversations with researchers, engineers, and thinkers who made the last six years of AI possible. Unlike Hao and Fisher, Patel and his interviewees are not cynical of AI. They are, for the most part, people who believe they are doing something necessary and sacred even as they do acknowledge its shortcomings. For instance, Anthropic CEO Dario Amodei in the book says that if agentic AI were to become super powerful and wreak havoc, "we'd have basically no ability to stop it."

The God complex here is not megalomaniacal in the conventional sense; it is more subtle. It is the conviction that because the intelligence being built is unprecedented, the ordinary human frameworks of accountability, consent, and cost distribution can be changed too.

Patel's book is highly technical, diving into the scalability of AI models and what intelligence is. Curiously, both Hao and he touch on this question and seem to conclude that there is still no unified

definition of "intelligence" or "thinking."

Altman in particular, who is the primary subject of Hao's book, has signed up for Nectome, a startup whose premise is that the brain can be chemically preserved at death to be digitally uploaded to a server later. This is where the pure language hypothesis and the God complex finally converge. If all human knowledge is in language, and language can be extracted and replicated, then perhaps consciousness too can be preserved, transferred, and ultimately made everlasting. The question Turing called too meaningless to discuss has become the basis of an afterlife business. The arrogance is not in the ambition itself; it is in the certainty that whatever the "tech bros" of Silicon Valley end up building will be the answer.

Paying a price

In the meantime, as Hao sharply points out, communities in South American countries are paying a hefty price right now, with their water and land resources. The AI we have has already reshaped medicine, science, and daily life in useful ways. But the industry is not focused on refinement or more environment-friendly improvements to what already exists; it is aiming at something much larger.

What these three books produce, read together, is less a verdict on AI and more a map of its (often) unacknowledged shortcomings. Hao calls these companies an empire – ruthless in their conquest like royal empires of the bygone era. Scaling, discussed in great technical detail in Patel's book, asks an important question: what happens when we run out of data to train models on? Billions of dollars are being spent per model, land and water are being spent to replicate millions of years of evolutionary biology, but to what end? That remains unclear.

Is Your Career AI-proof? Master Human-Centric Skills

Sandeep Das

Rarely does a week go by without news of layoffs circulating. There are many prophecies about how the situation for employees is going to get worse in the years to come. Goldman Sachs has said that 300 million jobs could be displaced by AI over the next decade. Anthropic CEO Dario Amodei has said that AI could eliminate up to 50% of entry-level white-collar jobs in the next few years.

So, the big question is what a corporate employee should do over the next decade. Especially in India, where urban youth have an unemployment rate of approximately 1 in 5, according to the ministry of statistics.

Upskilling is only a partial answer to this big question

The common consensus is that up-skilling is the way forward over the next few years. This answer is only partly true. As an employee, you are not going to make your career layoff-proof by competing with AI. True, learning



about AI tools will make you more productive, but that doesn't guarantee a career in the future. Research from Anthropic shows that AI tools like Claude can reduce task completion times by up to 80% and automate large parts of complex workflows. For instance, in the case of projects like data migration, the timeline can shift from a couple of years to a fraction of that time.

The only way to ring-fence your career in the future is to master human-centric skills. The Future of Jobs report published by the World Economic Forum underlines hu-

man skills such as communication, leadership influence, judgement, and empathy as essential for thriving over the next decade.

Human-centric skills are the way forward

Let us examine specific human skills that are of importance going forward. The following four skill sets should be non-negotiable for any professional trying to survive and thrive over the next decade.

1 Driving Meaning: The No. 1 human skill to master is storytelling. Storytelling, with its immense appeal to

the subconscious mind, which drives over 95% of our decisions, is essential for creating impact and crafting a larger narrative.

Corporate roles dealing with human beings are likely to thrive

The fastest-growing roles today are not those that execute but those that influence, advise and decide. The top three areas where independent consultants are in demand are technology, strategy and business development, and finance. Even traditional consulting, strategy and technology consulting is likely to grow rapidly in India.

There are other roles that will always be in big demand that involve deep human interaction. Corporate sales, product managers and digital transformation experts are bound to scale up significantly over the next decade.

The safest roles in the AI era are not those closest to technology but those closest to people.

(The author is leadership and business coach)

3 Driving Connection: In the difficult world we live in, empathy and active listening go a long way in managing global teams, whether it is about managing conflict, building morale or negotiating complex deals. Empathy, as a human skill, can build trust that drives immense influence and collaboration.

4 Driving Influence: One of the most important skills is your individual brand. A strong personal brand attracts opportunities and builds a reputation which can-

NEXUS OF GOOD

Classrooms to Climate Action

CCAC shows how schools can move climate education beyond awareness, turning students into active custodians of sustainable habits, community action and long-term responsibility



ANIL SWARUP

THE WRITER IS
AN AUTHOR AND
A FORMER
CIVIL SERVANT

The journey to Panchgani, Maharashtra, was hectic for me as I had just returned from Indore to Delhi. Travelling again to Pune and then taking a three-hour drive to Panchgani was tough. However, it was well worth the trouble because what I witnessed amidst the quiet but inspiring environment at Initiatives of Change (IofC) was truly amazing.

What if climate action didn't begin in boardrooms or policy circles but inside classrooms?

That is the question at the heart of the Classrooms to Climate Action Crusaders (CCAC) initiative, a pan-India program that is quietly redefining how schools engage with one of the most urgent challenges of our time.

The first cohort, running from July 2025 to April 2026, brought together 78 schools from across the country. Out of these, 50 schools carried their work through to the final stages, each one experimenting with what it means to move from awareness to action.

Organised by SrishtiZens, a pan-India network of eco clubs, Kerala Public School Trust, Jamshedpur and Rotary Club of Jamshedpur, in partnership with TERRE Policy Centre, Pune—bringing together education, community leadership, and sustainability expertise into one collaborative ecosystem.

But CCAC was never designed to be just another school competition.

Beyond Activities. Toward Ownership

At its core, CCAC challenges a familiar pattern: students learning about climate change without ever engaging with it in real, tangible ways.

Instead of limiting schools to one-off events, the initiative required sustained action. Schools worked on a mix of compulsory efforts, such as tree plantation, greening campuses, and water conservation, alongside optional initiatives like awareness campaigns, waste reduction, and community impact projects.

A defining feature of the program was collaboration. Schools were inspired to partner with organisations, NGOs, and even other schools, for each and every activity and points were allotted for it, expanding their perspective beyond campus boundaries.

What emerged was a shift.

For many participants, what started



The first CCAC cohort proves that students can become powerful agents of environmental change

as a task evolved into something far more meaningful. Students began to take ownership. Teachers observed changes not just in knowledge, but in attitude, responsibility, and everyday behaviour.

This aligns with a deeper truth highlighted by environmentalist James Gustave Speth, who argued that the biggest environmental challenges are not purely scientific, but cultural and behavioural. CCAC directly engages with this reality by working at the level where habits and values are formed.

Recognising Meaningful Impact

At Asia Plateau Panchgani, surrounded by a landscape that quietly reflects the very ecosystems this initiative seeks to protect, the final gathering carried a different kind of energy. This was not just about results. It was about witnessing what sustained effort, collaboration, and intent can look like when schools take ownership.

The schools that emerged as leaders demonstrated not just participation, but depth and consistency in their efforts.

► **First Prize (₹1,00,000):** SBOA Public Senior Secondary School, Cochin, Kerala

► **Second Prize:** Bhavan's Munshi Vidyashram, Tripunithura, Kerala

► **Third Prize:** SBOA Matric Higher Secondary School, Coimbatore, Tamil Nadu

► **Fourth Place:** JH Tarapore School, Jamshedpur, Jharkhand

The trophies were instituted after the late Chairman, Mr APR Nair's name. While these schools stood out, the

larger success of CCAC lies in the collective shift it sparked. Across participating schools, environmental action moved from being an isolated activity to a shared purpose.

Lessons from the First Cohort

The journey of the first cohort offers both validation and direction.

On one hand, it proved that schools are ready. They can build green teams, initiate environmental efforts, and collaborate meaningfully when given the right structure. On the other hand, it also revealed the next level of challenge.

There is a need to go deeper. To move beyond surface-level activities and create measurable, long-term impact. Strengthening students' understanding of environmental issues, encouraging consistent reflection, and building stronger partnerships with external organisations will be critical going forward.

The Next Phase: Scaling Impact

The vision for CCAC 2026–27 is not incremental. It is exponential.

The next cohort aims to expand participation significantly, with each school acting as a catalyst to bring others into the fold. This creates a multiplier effect, where climate action is no longer confined to individual institutions but spreads across communities.

Stronger partnerships and collaborations will continue to play a central role. With organisations like SrishtiZens and its collaborators deepening their engagement, the initiative is positioned to build a more robust ecosystem that supports schools with resources, mentorship, and

real-world opportunities.

In addition, new recognition categories are being planned to celebrate diverse forms of contribution—ranging from innovation and collaboration to sustained impact.

Most importantly, the focus is shifting toward continuity. The goal is to ensure that climate action becomes embedded in the culture of schools, rather than remaining a time-bound program.

A Shift That Matters

Climate change is often discussed in terms of policies, technologies, and global agreements. But real change depends on something more fundamental: how people think, act, and take responsibility in their everyday lives. Aim big, but start small. Every step in the right direction matters.

Schools are one of the few spaces where this shift can begin at scale.

CCAC taps into that potential. It doesn't just inform students about the climate crisis, but positions them as active contributors to the solution.

And that shift from learning about change to becoming agents of change is where the real impact lies.

What was being attempted through this initiative was transformational. The model presented at Panchgani is a wonderful example of Nexus of Good. It can easily be scaled and replicated through public-private partnership. It is hoped that more and more schools will join the movement during the next few years.

Views expressed are personal

Through tree
plantation,
campus
greening, water
conservation,
waste reduction,
awareness
campaigns
and community
partnerships, the
initiative pushed
schools beyond
token events