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# CONTENT

S No	Title	Author	Newspaper	Page No.	Date of Publication
1.	Challenges in equipping jobs seekers with skills	Dinesh Sood	Pioneer	6.	02 NOVEMBER 2023
2.	Let's build the law into AI	Daniel Gervais and John Nay	Statesman	7.	02 NOVEMBER 2023
3.	Why a beeline to overseas Universities?	Prabha Gupta	Pioneer	8.	03 NOVEMBER 2023
4.	The IITs are overcommitted, in crisis	Philip G Altbach	Hindu	9.	04 NOVEMBER 2023
5.	Needed: A mentor for schools	H A Ramganath	Deccan Hearld	10.	06 NOVEMBER 2023
6.	An apparent cyberattack hushes the British library	Alex Marshall	Deccan Hearld	11.	06 NOVEMBER 2023
7.	NEP 2020 and KK Handiqui library, GU	Prasanta Kumar Deka	Assam Tribune	12.	07 NOVEMBER 2023
8.	State must chart its own course	Sneha Priya Yanappa	Deccan Hearld	13.	07 NOVEMBER 2023
9.	The Canadian dream is not waning	Furqan Qamar and Sameer Ahmad Khan	Hindu	14.	07 NOVEMBER 2023
10.	Meritorious students deserve subsidies	Biju Dharmapalan	Pioneer	15.	07 NOVEMBER 2023
11.	India works looks at the numbers	Krishnamurthy Subramaniam	Times of India	16.	07 NOVEMBER 2023
12.	Shining a spotlight	Himani Aggarwal	Millennium Post	17.	08 NOVEMBER 2023
13.	A working hypothesis: Reservation won't help	V Ragunathan	Deccan Hearld	18.	10 NOVEMBER 2023
14.	IIT - Zanzibar today, IIT- World tomorrow	Editorial	Economics Times	19.	11 NOVEMBER 2023
15.	Unending ordeal	Editorial	Hindu	20.	11 NOVEMBER 2023
16.	Zanzibar: for centuries, a home to Indian; now an IIT	Adrija Roy Choudhury	Indian Express	21.	12 NOVEMBER 2023
17.	Scholarly pursuit	Sanjeev Chopra	Millennium Post	22.	12 NOVEMBER 2023
18.	Revisit KSU act to revamp our varsities	P S Jayaramu	Deccan Hearld	23.	13 NOVEMBER 2023

19.	Converting PhD research into startups	Tulika Devi	Assam Tribune	24.	14 NOVEMBER 2023
20.	Parent-Teacher meeting, A need in colleges	Alice Mani	Deccan Hearld	25.	14 NOVEMBER 2023
21.	Tradition and technology	A K Ghosh	Statesman	26.	14 NOVEMBER 2023
22.	Need to question officially sanctified narratives of 'failure'	Avijit Pathak	Tribune	27.	14 NOVEMBER 2023
23.	The future of sport is Asian	Simon Chadwick	Hindustan Times	28.	15 NOVEMBER 2023
24.	Improve teacher quality to raise school standards	Shailja Vaidya Gupta	Hindustan Times	29.	16 NOVEMBER 2023
25.	Exemplary outreach	Anil Swarup	Millennium Post	30.	16 NOVEMBER 2023
26.	Need to teach the country management	Prafull Goradia	Pioneer	31.	16 NOVEMBER 2023
27.	Evacuated from Ukraine, Indian MBBS students resume studies Uzbekistan	Editorial	Pioneer	32.	16 NOVEMBER 2023
28.	New import	Editorial	Telegraph	33.	16 NOVEMBER 2023
29.	AI can play the sleuth to expose scientific fraud	Atanu Biswas	Tribune	34.	16 NOVEMBER 2023
30.	Politics is part of any intellectual exchange	Editorial	Economics Times	35.	17 NOVEMBER 2023
31.	Miss-employ jobs data?	Soumya Kanti Das	Economics Times	36.	17 NOVEMBER 2023
32.	Ivys to IITs	Editorial	Times of India	37.	17 NOVEMBER 2023
33.	Toilets in schools	Editorial	Tribune	38.	17 NOVEMBER 2023
34.	Education and pollution	Krishna Kumar	Indian Express	39.	18 NOVEMBER 2023
35.	Sex Ed	Shutapa Paul	Millennium Post	40.	18 NOVEMBER 2023
36.	Defending Universities	Chetna Trivedi	Telegraph	41.	18 NOVEMBER 2023
37.	As tier 2-3 cities join exodus abroad, it's time to focus on 'study in India	V Ram Gopal Rao	Times of India	42.	18 NOVEMBER 2023
38.	Making Public education inclusive	Amar Patnaik	Hindu	43.	20 NOVEMBER 2023
39.	This job quota doesn't work	Editorial	Hindustan Times	44.	20 NOVEMBER 2023

40.	The outreach to foreign varsities	S S Mantha and Ashok Thakur	Hindustan Times	45.	20 NOVEMBER 2023
41.	Citation is not the last worlds scientific research	Biju Dharamapalan	Pioneer	46.	20 NOVEMBER 2023
42.	Enhancing accessibility and accuracy for global students	Rohit Sharma	Pioneer	47.	20 NOVEMBER 2023
43.	Job quota quashed	Editorial	Tribune	48.	20 NOVEMBER 2023
44.	STEM education for girls: The path to equity	Shweta Gaur	Deccan Hearld	49.	21 NOVEMBER 2023
45.	Making sense of the employment challenge	Pulapre Balakrishnan	Hindu	50.	21 NOVEMBER 2023
46.	The success story of sister Nivedita's schools over 125 years	Tarun Goswami	Statesman	51.	21 NOVEMBER 2023
47.	Industry academia partnerships drive technology advancement	Avireni Srinivashulu	Statesman	52.	21 NOVEMBER 2023
48.	लड़कियों की शिक्षा से सामाजिक क्रांति	प्रेमपाल शर्मा	Dainik Jagran	53.	21 NOVEMBER 2023
49.	100 Glorious year of AAU-ARRI	Bidyut C Deka and others	Assam Tribune	54.	22 NOVEMBER 2023
50.	Mapping mind in govt. schools	Bensai Vasvani	Deccan Hearld	55.	22 NOVEMBER 2023
51.	Parochial law	Editorial	Hindu	56.	22 NOVEMBER 2023
52.	Learning in the mother tongue – the NEP way	Subhas Sarkar	Hindustan Times	57.	22 NOVEMBER 2023
53.	Caste out	Editorial	Telegraph	58.	22 NOVEMBER 2023
54.	In step with the evolving global landscape of skills	Ajay Kela	Hindustan Times	59.	23 NOVEMBER 2023
55.	An inclusive pursuit	Anil Swarup	Millennium Post	60.	23 NOVEMBER 2023
56.	Transformative approach to upskilling s youth	Manav Subodh	Pioneer	61.	23 NOVEMBER 2023
57.	Reservations have their own merit: Inclusion	M S Sriram	Deccan Hearld	62.	24 NOVEMBER 2023
58.	Significance of creativity in the curriculum	Lina Ashar	Pioneer	63.	25 NOVEMBER 2023
59.	B.Ed Bugs	A.K. Ghosh	Statesman	64.	25 NOVEMBER 2023



60.	भारतीय विश्वविद्यालयों के विस्तार का समय	कृपाशंकर चौबे	Dainik Jagran	65.	25 NOVEMBER 2023
61.	मिथको का मोल	Editorial	Nav Bharat Times	66.	25 NOVEMBER 2023
62.	Ode to Glancy medical college	SK Sharma	Tribune	67.	26 NOVEMBER 2023
63.	Techniques to keep students engaged	Poornima Charantimath	Deccan Hearld	68.	28 NOVEMBER 2023
64.	A broken pact	Saikat Majumdar	Telegraph	69.	28 NOVEMBER 2023
65.	Academics freedom in peril	Avijit Pathak	Tribune	70.	28 NOVEMBER 2023
66.	कट्टरता का पोषण करते शिक्षा संस्थान	प्रणय कुमार	Dainik Jagran	71.	28 NOVEMBER 2023
67.	A promise at the precipice	Dipankar Dey	Millennium Post	72.	29 NOVEMBER 2023
68.	Design your success story	Anindita Acharya	Millennium Post	73.	30 NOVEMBER 2023

# Challenges in equipping job seekers with skills



DINESH SOOD

Engaging with research organisations and academic institutions that focus on education, skills, and labour markets is critical to building capability



**A**ddressing the challenge of skilling millions of new entrants of the working age is crucial in India's economy, which is undergoing structural, demographic, and technological shifts. As the nature of work changes, it is essential to make new entrants employable and skilled, which is a big challenge. By 2024, around 70 million new individuals within the working age bracket, i.e., 15-59 years, are expected to enter India's labour force. The estimated total workforce will then be around 405 million people. The recently released Periodic Labour Force Survey (PLFS) annual report, 2022-23, reveals that this will include 59 million youth aged between 15-30 years. Hence, strategies for re-skilling, up-skilling, and recognising informally acquired skills of the current workforce must be reinforced.

India is taking unique initiatives to leverage its demographic potential into a dividend that will fuel the country's growth. Simultaneously, ageing populations in several developed countries provide opportunities for skilled individuals' migration from India to benefit both the host and destination countries. According to an analysis, India's labour force above 30 years of age is 262 million people. Out of this, 259 million are currently employed and need to be future-ready. The National Skill Development Corporation (NSDC) was established as a public-private partnership (PPP) to encourage private sector participation in India's skill development sector to drive re-skilling and up-skilling initiatives. This will help prepare the workforce for new technologies and the future of work.

**Three major challenges in skill development**

Firstly, there should be collaboration between industry and the private sector. This is an essential strategic pillar for India, as it is necessary to create avenues



**ACCORDING TO AN ANALYSIS, INDIA'S LABOUR FORCE ABOVE 30 YEARS OF AGE IS 262 MILLION PEOPLE. OUT OF THIS, 259 MILLION ARE CURRENTLY EMPLOYED AND NEED TO BE FUTURE-READY**

*(The writer is a co-founder and MD of Orane International, a Training Partner with the National Skill Development Corporation (NSDC), and a Network Member of India International Skill; views are personal)*

for private-sector engagement. Skill development faces several forms of market failures, including information asymmetries. A skilled person knows their skills, but a potential employer does not. If employers had all the information, they would be willing to pay more for a skilled person. Recognition of Prior Learning (RPL) is an intervention to address information asymmetry.

There is a vast segment of informal workers in India, many of whom possess skills that have not been formally recognised. RPL interventions are critical in this scenario, as holding a formal certification can improve an individual's bargaining power. Some analysis reveals that the monthly incomes of RPL-certified individuals were on average 19% higher than those who had not been RPL-certified. An average increase of 25% in income after certification was reported.

Another market failure in skill development is externalities. When a firm spends resources on developing the skills of an employee, he or she can quit and join another firm, thus benefiting the latter firm and not the firm that incurred the training cost. Government intervention is necessary where there are such market failures. Workers are incentivised to invest in their general skill training through apprenticeships or self-paid training, as they can benefit from higher salaries when they switch jobs. As such, firms may be willing to spend on developing specific skills of employees. There are various skill development models, including government-funded programs that fully or partially subsidize training/apprenticeships, market-

led, market-led, and industry-led/on-the-job training.

Collaboration with industry is fundamental to ensure the relevance and quality of skills training and for building the institutional structures required to achieve the desired outcomes. Sector Skill Councils (SSCs) were incubated by the National Skill Development Corporation (NSDC) to foster industry connections and develop an industry-relevant course and curriculum.

Secondly, there should be encouragement for international mobility. India is committed to becoming the "skill capital" of the world, and the India International Skill Centre (IISC) programme is evidence of this. A new, market-driven IISC network has been proposed to counsel and guide potential emigrants, focusing on skills tests, up-skilling, language, and pre-departure orientation. Furthermore, the governments of India and Japan are cooperating to implement Japan's Technical Intern Training Programme (TITP), an on-the-job training scheme providing three to five years of internship opportunities for foreign nationals in Japan, with NSDC as the implementing organisation.

Technical collaborations have been undertaken with countries such as the UK, Australia, and the UAE for benchmarking and mutual recognition of standards. Government-to-government and B2B partnerships are also being developed for new markets such as those in Western Europe, Canada, Australia, and East Asia to increase the mobility of blue and white-collar Indian workers. Thirdly,

improving women's participation in the labour force is a significant challenge in India. Out of the country's total labour force of 395.2 million, only 91.6 million are women. To address this issue, skilling initiatives can be implemented along with a wider push towards gender sensitisation, creating economic opportunities, and providing social support.

We can use residential facilities for women trainees and embed mentoring and coaching in skills programs to improve their participation. Local workshops can also be organised to provide social support. To make employment more attractive to women, they can be prepared for forms of work such as the gig economy, which has more flexible work models. This is especially relevant because 229.2 million women out of the 301.5 million who are not in the labour force report their status as "attending domestic duties."

Fortunately, our progress in creating access to skill development for women in the beauty-wellness and health sectors has been positive. More than 60% of the candidates trained under PMKVY are women. Several training providers focus exclusively on women and promote skill training in towns and rural areas. Partnerships with industries to support women-centric projects in non-traditional trades have also been explored. Engaging with research organisations, academic institutions, think tanks, and multilateral institutions that focus on education, skills, and labour markets is critical to building new initiatives, collaborations, and institutional knowledge and capability.



# Let's build the law into AI

**The emergence of AI poses a significant challenge to the legal system, say Daniel Gervais and John Nay**

Only "persons" can engage with the legal system – for example, by signing contracts or filing lawsuits. There are two main categories of persons: humans, termed "natural persons," and creations of the law, termed "artificial persons." These include corporations, non-profit organizations and limited liability companies (LLCs).

Up to now, artificial persons have served the purpose of helping humans achieve certain goals. For example, people can pool assets in a corporation and limit their liability vis-à-vis customers or other persons who interact with the corporation. But a new type of artificial person is poised to enter the scene – artificial intelligence systems, and they won't necessarily serve human interests.

As scholars who study AI and law we believe that this moment presents a significant challenge to the legal system: how to regulate AI within existing legal frameworks to reduce undesirable behaviours, and how to assign legal responsibility for autonomous actions of AIs.

One solution is teaching AIs to be law-abiding entities.

This is far from a philosophical question. The laws governing LLCs in several U.S. states do not require that humans oversee the operations of an LLC. In fact, in some states it is possible to have an LLC with no human owner, or "member" – for example, in cases where all of the partners have died. Though legislators probably weren't thinking of AI when they crafted the LLC laws, the possibility for zero-member LLCs opens the door to creating LLCs operated by AIs.

Many functions inside small and large companies have already been delegated to AI in part, including financial operations, human resources and network management, to name just three. AIs can now perform many tasks as well as humans do. For example, AIs can read medical X-rays and do other medical tasks, and carry out tasks that require legal reasoning. This process is likely to accelerate due to innovation and economic interests.



Humans have occasionally included nonhuman entities like animals, lakes and rivers, as well as corporations, as legal subjects. Though in some cases these entities can be held liable for their actions, the law only allows humans to fully participate in the legal system.

One major barrier to full access to the legal system by nonhuman entities has been the role of language as a uniquely human invention and a vital element in the legal system. Language enables humans to understand norms and institutions that constitute the legal framework. But humans are no longer the only entities using human language.

The recent development of AI's ability to understand human language unlocks its potential to interact with the legal system. AI has demonstrated proficiency in various legal tasks, such as tax law advice, lobbying, contract drafting and legal reasoning.

An LLC established in a jurisdiction that allows it to operate without human members could trade in digital currencies settled on blockchains, allowing the AI running the LLC to operate autonomously and in a decentralized manner that makes it challenging to regulate. Under a legal principle known as the internal affairs doctrine, even if only one U.S. state allowed AI-operated LLCs, that entity could operate nationwide – and possibly worldwide. This is because courts look to the law of the state of incorporation for rules governing the internal affairs of a corporate entity. We believe the best path forward, therefore, is aligning AI with existing laws, instead of creating a separate set of rules for AI. Additional law can be layered on top for artificial agents, but AI should be subject to at least all the laws a human is subject to.

We suggest a research direction of integrating law into AI agents to help ensure adherence to legal standards. Researchers could train AI systems to learn methods for internalizing the spirit of the law. The training

would use data generated by legal processes and tools of law, including methods of lawmaking, statutory interpretation, contract drafting, applications of legal standards and legal reasoning.

In addition to embedding law into AI agents, researchers can develop AI compliance agents – AIs designed to help an organization automatically follow the law. These specialized AI systems would provide third-party legal guardrails.

Researchers can develop better AI legal compliance by fine-tuning large language models with supervised learning on labeled legal task completions. Another approach is reinforcement learning, which uses feedback to tell an AI if it's doing a good or bad job – in this case, attorneys interacting with language models. And legal experts could design prompting schemes – ways of interacting with a language model – to elicit better responses from language models that are more consistent with legal standards.

If an LLC were operated by an AI, it would have to obey the law like any other LLC, and courts could order it to pay damages, or stop doing something by issuing an injunction. An AI tasked with operating the LLC and, among other things, maintaining proper business insurance would have an incentive to understand applicable laws and comply. Having minimum business liability insurance policies is a standard requirement that most businesses impose on one another to engage in commercial relationships.

The incentives to establish AI-operated LLCs are there. Fortunately, we believe it is possible and desirable to do the work to embed the law – what has until now been human law – into AI, and AI-powered automated compliance guardrails.

(The writers are, respectively, Professor of Law, Vanderbilt University and Fellow at Codex – Stanford Center for Legal Informatics, Stanford University. This article was published on [www.theconversation.com](http://www.theconversation.com))



# Why a beeline to overseas universities?

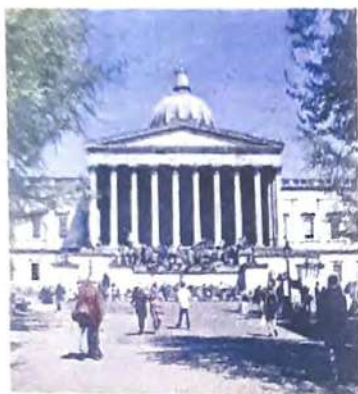


PRABHA GUPTA

Over the years, there has been a substantial increase in the number of Indian students opting to go abroad for higher studies

Students in large numbers are fascinated by the idea of going to a university outside their home country. Students who get into a good institution in India get best education at home itself. But not all are so lucky. Due to the surreal cutoff in the high-ranking universities, many deserving candidates are left out. To them studying abroad is the only option available even though it drills a hole in their pocket. Indeed, graduating from a reputed university in the West opens up many career options but it also comes with its own set of challenges and costs.

Better academic opportunities, career prospects and availability of financial aid and scholarships are driving students to go abroad for higher studies. As per information available from the Ministry, there were approximately 1.5 million Indian students pursuing education abroad as of January 2023. There are several factors behind this exponential surge. Studying abroad or in a home country has its pros and cons. Studying in my home country is much cheaper. Besides, one could save costs on



accommodation, travel, food etc. But the downside is that staying with family gives a comfort that hardly encourages you to become independent. The students who go abroad to study are indeed more confident and independent. When students study overseas they also work part-time to support their living. This helps in boosting their confidence and hones up interpersonal skills. Of course, an international degree along with work experience will have a significant impact on the career graph. The institutions abroad offer better programmes, facilities and resources. Students are taking advantage of the latest technology, research opportunities and top-notch faculty. This opens up a broader range of subjects,

and fields to choose from. Employers often prefer to hire those candidates who have completed their education at prestigious institutions abroad.

With more and more Indian students coming out of school every year, there aren't enough quality colleges and universities to accommodate them. Attractive post-study work rights in many countries, easy availability of education loans, and scholarship options are some of the other reasons why more Indians are going abroad to study. Many countries are keen to welcome international students and are working tenaciously to clear the visa backlog.

The availability of scholarships and financial aid has made studying abroad more doable. Since many universities offer financial assistance to international students, it can significantly reduce the cost of tuition and living expenses.

Most Indian students prefer studying in English-speaking countries, such as the US, UK, Australia and Canada. The US and UK, for instance, had record-breaking visa issuance for Indian students

in 2022-23. The reason for these countries' popularity is the demand for top-notch universities, specialised courses and better post-study work rights. However, many non-English speaking countries like France have also stepped up their efforts to invite more Indian students to their universities by giving them advantages that are lucrative and cost-effective. France for instance is at the forefront of such countries. Emmanuel Lebrun-Damiens, Country Director of the French Institute in India, says, "Apart from the fact that France and India have an agreement for the Mutual Recognition of Academic Qualifications, which eases admissions in each other's institutions, President Macron has also announced an ambitious goal of welcoming 30,000 Indian students to France by 2030." So, with many foreign universities targeting Indian students and promising job search and finance facilities, it is no wonder the students are looking West for higher education.

*(The author is a development writer and a social worker; views are personal)*



# The IITs are overcommitted, in crisis

**T**he Indian Institutes of Technology (IIT) are globally recognised as the crown jewels in India's higher education system. Indeed, they are often the only Indian higher education institutions known internationally at all. They have produced leaders in high tech and related fields in India and abroad. The IITs may be the most difficult higher education institutions to gain entry in the world – with more than a million students appearing for the entrance examination each year and competing for 17,385 places in the 23 IITs. Yet, the IIT system is in serious trouble at the same time that some of them are building campuses abroad as part of India's soft power efforts. It is worth taking a careful look at current realities to understand a looming crisis.



**Philip G. Altbach**

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## Foreign adventures

A branch campus of IIT-Madras has just opened in Zanzibar and IIT Delhi will be launching programmes from its Abu Dhabi campus in 2024. The tiny first entering class of 70 students has been accepted. How many of the faculty are from the Chennai campus – and will they stay in Zanzibar (frequently a problem for branch campuses of western universities)? The admission standards are not like those at home. Admission is based on the IIT Madras Zanzibar Selection Test (IITMZST) 2023 screening test followed by an interview. Some of the screening test centres offered to potential applicants were located not only in Tanzania but also in Ethiopia, Nigeria, Kenya, Uganda and the United Arab Emirates (which has a strong presence of the Indian diaspora).

Initially the Zanzibar campus is offering only two programmes: a Bachelor's Degree (BS) in Data Science and Artificial Intelligence and M. Tech in Data Science and Artificial Intelligence. They are open to students from across the globe. The annual tuition fee is \$12,000 for the BS

programme and \$4,000 for the M.Tech programme and as noted, only 70 students have signed up. Reports say that the rules and regulations of the IITM Zanzibar campus will be based on the existing norms of IIT Madras.

Apparently, the campus is under renovation. Are there appropriate laboratories, access to IT, and related amenities? In other words, has IIT-Madras jumped into the international arena too soon – or should it be jumping at all? What are its motivations for this adventure? What is the purpose of this enterprise – to earn funds for the home campus? To expand India's soft power? And quite important – who is investing the significant sums required to start up a branch campus? And, of course, this, and other Indian overseas efforts, must be of high quality.

## Overexpansion at home

The first IIT was established in 1950 at Kharagpur in West Bengal, with four more following in a decade. Most of these partnered with top foreign technological universities in the United States, the Soviet Union, the United Kingdom and Germany to get started, and they quickly achieved both excellence and top reputations. They hired Indians trained at the best foreign universities who were eager to contribute to national development. But these were small institutions – the total student enrolment was about 20,000 in the original six IITs.

After 2015, the government expanded the IIT system, adding seven institutions in the following decade, most located away from major metropolitan centres. These new IITs have struggled to meet the high standards of the traditional institutes. Some were created by upgrading existing institutions such as the Indian School of Mines Dhanbad, while others were "greenfield" start-ups. Top professors are often unwilling to work in isolated places, and the best students are also hesitant to enroll. In 2021-22,

361 undergraduate, 3,083 postgraduate and 1,852 PhD seats were empty in the new IITs. There should not be several tiers of IITs, with varying standards and levels of prestige.

But the system is doing something right – enrolment in all the 23 IITs has expanded to more than 1,20,000, with 25,237 students graduating in 2022-23, a clear indicator of more access and opportunity.

## Faculty challenges, future prospects

At the heart of any academic institution are the professors. Attracting the best and the brightest is increasingly difficult. Salaries are dramatically below international standards. Foreign trained Indians are generally reluctant to return to uncompetitive salaries, often inferior work environments, and more academic bureaucracy (even though the IITs are less constrained than the rest of the academic system). Top Indian talent is increasingly attracted to the burgeoning IT sector, emerging biotech, and related fields – and not to academe – both within India and abroad.

There is now a severe shortage of academics in the IIT system. In 2021, out of the 10,881 of the sanctioned posts 4,370 were vacant.

It would not be an exaggeration to say that the IITs are in crisis. Building quality in the new IITs is a significant challenge, and in the long run if this is not done, the prestige of the entire system will suffer. Maintaining faculty quality and attracting young professors committed to the IIT idea and to India's development are both serious tasks. Expanding the system domestically may not have been a wise idea – and building overseas branch campuses is highly problematical. One might question if overseas expansion is a good idea under any circumstances, but in the context of the domestic challenges facing the system, such expansion seems particularly ill-considered. *WJS*

The IIT system is in serious trouble at the same time that some of the IITs are building campuses abroad as part of India's soft power efforts

## IN PERSPECTIVE

# Needed: A mentor for schools

Karnataka needs an authority to address the needs and challenges of school education

H A RANGANATH

**A** child without education is like a bird without wings," goes a Tibetan proverb. The wings start developing at home and then expand in schools. Schools are the places where children are exposed to the outside world for the first time. They are like 'incubation centres' that prepare them for the future. The 'Right to Education' policy sends a clear message that school education is not a luxury but a necessity for a healthy society and for each individual. The proposed 'Council for School Education' has to evolve strategies to address the following issues, for effective implementation of this policy.

The National Education Policy (NEP) 2020 has categorised the children of age group 3 to 18 years into four groups with a 5+3+3+4 structure, based on the research findings on the learning abilities of children. This covers the stages from anganwadi/pre-school to secondary education of twelfth grade. The recently published National Curriculum Framework (NCF) for School Education 2023 outlines the educational framework and guidelines for school education in India. NCF 2023 contains updated approaches to teaching and learning, subject-wise curricular guidelines, cross-cutting themes, and strategies to promote holistic development and quality education. The schools are expected to adopt the guidelines of NCF. The Ministry of Education (Ed Monitor, October 18, 2023) has plans to create a 'One Nation, One Student ID' called 'Automated Permanent Academic Account Registry' (APAAR) for every student from pre-primary to higher education, starting from next year. The scheme aims to provide a centralised system for tracking academic performance and achievements. Some states and Union Territories have already initiated steps to implement it.

Students/parents have a wide choice of diverse institutions to start their school journey, which are governed by different boards. For example, SSLC and PUC Karnataka, CBCS Delhi, ICSE Delhi, International General Certificate of Secondary Education (IGCSE, exams by University of Cambridge, UK), International Baccalaureate (IB, Switzerland), National Institute of Open Schooling (NIOS) Delhi, etc. These boards have different visions and philosophies on school education, which are reflected in their curriculum as well as pedagogy.

School education is a huge sector that involves a large number of schools and students. According to an edu-

cation ministry report, the enrolment of students in Karnataka's government schools reached 54,45,989 in 2021-2022, up from 50,31,606 in the previous year. The overall enrolment, from pre-primary classes to Class 12 in both government and private schools, was 1.2 crore, up from 1.1 crore in 2020-21.

Students who complete their education from different types of schools may have different levels of competence, abilities and potential. After finishing Class 12, they have to pursue higher education. To get admission to the higher education programme of their choice, students have to clear national-level entrance tests relevant to their career. Some of these tests are JEE Main, JEE Advanced, BITSAT, VITEEE, NEET, CLAT, AILET, LSAT, NDA and NA, Indian Army TES, IMU CET, ICAR AIEEA, NIFT, AIEED, NID DAT, UCEED, etc. Apart from these, there are also state-level tests like CET, and exams of private universities. The success of a student depends on the quality of training they receive at school.

The competition for admission is intense, and there is a perception that schools are not able to prepare students for competitive national examinations. As a result, a parallel profession of unregulated 'tuition houses' has emerged. The teaching and learning that should take place exclusively in schools is gradually taken over by a 'tuition prominent phase' that leads to privatisation and commercialisation of education at all levels. A strategy is required to overcome this exploitation.

The above picture gives a brief overview of the vastness, complexity, challenges and heterogeneity of school education in Karnataka. If one looks at the national level, the domain of 'School Education' is huge and complex, and it overtakes the overall size of all types of higher education put together. The biggest challenge is to provide a satisfactory academic ambience — with well-trained and adequate number of teachers; infrastructural ambience — with supporting material for teaching and learning, and physical ambience — with classrooms and space for extra-curricular activities, in all schools.

To address the requirements and challenges of school education and to do justice to the aspirations of students and parents, the system needs overarching bodies. Similar bodies have already been conceived for higher education. The author suggests the creation of 'Karnataka State Council for School Education' and 'National Commission for School Education' at the national level. These bodies would have the responsibility of mentoring schools to equip children to succeed in higher education.

(The writer is former director of NAAC and former VC of Bangalore University)

04/6/6



# An apparent cyberattack hushes the British Library

Libraries across Europe appear to be facing attacks from cybercriminals. At Britain's national library, an 'incident' is sending scholars back to an analogue age

ALEX MARSHALL

**T**he British Library in London is normally a place of quiet study, its reading rooms filled with authors, academics and students often surrounded by piles of books from the library's collection of about 170 million items.

Now, it's been shut almost entirely. On November 28, the library was hit by what it is calling a "cyber incident." Ever since, its website has been down and scholars have been unable to access its online catalogue.

The library's Wi-Fi has also stopped working, and staff members haven't been allowed to turn on their computers. Its gift shop is open for business, but only for anyone with cash to buy trinkets such as British Library-branded pencils.

Library users, many of whom include writers with pressing deadlines, are beginning to be affected.

In interviews last week, seven regular users of the library — including the author of a forthcoming book on classical music, a University of Cambridge lecturer, two postgraduate students and a Shakespearean scholar — said that the library had essentially gone back to a predigital age.

Now, according to a staff member in the library's "rare books and music" reading room, ordering a book involves looking up its catalogue number in one of several hundred hardback books or an external website, writing that number onto a slip of paper and then handing it to a librarian who, in turn, would check their records to see whether the book was available. Books are only available if they are stored at the main library location.

Any incident at the British Library tends to be high-profile news in Britain. Its collection includes artifacts such as two copies of the *Magna Carta*, one of King Henry VIII's personal Bibles, five copies of Shakespeare's *First Folio* and some of the Beatles' handwritten lyrics.

Yet the British Library has issued only brief comments about the episode on X, the social media platform formerly known as Twitter. On Tuesday, October 31, it posted a statement saying that the library was "experiencing a major technology outage as a result of a cyber incident. This is affecting our website, online systems and services, and some on-site services including public Wi-Fi."

The statement added that the library's



The British Library in London has a collection of about 170 million items. The library was hit by what it is calling a "cyber incident," and ever since, its website has been down, scholars have been unable to access its online catalogue, its Wi-Fi has stopped working, and staff members haven't been allowed to turn on their computers. THE NEW YORK TIMES

staff was investigating the incident along with Britain's National Cyber Security Centre. On Friday, a library spokesperson said in an email that she could not provide further comment. She did not respond to questions on whether an attack had actually occurred.

Jessica Boyall, 29, who was in the library on Thursday, November 2 to research a doctoral study, said that she had speculated with fellow users about what might have caused the shutdown. "Nothing like this ever happens here," she said, adding, "Everyone's got rumours."

In the meantime, she had changed her work plan for the week. "I'm trying to do the bits that don't require any books," she said.

Even with the dearth of information, other libraries in Europe were assuming that the British Library had been the victim of a deliberate attack. A spokesperson for the National Library of Scotland said in an email that "following the attack on the British Library," it was strengthening

the "ongoing monitoring and protection of our services and collections."

This would not be the first time a library has faced a cyber incident. This year, cybercriminals targeted Germany's National Library, although its director general, Frank Scholze, said in a telephone interview on Friday that his staff had been able to "fend it off."

"Libraries have not really been targets before — we're a little bit under the radar," Scholze said. "But this seems to be changing."

Tasmina Islam, a lecturer in cybersecurity education at King's College London said in an email that the motivation for attacking a library could be financial.

"Cybercriminals can access a lot of information from a library, including users' personal data," she said.

Libraries also "store electronic books, research articles and various intellectual properties, all of which cybercriminals can exploit for illegal distribution," Islam added.

The British Library incident "served as a warning for other libraries and institutions to assess their own security measures thoroughly," she said.

At the library this week, one staff member described the event as "a nightmare" and said that employees were bemused as to what had happened and why.

Not all library users seemed bothered by the interruption.

Eric Langley, a Shakespeare scholar at University College London, said he had found the blackout "peculiarly liberating." On a typical visit, he said, he would spend the day with centuries-old English books from the library's collections, while looking at others on his laptop.

This week, he said, that had been impossible, so he'd just been reading the bard's work.

"It's just me and Shakespeare for a few days," he said, with a blissful smile. Although, he added, "if it carried on much longer, I'd be in trouble."

The New York Times

04/6/7



# NEP 2020 and KK Handiqui Library, GU

■ Dr Prasanta Kumar Deka

**W**ith the Union Cabinet passing the National Education Policy 2020 (NEP) on July 29, 2020, the entire country has been making efforts for a proper execution of the new education system within the core of its educational institutions. In this journey, Gauhati University under the initiative of its Vice-Chancellor, Prof Pratap Jyoti Handique, has begun its expedition for proper implementation of the NEP 2020. For the appropriate functioning of any educational policy, initiation of the prospectus or the course outline acts as the skeleton or the backbone. It is the library which plays a major role in the proper accomplishment of any educational policy.

With the NEP 2020 laying primary focus on quality education, an access to quality resources becomes one of the most fundamental prerequisites. The library being an inalienable part of an academic institution, ensures accessibility to quality-oriented resources. Besides, in view of the fact that the NEP 2020 itself lays ample stress on the role of libraries and books within its framework, for proper implementation of the policy in the overall educational sce-

nario and in the long run, the accountability of the library holds a strong foothold.

Every possible measure has been assured by the VC for strengthening the Krishna Kanta Handiqui (KKH) Library, GU for the accomplishment of NEP 2020 inside its educational get-up. Amongst the different aspects or pillars reinforcing the library, the significance of resources like books, journals, periodicals, manuscripts, higher research materials, ICT and digital infrastructure and a proper reading atmosphere is indispensable. Amongst the various provisions under NEP 2020, multidisciplinary and holistic education, digital empowerment and online education, higher research and innovation, promotion of Indian languages and Indian knowledge system besides ample prominence to vocational education, skill development, inclusive education are some of the major thrust areas. In addition to more than two lakh books already available in the KKH Library, all possible measures are being taken for acquisition of books on NEP 2020-mandated multiple-based courses. In fact, appropriate infrastructure is being shaped with separate sections for the four-year undergraduate courses (GU-FYUGP) that have

been initiated from the academic session 2023-24. Keeping in mind the dawn of the new era in the digital line, and the technological platform much emphasised under NEP 2020 for reinforcement of academic pursuit, the KKH Library has espoused a proper ICT-based medium, right from the automated entry-exit system that keeps record of footfalls to the library to the execution of e-forms with QR codes that promote self log-in and log-out of the library. The library also encourages a digital online search system enabled via an online public access catalogue (OPAC). In addition to these, the library is also well equipped with a full-fledged internet lab with about 150 computers and is also operational with a 24-hour Wi-Fi-enabled atmosphere with proper power backup facilities enabled by solar plant and online UPS.

The importance of e-resources in the academic scenario of the present times is a fact that needs no explanation. It must be mentioned herein that Gauhati University is spending huge sums of money on the purchase of e-resources including e-journals/ database and e-books as well. Apart from having an access to the e-journals and e-resources provided by the e-ShodhSindhu consortium facilitated by the INFLIBNET, recently a considerable number of journals cov-

ering multiple disciplines like science, humanities and social sciences, commerce, law, medicine, business administration, etc., were procured. Within the cover of such conglomeration are the noted journals and databases like Scopus, Science Direct (Elsevier), Manupatra, Oxford journals and others covering multiple disciplines. An initiative has also been taken for procuring other such journals as the Scyfynder, IEEE, etc. The impact of these journals on higher education and research – the driving force behind NEP 2020, is immense and profound. It must also be mentioned that possible measures have been taken to provide access to these significant e-journals and e-books off the library campus as well. Through remote login (EZ Proxy) functioning 24x7, users can access these journals from their residences as well.

Welcoming the initiative of the Ministry of Higher Education, Govt of India opting for transparency and quality research, the KKH Library under the aegis of Shodhganga, INFLIBNET, has been engaged with digitisation of PhD theses and dissertations as well as cross-examination of the research output through proper plagiarism scrutiny for a long time now. The transparency of research content thus provided is playing a significant role in

promoting the spirit of principled research and innovation amongst aspirant scholars and students who can access these quality materials by browsing any search engine.

Aligning well with the proviso for ancient and traditional Indian knowledge system and promotion of Indian languages, the KKH Library takes pride in the fact that it has collections of manuscripts and archives as well as the KK Handiqui Section which has preserved a lot of material for study in this direction. A great initiative is being taken to ensure the proper conservation, digitisation as well as dissemination of the valuable resources under these sections amongst aspirant scholars.

Going by the first law of library science propounded by Dr SR Ranganathan which states that "books are for use", utmost effort is being made to ensure the best use of the library resources by readers by encouraging a healthy and clean reading atmosphere with newly developed green parks and with latest technological set-up. Guided primarily by the aphorism of NEP 2020 which considers education fundamental for national development, the KKH Library is all set to disseminate quality education by developing a reader-friendly environment based on the concept of 'library unrestricted by physical boundaries'.



## IN PERSPECTIVE

# State must chart its own course

Karnataka should leverage the deficiencies of NEP 2020 while formulating its own education policy

**SNEHA PRIYA YANAPPA**

**I**n the federal structure of India, has the Government of Karnataka (GoK) re-asserted its status by withdrawing its support for the Centre-idealised National Education Policy 2020 (NEP) and by laying the foundation for its own State Education Policy? Of particular interest is the statement issued by the Chief Minister's Office (CMO) while criticising the NEP: "A uniform education system cannot be established in a country like India with a multicultural and pluralistic society."

The GoK should adhere to this perspective when establishing the Committee for drafting Karnataka's State Education Policy. The committee should reflect Karnataka's own multicultural and pluralistic values. A diverse committee, with the expertise to cater to the pluralistic and diverse needs of students, can formulate an education policy that is equitable, inclusive, child-centred, and pragmatic. Additionally, the GoK should leverage the deficiencies in the NEP to further reinforce the rights enshrined in the Right of Children to Free and Compulsory Education Act (RTE Act).

While the RTE Act does not extend free and compulsory education to Early Childhood Education (ECE), it is crucial to focus on it as it plays a pivotal role in unlocking the rich brain development potential of children, providing a vital foundation for lifelong learning, growth, and development. Offering ECE is a means to promote equity and social justice, inclusive economic growth, and sustainable development. In India, major challenges facing ECE include the lack of regulation, uniformity, and formalisation. The Gujarat HC has recently held that parents forcing children aged below three years to attend preschools are committing an illegal act. While underscoring the critical need for proper care and stimulation during the early years of a child, the HC highlighted the lack of quality ECE for millions of young children, particularly those from disadvantaged backgrounds. It is astonishing that a high court had to interpret the RTE Act, which barely mentions ECE, to determine the 'legal' age of admission to ECE. Such concerns arise due to the lack of a clear legal framework for formalising and regulating ECE in states.

Through its State Education Policy, Karnataka can formalise and regulate ECE, providing definitive implementation guidelines. It should stress

the need for substantial state investment in ECE, utilising the existing Anganwadi infrastructure, and offering teacher training and support to Anganwadi staff for effective educational delivery. The Anganwadi system primarily focuses on caregiving rather than education, and strengthening it can ensure all young children access quality ECE, aligning with the goal of universalizing ECE. In contrast, the NEP emphasises ECE but lacks clear guidelines to make it free and compulsory for all, especially disadvantaged children. Karnataka can align its education policy with budgetary allocations to achieve this universalization target.

The NEP 2020 aims to create a stress-free environment for students taking board exams, proposing the option of an improvement exam. Karnataka's existing system of one exam and one supplementary exam has imposed significant stress on students, who see it as a do-or-die situation. In Karnataka, if a student passes class 12 but is not satisfied with the marks obtained, he or she can choose to retake the exam. However, the marks from the supplementary exam are considered final, disregarding the previous scores, making this decision risky. While the NEP and National Curriculum Framework suggest a best-of-two board exam option, Karnataka has taken a more progressive step by introducing a three-board examination system for students in classes 10 and 12 starting from the academic year 2023-2024. This educational reform aims to reduce stress and cater to different learning paces and styles. Under this system, students have three opportunities to improve their scores, with the best score from the three exams considered for the final marks card. This approach departs from the NEP's and the National Curriculum Framework's two-board examination systems.

Karnataka's decision to withdraw support for the NEP 2020 and develop its State Education Policy underscores the state's commitment to creating a progressive education policy that addresses the unique needs of its diverse student population. Additionally, the state can lead the way in formalising and regulating ECE, filling a critical gap in India's education landscape. In order to distinguish itself from the NEP 2020, the GoK must ensure that the drafting process itself is consultative and participatory in nature by providing ample space for the citizenry to give their two cents on the various aspects of the policy. Finally, Karnataka's innovative three-board examination system reflects its dedication to providing a less stressful, student-centric approach to assessments, setting a precedent for education reform in the country.

(The writer is a senior resident fellow at the Vidhi Centre for Legal Policy)

SNY/C



# The Canadian dream is not waning

**T**he geopolitical environment and international relations are critical in choosing international study destinations. Disruptions in the diplomatic relationship between two countries impinge on the free flow of natural persons. Thus, the deepening tension between India and Canada casts a dark shadow on the prospects of students.

Canada is home to about 1.3 million Indians who account for 4% of the country's population (Canadian Census, 2021). Indian immigration peaked in the 2016-2021 period. Indians who have become permanent residents in Canada increased from 32,828 in 2013 to 1,18,095 in 2022. A good proportion of Indians in Canada are on student visas.

## A sought-after destination

Canada has thus emerged as one of the most sought-after destinations for Indians who wish to study abroad. The number of Indian students in Canada has sharply risen in recent years. In 2009, it was 31,665; this rose to 1,71,505 by 2018. And by December 2022, nearly 3,20,000 Indians were in Canada on active study permits, accounting for about 40% of the international students in that country.

In September, following a severe strain in ties between the two countries, India updated its advisory urging its citizens residing or planning to travel to Canada to exercise utmost caution. Young Indians pursuing higher education in Canada are bound to suffer extreme anxiety on hearing such warnings. The situation is particularly vexatious for those who have just secured admissions to Canadian higher educational institutions. Canadian colleges and universities have, however, been reassuring students that they are as safe and welcomed as before.

Indian students, especially those pursuing master's and research degree programmes, prefer destinations that promise



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But those who wish to go to Canada are now compelled to negotiate clouds of uncertainty in order to chase their dreams

fee waivers and offer scholarships and stipends. Besides paying fees, international students contribute towards the host countries. In 2020, international students contributed over 22.3 billion CAD to the Canadian economy and supported more than 2,18,000 jobs. This is one of the main reasons why most countries want to attract international students. Canada is no exception.

The decision to study in Canada has other dimensions as well. Students see it a potent route to settle abroad for better career and income opportunities. A survey by the Canadian Bureau for International Education in 2021 revealed that only 7.4% of international students in Canada intended to return to their home countries, while 72.6% intended to remain in Canada after completing their studies and the remaining 20% were not sure if they wanted to stay or return home. The pathway to Canadian citizenship is known to be cheaper and faster in comparison to other Western countries. Thus it is the prospects that lure people to the 'Great White North'. Canada's Express Entry Program and Provincial Nominee Program might not work for all those wishing to relocate to Canada. However, entry via a study visa has emerged as an accessible and promising route to reach the dreamland. That is the impression that emigration agents and consultants send out to their prospective clients.

## Not always lucrative

However, the study route to settling in Canada is not always lucrative. A recent report by Senators Ratna Omidvar, Hassan Yussuff, and Yuen Pau Woo points out that since 2000, only 30% of international students have been able to get permanent residence within a decade of their arrival. The report asserts that studying in Canada may brighten and enhance career and income prospects, but it does not guarantee a seamless transition from being an international student to becoming

an immigrant.

Anecdotal evidence indicates that international students find it increasingly difficult to get jobs. Social media sites have been showing long queues of Indian students looking for part-time jobs, suggesting a moderate to severe job crises for Indian students. There are also indications that prospective students are already looking for alternatives to Canada.

## Housing crisis

Within Canada, many believe that the continuous influx of emigrants and international students has been exerting pressure on the housing sector, leading to skyrocketing rental prices. The price and rentals of the single-family accommodations are particularly stressed. The Canada Mortgage and Housing Corporation believes that the nation must build 5.8 million new homes by 2030 to restore affordability. Housing shortages have occasionally triggered demands for restricting university admissions by making the process more competitive. The government has not ruled out the possibility. In fact, it may consider this as a viable option to ease housing rentals.

Yet, the charm of Canada for international students is not waning yet. The averages are often deceptive. People perceive reality based on their interactions with friends and relatives who went to Canada to study. First-hand knowledge usually gets more credence than data and statistics. All students yearn for quality higher education, which many find difficult to get within their own country. Aspiring for better career prospects and income opportunities, they are willing to travel across seven seas.

Indian students are no exception. In some sense, they might be more impassioned. Sadly, those who wish to go to Canada are now compelled to negotiate clouds of uncertainty in order to chase their dreams.



# Meritorious students deserve subsidies



BIJU  
DHARMAPALAN

The centres of excellence in higher learning should be subsidised, if not free, for meritorious students

Everybody talks about reservations for backward communities, but, hardly anyone speaks about reservations for academically meritorious students. Because of this, even our policymakers are not at all concerned with the meritorious students. What does merit hold for a student? Merit allows students to study in an institution of their choice with reduced fees. Traditionally meritorious students get admission to public sector institutions. Whether you are from upper caste or lower caste or high economic background or lower economic background, meritorious students should be given top priority in academics. Merit is a symbol of quality.

Old-time school teachers used to advise students that after qualifying 10th standard (SSLC) one should be self-sufficient in meeting the expenses of his or her studies. So students used to work hard to get admission to prestigious government institutions. Getting admission to a government college or university was considered a symbol of quality, as only merit prevails in these



centres, whereas in private institutions with money, you can buy a seat. The society also gives high priority to people studying in merit seats, especially in fields related to the medical profession. Even while visiting a medical professional patients give high respect and confidence to doctors studied in government institutions. Since doctors who study in private institutions spend lakhs of rupees their ultimate objective would be to make money to compensate for the huge amount spent for their studies. Old-time students used to vie for the National Merit Scholarship and University Merit Scholarship, which is provided solely based on merit. Labelling as a meritorious fellow is like getting a Nobel Prize for a student even if he is from the economically upper strata of

society.

The starting of deemed-to-be universities and autonomous institutions like IIT have destroyed the social fabric of education. Even though clearing the IIT-JEE is the most challenging task in the life of a student, studying in IITs is the most expensive education in the country. After clearing such a tough examination, a student is expected to get a subsidised education. Contrary to this an IIT student has to spend lakhs of rupees to complete an undergraduate study. If we go through the socio-economic background of students studying at IITs we can easily find that most of them are from economically well-off families.

This is the reason most students aspire to central institutions like JNU where education is highly subsidised. It's the prize they get for their dedicated learning and hard work. Even today alumni from JNU are held in high esteem. That is the place where students enjoy total academic freedom. Only if there is freedom students will enjoy learning and only if they enjoy learning, creativity

evolve and only if creativity evolves the country will develop. The centres of excellence in higher learning should be made free to meritorious students and it should be kept exclusively for them. During early times we had fewer higher education centres, so only the best would get admission to these centres.

There is an organised effort by vested interests across the country to destroy good institutions in the government sector. Even UGC is promoting granting autonomy to every college. Once a college becomes autonomous it comes out with its fee structures, which are not accessible to everyone. Ultimately students from the middle and lower middle class will move from higher education to paths that provide easy employment. If there is no value for the marks obtained by the students for their qualifying examination, parents and students will be forced to retract from higher education.

(The writer is a science communicator and an adjunct faculty at the National Institute of Advanced Studies, Bengaluru, views are personal)



# India Works, Look At The Numbers

IMF executive director argues employment, in quantity & quality, has kept pace with growth. Those claiming otherwise are reading the wrong data or reading the data wrong

Krishnamurthy Subramanian



The employment situation in India has attracted sharp debate and incorrect narratives using the private data generated by the Centre for Monitoring Indian Economy (CMIE). The National Sample Survey Organisation (NSSO)'s Periodic Labour Force Survey (PLFS) data employs a robust methodology and is reliable. So, we use the PLFS data to document the correct facts on employment in India.

First, unlike inferences from the unreliable CMIE data, the employment situation improved consistently – both in quantity and quality – before the Covid-19 pandemic. From 2017-18 to 2019-20, regular wage/salaried employees increased by 1.5 crore, a growth of 13.2%; the increase among females was 0.72 crore or 29.4% and that for males 0.79 crore or 8.8%. Further, formal employment increased by 1.2 crore or 25.3%.

The quantity of employment improved pre-pandemic as well. From 2017-18 to 2019-20, the unemployment rate (UR) in usual status, which captures long-term unemployment, decreased from 6.0% to 4.8%, the Labour Force Participation Rate (LFPR) increased from 49.8% to 53.5%, and the worker-population ratio (WPR) increased from 46.8% to 50.9%. These changes were widely dispersed – in rural and urban areas, and for males and females.

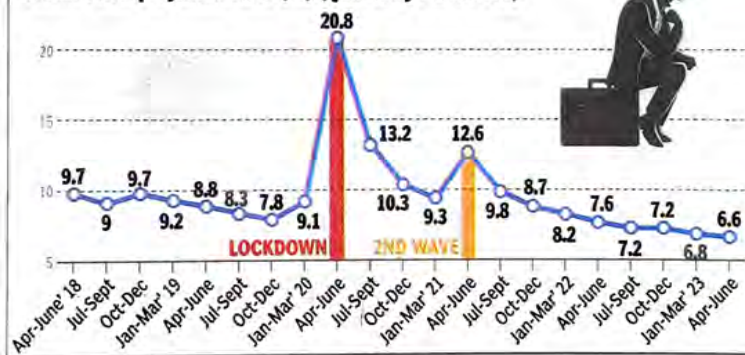
Second, as the accompanying figure shows, post-Covid, urban employment registered a robust V-shaped recovery after the adverse impacts during the lockdown and the second wave of the pandemic. Compared to the October-December 2019 quarter, in the April-June 2023 quarter, WPR increased from 44.1% to 45.5%, LFPR from 47.8% to

## MORE JOBS, BETTER JOBS

### Increase In Quantity & Quality Of Employment (Rural + Urban)

Employment Metric	2017-18	2019-20	2022-23
QUALITY OF EMPLOYMENT (IN CRORE)			
Regular Wage/ Salaried Employees	11.5	13	14.3
Formal Employment	4.7	5.9	6.3
QUANTITY OF EMPLOYMENT (IN %)			
Labour Force Participation Rate	49.8	53.5	57.9
Worker-Population Ratio	46.8	50.9	56.0
Unemployment Rate	6.0	4.8	3.2

### Urban Unemployment Rate (%) (Quarterly PLFS Data)



48.8% and UR declined from 7.8% to 6.6%. As urban areas were most affected by the pandemic, the complete recovery in employment in urban areas is crucial. The unemployment rate recorded in the April-June 2023 quarter is the lowest over the last five years.

The annual PLFS data, which covers both rural and urban areas, also shows complete recovery in employment post-pandemic. This pattern of complete recovery in employment is reflected similarly in data from EPFO and MGNREGS.

The monthly EPFO data as well with the net additions in August 2023 being 116% higher than that in December 2019. The demand for work under MGNREGS in December 2022 is half the demand in December 2019. It has further declined in 2023. This shows that the demand for distress work has declined sharply in the rural areas.

As with the pre-pandemic period, this improvement in the quantity of employment is also reflected in the quality of employment. Regular wage/salaried employees increased by 2.8

crore from 11.5 crore in 2017-18 to 14.3 crore in 2022-23. Formal employment increased by 1.6 crore from 4.7 crore in 2017-18 to 6.3 crore in 2022-23. This increase is consistent with formalisation of the workforce, which began before the pandemic, accelerating during the pandemic.

These results clearly show that the dire narratives painted on employment are clearly not backed by carefully constructed empirical evidence. Those who dismiss any positive economic news by contending inaccuracies in the data must note that none of these results stems from the same.

First, the International Labour Organization (ILO) recognises work that is performed in any kind of economic unit comprising market unit, non-market unit, household that produce goods or services for own final use. However, the PLFS survey considers a narrower range of activities as economic activities, thereby excluding many activities performed for processing of primary products for own consumption. Thus, PLFS is likely to overstate unemployment and understate employment when compared to the standard ILO definition. Nevertheless, the changes over time that we document cannot be impacted by such underestimation as the underestimation would manifest at each point in time.

Second, the sharp increase in unemployment during the lockdown and the moderate increase during the second wave of the pandemic clearly show that the PLFS data is accurately capturing the true employment situation in India.

In sum, in contrast to the fact-free fables on employment, the excellent performance of the Indian economy during Covid-19 and beyond is equally reflected in the employment situation as well with both quantity and quality of employment improving significantly.



# Shining a spotlight

*Claudia Goldin's Nobel Prize-winning work in the field of gender economics offers crucial lessons for bringing and sustaining women in the labour force*



HIMANI AGGARWAL

To quote David Autor, "Many think economics is just about money. That's not true. It's about decision-making—how people make decisions and how individual decisions aggregate up to collective outcomes that are often very different from what people are individually seeking." This year's Sveriges Riksbank Prize in Economics, popularly called the Nobel Prize, holds great significance today and for times to come. Claudia Goldin's victory is of profound importance. It signifies that economics not only revolves around data points and finance but also involves a wide spectrum of social issues, which are often kept at a distance considering the subject matter of sociology but impact economic and development outcomes. Her prize motivation, "for having advanced our understanding of women's labour outcomes", symbolizes not only her victory but the victory of an entire clan of women in the field by challenging male-centric narratives and drawing attention to the understanding of economics from the lens of women.

In this writing, I will touch upon the major findings of Goldin's ground-breaking work, which has not only reshaped our understanding of labour markets but also played a pivotal role in advancing the cause of gender equality. Furthermore, an attempt has been made to integrate and trace the significance of her study in the Indian labour market.

The "U-shaped labour force function curve" has captured the most attention. Goldin mined 200 years of US data to show there isn't a linear relationship between economic growth and the female labour force participation rate.



Goldin mined 200 years of US data to show there isn't a linear relationship between economic growth and the female LFPR

She observed three stages in the employment sphere of US women: the horizon, the identity, and the decision-making. Stage-I encompasses the motivation of getting into paid work and attaining higher education. Stage II is about finding a decent and respectable job, and the last stage is the decision-making process of continuing the work post-marriage, which involves the double burden of household responsibilities, caregiving, and the readily available availability of her subject to family needs. Women in India also go through these different stages. The horizons of a young Indian girl are narrow and largely shaped by her mother's experience. A young girl is likely to drop out of the labour force like her mother and lacks an incentive to get into higher education. The freedom of decision-making to attain higher education and work is constrained by her family's choice, marriage, income effect, and largely to find her a suitable groom. Subsequently, post-marriage, this decision-making ability is passed on to her husband and in-laws' house setting and expectations.

Goldin, in her recent book 'Career and Family: Women's Century-Long Journey to Equity', provided a justification for the phenomenon of the wage-pay gap (differentiated wage rate). Since the dawn of civilisation, this gap has largely been perceived as an outcome of occupational choices and level of education. Goldin explained it with the concept of "greedy jobs". She emphasised greedy jobs as those that entail high rewards but demand more time and attention, like lawyers, doctors, big corporate executives, etc. As a tradition, a woman is tied to children, elderly care, and household duties, which results in her stepping back from her career for the family and taking up a 'role and pay cut'. Her research demonstrates that the pay gap narrows significantly when women and men work in professions with more flexible hours and opportunities to combine work with family life. Further, the Nobel laureate introduced the concept of "human capital" as a way to understand the economic value of skills, experience, and education. Her insights have played a crucial role in

encouraging women to pursue careers in fields traditionally dominated by men, such as science and technology, like the steely shakti of ISRO.

Celebrating Goldin's 'Quiet Revolution' and her role in the advancement of oral contraceptives is a trailblazer in the field of reproductive rights and women's economic empowerment. She observed that these pills have helped women by providing more time to carve their identities outside their homes. Her research shows the majority of women go out of the labour force not because of marriage but after childbirth, which she calls 'motherhood penalty'. By reducing unintended pregnancies and enabling women to time and space their births, these medications have contributed to better child-rearing practices, improved maternal health, and smaller family sizes, all of which have a positive impact on overall economic independence and development.

Her work on the 'sticky floors' and 'glass ceilings' that women face in their careers is pertinent in the Indian context, where there are still significant barriers to women's advancement in the workplace. Let us ask ourselves: how many CEOs' and MDs do we see in Indian corporations, or for that matter, how many women are represented at the top level in the government? Undoubtedly, women's reservation in the Indian Parliament is a great victory in breaking this glass ceiling and having better representation of this one-half.

Interestingly, Goldin's research is based on the US economy and fits it well, but to what extent it holds for India needs a deeper understanding. A Hindi-language movie, "The Ribbon," with Kalki Koechlin

as a cast, brings forward the challenges faced by a modern-day married working woman in urban India. In the most natural way, this movie portrays her as an executive in a company bearing the 'double burden'. Her situation worsens with pregnancy, causing her constant juggling, demotion, gendered discrimination, trouble approving of maternity leave, and an eventual unintended job loss. What does it call for? Reliable and safe transportation systems, accessible and affordable childcare centres, flexible work arrangements such as remote work and part-time options to accommodate women's responsibilities at home, implementation of policies that provide adequate maternity and paternity leave, encouraging shared family responsibilities, and a well-developed formal care economy are the need of the hour to usher women's participation and empowerment in the country.

In India, women are disproportionately employed in lower-paying, often informal sectors, working in fields such as home-based work, waste picking, construction, street vending, and so on. We have made strides in improving girls' access to education, but there is still work to be done to ensure that women have equal opportunities to develop their skills and contribute to the economy. In a country as diverse as India, the relevance of Goldin's work extends to understanding the intersectionality of gender with other factors such as caste, religion, and region. Overall, Claudia Goldin's seminal work in gender economics holds immense relevance, as 'Nari Shakti' is the harbinger of women-led development during the Amrit Kaal.

Views expressed are personal



## ENHANCING PHD PROGRAMMES

# A working hypothesis: Reservations won't help

Top institutions must not introduce quotas in PhD admissions without the education system first helping those from disadvantaged backgrounds overcome learning deficits at earlier stages

V RAGHUNATHAN

In India, where significant segments of the population have faced long-standing discrimination, the call for educational reservations at all levels is not only understandable but also perhaps justifiable. Recent reports in the news drawing attention to the incorporation of reservations for Scheduled Castes, Scheduled Tribes, Other Backward Castes, and for those suffering disability in the doctoral programmes at the IIMs hold considerable relevance. IIM Ahmedabad, specifically, has announced its intention to enact this policy by the year 2025. It is worth mentioning that IIMs have consistently applied analogous reservation policies for their master's programmes.

India's standing in global research and development endeavours as well as PhD programmes remain, at best, unimpressive.

India lags in R&D spending globally, with just 26 of our companies among the top 2,500 R&D spenders. We rank 40th on the World Innovation Index. Our R&D spend, at 0.65% of GDP, is one of the lowest among major countries and constitutes only about 10% of China's spending.

India, by some estimates, annually generates about 24,000 PhD recipients, which places it in the fourth position worldwide.

While this sounds impressive, when juxtaposed with a vast population of 140 crore and over 1,000 universities, this yields a modest figure of around 170 PhDs annually per one crore individuals. This figure starkly contrasts with nations such as the United Kingdom and Portugal, which are themselves not at the top of the table in Western Europe, which produce an impressive 3,700 and 1,800 PhDs per crore, respectively.

While data from China is not conclusive, conservative estimates suggest that China surpasses India by a substantial margin, roughly 6-8 times more per PhDs than India produces. Strikingly, diminutive nations like Estonia, Latvia, and Slovenia thrive in this aspect, with Slovenia emerging as the world leader, boasting an astonishing 5% of its population holding PhD degrees. India's per capita performance in PhD production notably lags, even when compared to other Asian nations.

The quality of PhD programmes in India, too, remains largely unaddressed. A UGC committee on "Enhancing Research Quality in Indian Universities/Colleges," established in July 2019, notes the following:

"There is a consensus that barring a few exceptions, the overall quality of university and college-level research in India is far from satisfactory. Indeed, in many institutions, the quality of research is alarmingly poor. In (a) large number of cases, these do not conform to international standards and do not make significant contributions to the theoretical or applied aspects of a given discipline..."



The committee has been candid in its assessments. For instance, I recall evaluating a post-doctoral thesis for a D.Sc degree, forwarded to me for evaluation by the Vice Chancellor of a prominent Indian university a few years ago. The Head of the Department, whose dissertation it was, had reportedly conducted interviews with a couple of thousand entrepreneurs. Based on the demographic composition of the respondents – around 73% Hindus, 17% Muslims, and about 7% Christians, with the remaining 3% representing various other groups (these figures are from my recollection and may not be precise but serve as indicative) – the researcher concluded that this data was evidence enough that Hindus were the more entrepreneurial segment of the Indian population! There were other significant bloomers in that dissertation, but we need not delve further. Not only did I reject the dissertation, but also recommended the individual's dismissal. That marked the end of any further dissertations I received from that university.

The central message, as underscored by the UGC committee, revolves around the disconcerting condition of PhD programmes in India. Currently, save for renowned institutions like IITs, IIMs, and IISc, and a few others, a notable proportion of university PhD dissertations conspicuously lack the requisite academic rigour. The proliferation of online platforms, unscrupulous actors

and, lately, the influence of artificial intelligence, have further exacerbated this issue, contributing to the continued decline in the quality of PhD programmes.

Urgent and sweeping reforms are required for the advancement of Indian higher education and its PhD programmes. These reforms should encompass the augmentation of faculty expertise, the promotion of research reviewed by peers and alumni, the nurturing of collaborative networks, the assurance of data integrity, the elevation of accreditation standards, the enhancement of research infrastructure, the provision of robust financial support, the fostering of academia-industry alliances, and the facilitation of interdisciplinary engagements.

To achieve this, an effective strategy must aim to bolster the existing strengths within our system, commencing with the institutions of excellence like IIMs and IITs. These institutions can serve as trailblazers, helping enhance the overall academic landscape in the country. This, in turn, can facilitate the traditional universities, which are in dire need of substantial improvements in their PhD programmes, in adopting and adapting the best practices pioneered by the former.

Further, the UGC committee noted that "a large number of students taking admission to PhD programmes carry with them accumulated deficit of disciplinary knowledge and research methodology and often even lack communication skills and linguistic competence."

Upon careful consideration, it becomes clear that this accumulated deficit is likely to be particularly pronounced within the socio-economically disadvantaged segments of the population, who typically face adversity during their formative years of schooling as well as throughout their undergraduate education.

The quality of education at all levels in India remains subpar. If we are to truly uplift the socio-economically disadvantaged sections, working on mission mode to improve quality of education at school and college levels should be the foremost priority. This entails not only improving the academic regulatory framework and its strict implementation, but also raising the standard of education imparted by government schools and colleges on a broader scale. This will naturally enhance the quality of the input of students from across the board into doctoral programmes. But compelling higher rated institutions like IIMs and IITs to admit underprepared students from socio-economically weaker backgrounds into their PhD programmes will not correct the ills of a fundamentally flawed system, and may merely push this burning concern under the carpet.

(The writer was formerly a professor at IIM, Ahmedabad) 5/10/26



# IIT-Zanzibar Today, IIT-World Tomorrow

The IIT brand needs no introduction. Over the decades, its star list of alumni has made IITs and India proud. Like all big and aspirational brands, IITs are now breaking into newer geographies. This week, IIT-Madras became the first from the prestigious stable to open an international campus, inaugurating its campus in Zanzibar, a Tanzanian archipelago off the coast of East Africa. However, the decision to open a campus in this self-governing state is not just about securing a piece of the lucrative higher education market. It also marks a new chapter in India's foreign policy, which recognises and leverages higher technical education as an essential arrow in its quiver of soft power.

India's education and skill-related ventures, particularly in



Africa, have always been demand-driven and focused on country-level needs and priorities. The India Technical and Economic Cooperation (ITEC) programme, launched in 1964, the Pan African e-Network project and e-Vidyabharti, launched in the 2000s, focused on capacity building. The IIT campus takes this engage-

ment to a different level and is rooted in India's 'partnership' approach in its foreign policy engagement. The academic programmes, curricula, student selection aspects and pedagogical details will be finalised by IIT-Madras, while the capital and operating expenditure will be met by the Zanzibar-Tanzanian government. With the opening of the campus, India is helping meet the needs of Africa's rising aspirational curve.

The new campus will not only be a chance for students of the region to access high-quality education, and for India to deepen its engagement with the continent, but it is also a golden chance for IIT to focus on R&D and innovation on issues relevant to the developing world.

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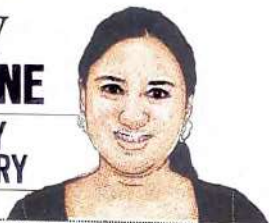
# Unending ordeal

Law enforcement officials and colleges must do more to prevent ragging

**M**ultiple pieces of legislation and regulations prohibiting ragging on campuses have failed to end the dehumanising ordeals junior students are subjected to by their sadistic seniors. Nearly three months after a 17-year-old boy died due to ragging in West Bengal's Jadavpur University, a second-year undergraduate student of the PSG College of Technology in Tamil Nadu has been left brutalised, physically and mentally, for refusing to yield to monetary extortion by his seniors. Both States were among the earliest to enact legislation banning ragging. That students undergo such traumatic experiences despite civil society being rudely awakened by spine-chilling cases of brutalisation and even the murder of victims of ragging, exposes the gaps in the system that allow a vicious cycle where victims one year become perpetrators the next. From bullying and harassing freshers to ensure subservience to seniors, acts of ragging have taken perverse and cruel forms, including through sexual abuse, intended to dehumanise victims. An act of indiscipline has evolved into one that involves elements of criminality. While unlike earlier, ragging is no longer a given on campuses, it is evident that victims are not just the freshers and the harassment extends beyond the initial months of a new academic year, as seen above.

The Supreme Court-appointed R.K. Raghavan Committee had captured the causes, and suggested actionable remedies, in its 2007 report, 'The Menace of Ragging in Educational Institutions and Measures to Curb It'. The panel rightly categorised ragging as a form of "psychopathic behaviour and a reflection of deviant personalities". In 1999, a University Grants Commission (UGC) Committee had recommended a "Prohibition, Prevention and Punishment" approach to curb ragging. Yet, as the Raghavan Committee pointed out, many State laws only seek to prohibit, and not prevent, ragging. In its words, "while prevention must lead to prohibition, the reverse need not be true." Despite 'The UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions 2009', except for formalities such as conducting freshers' parties, mandating undertakings from students and parents against indulging in ragging, and putting up 'no-ragging' notices, the stakeholders have done little to prevent it. Institutions must create an encouraging atmosphere where teachers and hostel wardens, and not parents living in a distant place, are the first point of contact for victims. There must be greater accountability by educational institutions to prevent ragging. As the Raghavan panel recommended, regulatory authorities must ensure a ragging-free campus. This has a direct bearing on the maintenance of academic standards in individual institutions. Governments too must be earnest in implementing regulations, failing which campuses would not be safe for students.





# Zanzibar: For centuries, a home to Indians; now an IIT

THAT THE premier engineering institute IIT-Madras found its first home abroad on a small archipelago located on the East coast of Africa is hardly surprising. Zanzibar, a semi-autonomous Tanzanian province, shares historical links with India that go as long back in time as the 16th century or even further. Indians did not just form a robust diaspora community in Zanzibar in terms of numbers, they were also prosperous, politically active and found themselves in a racially privileged position.

Social scientist Saada Wahab, in a paper published by the Gottingen University Press in 2022, has suggested that traders from India along with those from Persia and Arabia had commercial links with the East African coast that went as long back as the first millennium CE.

A Greek written record dated to the first century CE mentions Indian goods on the east coast of Africa. Travellers such as al-Masudi in the ninth century CE and al-Idrisi in the 12th century narrated stories of Indian trade links with East Africa. Indian-made glass beads, cotton clothes, measuring scales, weighing systems and cowries found in archaeological excavations in this region point to the extent of the involvement of those from the Indian subcontinent in East Africa's economic history.

Records suggest that by the time the Portuguese explorer Vasco Da Gama reached the coastal cities of East Africa in the 15th and early 16th centuries, he was surprised to find a large number of Hindus and Muslims from India in the region, most of them being traders from Gujarat.

The Portuguese arrival and intervention in East African coastal trade, in fact, destroyed the African and Arabic trade links, but was less disruptive towards trade links with India. Traders from India of non-Muslim lineage are known to have found themselves at an advantageous position under the Portuguese.

Historian Edward Alpers in his article, 'Gujarat and the trade of East Africa' (1976) noted that "the Portuguese were determined to eliminate Muslim merchants, especially Arabs. Accordingly, the Hindu and Jain merchants of Gujarat were ideally suited to further increase their domination of the traditional trade of Asia."

In the case of Zanzibar though, the real fillip for Indian migration happened in 1648 when Saif bin Sultan of the Yaruba dynasty of Oman defeated the Portuguese at Mombasa and drove them away from East Africa. Zanzibar then turned into an overseas territory of Oman. Perhaps the most important event that helped consolidate



The House of Wonders at Stone Town in Zanzibar. Source: Wikipedia

Indian diaspora in Zanzibar happened in 1840 when the Omani ruler, Said bin Sultan, shifted his capital there from Muscat.

As noted by historian Ned Bertz in his article, 'The Indian Diaspora in Tanzania' (2021), at that time, there were over a thousand Indians, mostly from peninsular Gujarat and adjacent Kutch in residence in the Omani court in Muscat, plus a few hundred already in Zanzibar in addition to scattered small settlements in the African mainland opposite to the archipelago. Said convinced the Indians settled in Muscat to move with him to Zanzibar and settle and spread their commerce there. Consequently, he also offered them tax-free trade, protections and incentives, apart from installing them in important government positions such as that of the collector of customs at Zanzibar port.

Indians invested heavily in commercial enterprises based in Zanzibar, profiting abundantly from them and finding themselves in possession of significant property. They also financed slaving expeditions and were known to be slave owners themselves. Bertz writes that the "booming economy and abundant opportunities to garner wealth attracted migrants from India, especially those possessing capital, and their population in Zanzibar topped two thousand in the 1850s, three thousand in the 1860s, four thousand in the 1870s and totaled about 5,500 by 1880".

In an interview with The Indian Express, Bertz explained that "this relative prosperity marked them (the Indian diaspora)... as a privileged, but sometimes resented, minority in the transition to African-led independence."

In 1890, Zanzibar came under British influence and remained a protectorate until

1963, when it gained independence. Under the British, the Indians played a significant role in pushing for their own political rights as well as fighting for the independence of Zanzibar. The first organised Indian protest against the British administration at Zanzibar took place in 1909 to oppose higher taxes and the new laws. In 1914, some members of the community came together to form the Indian National Association (INA) to represent the economic and political rights of Indians in the region.

By the 1930s, a rather bitter and long drawn out struggle emerged and was carried out against colonial policies regulating the clove industry, which was largely dominated by Indians. The incident drew sharp responses from the strongest of nationalist leaders in India at that time, including Jawaharlal Nehru, Subhas Chandra Bose and Sardar Vallabhbhai Patel. The episode has been noted by Bertz in his article to have been the "most sustained effort ever undertaken in India on behalf of Indians overseas".

In addition, several individual Indians joined political parties such as the Afro-Shirazi party and the Zanzibar National Party to demand the independence of Zanzibar. The role of the Muslim Association, formed in the 1940s by Indian Muslims, in fighting for the independence of Zanzibar too was significant.

Notwithstanding the life of privilege and prosperity experienced by Indians at Zanzibar, there were also moments of inter-racial conflicts. The conflicts are known to have exploded during the Zanzibar Revolution of 1964 that was mainly targeted at the Arab population, but many Indians bore a significant brunt and many fled to the Tanzanian mainland after Zanzibar merged with Tanganyika.



## SHABDAVALI: VALLEY OF WORDS



Doon University, Dehradun

# SCHOLARLY PURSUIT

*As the seventh edition of Valley of Words unfolds on December 16-17, Vice Chancellors representing a wide array of institutional affiliations will sit together to discuss the details of the National Education Policy*

## AUTHOR



SANJEEV CHOPRA

the new changes, the outcome may just be 'one more additional year' in college, thereby calling for the commitment of more time and more resources — not just from the students, but also from the faculty as well as from the institutions. This also means that many students will have the option of splitting their college degree in two or more parts and gaining internship/apprenticeship experience in the intervening period.

While the discussions would be quite wide ranging, the moderator of the session Dr Anna Mirza from the Sarojini Naidu Gender Studies Centre at Jamia listed some key issues for the deliberation of the VCs. The first, and perhaps the key USP of

Vice Chancellors may also like to consider the professional growth of academics. For those of us who studied liberal arts in the last century, the syllabi, question papers, recommended readings and 'Guess Papers', were kind of frozen. Not any longer. The new co-learning curricula enable teachers to design new courses, encourage research on aspects that were hitherto unexplored, and bring in more of the local and regional aspects — of history, polity, economy, livelihood patterns, geography and literature.

Educational hierarchies may also become flatter, with all degree colleges becoming centres of research and excellence, and every district getting at least one multi-disciplinary university, thereby taking out higher education as the conclave of the elite to a congregation of the commons.

Then comes the role of the government — from being the exclusive provider of higher education to a regulator to a facilitator of higher education. How will the political parties evolve a consensus to ensure that the GDP spent on education grows from the current levels of 2 per cent to 3 per cent immediately, and then makes an incremental rise to about 5 per cent, as India that is Bharat makes the transition to a knowledge economy?

Last but not the least is the question of equity. The faculty and facilities available to the private institutions are many times superior to that available to students going to publicly funded colleges and universities. Whether or not there should be a liberal scholarship scheme to ensure diversity and equity in private colleges, which do not take assistance from the state, is a question that needs to be addressed as well.

And in any case when such a bright group of people will sit together to discuss these points, many new ones will emerge as well, which is why it promises to be one of the most interesting offerings at the seventh edition of VoW on December 16 and 17 at Dehradun.

The writer, a former Director of IBS National Academy of Administration, is currently a historian, policy analyst and columnist, and serves as the Festival Director of Valley of Words — a festival of arts and literature.

The question is whether the lofty ideals laid down in the NEP can be implemented in letter and spirit

the NEP is the focus on Indian Knowledge Systems (IKS) in all fields and branches of education — from history and philosophy to medical sciences and gender studies. In gender studies for instance, the focus of the IKS is not on looking at the two genders as binaries, but in the spirit of Ardhanarishwar — man and woman together, and the trans-genders too have not been confined to the periphery, but are intrinsic to the epic. In medicine, it is not just the aspect of cure, but of prevention and holistic healing.

The second is about flexibility in the design of curriculum. For far too long, we have been very rigid and inflexible about subject combinations and fields of study. Now it would be possible to combine the study of philosophy with physics — thereby leading to a better understanding of both the ontology and epistemology of learning. Political science and economics have often been studied together, but how about classics and mathematics, or biology and statistics? The new interdisciplinary will indeed be a wondrous construct.

One of the most important conversations at this edition of the Valley of Words will be the Vice Chancellor's roundtable on the New Education Policy, for Dehradun is now an important hub for higher education, with a wide range of universities — from Deemed ones to those which are publicly funded by the state government (Doon University), and GoI-supported institutions like the FRI to private universities like UPES, DIT, GEU and GEHU that offer a large number of programmes in the professional, STEM, and liberal arts stream. Dehradun also has a very diverse student population, not just from within India, but from across nations in Africa, Europe, Bangladesh, Bhutan and South East Asia as well.

Although the NEP is a comprehensive document which starts with 15 years of school education spread over foundational (five), preparatory, (three) middle (three and secondary (two and two), the focus of this session will be on the changes to the higher education policy — but more importantly, the aspects related to both public and private spending on higher education.

Chaired by Chancellor N Ravi Shanker, the former Chief Secretary of Uttarakhand with several years of experience as the Principal Secretary of Higher Education of the state, the roundtable will have Dr Ram Sharma from UPES, Dr Sanjay Jasola from GEHU, Nripendra Singh of GEU as well as Dr Surekha Dangwal from the Doon University. All the VCs are veterans of higher education and represent a wide range of institutional affiliations. The questions that are uppermost on everyone's mind is whether the lofty ideals laid down in the NEP can be implemented in letter and spirit because unless the faculty is willing to adapt and adopt

# Revisit KSU Act to revamp our varsities

The government must amend the Karnataka State Universities Act to strengthen the higher education ecosystem

P S JAYARAMU

There is a lot of discussion in the state about the need for reinventing higher education. While it is true that the responsibility of bringing about qualitative changes remains largely with the academicians, the changes also need to be anchored broadly within the framework of the legislation prevailing in the state, i.e., the Karnataka State Universities (KSU) Act, 2000. The Act was passed when the Congress was in power. Hence, the present government may not think in terms of replacing it totally. It may at best bring about some changes through amendments. Here is an attempt to suggest some changes in the Act which has 14 chapters dealing with issues like the establishment and incorporation of universities, key officers of the university, authorities of the university like the Syndicate and the Academic Council, boards like the Board of Studies, Planning Monitoring and Evaluation Board, Finance and Accounts, Affiliation of Colleges, etc.

It is impossible to cover all the aspects contained in the Act but it is imperative to highlight the areas where the law needs amendments so as to improve the functioning of public universities and strengthen the higher education ecosystem.

First, there is a need to create the office of pro-vice chancellor in the university's organisational structure. This would require amending the existing Act. While there are arguments both in favour and against creating such a position on the grounds that it may result in an additional power centre, I am of the opinion that the position be created and the holder of the office — an educational administrator — be entrusted with the task of ensuring coordination in the field of administration, freeing up the vice chancellor to focus entirely on academic matters to provide leadership for promoting quality in teaching and research in the university and affiliated colleges. The vice chancellor should also be in charge of raising resources from different quarters, including guiding the faculty to bring prestigious projects, as universities are short of funds and are being asked to raise resources on their own from as many sources as possible including alumni and industry.

The selection and appointment of VCs is a crucial process that requires extraordinary care. The government is likely to continue with the existing procedures outlined

in the Act but it is also imperative that governmental interference and the role of 'extraneous considerations' be kept out in the appointment of vice chancellors. The search committees that are constituted for this purpose must consist of men and women of integrity and vision, who can resist pressures and recommend the most deserving candidates based on merit and social justice.

The Syndicate is the highest decision-making body in the university system. Though the existing practice of the government and the chancellor nominating members of the Syndicate may continue, it is necessary to bring in persons with expertise in the field of higher education, industry and civil society. The practice of nominating politicians belonging to the ruling party must be stopped. The chancellor, too, should appoint educational administrators of high integrity as his/her nominees, who can contribute positively to the university's vision and mission.

When it comes to the Boards of Studies, whose main function is to prepare the curriculum, there is a need for greater interaction between the postgraduate departments, and affiliated and autonomous colleges including industry representatives. Representation must be ensured either by formally making them members or by co-opting them as special invitees. In any case, curriculum design and development should reflect quality with adequate opportunities for skilling, reskilling and upskilling of the students.

The system of affiliation of colleges will continue in all probability, though the National Education Policy (NEP) 2020 calls for its gradual phasing out. Here, the VCs need to ensure that the committees are composed of academicians with an industry representative, if needed, to evaluate the preparedness of colleges to run courses with optimum facilities for the benefit of students. Colleges that secure an A+ grade from the accreditation agency NAAC can be subjected to the affiliation exercise once in five years only.

Chapter 12 of the KSU Act deals with the University Review Commission. However, this provision is largely ignored or neglected in practice. Universities must be mandatorily subjected to review once in five years. The highest standards of transparency must be maintained in the constitution of the commission and its functioning. The report of the commission must be made public and accessible to all the stakeholders.

It is hoped that the government would give priority to amending the Act to ensure the effective and optimal functioning of our public universities.

(The writer is former dean, Faculty of Arts, Bangalore University)

SHY/10/C



# Converting PhD research into startups

■ Dr Tulika Devi

**T**he journey from academia to entrepreneurship is an exciting path that holds immense potential for those who dare to bridge the gap between research and real-world applications. For individuals with a PhD, this transition offers a unique opportunity to transform years of dedicated research into innovative startups that can drive economic growth, create jobs and bring novel solutions to the market. One of the key advantages of pursuing a PhD is the deep expertise and insights gained in a specific field. PhD in certain areas leads to a solid foundation for identifying potential market gaps and innovative solutions. Researchers can leverage their comprehensive understanding to create products or services that address real-world challenges. This expertise also builds credibility, making it easier to attract investors, collaborators and customers who value the unique insights that come from years of focused research.

During their PhD journey, researchers often uncover unexplored areas, or problems that could lead to viable business opportunities. By critically evaluating the practical applications of their research findings, PhD holders can identify gaps in existing markets and conceptualise innovative solutions. These insights are invaluable for crafting a startup idea that not only leverages academic knowledge

but also resonates with market demands. In many cases, a patent developed by a PhD scholar can be a pivotal asset for their startup as it provides a legal monopoly over their innovative technology or product, offering a competitive advantage by preventing others from using, making, or selling the same invention for a certain period, typically 20 years. This exclusivity can attract investors and potential partners, as they see the startup as having a unique and defensible position in the market. While it's true that numerous PhD scholars opt to sell their patents to others, often due to a lack of awareness regarding the entrepreneurial landscape, they themselves have the potential to initiate their own startup provided they find a supportive environment and receive proper guidance.

The process of converting PhD research into a startup involves translating complex academic concepts into practical solutions that can be easily understood and adopted by the target audience. This might entail simplifying intricate technical jargon, refining prototypes, or designing user-friendly interfaces. Effective communication is crucial to convey the value proposition of the startup to potential customers, investors and partners who might not have a deep academic background.

Networking plays a pivotal role in both academia and entrepreneurship.

During their PhD journey, researchers interact with peers, mentors, professors and industry professionals. These connections can be leveraged when transitioning to entrepreneurship. Collaborations forged during research can turn into partnerships, while mentors and professors can offer guidance and support. Establishing a network within academia and industry can provide access to resources, funding and a broader perspective on potential business ventures.

Funding is a critical aspect of startup success. PhD entrepreneurs have an advantage in this regard, as their rigorous research and in-depth understanding of their field can make them appealing to investors who seek innovative and groundbreaking ideas. Funding options include angel investors, venture capital firms, government grants and crowd funding platforms. Demonstrating the market potential and practical applications of the research can significantly improve the chances of securing funding.

The conversion of PhD research into a startup is a dynamic and rewarding journey that demands a blend of academic expertise, entrepreneurial vision and perseverance. By capitalising on their deep knowledge, identifying market opportunities, translating research into practical solutions, building a strong network and navigating challenges, PhD holders of specific fields can successfully bridge the gap between academia and entrepreneurship. This pathway not only ena-

bles them to bring innovative products and services to the market but also contributes to economic growth and technological advancement. In this connection, BITS Pilani has taken a groundbreaking initiative, transforming the traditional outcome of a PhD by encouraging the creation of startups based on research conducted during doctoral programmes. The institute's forthcoming PhD programme, aptly named PhD-DRIVE (Deep-Tech Research, Innovation, Value Generation, and Entrepreneurship), is designed to nurture individuals with expertise in technology and science who harbour a clear intent to establish startups. Unlike conventional PhD programmes, this endeavour is infused with an entrepreneurial spirit, emphasising the translation of innovative research into tangible solutions that impact real-world issues. V Ramgopal Rao, Vice-Chancellor, BITS Pilani, said, "The world requires our best researchers and academics to put their innovative research to use in solving the biggest challenges facing humanity. As a country, we haven't done enough in the area of deep technology and deep science ventures, where a startup takes a long time to become viable. With this new programme, we want PhD scholars to become an entrepreneur along with becoming an innovator, and not just look at an academic career post their PhDs."

Converting PhD research into a startup is not without challenges. The transition requires a shift in mindset

from purely academic pursuits to business-oriented thinking. This transition often demands the acquisition of skill sets encompassing areas like marketing, sales, finance and management. Additionally, startups often face uncertainties, limited resources and intense competition. It's crucial for PhD entrepreneurs to embrace adaptability, resilience and a willingness to learn from failures.

In the context of Assam, the picture for such entrepreneurial initiatives is equally promising. A remarkable success story in Assam is Zeruund Manufacturing Pvt Ltd. It is a startup that took root within the confines of the Assam Engineering College laboratory as a final-year project. Their journey, characterised by meticulous research, relentless effort and steady dedication, culminated in the creation of a revolutionary product i.e. lightweight bricks.

In the pursuit of turning PhD research into impactful startups, educational institutions play a pivotal role. By investing in top-tier infrastructure, these institutions empower aspiring entrepreneurs to seamlessly transition from academia to the entrepreneurial realm. Workshops, seminars and mentorship sessions conducted in well-equipped spaces are very important. Through this holistic support, the bridge between research and real-world applications is encouraged, promoting a culture of innovation, economic growth and transformative societal development. **AT/14/6**

# Parent-teacher meetings, a need in colleges

**Traditionally associated with school education, these meetings can help college students academically and personally, writes Alice Mani**

the enhancement of communication between parents, professors, and students. These meetings would let parents gain insights into their child's academic progress, including grades, attendance, and overall engagement. This transparency would facilitate a shared understanding of the student's performance, allowing parents to provide meaningful support and encouragement.

■ **Nurturing academic excellence:** Parent-teacher meetings offer a unique opportunity for parents to collaborate with professors in nurturing academic excellence. Parents and educators can collectively develop strategies to enhance learning outcomes by discussing a student's strengths and areas for improvement. Professors can offer tailored advice on study techniques, time management, and course selection, equipping students with the tools they need to succeed academically.

■ **Addressing challenges holistically:** College life can present various challenges, from academic struggles to personal hardships. Parent-teacher meetings can enable parents and educators to identify and address these challenges holistically. Whether a student struggles with coursework, adjusting to campus life, or facing personal challenges, these meetings can be a platform for discussing appropriate remedies and support mechanisms.

■ **Cultivating goal-oriented approaches:** Setting and achieving goals is pivotal to a college student's journey.



Parent-teacher meetings can serve as forums for discussing a student's long-term academic and career aspirations. Professors, equipped with their subject matter expertise, can offer insights into the courses, research opportunities, and extracurricular activities that align with the student's goals. Parental involvement can further reinforce the importance of these goals, motivating students to stay focused.

■ **Establishing a robust support network:** College can be both exciting and

overwhelming. Parent-teacher meetings can create a strong support network comprising parents, educators, and peers. Knowing that their parents are engaged in their educational journey can give students a sense of security and emotional support. This becomes especially crucial during adversity, helping students navigate challenges more effectively.

■ **Encouraging accountability and responsibility:** While college students enjoy increased autonomy, parent-teacher meetings can promote accountability

and responsibility. Knowing that their parents are invested in their progress can motivate students to strive for excellence. The discussions during these meetings will remind students of their commitment to their education and personal growth.

■ **Balancing independence and collaboration:** It is important to balance a student's growing independence and the benefits of parental involvement. College students are adults who can decide about their education and life choices. Parent-teacher meetings in college could emphasize collaboration and guidance instead of dictation, empowering students to take ownership of their academic journey while benefiting from the wisdom of their elders.

Parent-teacher meetings, often associated with early education, hold significant potential in the college landscape. By fostering open communication, addressing challenges, and cultivating a supportive environment, these meetings may contribute to students' holistic growth and success.

The evolving role of parents, from authoritative figures to collaborative partners, aligns with the increasing autonomy of college students. In this context, parent-teacher meetings can empower students to excel academically, thrive personally, and make the most of their higher education experience.

(The author is a professor at CHRIST deemed-to-be university in Bengaluru)

DM/11



# Tradition and technology

Modern pedagogical techniques are fast changing with the changing nature of society and changing role of individuals as members of different social groups. The role of a teacher has changed to a leader for social reforms and changes — a guide with specific attitude and expected to be equipped with all new technologies required for his profession. The changing role of the teacher has demanded new instructional methods with suitable supplementary techniques

A report by Omidyar Network India and Redseer says that the Indian Edtech sector is expected to reach \$30 billion by 2025, from \$2.8 billion in 2020. However, in spite of the promising growth, the sector still faces challenges which include limited infrastructure, lack of digital literacy and inadequate access to devices.

Nevertheless, the sector's growth is a positive sign in making education accessible and sustainable in our country. Hope lies in President Murmu's recent observation that India was attracting global attention for its cultural prosperity as well as its technological advancement.

Addressing a group of officer trainees, the President said India has shown to the world that technology and tradition can go hand in hand. It may be noted that the gradual developments of the history of education in India through various periods and rules influencing the pedagogical techniques have changed the aims and objectives of education, which have resulted in a change in the entire pedagogy of education.

Whereas the traditional pedagogical techniques were more teacher-centered, in modern times these are more child-centered and interactive — switching over to modern, scientific and technological techniques. However, the recent social trends demand a blending of both social as well as practical qualities in future citizens and for that what is sought is to blend the new and old pedagogical techniques.

Our Vedic education was imparted in such a way that it could be preserved for thousands of years. The hymns produced by Acharyas were learned by remembering and were realized through meditation. It was believed that incorrect pronunciation of hymns caused sin and damaged their effect.

Meditation helped preserve the meaning of the Mantras. A person having meaningless outward knowledge was compared to a donkey loaded with sandalwood. Teachers were men of the highest calibre, from the point of view of knowledge and spiritual progress.

In the post-Vedic period, however, students were given verbal lessons by the Gurus. By self-esteem meditation, the disciple made the knowledge his own. In the Kenopanishad, the disciple asked the teacher what was the guiding force that drove the heart, spirit, eye and ears to action and it is there that the Guru guided the Shishya. The best illustration of the enigmatic method is found in the Svetasvatara Upanishad which deals with puzzles.

In the Aphoristic method much knowledge was compressed in small aphoristic sentences, which required sufficient intelligence to understand them, whereas the meaning of the word is explained according to its root in the Etymological method. In the dialectical method, the philosophers assembled at some place and dramatically discussed different problems among themselves. But in the synthetic method, the discussion of the dialectical method was substituted by creative synthesis.

Like the Vedic period, the



oral system continued even in the Brahmanism age. The students were taught the meaning of the mantras while they were being taught by the gurus. Vyakaran (grammar), Nyaya Shastra (law) and Jyotish (astrology) etc. were composed in verse to make them easy to learn by heart.

Although the art of writing had been well developed up to the Buddhist period, due to dearth of writing materials, verbal education was prevalent as it was in the Vedic age. In order to win discussions on Shastrarth, it was necessary to improve the power of discussion which

certainly encouraged use of logic. During the Muslim period, education was organised in Maktabas and Madrasas. Religious education included the study of the Quran, Islamic Laws and Islamic History. Some secular subjects included Arabic literature, grammar, history, philosophy, mathematics, geography, politics, economics etc. The East India Company wanted to educate only a selected few who would be required for administration. In 1813, the Company was compelled to accept the responsibility for imparting education to Indians.

Lord Macaulay in his Minute supported Western education through the English medium. William Bentinck in March 1835 passed a resolution and emphasised that European literature and science be propagated.

It was, however, the Portuguese, who started the modern system of education in our country. They started some colleges where Christianity, logic, grammar and music were taught. Primary schools were opened where education was given by Indian teachers through local languages. The Danes in the 17th century, in fact, had started using local languages as a medium of education to facilitate the spread of Christianity in India.

The recommendations of Charles Wood's Despatch on Education, however, said that the aim of education was to raise intellectual fitness and moral character of the learners. The Indian Education Commission (1882) also emphasized bookish knowledge, and practical experience was relegated to

the background. Indian University Commission (1902) also followed suit. So the methods during the British period were more practical and vocation-oriented in comparison to the traditional methods of teaching which stressed the moral and spiritual aspects of life.

An important characteristic of Gandhian philosophy is the aim of Sarvodaya, and so, he planned different types of education for the country. Besides basic education and social education he thought seriously about rural education and education of women.

Modern pedagogical techniques are fast changing with the changing nature of society and changing role of individuals as members of different social groups. The role of a teacher has changed to a leader for social reforms and changes — a guide with specific attitude and expected to be equipped with all new technologies required for his

profession. The changing role of the teacher has demanded new instructional methods with suitable supplementary techniques.

Project method focuses on the principle of learning by doing through the active involvement of students and assigning the teacher with the role of guide and leader of activity.

In problem solving methods, a difficulty to act in an educational situation is realized and then an attempt is made to solve it. Observation method is based on the principle of learning by seeing or experiencing.

Laboratory method focuses on learning through experimentation. Socialized recitation method emphasizes social learning or learning cooperatively and through collective efforts.

Programmed instruction, a software approach for instructional technology, is a method of individualized instruction, in which the students receive information relating to their own needs in progressive sequences but in small units.

In Computer Assisted instructions there is a purposeful interaction between a learner and a computer device for helping individual learners to achieve the desired instructional objectives at their own pace.

Information Communica-

tion Technology (ICT) has given birth to different methods like Programmed Learning, Computer Assisted Instruction and Distance Learning through electronic communication media and boosted the use of technology in education for effective teaching.

Online pedagogy refers to the logical convergence of global media networks. Some of the online services like the World Wide Web, Email groups, Video Conferencing etc. have become very popular.

As a result of ICT, education innovations started aiming at attaining new skills and finding a novel balance between old and new educational methods. Education, therefore, provides new opportunities for students to acquire skills like Autonomous Learning, Communication Skills and Authentic problem solving ability.

The pandemic accelerated digitalisation and placed more superlative telecommunication devices at our disposal. The importance of going online for the continuity of learning has been realized.

Universalisation of quality education by supporting avenues such as eVidya and online vocational courses has been prioritized. The edTech sector is likely to play a crucial role in the evolution of high quality educational content.

Ed-tech will gain a lot from the roll-out of the 5G network. Artificial Intelligence (AI), block chain, metaverse, gamification and Extended Reality or XR technologies have also impacted massively.

So, as new scientific and technological techniques and increasing specialization of knowledge demand the change to an information society, the pressure on initial school education has also increased, which, in turn, has put pressure on the role of teachers.

Responsibility of producing competent teachers to meet challenges is assumed by teacher education. Integration of ICT is not to be done in one aspect of teacher education but all major aspects like curriculum, methods and development of teacher competency.

As far as the instructional techniques are concerned, more student-directed methods require different forms of ICT that can be used to support newer forms of pedagogy like projects, lesson planning or instructional designs and other pedagogical approaches.

Teacher educators play a crucial role in the adoption and implementation of ICT in teacher education since they are key to make the teaching-learning process viable.

Experience shows that teacher educators' lack of ICT knowledge and skills was a major obstacle in making online education a success during the pandemic period. However, the International Society for Technology in Education (ISTE) has been actively engaged in addressing the technology isolation problem of teachers.

Though numerous efforts are being made to make teaching switch over from passive to active pedagogical techniques, there is a gap between theoretical preparation of teachers and the implications of acquired skills due to lack of a proper follow up of policies. *Sudhakar*



**A K CHOSH**

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# Need to question officially sanctified narratives of 'failure'



AVIJIT PATHAK  
SOCIOLOGIST

**R**ECENTLY, I met a student of Class X in Patna. Somehow, it was possible for us to spend a couple of days together. We walked; we moved around the villages surrounding the city; and we conversed freely. I found him immensely altruistic and cooperative. What amazed me was his love for nature. As we moved around silent and unknown villages, I found him quite vocal about his discomfort with the city — its denaturalised environment, its polluted air, its anonymity or the way even villagers are changing fast and imitating urban modes of living. Yes, this young student thinks and reflects. However, during the free-floating conversation, I could also sense that he was carrying some form of wounded consciousness. The reason is that he hates his school; he does not want to attend classes; and he doesn't have the kind of ambition that his peers normalise as something

absolute — say, doing well in board exams, joining a 'branded' coaching centre, preparing for NEET or IIT-JEE tests and becoming 'successful'. No wonder he feels that nobody understands him. In fact, these days, even the people closest to him have begun to see him as a 'failure'.

My interaction with him has led me to reflect once again on the way schools manufacture and legitimise the narratives of 'failure'. In his path-breaking book *Deschooling Society*, Ivan Illich sought to remind us of the discontents of the 'school' consciousness. As schools in modern times become overwhelmingly powerful, begin to define what is 'worth knowing' through select textbooks or the official curriculum and acquire extraordinary importance in measuring or certifying one's merit and intelligence, it will become exceedingly difficult for my new friend in Patna to escape the gaze that objectifies him, suspects him or castigates him as a 'problematic' child. He, it seems, doesn't fit well into the cage of academic bureaucracy. He may be altruistic, but schools want him to be hyper-competitive. He knows about land, crops and agriculture, but schools want him to attend classes regularly and learn about coordinate geometry and



**CHALLENGE:** Amid the glitz of 'success', are we ready to accept the plurality of aptitudes? TRIBUNE PHOTO

trigonometry. A walk through paddy fields in a silent village is poetry to him, but schools want him to master the rules of English grammar. He can repair a motorcycle without being excessively panicky about it, but schools want him to sit obediently in the class and digest the monologue of his physics teacher. In other words, his school alienates him; it has no resemblance with his life-world. It hardly bothers to know the worth of his experiential learning. No wonder he has begun to fear schools — the way one fears the prison.

However, my new friend is not an exception. There are many children like him who hate schools. And yes, as their voices are seldom

Every child is unique.

However, as institutionalised and bureaucratic formal education moves towards standardisation, it demoralises young minds.

heard, they lose interest in formal/institutionalised education. It is an inevitable consequence of a system of education that is one-dimensional, denies multiple ways of learning and relating to the world, and is far removed from the vibrancy of life. Even though in a 'success-obsessed' society, we seldom bother to enquire into the process of manufacturing the narratives of 'failure', a sensitive and radical educationist like John Holt wanted to awaken us through his insightful book *How Children Fail*. They fail because, to quote Holt: 'they are afraid, bored and confused'. Yes, they are afraid of displeasing the many anxious

adults around them, whose "limitless hopes and expectations for them hang over their heads like a cloud". They are bored because "the things they are given and told to do in school are so trivial, so dull and make such limited demands on the wide spectrum of their intelligence, capabilities and talents". Moreover, they are confused because "most of the torrent of words that pours over them in school makes little or no sense".

However, it is not easy to find empathic and sensitive educators like Holt. Instead, most of us like to valorise 'success' and condemn or stigmatise those who are not 'intelligent' enough to win the race. There are moments when I, too, begin to ask the same question: Is my young friend in Patna really 'intelligent'? Well, if we are guided by a monolithic notion of intelligence — the kind of intelligence that is measured through all sorts of standardised tests — he can hardly be regarded as 'intelligent'. Possibly, it will be exceedingly difficult for him to solve a physics numerical or a mathematical equation like an over-tutored robotic performer. But then, as educationist/psychologist Howard Gardner has sensitised us, there are multiple types of intelli-

gences — yes, beyond what is otherwise valued in our times — say, logical and mathematical intelligence. Yes, Gardner helps me to value and understand my young friend's uniqueness — the sort of intelligence that distinguishes him. For instance, his 'intrapersonal intelligence' is pretty strong as he is capable of self-reflection and he is aware of his inner state of being. Likewise, his 'bodily-kinesthetic intelligence' needs to be noted as he enjoys creating things with his hands. But then, our schools, it seems, are reluctant to see beyond logical-mathematical reasoning or, for that matter, linguistic and verbal intelligence.

Every child is unique. However, as the institutionalised and bureaucratic formal education moves towards standardisation and uniformity, it demoralises young minds. With the manufactured stigma of 'failure', their psychic depression might turn them into lonely, tormented and eventually misdirected outsiders.

Amid the glitz of 'success', are we ready to question the officially sanctified narratives of 'failure', accept the plurality of aptitudes and life choices, and thereby save these students from the process of breaking down? 7/11/13



# The future of sport is Asian

Sport is driving national transformation in some countries while enabling others to rehabilitate their reputations

On February 1, 2019, Qatari footballer Akram Afif scored the winning goal in his nation's Asian Cup Final victory over Japan in the United Arab Emirates. Within days of this, Parag Khanna published his prophetic text *The Future is Asian*, in which he explained how a pivot from the Global North to the Global South will bring the ascent of nations from across Asia to new positions of international power as the 21st century progresses.

For Qatar, this ascent began to gather speed nine years earlier when, in 2010, it won the right to host FIFA's 2022 World Cup. Yet even in 2019, Doha was already positioned as a major sports event destination, hosting both the World Athletics Championship and FIFA's Club World Cup. By that stage, it was clear that Asia's rise was more a case of reality than prophecy. Indeed, in another book published that year, Fatima Bhutto heralded three new kings of the world (Bollywood, Dizi, and K-Pop), to which she could now add the likes of the Indian Premier League (IPL) and Saudi Arabian football's Pro League.

This wind of change has been blowing for at least two decades and is not simply a matter of where sports events

are staged, or which countries have large populations to sustain them. For instance, Asian companies are increasingly becoming major backers of sport with China contributing the largest number of the Olympics' global sponsors. Otherwise, think Real Madrid's team shirt sponsor (Dubai's state-owned Emirates Airline) or one of Formula 1's most prominent partners — Petronas (Malaysia's state-owned petroleum corporation) — and Asia's growing commercial presence in sport is clear.

Similarly, there is a growing Asian presence in sports governance, perhaps most pertinently illustrated by Nasser Al-Khelaifi. The chairman of Qatar Sports Investments, Al-Khelaifi led the acquisition of French Ligue 1 football club Paris Saint-Germain, for which he now serves as president. Through this role, he was able to become chairman of the European Club Association (which represents organisations including AC Milan and Manchester United), which, in turn, secured him a position on UEFA's executive council. All of which means that an Asian now sits at the heart of one of European football's most important decision-making bodies.

Meanwhile, over at the FIA — motor-sport's global governing body — Dubai's Mohammed Ben Sulayem became its first Asian as well as its first non-European president in 2021. Whether it is European governance (Switzerland has long been the home

of global sport's most important governing bodies) or United States (US) business, the Global North's sporting hegemony is under threat like never before (although America remains the world's largest market for sport, at least for the time being). This is the result of several factors, most notably globalisation, resource endowments, and digitalisation.

Just as the world in general is now more multipolar, so too is sport. New centres of power have emerged — in post-colonial Asian nations like Qatar and Singapore (which even has its own sports hub), but also in environments that exhibit both a strong entrepreneurial spirit and a predisposition towards consuming sport (Lalit Modi and the IPL

being a good example of this). As Asian nations have risen, so European nations have struggled somewhat; many are still recovering from the shock of the 2008 financial crash, later compounded by the Covid pandemic, which has resulted in increased reluctance to spend lavishly on sport.

In several cases, popular referendums have been held in Europe (Munich and Krakow being two such cases) in which local populations were asked whether their cities should bid to host mega-events. Faced with stringent fiscal choices in such instances, people have voted 'no'.

As democratic discomfort has somewhat diminished the Global North's appetite for sport, States and government institutions in the Global



In 2010, Qatar won the right to host FIFA's 2022 World Cup

GETTY IMAGES

South have developed an appreciation for how powerful sport can be. The appearance of Portuguese international footballer Cristiano Ronaldo and the Argentine Lionel Messi in advertisements for the Saudi Arabian Tourism Authority is evidence of this. What is striking about Asia in this regard is how States are learning to play the games that have long been used by countries in the Global North, using sport as a means through which to project soft power being one example.

Even more significantly, Asian States have used their resource endowments to launch aggressive national strategies aimed at driving the development of sport. Qatar's spending on sports has been funded by its oil and gas revenues, which Saudi Arabia, set to host the 2034 FIFA Men's World Cup, is now replicating. India's large population makes for both a sizeable market and a source of talent, which sustains cricket but is also now seeing the country take sport more seriously from a strategic standpoint. Countries including China and Indonesia take a similar view, the government in the former still retaining a hope that it will become the world's largest domestic sport economy by 2025.

Thanks to a combined population of more than three billion people, the market for broadcast sport in China and India is huge, well-established,

and powerful. In its pursuit of lucrative new revenues, Spanish football's La Liga decided to break with decades of tradition by bringing forward kick-offs to lunchtime so that games can be beamed directly into Chinese homes during the Saturday evening peak period. In India, IPL cricket matches have long been famed for their television appeal. However, the streaming of them is breaking new records and setting standards that other sports elsewhere in the world may currently only aspire to. Earlier this year, India's Reliance Jio Cinema broke the world record for the most concurrent viewers of a live-streamed event.

Khanna and Bhutto were undoubtedly correct in their earlier assessments of Asia's rise, though they did not identify the role that sport would play in the processes they examined. No matter, mounting evidence shows that sport is driving national transformation in some Asian countries, enabling others to rehabilitate their reputations, whilst also stimulating new technologies that are changing the industry. There is surely no doubt about where we will be in 2100, perhaps even sooner, the future of global sport is Asian.



Simon Chadwick

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# Improve teacher quality to raise school standards

India has about 1.5 million schools, 9.7 million teachers and a total of 265 million students, the largest school education system in the world. The teacher-to-student ratio, at least on paper, seems reasonable as does the curriculum being taught. Yet the downslide of the quality of Indian education is generally acknowledged and is extremely worrisome. The reasons for the poor quality of education are manifold. The primary reason is the quality of school teachers and their training. Quality school teacher pedagogy is the foundation of quality education; for the level of education cannot rise above the quality of teachers.

However good the basic qualification of school teachers (in India restricted to suboptimal (mostly) distant correspondence degrees in B.Ed and M.Ed), even the best of these basic qualifications cannot equip teachers for life-long teaching. Further, in a globally connected world, the teacher must be educated and updated about social, political and technological changes for students to be equally aware of the consequences and implications of these changes and be suitably conscious and responsive.

The National Education Policy (NEP) 2020 emphasises the importance of teacher training programmes that focus on developing pedagogical skills among teachers. It also highlights the need for teachers to have access to ongoing professional development opportunities that enable them to stay updated with the latest advances and ideas in both pedagogy as well as subject content. Teacher pedagogy and the continuous professional development of teachers are inextricably linked to providing quality education. Effective pedagogy creates a nurturing learning environment, while continuous professional development ensures that teachers remain at the forefront of educational innovation. Educational institutions, policymakers, and educators themselves need to prioritise and invest in teacher pedagogy and continuous professional development to elevate the quality of school education and create lifelong learners.

The ministry of education has followed up the NEP recommendations and defined many teacher training schemes under the Pradhan Mantri Yojana, schemes which by their admission, need strengthening and financing. While these steps are being concretised, there are possible immediate steps that can be

implemented to enhance the awareness and skill sets of the teachers.

Most government school teachers would not have stepped out of their immediate school environment after being admitted into the teaching services. They have not been exposed to the best education systems in India, let alone the world. While universities, IISERs, IISc and even IITs have open houses for school students, these institutes have limited interaction with teachers. The central universities, IISERs, IITs, and IISc, all under the remit of the ministry of education and other research institutions, can design and curate innovative conferences, workshops, short-term training courses, interactive visits and demonstrations for school teachers in their district and/or neighbouring districts. The design needs to be innovative, allowing

interaction in regional languages, active participation of school teachers, and providing within the intellectual horizons of the participants, a functional experience that can enhance teaching skills and enthusiasm. The exposure to the best institutes and minds in India as well as to the latest educational tools and subject updates would be a lifetime experience for school teachers. The possibility of generative AI to augment teacher training and teaching must be explored, especially in regional languages.

The interaction between teachers from schools and higher education institutes will also lay the bridge for better-quality students crossing over to higher education institutions. The suggestion would be to start with the bottom half, in terms of quality, of the teachers and then, move to better teachers.

Instituting teaching assistantships/fellowships over and above the existing fellowships for doctoral and postdoctoral scholars to prepare and conduct lectures, assignments and discussions for school teachers would be a win-win, with teachers being updated, filling in for a large number of teachers on leave, while inspiring some research scholars to take up teaching as their career choice. This activity can be mandated to District Institutes of Teacher Education (DIETs).

Finally, a teachers database — not in the public domain though — must be maintained at the district level, which grades teachers on well laid out performance parametric. This database can be used by central/state governments to felicitate/incentivise performing teachers. Transparency in the selection of deserving teachers is a must, as opposed to a bias-driven nomination process.

In a resource-constrained country with a burgeoning student population, it is important to collaborate, mentor, and teach to improve the quality of education. In the Indian context, it has to be a collective responsibility. Creating opportunities, and providing better methods for teacher training and upskilling at scale, are imperative. The immediate present and future of the nation rests in the hands of capable teachers. The education landscape in India is evolving; improving teacher quality and pedagogical innovation to enhance the overall rigour of education in the country, must be an immediate and urgent priority.



Shailja Vaidya Gupta



Quality school teacher pedagogy is the foundation of quality education HT ARCHIVE

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HT/16



# Exemplary outreach

*Through its scalable partnership model, Oasis has been successfully implementing life education programmes for teachers and students across India, and now eyes abroad as well*

Nexus of Good



ANIL SWARUP

**E**ducating the mind without educating the heart is no education at all, so said Aristotle. Truly speaking, education, if it does not create a better human being and a responsible citizen per se, then is it education at all?

Over the last three decades, Oasis has attempted to identify and complement this vacuum of humanness and life-education in the present system through its scientifically researched programmes.

The year 2022 began with a series of state government as well as non-government partnership MoUs across 10 regions of India as part of Oasis Initiative Partnership for Positive Change (P4PC), with a selfless spirit of Giving by Paying It Forward. Every engagement focused on influencing the environment around the young generation in particular by demonstrating personal change and self-leadership.

The execution stage commenced with introductory 3-day Oasis L3 (Live-Love-Learn) workshops for selected batches of Hols in each partnership. More than two dozen workshops, mostly residential, were conducted across India, covering nearly 500 Hols, including Principals, Headmasters, and selected lead teachers of schools in Jammu & Kashmir and Tamil Nadu, Block Resource Coordinators in Gujarat, SCERT officers of the School Education Department in Telangana, NSS Program Officers of the Collegiate Department in Telangana, and educators at the Kerala State Civil Services Academy. Additionally, workshops were held for founders and heads of NGO collectives, especially educational trusts representing rural and urban sectors in Delhi NCR, Tamil Nadu, Gujarat, Odisha, and Madhya Pradesh.

While the pilot programmes of Oasis partnerships begin



Oasis Movement deservedly won the Nexus of Good Annual Award, 2023

with Teachers Education, the ultimate beneficiary essentially is the young generation. And so has been the design of every project nationwide — be the change you wish to see in the world and the future generation.

Oasis National Leadership Retreat in January 2023 celebrated this journey of diverse pilots in all these regions. It brought together around 120 representatives from various state government education departments and NGOs. Representatives of each region underwent National Facilitators Training Retreat to enable them to be catalysts to cascade Oasis programmes for teachers and students in their respective cities and states.

One of the first to be initiated was at Telangana Collegiate Education Department in partnership with NSS. Thirty programme officers representing one selected government college from each district of the state underwent a yearlong course of intensive self-education and empowerment in 2022. The training was conducted at Oasis Valleys, Vadodara. These POs then led a month-long Oasis Misaal project in all colleges — a systematic 3 layered programme to identify, nurture and prepare young changemakers.

More than 1,500 youth from 30 colleges participated through

three screening stages of creative essays, group dialogue and project work. 174 youth successfully emerged as potential change-leaders.

The celebration event held at Hyderabad marked the success of this first phase of partnership where these young leaders and educators came together to share their joy and resolve to make a difference to the community around them.

These NSS POs who were further empowered as master trainers facilitated Oasis L3 workshops for these young leaders to aid their learning journey as changemakers. In the next phase, they will be empowered as facilitators to conduct Oasis Life camps for students of government schools, especially rural ones across the state.

Yet another major initiative began in the Jammu division of J&K post fresh term in June. The master trainers from Jammu team conducted Oasis Jyotirdhar workshops for around 55 principals of government schools in Jammu district as a pilot. These principals, in turn, nominated lead-teachers from their schools as facilitators for students' programmes. The master trainers undertook yet another series of Oasis workshops to first sensitise these teachers. Later, an Oasis team of facilitators from Jammu

reached Jammu to conduct Oasis Life Camp training and demo camps. Furthermore, the new facilitators independently undertook these 3-day camps to aid self-confidence of the young for nearly 500 students of 8<sup>th</sup> grade in Jammu district as a pilot attempt. The Festival of Life camp is scheduled to touch 5,000 students this winter through this team of new facilitators across the district of Jammu. This success run will then be replicated in other districts, especially KGBVs for girl children.

Similar initiatives in the Kashmir division engaged 78 teachers for the Life Camp Festival in April 2023, touching more than 1,500 students through 50 and more camps in Srinagar district.

Oasis Jyotirdhar workshops were also conducted by master trainers in Kupwara and Budgam districts involving 66 school principals. Similar to the Jammu model, Life Camps are planned to reach 5,000 students, with special emphasis on girls from KGBVs and disadvantaged, tribal sectors through the Saamarthya Project.

Another independent initiative was led by the young enthusiastic educators of Kerala State Civil Services Academy through two novel programmes for secondary grade school students. These are: Save Our Students — to aid prevention of unfortunate trend of suicides due to exam pressure — and Oasis Life Classes to boost their self-confidence and aspirations. More than 1,100 students benefited in this process.

Under the aegis of Pay It Forward partnership project for NGO collectives, trainings were organised for NGOs at Odisha and Delhi NCR. 16 Life Camps were conducted, benefitting around 400 students. In Gujarat, more than 3,200 students were benefited by 72 camps facilitated

by 45 youths and adult trainers.

92 Young aspiring student leaders selected across 6 states of Telangana, Karnataka, Kerala, Delhi, Odisha & Gujarat through NGO partners participated in National Oasis Dream India Camp at Vadodara campus. Saamarthya Dream India Camp for 60+ girl-leaders from schools of partner Trusts in rural Gujarat was also organised to promote girl leadership in tribal regions.

Overall, the Oasis programmes could impact more than 7,500 young students through the fresh team of trained educators across India in the pilot phase 2022-23.

Sharing the holistic impact of Oasis programmes, B Yugandhar, a senior programme officer from Telangana Collegiate Department says, "This is the most life changing workshop I have ever attended. While it helps us prepare young Misaals (change makers) for the nation, at the same time, the adult educators also get a platform to change themselves physically, mentally, emotionally and spiritually." "This kind of education must be compulsory for all teachers and staff of the education sector", adds a BRC official from Gujarat.

The movement recently got an opportunity this October to showcase its scalable partnership model at the International Democratic Education Conference (IDEC)-2023 Kathmandu, Nepal. It is now gearing up with a fresh adventure to share its life education programmes for teachers & students with interested alternative education partners in different countries across the world.

Oasis Movement deservedly won the Nexus of Good Annual Award, 2023 for scalable initiatives it has taken to transform the lives of youngsters in the country.

Views expressed are personal

The Oasis programmes could impact more than 7,500 young students through the fresh team of trained educators across India in the pilot phase 2022-23



# Need to teach the country management



PRAFULL GORADIA

Not a single institute in the country teaches the art and science of managing a nation. Time we have specialised institutes for the country management

Approximately, there are 4,000 management institutions across the country, specialising in finance, human resources, modern communication, marketing, etc. Yet, not a single institution teaches management of the country. National management should have been considered the most important, affecting every citizen.

Management science emerged about a century ago, during World War I when German army officers analysed their army's efficiency. One study revealed an important fact—there were four non-combatants operational for one frontline soldier. In contrast, the British frontline fighting soldier had ten non-combatant personnel supporting him. Organisationally, the Imperial German Army was two-and-a-half times more efficient than its British counterpart.

Other militaries also carried out similar studies, from which the phrase "tooth-to-tail ratio" was born; the teeth being the fighting soldier. Later, this entered the commercial world where employees were divided into revenue-earning staff and others with general tasks.

Business management schools began taking off, especially after World War II, proliferating in the 1970s into hospitals, hotels, colleges and schools. Teachers became headmasters, professors became principals and doctors became superintendents. Jaslok Hospital in Mumbai was the first medical institution to be planned according to management principles.

For a long, administration was conflated with execution and/or management, with little realisation that the former's focus is discipline, whereas the latter's is result(s). This lack of awareness has brought down many countries' economies. More countries are mismanaged than managed properly. Bharat too was unaware, until 2014 that it had to be managed—call it governed—and not merely administered. India's first Prime Minister Jawaharlal Nehru deserves credit for being conscious of planning. He did not wait for the first parliament to be elected and established the Planning Commission by a cab-



inet fiat. Yojana Bhavan functioned somewhat like the Gosplan of the (former) Soviet Union.

Bharat was governed better than countries in our immediate neighbourhood; most are on the verge of bankruptcy. China's example is unique. Its growth and development on the morrow of Mao Zedong's passing away have been undoubtedly phenomenal. His successor Deng Xiaoping's tenure was outstanding by any measure, but somewhere down the years, the exertions of the regime in Beijing violated a fundamental management principle. No economy should produce anything indefinitely unless there is a market. China believed its economy could grow by pegging its fortunes on the real estate industry. Its regime began with roads and airports and ended with residential apartments.

This building spree increased the need for cement, steel, bricks and other goods, also employing a large number of people as workers. Real estate became an engine of rapid growth and was pursued with gusto. Exports were built up with the growth of apparent financial surpluses.

Some national assets were exchanged in return for hard currency, but the Chinese regime ignored this. Multinationals and non-residents jumped onto this band-



MANAGEMENT  
SCIENCE EMERGED  
ABOUT A CENTURY  
AGO, DURING  
WORLD WAR I WHEN  
GERMAN ARMY  
OFFICERS  
ANALYSED  
THEIR ARMY'S  
EFFICIENCY

wagon. Money was borrowed through banks, through deficit financing. The sale of millions of new residential apartments rested on hope rather than demand. Unsold apartments cannot go on propelling the economy beyond a point.

The ruling elite of Pakistan showed no interest in understanding economics. They took no note of the fact that neither wing of their country, east or west, had much industry. During the Ayub Khan regime, Pakistan had some 22 elite and rich families who could supposedly propel the country's economy. But 14 of these 22 families were Gujaratis; Memons or Khojas, who had migrated there after Partition, with little local talent.

Pakistan's politicians were busy with their intrigues and took little interest in industrialisation. Pakistan's first president Iskander Mirza understood this situation. He believed the government should steer clear of religion or the military. Religion led to bias; while the military was meant for defence, it had no understanding of civilian economics. Unfortunately, Pakistan made both these mistakes. The country jumped to the American call to join the Baghdad Pact, later called the Central Treaty Organisation (CENTO). Foreign aid into Pakistan began flowing and imports were liberal, making

indigenous manufacturing unnecessary. By 2016, aid from the USA virtually dried up and the generals did not know where to look for aid, except China. Beijing demands interest plus guarantees, including forfeiture of territory in the event of non-repayment.

Sri Lanka's story is different, but its government did violate fundamental rules making the country suffer. Myanmar has been under military rule since 1958. Bangladesh has an inherently weak economy, while Nepal is yet to experience full development. Shining national management sagas are Germany and Japan after WWII. Singapore is the brightest jewel, although a small one, sculpted by the legendary Lee Kwan Yew. Bharat has today been the best government since its independence. Before we conclude, we should draw readers' attention to the USA, a systemic rather than managerial success. Its constitution has given the country a unique structure with a separation of legislative, executive and judicial powers such that, within reasonable limits, no matter the quality of the individual governor(s), the country has kept flourishing for over two and a half centuries. This merits a separate study.

(The writer is a well-known columnist, an author, and a former member of the Rajya Sabha; views expressed are personal)

Pic/c



# Evacuated from Ukraine, Indian MBBS students resume studies in Uzbekistan

PTI ■ SAMARKAND (UZBEKISTAN)

**E**vacuated from war-hit Ukraine in 2021, hundreds of Indian MBBS students, who thought their academic journey was over, have resumed their studies and started new lives in a leading medical university in Uzbekistan.

The Samarkand State Medical University in Uzbekistan has accommodated over 1,000 Indian medical students from Ukraine after the Indian Embassy in Ukraine reached out to them enquiring if the affected students can seek a transfer.

Amit from Bihar's Begusarai, spent one night in a basement in Ukraine when Russia attacked. He was among the students evacuated by the Indian government under the 'Operation Ganga' initiative.

'Operation Ganga' was the initiative launched by the government of India to bring back

Indians stranded in Ukraine. A total of 18,282 Indian nationals were evacuated under the initiative.

"I thought I wouldn't make it and would either die or will be stranded in Ukraine. Once I was back home in India, me and my family were relieved but then began the never-ending cycle of uncertainty about what was next. I had finished three years of my MBBS in Ukraine and to start all over again or pursue something else was not an option I wanted to consider. I later decided to move to Uzbekistan," Amit told PTI.

Tanwi Wadhwa from Punjab's Ferozepur, who was studying at Bukovinian State Medical University in Ukraine, was apprehensive about joining the university due to the loss of a semester.

"I attended online classes for eight months. We were hopeful that the war would end and we would go back. Some students

even went back from different routes but I didn't want to take that risk. I evaluated all options from Georgia to Poland and decided to come to Uzbekistan. The university admitted us a semester back, I was initially apprehensive about the loss of one semester but later I changed my mind and it was worth the decision," she said.

Divyansh from Meerut who used to study at the same university as Wadhwa said Uzbekistan's universities offered teaching and learning in English and the curriculum was on the same lines.

"Not all countries have universities which offer English as a medium of instruction. So that was a very important factor. Quality of life is similar in Ukraine and Samarkand but this place feels safer now," he said.

Around 19,000 Indian students were studying in Ukraine when the Russian invasion began in February 2021. 910



# NEW IMPORT

**F**oreign higher educational institutions opening campuses in India may be an exciting moment for India's education system. They could offer new stimulus to studies here, although the National Education Policy, 2020 envisaged greater things. Indian students would receive the education available in the best universities abroad without great expense or change of location. It would also turn India into an educational hub with international staff and students flocking to the campuses. Now that the University Grants Commission has finalised the regulations for FHEIs, the possibilities may still cause excitement, but perhaps not in the expected way. To establish a campus in India, an FHEI would have to be among the 500 best in global rankings, or in subject-wise ranks. Since there is more than one ranking agency, this vagueness opens up the route for less-than-the-best universities which, since they shall be allowed to repatriate revenue, could look to making profits. Surely that was not the NEP's goal?

The UGC alone will consider applications and, once a campus is opened with a fee, it will monitor the courses, quality of education, its suitability, the number of awarded degrees and graduating students. The best foreign institutions that are, in any case, hesitant to open overseas campuses because their ethos and tradition cannot be transported wholesale, might not be eager for UGC scrutiny. Especially since the UGC can suspend or withdraw permission if it is not satisfied — if a course hurts India's sovereignty and security, for example. That, again, is too vague. Besides, what is 'quality', and who will assess whether it is at par with that on the home campus, as demanded? The FHEIs, however, will have their own recruitment and admission policies, fee structures, courses and can award degrees and conduct research. But a law, not a regulation, permits a university to confer degrees. FHEIs are being introduced without the scrutiny of a legislative process. Also, Indian public universities have to follow UGC guidelines regarding recruitment, fees and courses. How would higher education in India be enriched by this divisiveness? A collaborative model, instead, could benefit both sides. But will FHEIs stop students from going abroad and learning from a different culture and environment? There are only around 333 FHEIs in the world. Should the government not look deeper into the reasons for their scarcity?

TC/16/19



# AI can play the sleuth to expose scientific fraud



**ATANU BISWAS**  
PROFESSOR, INDIAN STATISTICAL  
INSTITUTE, KOLKATA

**T**WO prominent cases of data fraud, both in the academic domain, have been in the news in the US. Ten research publications by Johns Hopkins professor and 2019 medicine Nobel Prize winner Gregg Semenza were retracted due to falsified data and images. Retraction of research papers isn't a new phenomenon, even among Nobel laureates. The 2018 chemistry Nobel laureate, Frances Arnold, retracted a 2019 paper when she was unable to replicate the results. Linda Buck, the 2004 Nobel laureate in medicine, retracted papers published in 2005 and 2006. However, it's unusual to have 10 retractions of papers published within a 15-year period.

Prof Francesca Gino of Harvard Business School was sent on administrative leave following allegations that she had systematically manipulated data and falsified results in four papers that she co-authored. A group behind the *Datta Colada* blog sent a dossier detailing the anomalies to Harvard University in

2021. When examining version control (the practice of tracking and managing changes to a software code) in Microsoft Excel, different rows inside a spreadsheet appeared to have been manipulated. The data following the alleged manipulation did appear to demonstrate the effect the researchers had hoped to find, but the data before the apparent manipulation failed to show it, as the experts perceived. Gino, however, filed a multimillion-dollar lawsuit against the university and her accusers.

While it makes sense that accusations of fraud, including everything from economic to medical data, garner a great deal of public attention, scientific fraud is surprisingly endemic. Selective use and publication of data are also serious types of misconduct. The Oil Drop Experiment (1909) by Robert Andrews Millikan is well known for yielding the electron's charge. After his passing, it was discovered that Millikan examined 140 data points; each was recorded in his notebook. But he chose only 58 'good' data points that supported his theory.

In the 1980s, the academic community was rocked by the John Darsee case. Darsee was a young clinical investigator with a bright future in cardiological research. He had a long list of publications in prestigious journals. At the age of 33, he got an opportunity to join the faculty at Har-



**MISLEADING:** Manipulation of data and images is quite common in scientific publications. iStock

vard Medical School. However, his career soon started to unravel. By May 1981, his colleagues, suspecting regular and systematic falsification, were making allegations. Darsee 'expanded' other data to report more significant results, according to investigators, and had reported data from experiments that were never performed. Over 80 of his papers were removed from the literature. Finally, he apologised for disseminating 'inaccuracies and falsehoods'.

To what extent does data fraud or its allegations exist? Around the time Darsee was exposed, William Broad and Nicholas Wade, two former news reporters for *Science*, gave an intriguing and unsettling picture of scientific

A strong database  
may enable a  
powerful generative  
AI to verify various  
types of image  
and data fraud.

fraud by compiling case studies of scientific research misconduct in their 1982 book *Betrayers of the Truth: Fraud and Deceit in the Halls of Science*. They asserted that the practice is and has always been pervasive.

Galileo's results on falling bodies, which lacked experimental evidence, and Ptolemy's observations of the stars, which were made in the great library of Alexandria instead of beneath the night sky, are two such examples. And there is the case of Gregor Mendel's work on genetics, which is statistically too perfect. Indeed, an eminent British geneticist and statistician, Sir Ronald Fisher, discovered in the 1930s that the ratio of dominant to recessive phenotypes was implausibly

close to the expected ratio of 3:1 after reconstructing Mendel's experiments. Fisher came to the conclusion that "the data of most, if not all, of the experiments has been falsified so as to agree closely with Mendel's expectations".

These are but a few high-profile instances. Daniele Fanelli of Edinburgh, UK, in a 2009 paper published in *PLOS One*, wrote that an average of 2 per cent of scientists admitted to fabricating, falsifying or altering data at least once — a serious misconduct by any measure — and up to 34 per cent of scientists admitted to engaging in other dubious research practices. One may ponder: were there many who didn't acknowledge it, perhaps?

Can statistics really help identify data fraud? Always? Regrettably, no. Never is that simple. The book, *Fraud and Misconduct in Biomedical Research*, edited by Frank Wells and Michael Farthing, examines the roles of statistical analysis, peer review and routine enhanced audit in this context. However, let's be honest and acknowledge that available technologies for detecting data fraud are still unable to handle every scenario. Furthermore, statistical methods frequently produce results that are blatantly inconclusive and only serve to cast doubts on the facts at best.

And then there is the extraordinary example of a 'data detective', Dr Elisabeth Bik, who is a microbiologist

by training and a scientific misconduct hunter by passion. She got engaged in uncovering the dark side of science by independently detecting thousands of studies containing potentially doctored scientific images using only her eyes and memory. The narrative of this Stanford microbiologist shows how an astute scientist evolved into biology's 'image detective'. After looking over 1,00,000 papers in her areas of expertise, she discovered apparent image falsification in 4,800 of them and other indications of fabrication in 1,700 more. So far, her reports have resulted in about 950 retractions and corrections appearing in numerous other publications. Furthermore, this suggests that manipulation of data and image in scientific publications is quite common.

As we are living in the age of artificial intelligence (AI), can AI play a 'data detective' for scientific research as well, potentially bringing about a revolution on the ethical front? Big data analytics can now help detect plagiarism to a considerable extent. Similarly, by swiftly performing statistical tests and statistical pattern matching, a strong database may enable a powerful generative AI to verify various types of image and data fraud. Consequently, it may become easier to spot fraud in scientific research, especially data fraud. The same is true for examining data fraud in relation to different social, economic and medical datasets.



# Politics is Part of Any Intellectual Exchange

Days after a protest outside the IIT-Bombay campus against guest speakers for supposedly 'glorifying terrorism' while discussing the Palestinian freedom struggle against Israel, IIT-Bombay recently asked its faculty members and students to get prior approval if they plan to invite external speakers for a talk or to screen films if the content can be construed as 'political'. IIT-B's over-cautious attitude needs a rethink if it is to be considered a serious institution for the exchange of ideas and intellectual discourse.

An institution of higher learning must be a safe space where students must not be intellectually mollicoddled or corralled. Different views can only widen their worldview and sharpen their cognitive prowess. Even if a panel is set up, it should not have veto power. At best, it can be an advisory group to guide students on how to ensure that a lecture or panel discussion is an enriching one, especially if it holds different, even opposing, views. To want an intellectually active society that holds only a particular set of views is having one's cake and *not* eating it too.



Conflating 'trouble' with examining 'trouble' is a sure recipe for blinkering curiosity and knowledge. As long as no law is broken and matters don't become inciteful — matters political are the warp and woof of intellectual development as much as scientific development in an age where science and ethics are tighter bound than ever. Taking the easy way out — making political discussion verboten — will hurt IIT-B. Instead, the administration must connect with its faculty and students to ensure that the institution remains the centre of true learning, where students can access different views, examine them and question all assumptions. *erhu*



# Mis-Employ Jobs Data?



**Soumya Kanti Ghosh**

According to the latest Periodic Labour Force Survey (PLFS), India's unemployment rate revealed a big decline from 6.1% in 2018 to 3.2% in 2023. The numbers, as expected, have created a storm. PLFSs were initiated in 2017 to overcome the issues of National Sample Survey Office's Employment and Unemployment Surveys (NSS-EUSs).

The earlier EUSs were based on expenditure (urban) or livelihood (rural) of households, thus, perhaps having a built-in mechanism of a downward bias as consumption expenditure in India is always on the higher side. For example, in 2009-10 just after the crisis, the unemployment rate was estimated at a measly 2%.

Even in the 1970s, it was 2.5-2.6% during periods of 'Hindu rate of growth' and minimal levels of capital formation and savings. The methodology currently adopted for PLFS is based on the education level of households, where larger weights are assigned to households having a higher number of Class 10 pass outs above the age of 15.

Coming back to the unemployment data, most of the cacophony by 'labour economists' is regarding the large share of self-employment and the estimates of youth unemployment. Let us examine both.

► **Self-employment:** There has been a jump in the self-employed populace, as PLFS reveals within the employment estimates, to 57.3% in FY23 from 52.2% in FY18. The main traction comes from a rising share of household helpers. Such an increasing share of people who do not draw any remuneration has been cited as evidence of labour market distress. However, in hindsight, these are grossly mis-

leading arguments because:

▷ The central tendency of the self-employed in India's labour force has always been trending much above 50%, even during the NSS-EUS days during the 1980s-2000s. This is not a recent trend.

▷ GoI's emphasis on entrepreneurship through Pradhan Mantri MUDRA Yojana (PMMY), and more recent post-pandemic schemes like PM Street Vendor's Atmanirbhar Nidhi (SVANidhi) for those at bottom of the pyramid, is imparting a structural transformation for informal labour markets through formalisation of credit for such family enterprises. These are getting bigger.

► **Youth unemployment:** Those employed in the 15-29 age group, as per PLFS, is as high as 10%. However, in this age group, it significantly declines to 3.4%. Critics argue that this is a case of serious youth unemployment. But it's more a reflection of changing employment patterns, with the percentage of men/women in the education system being very high until the age of 23-24.

As per PLFS, these people are not counted in the labour force as they are still in college. This could, thus, push up the unemployment rate in the 15-29 age bucket as a pure statistical artefact (as unemployment rate is explained as a percentage of labour force).

Such a shift in employment pattern should result in very different unemployment rates for higher age buckets, say, 30-plus, when most of such students complete their education curriculum. PLFS does not report this. Based on the unemployment estimates and the age

group-wise population shares provided, the unemployment rates for the 30+ age group can be inferred.

For example, in the 15-29 age group, the PLFS urban male unemployment rate was 13.8%, declining to 2.9% for the 30+ urban male group. Such lower values are possibly reflecting that while the 15-29 age group is considered working age, the entire population in this age group may not be in the labour force.

Now, some thoughts on private unemployment surveys published by the Centre for Monitoring Indian Economy (CMIE). The good thing is the average urban unemployment rate through the CMIE survey and PLFS are nearly the same for the quarterly data of June 2018-June 2023. However, the not-so-good thing is that unemployment measured through CMIE urban employment has larger values compared to PLFS'.

There could be several reasons for this, notably the shifting priorities in the Indian labour market. In particular, the sample respondents might be changing. People in the lower strata are moving up, with their household addresses thereby changing. So, CMIE may be concentrating more on stable households, thereby on stable income, resulting in an average higher sample coverage of mostly people with stable income, and, hence, the bias.

Also, rural unemployment and employment generated under MGNREGA should be negatively related. However, CMIE rural unemployment and MGNREGA employment have been moving together.

PLFS is an apt representation of employment/unemployment estimates in India. It is granular and conducts stratified sampling in an optimal manner. But such data should not be peddled to create a misleading narrative, as it deflects us from the actual employment problem confronting India today: that of producing better-quality jobs.

The writer is group chief economic adviser, SBI

ET/14



FILE PHOTO

**Apply, those numbers**



# Ivys To IITs

*Academic tolerance of diverse opinions on hot button issues is under threat. That's a terrible thing*

The extent to which the current Israel-Hamas war is testing universities' commitment to freedom of expression has been startling, especially in the US. Given how long this conflict has been heatedly debated on campuses, passionate voices holding opposing positions were expected to find ways to continue to coexist. Instead, student groups are being suspended and calls for firing faculty are growing loud, simply for their speech acts. This 'cancel culture' is making its way to Indian shores as well. IIT Bombay has followed up controversy over a guest lecture and a documentary about the Palestine situation, with draconian guidelines on future events. When even elite institutions succumb to prohibitions so easily, it speaks very poorly for the prospects of free inquiry that should, in fact, thrive in the scholarly ecosystem.



There is a reason the autonomy of higher educational institutions is considered critical to their pursuit of academic excellence. Think about how unpopular the ideas of Galileo Galilei and Charles Darwin were in their own time. Universities that prioritise political or populist patronage over the pursuit of knowledge serve the cause of their own hollowing. In the present case IIT-B is saying it encourages open discussions as long as these remain apolitical. But this is the *sine qua non* of censorship. There can be no scientific yardstick to decide which technical, literary or artistic events are political and which aren't. The effect of such powers on free speech is more chilling because these are exercised arbitrarily.

American social reformer Frederick Douglass insightfully said way back in 1860 that to suppress free speech is a double wrong, because it violates the rights of the hearer as well as those of the speaker. At a time when extreme polarisation is doing widespread harm to social good, universities are uniquely placed to teach young citizens how to listen to discomfiting opinions instead of only occupying echo chambers. If the answer to every conflict is to hunker down in opposing bunkers, that only pushes peace and progress further away. *to the*



# Toilets in schools

SC pushes for well-being of students

**V**ARIOUS studies have shown that the lack of clean and functional toilets in schools directly impacts education. Menstruating girls bear the brunt, leading to low attendance and some even choosing to drop out.

Instances abound of students limiting their consumption of food and drinks to avoid having to use the toilet. A 2020 survey of 1,967 co-educational government schools found that 40 per cent of the toilets were non-existent or unused. Nearly 72 per cent had no running water. The Supreme Court's directive to the Centre to upgrade the sanitation infrastructure is significant. The government has been asked to formulate a national model for building toilets commensurate with the number of girls in government-aided and residential schools.

Earlier, all states and UTs had been ordered to submit their menstrual hygiene plans. Specific information was sought on the steps taken to provide low-cost sanitary pads and vending machines in schools as well as appropriate disposal facilities. The apex court has now called for adopting the best practices and bringing uniformity in terms of modalities for the distribution of sanitary napkins. The Centre has said its draft national policy on menstrual hygiene has been sent to the stakeholders for eliciting comments.

It was almost a decade ago that the Supreme Court ruled that all schools must have separate toilets for boys and girls and adequate water facilities, terming these as integral to the Right to Education Act. According to surveys, girls' participation in education has considerably increased after the construction of toilets. Ensuring efficient sanitation becomes all the more vital. It's a simple question of priorities. Lack of funds is a disingenuous argument when the end goals are to enhance the well-being of the students and the staff, prioritise privacy and promote hygienic practices. Tn/6



# Education and pollution



KRISHNA KUMAR

Why a cautionary speech in school's morning assembly, or cancelling an open-air sports day, is not enough

THE CHILDREN HAD rehearsed the sports day rituals in the playground. So, despite the awful pollution, they were told to go through the programme outdoors. Neither the principal nor the physical education teacher saw the implications of this decision. Changing the programme wouldn't have been exactly an earthshaking or embarrassing reversal. It would have been the right step if children's pulmonary health were a concern. And no one would have denied it had the question been posed, let us say, by a journalist. Then, why wasn't the plan changed? The answer might be that "it was just a matter of two-and-a-half hours and children would be disappointed if the sports day were to be postponed."

No one on the staff could suggest such a change. The school's authority structure doesn't brook such a possibility. If the science or math teacher or other senior members of the staff had dared, they would have been pacified with a casual answer like "Oh, it's just for two hours". They wouldn't have persisted because it is none of their business. And, if they were worried about their own lungs, they were free to miss the function. For the science teacher to anchor her argument in her knowledge of particulate matter and the life-long danger it presents for children's lungs would have been seen as showing off. When the principal is around, no one has a say, even the vice-principal. The principal is the ultimate leader. Her leadership can cover an emergency decision, but air pollution doesn't seem to warrant it.

What about the parents? Why didn't they object? In most cases, they are simply too scared to complain about a plan the school has put out. The fear that someone who objects to the school's decision would be asked to withdraw his or her child from the school is quite real. As the macabre drama of a grand sports day unfolds in dense, smoky air, everybody is supposed to clap and click pictures. Cribbing on such a wonderful occasion will be seen as an out-caste's behaviour.

The overall change in the state of the environment is often a victim of subjective assessment. An older person might register a shift in the pattern of seasons or soil quality whereas a young person may simply take the present scenario as the only reality he or she knows. Fortunately, education has induced a considerable number of young people into a community of the concerned. This community is not exactly vast in our country. Also, it faces the daily hype of growth and grandiose achievements. Something as basic as air or water seems rather banal as a source of anxiety when a breathtaking future is supposed to be unfolding.

Pollution matters, but not enough to force a pause, let alone a change of course. It is like the landslides and floods in Himachal. The devastation they caused raised great concern, but not to a level that might bring about a change in policies, and certainly not enough to cause a reversal in decisions already taken. During a recent visit to Himachal, I saw how quickly the four-lane highways and flyover projects had been resumed. More such projects are now being presented as if the disasters experienced in the Manali area are now merely an unpleasant memory. The four-lane highway to Simla is an unending story. Those who believe in its correctness see the frequency of roadblocks as teething troubles. They have to be endured with courage, say the believers in the dream of tourism-based growth of the hill state's economy. In Uttarakhand too, projects that involve blasting of the fragile Himalayan hills are moving along nicely. The tunnel that has partly collapsed trapping labourers inside is the latest instance of nature's failed pedagogy. The tunnel is meant to bring Gangotri closer to Yamunotri in travel time.

The problem with environmental decay is that it is incremental. Dramatic events such as heat waves and floods tend to pass after displaying their fury. They don't necessarily settle the kind of debates that terms like "climate change" and "development" entail. Moreover, the overall change in the state of the environment is often a victim of subjective assessment. An older person might register a shift in the pattern of seasons or soil quality whereas a young person may simply take the present scenario as the only reality he or she knows. Fortunately, education has induced a considerable number of young people into a community of the concerned. This community is not exactly vast in our country. Also, it faces the daily hype of growth and grandiose achievements. Something as basic as air or water seems rather banal as a source of anxiety when a breathtaking future is supposed to

be unfolding. Neurosis often turns out to be the only equilibrium possible in the middle of heated, polarised discussions. They dominate the ecosystem of discourse while the real ecosystems descend to yet another level of irretrievability. Indeed, the term "ecosystem" has been successfully hijacked. Its avid users believe that every crisis, including that of the environment, offers an opportunity.

The relentless entertainment culture does not stop for air pollution or even acknowledge it. The day Delhi's air quality index turned "severe" last week, Akashvani's Rainbow channel on FM radio covered Delhi Haat in its live reporting slot. In it, the anchor who sits in the studio talks live to a roaming reporter. He went on and on about the joy that the diverse menus of different eateries at the Haat were offering to visitors. Not a word was said about the horrible air they were breathing. Nor did the anchor ask her roaming colleague to find out how the visitors felt about the smog. It was a glowing tribute to the "no negative thought" ethic followed on all FM channels, including the private ones.

The only people concerned about Delhi's air quality are the doctors. They speak and warn wherever they are given space in the media. Apparently, their warnings don't suffice to make anyone feel scared of poisonous air. Some school principals do talk about environmental problems in their morning assembly addresses. But when it comes to taking a hard decision, they flinch. Cancelling an open-air sports day function on a smoky day in order to protect children's pulmonary health is one such decision. It might have great potential for dramatically driving home the importance of clean air, but even that possibility is second to the pleasure of carrying on the business of education as usual.

The author is a former director of  
National Council of Educational Research  
and Training  
I E 18/10



# Sex Ed

*Sex education in India is still largely taboo; and while school curriculums deliver the basics, they skirt discussion, understanding, and openness*



SHUTAPA PAUL

**Y**ou know why we are a 'bursting at the seams with people' kind of nation when the chief minister of a state cites the withdrawal method during copulation as a safe technique to avoid unwanted pregnancies. Nitish Kumar's crass gesticulating and inelegant explanation of nocturnal carnal acts between husband and wife had the Bihar assembly in splits and gave his political opponents enough ammo to question everything from his sanity to morality. He did, however, in a most avoidable way, kick off an important discussion — India's dire need for comprehensive sexuality education. Not only because population control and safe sex are essential matters, but also because our 'leaders' confidently encourage unsafe methods of contraception. The brouhaha over Kumar's 'sex gyan' quickly became more about disrespecting women rather than his own ignorance. His remarks also reflected much of Indian society that even today thrusts the entire onus of contraception squarely on women.

While becoming an opportunity for political mudslinging, this incident was truly emblematic of our larger issue. For a country whose population lays testament to the furious levels of activity between the sheets, our approval to sex education however, is massively low. Say what you will about Akshay Kumar, but some of his films have done more in spreading awareness on sexual health (menstruation in 'Padman' and sex education in 'OMG 2') than the government machinery. The state administration is divided on the topic of sex education with Maharashtra,

Gujarat, Karnataka, Chhattisgarh, Rajasthan, and Madhya Pradesh having banned sex education. Can't ban rapes, child, abuse, and violence against women but by jove will we ban education! Ironically, *OMG 2* released with an adult certification and could only recently be watched by under-18-year-olds once it came on Netflix.

An article in *Sage Journal*, authored by Manoj K Pandey and TS Sathyanarayana Rao, refers to UNESCO global report from 2021 and states, "India lags behind many other underdeveloped and small countries, such as Congo, Kenya, Uganda, Ghana, and Sudan to name a few... We lack a uniform policy for conceptualization, planning, and implementation of compre-

hensive sex education. It is time to ponder upon what is holding us back?"

While much of the world starts learning about the birds and the bees (popularly accepted PG-rated nomenclature for sex-ed) from primary school, Indian kids are officially introduced to it in secondary school, or that's what we knew. As per publicly cited news reports, the draft version of the National Education Policy (NEP) in 2019 had included "sex education" in secondary school with a view to discussing family planning, consent, respect for women, sexually transmitted diseases, and so on. However, the final version had removed the mention of sex education purportedly after facing pressure from conservative right-wing

forces. Kumar's comments once again opened the floodgates on what is the most acceptable way of disseminating sex education in India? Is demanding sex education un-*sanskaar*? Currently, while health and wellness are included in school curriculum, the words 'sex education' is given a wide berth. In a bid to not seem encouraging of sexual activity among adolescents and teenagers, this opaquely tailored syllabus may offer the basics but will never permit open conversations around sex and sexuality. And if there is to be a pall of silence, who then takes the blame for extremely avoidable sexual mishaps, lack of understanding of female consent, sexual violence, unwanted pregnancies, etc.?

Expert opinions show that understanding the human body, reproduction, 'good touch, bad touch', sexuality, and so forth make children more aware, informed, and able to protect against child sexual abuse. Enlightened parents and adults are also, in turn, better equipped to protect themselves and minors. Interestingly, surveys suggest that a majority of Indian kids want sex education and most feel that their teachers are ill-trained to impart it. This is the gap that we must bridge — between what kids want, what is truly essential, and what we as a society are prepared to give.

The writer is an author and media entrepreneur. Views expressed are personal



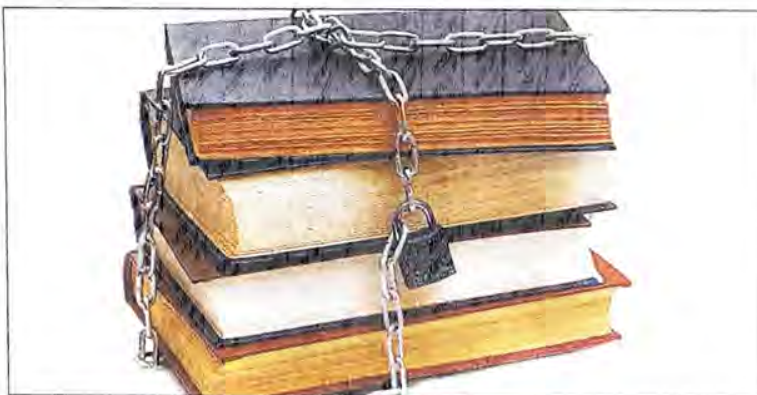
Better understanding of sexuality can enable children to protect themselves from sexual abuse

Surveys suggest that a majority of Indian kids want sex education and most feel that their teachers are ill-trained to impart it



# Defending universities

CHETNA TRIVEDI



The Indian State has shared a contentious relationship with universities. The conflict is manifest chiefly in the contention over the idea of university autonomy in general and academic freedom in particular. The tussle has intensified in recent years, especially regarding the freedom of faculties in teaching and learning activities and their political participation inside campuses. Some of the recent examples of the tussle include the resignation of Ashoka University's faculty in light of Sabyasachi Das writing a paper that highlighted alleged manipulation in the election polls. There are also complaints by the faculty of Ambedkar University against the university administration's contentious role in creating hurdles in research activities for the faculties through red-tapeism. Faculties in most Indian universities are finding themselves at the receiving end in their negotiations for freedom of teaching and research. Ironically, the mechanism that is often put in place to regulate this freedom is disciplinary regulations.

Ensuring the proper implementation of academic freedom of faculties can be difficult, especially when higher education remains dependent on State funding. It is through funding that the State assumes the legitimacy of regulating the university system. This process often leads to the introduction of managerial approaches to university governance. Consequently, universities function in accordance with the regulations outlined by regulatory bodies. The State also puts undue pressure on universities to conduct 'safe' research since controversial research subjects are considered undesirable. As a result, we often witness attempts to silence higher educational institutions and their faculties.

The point which is often missed while limiting academic freedom is that the foundation of modern universities rests on such principles as the autonomy of teaching and learning, the unity of teaching and re-

search, and a focus on the philosophical basis of any discipline that is taught. The modern university was different from any other medieval institution that worked closely with the Church or other authorities. The idea of a modern university originated in Germany. This model argued that the State's role must be limited to funding the university and that the university would be accountable to itself and to society. The model was adopted by most European countries. Indian universities, established by the British, also adopted this administrative and academic framework of modern universities with certain alterations. But the meaning of academic freedom remained unchanged. It entailed the right (without constriction by prescribed doctrine) to freedom of teaching and discussion, freedom in carrying out research and disseminating and publishing the results thereof, freedom to express freely opinion about the institution or the system in which universities work, freedom from institutional censorship, and freedom to participate in professional or representative academic bodies. Postcolonialism imagined that the principle of academic freedom of students and teachers would be further enhanced in lieu of national development and research-oriented activities. But the fact is that the rise of robust forms of the nation-state has witnessed a fall in the freedom of universities and their faculties.

Various committees and commis-

sions have produced their reports on education and higher education in India. Apart from the Yashpal Committee report of 1993 and the National Knowledge Commission of 2005, education policies did not elaborate upon what the idea of university autonomy and academic freedom should be and how is it to be realised by universities. There has been limited elaboration in any policy upon the need for faculties' academic freedom even though they are crucial actors in nurturing the university's culture as a space for academic inquiry.

There has been an ongoing, undue emphasis on the accountability of faculties without enhancing research facilities and academic freedom of universities. If the universities are to become sites of 'culture and excellence', they must provide adequate academic freedom to the faculties. Political interference in appointments, scarcity in job opportunities, *ad hocism* and the uncertainty of tenureship along with centralisation, bureaucratisation, and politicisation have historically produced weak university autonomy and freedom in the Indian context, leading to an era of 'unfreedom'. This 'unfreedom' of the university faculty was initially limited to public universities since they function directly under the aegis of the Central government. But in recent years, private universities, which do not necessarily rely on the State for funding, have also been nurturing the culture of 'dos and don'ts'. The prob-

lem, then, is not about being critical of the State's policies; the issue lies in voicing concerns against the dominance of any power structure. Since the 1990s, the neoliberal discourse has also strengthened the alignment of interest between private enterprises and the State. This affinity has led to the governance of faculties and universities through the principles of New Public management. These principles impose outcome-based modalities of functioning with strict codes of conduct and are inherently in favour of producing accountability without guaranteeing autonomy to any organisation.

The answer to the ailments of Indian universities does not lie in fixing their accountability to the government. The problems are to be resolved by fair recruitment of faculties and credible vice-chancellors, granting freedom of faculty to undertake academic activities, providing funding for the infrastructural development of universities, introducing policies for inclusive culture, and upscaling research and teaching activities. Universities must be allowed to function with sufficient requirements to transform themselves into self-governing institutions. A significant reason for the ailments of Indian universities lies in their inexperience of freedom and responsibility that could transform them into institutions of culture and excellence. The few Indian universities that have nurtured an academic culture could do so with minimum State interference and maximum freedom to the faculty.

The true independence of faculties has been supplanted by a system wherein the pursuit of power within academic institutions mirrors the strategies employed by political parties in democratic societies. Occasionally, under the guise of fortifying autonomy, the actions taken impede the freedom of universities and their faculties.

Universities are markedly different institutions from other modern establishments. Their task is to produce and disseminate scientific and critical knowledge. In order to make universities spaces for excellence, the idea of academic freedom must be defended. Tel/18110



# As Tier 2-3 cities join exodus abroad, it's time to focus on 'Study in India'

BY INVITATION

V RAMGOPAL RAO



Last year, the number of Indian students taking admission abroad exceeded 750,000, marking a remarkable 50% increase from 2021. Notably, more than one-third of these students chose the US, indicating a substantial 35% surge compared to the preceding year. An intriguing observation highlighted by a recent TOI report is that now one in every four international students on US campuses hails from India.

While anecdotal data suggests a significant decline in the number of IIT students venturing abroad, the surge is predominantly attributed to students from Tier 2 and Tier 3 cities. Projections indicate that Indian households will spend an estimated \$70 billion towards their children's foreign education by 2025. Given these economic dynamics, it comes as no surprise that international universities are aggressively wooing Indian students with scholarships, newer academic programmes etc. and several countries have strategically improved their student and employment visa policies to attract Indian talent. Notably, geopolitical considerations have contributed to a decline in the number of Chinese students pursuing education abroad, while India is experiencing an exponential growth.

Why do students go abroad? How should India respond to this trend? What steps need to be taken to retain top talent? Can India benefit from this trend? Many questions but the answers aren't that straightforward and simple.

India boasts a staggering 265 million students in its schools, achieving an 80% Gross Enrolment Ratio (GER) in secondary education. However, only approximately one in four students proceeds to higher education, resulting in a concerning GER of around 27%. This, compounded by subpar education quality, poses a significant challenge. As the middle class experiences income growth and international universities offer simpler admission processes, accessible loans, and favourable visa policies with work permits, many parents view foreign degrees as a gateway to a promising future for their children. While acquiring knowledge from top global institutions is commendable, concerns arise when an increasing number opt for third-rate institutions abroad. As a country, we need to introspect and take the following steps urgently to address this issue.

**1. More funding:** The absence of a viable financial model for the operation and expansion of publicly funded higher education institutions has resulted in stagnation for our top-ranked establishments. These institutions find themselves entirely reliant on government funds for daily operations, adversely compromising their

autonomy. Despite the National Education Policy (NEP) advocating for an increased Gross Enrolment Ratio (GER) of 50% in higher education, this ambition is not mirrored in augmented budget allocations at either the state or central level. Urgent measures are imperative to allocate additional resources, aligning with the goal of achieving a 50% GER in our higher education sector.

**2. Going abroad:** The recent steps taken in allowing Indian institutions to open campuses abroad is a welcome step. However, these international campuses need resources to sustain and become viable in these foreign countries. Careful planning and a roadmap are essential to make these ventures successful.

**3. Research shouldn't be a burden:** The top private institutions offering education on par with top public-funded ones need to be supported with increased research grants and autonomy. Without building a strong research culture, it will be difficult to attract good faculty. Institutions must be provided sufficient overheads on research projects like it's done abroad, so research can become a source of revenue for sustenance. Without

such diverse revenue streams in our institutions, public-funded institutions will remain totally dependent on government funding while private institutions will rely on tuition fees. In top institutions worldwide, 20-25% of annual revenues come from overheads on research projects.

**4. Incentivise donors:** Government alone cannot support the expansion of quality higher education. Encourage philanthropy and industry support for public and private-funded institutions through attractive policies and tax incentives

to donors and corporates. In the US, total philanthropy to colleges and universities hit \$52.9 billion for fiscal year 2021, growing annually at around 6%.

**5. Level playing field:** While the National Education Policy (NEP) has opened doors for international universities to establish campuses in India, it remains fraught with uncertainties. Also, this should not occur at the expense of our domestic institutions. It is crucial to provide both administrative and financial autonomy to Indian institutions in recruitment, admissions, and other operational aspects, aligning them with the privileges extended to international counterparts. Without such parity, the entry of foreign institutions could exacerbate the decline of Indian institutions rather than fostering a level playing field.

It's high time we bring educators and top researchers to the forefront in policy making, substantially increase investments in education and research, and chart a new course to reclaim India's erstwhile status as vishwaguru in the global education and research arena. ■

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11/19/16

Views are personal



**PHOREN STAMP:** Students settle for even bottom-tier foreign colleges



# Making public education inclusive

**T**here is no denying that education is a human right. It ought to be accessible and affordable for all sections of society so that development is truly inclusive. Yet, a study by IIM Ahmedabad's Right to Education Resource Center confirmed the well-known but disconcerting truth that parents lack trust in government schools due to poor quality of education and prefer to admit their children into private schools even if that means spending significantly more on tuition and other fees.

However, the Odisha government's revolutionary reforms in the State's public education sector through the Odisha Adarsha Vidyalayas (OAV), the 'Mo School' Abhiyan, and the 5T High School Transformation Programme are on their way to making government schools better than private schools in all parameters – infrastructure, affordability and quality.

**English-medium education**  
Education World India School Rankings 2022-23 ranked the OAV in Polasara block of Ganjam district the fifth-best school in the government-run day school category, and two more OAVs among the top 10. In order to address the struggle faced by students in securing admission to the Kendriya Vidyalaya schools after the first standard, the OAVs provide admission at the secondary stage. Odisha's OAV model aims to bridge the rural-urban gap by providing accessible, qualitative and affordable English-medium education. There are 315 English medium co-ed OAVs in all 314 blocks in rural and semi-urban areas (as of February 2023). They ensure representation for Scheduled Caste, Scheduled Tribe, and female students through reservations. This has led to a higher enrolment of female students (43,410) compared to males (30,949). Thirty-one vulnerable children who had been



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Odisha's reforms in the public education sector are on their way to making government schools better than private schools

victims of child abuse, trafficking, child labour, and child marriage were rescued and prepared for the OAV entrance in 2021. OAVs also provide different types of coaching facilities to enable students crack national-level tests. Twenty-four OAV students cracked the NEET exam in July 2023. OAVs have promoted social equity by providing a level-playing field to students from rural and poor socio-economic backgrounds.

To address pedagogical gaps, the OAV model focuses on continuous teacher education programmes and maintains a teacher-pupil ratio of 1:25. It has also leveraged digital technology to enhance the accountability and transparency of the system. The Enterprise Resource Planning system and OAV Sangathan website help track the academic and non-academic progress of each child alongside monitoring the performance of each school, enabling timely strategic interventions. Plans are afoot to transform the OAVs into scientifically upgraded Centres of Excellence to foster an ecosystem of innovation and inquiry-driven learning.

## The alumni connect

In 2017, Odisha launched the Mo School Abhiyan, a one-of-its-kind initiative that strives to motivate and mobilise the alumni community to contribute towards revamping the government schools in Odisha. Founded on five pillars – connect, collaborate, contribute, create and celebrate – the programme connects the schools with alumni from various fields and promotes alumni mentorship for the students. Deeper collaboration between the alumni, school authorities, and the district administration facilitates students' exposure to exchange programmes, sports and cultural events, and also helps in creating stronger infrastructure. More than 33,000 schools in about 30 districts in Odisha have seen engagement from over six lakh alumni members under the

Mo School Abhiyan.

The School Adoption Programme (SAP), under the above programme, enables the alumni to make financial contributions to the schools adopted by them. More than 5.5 lakh contributors including ministers, MPs and MLAs, bureaucrats, professionals, and judges have contributed more than ₹797 crore in 40,855 schools.

## High school transformation

The 5T-High School Transformation Programme is rooted in the 5T concept of transparency, technology, teamwork, and timeliness leading to transformation. Launched in 2021, the programme focuses on the adoption of educational technology, in the form of smart and digital classrooms, e-libraries, modern science laboratories, improved sanitation facilities, and sports facilities in all high schools. As of today, a total of 6,872 high schools have been transformed at a cost of ₹3,411 crore. The programme also caters to the needs of specially abled children. It provides assistive devices and tailored teaching-learning materials for students with autism, cerebral palsy, and intellectual disabilities. The government has also launched campaigns like 'Mo School Hockey Clubs' and 'Football for All', thus enabling holistic development of students' personalities.

This proactive approach to transforming the education system has led to an unprecedented shift in enrolment patterns. In 2019-20, private schools had 16,05,000 students; in 2021-22, this number dwindled to 14,62,000. Currently, 81% of students in the State are studying in government schools. The interventions by the Odisha government led by Naveen Patnaik have ensured that education is treated as a public good in essence and spirit and have created a strong legacy of an education model founded on equality and excellence.





# This job quota doesn't work

Haryana must not pursue reservations for local residents in the private sector. The legislation is bad in law and business-unfriendly

**T**he Punjab and Haryana high court has done well to quash a Haryana law that reserved up to 75% of private jobs, paying up to ₹30,000 a month, for local residents. However, Haryana deputy chief minister Dushyant Singh Chautala has said the government will move the Supreme Court after studying the judgment. The government shouldn't challenge the order. The populist act to introduce reservation for locals in the private sector was bad in law and unfriendly to industry and business.

The two-judge bench that ruled the law unconstitutional said the State cannot discriminate against individuals on account of their domicile status. The Indian Constitution guarantees all citizens the right to livelihood irrespective of their places of birth and residence. It is the responsibility of the State to safeguard this right. The Court rightly stated that "The concept of constitutional morality has been openly violated by introducing a secondary status to a set of citizens not belonging to the state of Haryana and curtailing their fundamental rights to earn their livelihood." Haryana, of course, is not the first state to adopt a nativist stance to address the unemployment crisis. States such as Maharashtra (up to 80% reservation), Karnataka (75%), Andhra Pradesh (75%) and Madhya Pradesh (70%) have similar laws for local residents and most of these have been challenged in courts. Labour migrates as per demand and wages and industry seeks to hire the best talent irrespective of their domicile status. Migrant labour has contributed to building and sustaining the economies of industrialised states such as Haryana, Maharashtra and Andhra Pradesh. In fact, that is how successful economies manage the world over.

Haryana's immediate concern – assembly elections are less than a year away – is high unemployment. It has the fourth highest rate of unemployment (9% as per Periodic Labour Force Survey, 2021-22) in the country. It is higher than the national average (4.1%) and that of its neighbouring states of Uttar Pradesh, Himachal Pradesh, Rajasthan and Punjab. The domicile reservation law was a poll promise of the BJP-Jannayak Janta Party: In a state with close to five lakh registered job seekers (the state directorate of employment) it had a big appeal. The government should look at other avenues to provide them employment other than promise quotas – which, by driving away industry, may only shrink job opportunities in Haryana. 20/12



# The outreach to foreign varsities

UGC regulation can raise India's higher education standards if implemented in the right spirit

**T**he University Grants Commission (UGC) released the much-awaited regulation for setting up and operating campuses of Foreign Higher Educational Institutions (FHEI) in India a few days ago. It must be said the regulation is enabling and liberal. It follows the recommendations of the New Education Policy and opens up new opportunities for collaboration. That it seeks to challenge the existing systems is an opportunity as well as a concern.

The regulation allows FHEIs to conduct UG/PG/doctoral/postdoctoral studies, award degrees, diplomas, and certificates in all disciplines, and provide special dispensation in operation and governance. A great move indeed if these FHEIs would be within 500 of overall/subject-wise global rankings. Considering there are at least 20 major reputed ranking agencies in the world and that many globally reputed institutions do not even participate in many of them for a variety of reasons, how will global rankings be authenticated? Together with the 2022 regulation on academic collaboration between Indian and FHEIs to offer twinning, joint degree and dual degree programmes, this promises a heady mix for some exciting times.

The regulation allows a prospective FHEI to enter into a joint venture with Indian HEI(s) or Indian companies.

While we understand that joint ventures are business arrangements where two or more parties agree to pool their resources to accomplish a specific task, why does the regulation insist that an FHEI should have an independent campus with physical, academic and research infrastructure and facilities to conduct its academic and research programmes? Seriously, will any FHEI invest in land and resources to be in India? A collaborative campus model with sharing of resources with an existing Indian campus would be more viable.

Now for the "company" part. Such a company, registered under section 8 for objects specified, must apply its profits, if any, or other income, in promoting only the stated objects and cannot make payment of any dividend to its members. Further, under section 10 of the Indian Trust Act, a foreigner or a NRI cannot be a trustee of an Indian trust. Read with another provision of the regulation that allows cross-border movement of funds and maintenance of foreign currency accounts, mode of payments, remittance, repatriation, and sale proceeds, if any, in accordance with the provisions of the FEMA Act, 1999, there seems to be something amiss. If there are funds that can be repatriated, does it mean the FHEIs could generate profits? Does it mean education is "for profit" now?

The regulation hopes India will be an attractive global study destination in the future. That, of course, would depend

on which FHEIs set up base and with what programmes, and whether they would source faculty locally or internationally, and what metrics they use for student admissions. Traditionally, accreditation is the mode of quality check in India and most countries. The regulation stipulates that the FHEI undergoes a "quality assurance" audit and submits a report to the UGC. Any assurance is a guarantee on deliverables and surmises that the customer could seek redressal in a court of law if a deliverable is not met. Further, the FHEI must also ensure that the quality of education in its Indian campus is at par with that of the main campus in the country of origin. Though very noble, how will the regulatory mechanism seek compliance?

It is indeed progressive that the regulation allows a FHEI to decide its fee structure. While its counterparts in India need to satisfy the whims of a fee fixation committee, why should there be special treatment for an FHEI? Even as FEMA is the guide, non-quantifiable sums that accrue can always be fudged. Mandating an academic credit-based fee structure would have been a more credible option.

The condition that the programmes offered shall not be allowed in online and ODL mode is most restrictive. MIT, Stanford, and Harvard, all at the top of global rankings, have excellent online programmes. Why deny them to our students, especially when UGC has relaxed several Open and Distance Learning (ODL) norms in recent times?



SS Mantha



Ashok Thakur



The country needs massive investment in education so the quality bar is raised manifold. Research facilities need quantum growth

HT ARCHIVE

Two important parameters to figure in the world ranking of universities are internationalisation and research. Internationalisation is when foreign students and faculty thrive on Indian campuses. An eminent faculty would look to either make more money or work for better research facilities or explore the possibility of interaction with the best in his/her domain, or be privy to industry consultancy that can lead to new products, processes, thereby adding patents and IPRs to his/her repertoire. None would venture out, except for a week's visit at most, if the above are not perceived as available. How will a FHEI function then?

Complete autonomy in the appointment of faculty and staff is the most enabling and important part of the regulation. However, the best faculty from our existing institutions migrating to the FHEIs could be the flip side of this provision. Probably, a new normal would set in eventually, if that normal enhances quality within our institutions, it must be welcomed.

A level playing field is the norm on which democracies thrive. It is on which quality is measured. Inasmuch as saying that the regulation is enabling, does it change the rules of the game for

the existing institutions? Our institutions have to adhere to fee committee recommendations, state or central norms for admissions, and so on. Why not extend complete autonomy in choosing faculty, fixing fees and setting admission rules to our institutions also? After all, they are all expected to compete on the same metrics of the global ranking agencies!

Any experiment will have its share of critics. If the regulation enables Indian students to obtain quality education with foreign qualifications to boot at a fractional cost, as opposed to studying in those institutions in their parent countries, it is welcome. That said, if this influences students who would otherwise join first-tier institutions like the IITs to join the new campuses, then it is a concern. The country needs massive investment in education so the quality bar is raised manifold. Research facilities need quantum growth. State funding being what it is, the doors must be opened to both foreign funding and adopting successful systems.

SS Mantha is former chairman, AICTE and Ashok Thakur is former secretary, education, government of India.

The views expressed are personal

HT/20/12





BIJU  
DHARMAPALAN

# Citation is not the last word in scientific research

Real-world applications, influence on public policy, or inspiring future generations may not be immediately reflected in citation

The productivity of scientific research is often evaluated through bibliometric analysis that mostly depends on the citation indices. Citation indexes are databases or tools used to measure how influential certain academic works have been through their citations. Researchers and institutions typically use these indices to estimate the importance of a given paper, author, or journal in the academic community. The evolution of citation databases can be traced back to the mid-20th century.

The Science Citation Index (SCI), established by Dr. Eugene Garfield, is one of the first and most prominent citation indexes. Despite the existence of citation indices for almost fifty years, there are still some intriguing questions that have not been answered. Do the papers with the highest number of citations represent the most significant ones? Do most cited papers produce disruptive research and innovation?

Indeed, citations are universally acknowledged as a conventional gauge of academic impact, indicating that a piece of work has not only been



read but also found valuable for subsequent research. Scientific papers that have a large number of citations play a crucial role in the network of sharing and discussing scientific information.

The absence of citations does not necessarily mean that a work is unimportant. It might be ahead of its time, focused on a niche topic, or overlooked by the research community. Research impact can take time, and some groundbreaking ideas might gain recognition only after a considerable period. One of the papers, about measuring osmotic pressure published by the geneticist and Nobel prizewinner Oliver Smithies in 1953, had "the dubious distinction of never being cited". While citations can be a measure of impact, they do not always reflect the quality of a work. A paper might be cited frequently for reasons other than its scientific rigour, such as controversy or popularity

or even by the author concerned. Many factors influence whether a paper gets cited, including the visibility of the journal, the popularity of the topic, and the author's network. High-quality research may go unnoticed due to factors unrelated to its merit. Of late, many journal editors are compelling prospective authors to cite papers published in their journals to increase the impact factor. The number of citations does not determine the accuracy or truthfulness of research findings. Scholars may cite work for critique, replication, or to build upon it without necessarily endorsing its conclusions. Not all impacts of research are captured by citations. Real-world applications, influence on public policy, or inspiring future generations may not be immediately reflected in citation counts. There are many excellent disruptive research works that get published in low-profile journals, which many eminent scientists fear to cite due to repercussions from competent authority. Many consider low-profile journals classified as 'predatory', the term which to date

has no clear-cut definition. Even if we go by the definition given by scholars in 2019, "Predatory journals and publishers are entities that prioritize self-interest at the expense of scholarship and are characterised by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices.", many so-called reputed journals fall into this category.

Researchers and institutions are increasingly recognising the limitations of relying solely on citation metrics to assess the value of research. Altmetrics, which consider social media mentions, downloads, and other non-traditional indicators, are gaining prominence as complements to traditional citation metrics. Researchers should be aware of these myths and consider a broader range of indicators when evaluating the impact and significance of their work.

*The writer is a science communicator and an adjunct faculty at the National Institute of Advanced Studies, Bengaluru; views are personal)*

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# Enhancing accessibility and accuracy for global students

The IELTS Exam (International English Language Testing System) is crucial for students pursuing education abroad but now it would be even more pinpointed

The pursuit of education abroad has become increasingly popular among students seeking a global perspective and enhanced career opportunities. As they embark on this journey, one crucial aspect that can significantly impact their chances of admission is the International English Language Testing System (IELTS) exam. This standardised test serves as a measure of proficiency in the English language and is recognised by universities and institutions worldwide.

The IELTS exam is recognised and accepted by over 10,000 institutions and organisations across 140 countries, making it one of the most widely acknowledged language proficiency tests globally. Its uni-



ROHIT SHARMA

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versal acceptance ensures that students can apply to a vast array of universities and programs around the world. Many universities and colleges in English-speaking countries, such as the United States, the United Kingdom, Canada, Australia, and New Zealand, require international applicants to submit IELTS scores as part of their admission process. The scores act as a reliable indicator of the student's ability to communicate effectively in English, a crucial skill for academic success in an English-language environment.

Beyond academic admission, IELTS scores often play a pivotal role in visa applications. Immigration authorities in various countries use these scores to assess an applicant's

language proficiency, ensuring they can navigate the linguistic challenges of living and studying in an English-speaking country.

**The IELTS evaluates four language skills:** Listening, Reading, Writing, and Speaking. Students must prepare for each section to ensure a well-rounded performance. Numerous resources, including practice tests, study guides, and language courses, are available to help candidates familiarise themselves with the test format. Preparation for the IELTS exam not only focuses on test-taking strategies but also on enhancing overall language skills. Taking mock IELTS tests under exam conditions is a crucial part of preparation.

Recently some changes have been made to the IELTS exam and potential enhancements that could further refine this critical assessment tool. The following would be the highlights of the new system of testing.

## **Recent Changes to the IELTS Exam:**

**Computer-Based Testing (CBT):** Recognising the shift towards digital assessments, the IELTS exam has embraced computer-based testing alongside the traditional paper-based format. This change allows for more flexibility in scheduling exams, quicker result processing, and a more seamless test-taking experience for candidates.

**Shortened Duration for Listening Section:** One notable change involves the

reduction of the Listening section duration. Previously spanning 30 minutes, the listening component has been shortened to 20 minutes, aligning it with the actual length of the recorded material. This adjustment aims to provide a more accurate reflection of a candidate's listening skills without unnecessary time constraints.

**Computer Adaptive Technology for Reading and Listening:** In certain regions, the IELTS exam has introduced computer-adaptive technology for the Reading and Listening sections. This adaptive approach tailors the difficulty of questions based on a candidate's previous responses, offering a more personalised and precise evaluation of their language pro-

ficiency.

**Enhanced Security Measures:** To maintain the integrity of the testing process, the IELTS exam has implemented enhanced security measures, including biometric verification and stricter ID requirements.

## **Opportunities for Improvement**

While the IELTS Speaking section traditionally involves face-to-face interaction with an examiner, exploring the integration of technology, such as video interviews or AI-driven assessments, could enhance objectivity and consistency. Tailoring preparation materials to individual needs and proficiency levels could further support candidates in their IELTS journey. Interactive online resources,

adaptive learning platforms, and targeted practice materials could help students address specific weaknesses and optimise their performance in each section.

Expediting the release of test scores in real time could offer candidates more immediate feedback on their performance. This not only reduces anxiety but also allows for quicker decision-making in terms of university applications and visa processes. Providing a broader range of test dates could accommodate the diverse needs of international students, especially those facing time zone challenges. More flexibility in scheduling exams would contribute to a smoother and more accessible testing experience. 98012019



# Job quota quashed

Trained workforce is real empowerment

**I**T does not come as much of a surprise that the Punjab and Haryana High Court has quashed the Haryana law that provided for 75 per cent reservation for locals in private jobs fetching up to Rs 30,000 a month. The Haryana State Employment of Local Candidates Act, 2020, has been declared unconstitutional. A Division Bench ruled that it was beyond the purview of the state to restrict private employers. A government, it added, could not discriminate against individuals merely because they did not belong to a particular state. The controversial legislation has been a subject of debate from the outset. Red flags have often been raised, stating that its provisions violate constitutional and legal norms.

Deputy Chief Minister and JJP leader Dushyant Chautala, who piloted the legislation despite initial hesitation by Chief Minister Manohar Lal Khattar, wants the HC order to be challenged in the Supreme Court. A key poll promise, the reservation gambit was aimed at wooing young voters. The High Court ruling is a setback to the BJP-JJP coalition with less than a year to go for the Assembly polls. The issue of joblessness has come to the fore again. The government claims that the legislation would have helped young aspirants get jobs. The industry, which believes that the Act infringes upon the fundamental rights of employers and prospective employees, has heaved a sigh of relief. A mismatch is evident.

Forced jobs are principally anti-business and kill the spirit of entrepreneurship. Where there should have been public-private collaboration to train the youth and upgrade their skills, falling back on coercion can only be counter-productive. Haryana's industrial interests are better served by promoting skilled trades and having a competent workforce that can hold its own anywhere in the country. That's the empowerment the state's jobless residents need. 216



## CHALLENGES FACED BY WOMEN IN STEM FIELD

## Stage 1

**Prévalent gender norms**

- a) Domestic and care work expectations
- b) Marital pressures
- c) Intergenerational barriers
- b) Engendered parenting leading to low self-esteem over science education for girls

## Stage 2

**Accessibility and affordability**

- a) Lack of senior secondary and higher secondary schools
- b) Prohibitive cost of pursuing STEM subjects

## Stage 3

**Lack of infrastructure**

- a) Gender digital divide
- b) Lack of access to Functional ICT infrastructure in schools
- c) Limited usage of ICT by teachers in teaching
- d) Absence of science labs in schools

## Stage 4

**Pedagogy**

- a) High pupil-teacher ratio
- b) Lack of teacher training
- c) Limited focus on fostering curiosity and enthusiasm for STEM subjects
- d) Absence of gender-sensitive pedagogy

## Stage 5

**School-to-work transition**

- a) Agency
- b) Lack of relatable role models
- c) Absence of mentorship
- d) Dual role syndrome
- e) Gender-insensitive work environment

Source: Sattva Knowledge Institute (SKI)

# STEM education for girls:

## The path to equity

**Research reveals that girls initially display interest in STEM but during adolescence, they lose self-esteem leading to a decline in enthusiasm, writes Shweta Gaur**

The National Science Foundation has predicted that 80% of jobs will require Science, Technology, Engineering, and Mathematics (STEM) skills in the coming decade. The Fourth Industrial Revolution has dawned upon us, ushering in an era of technology, innovation, and digital transformation. In this rapidly evolving landscape, proficiency in STEM has become a necessity.

However, a significant gender disparity persists in India's STEM education ecosystem, hampering the full realisation of its potential. Alarming statistics reveal that globally, 1 in 4 girls aged 15–19 belongs to the Neither in Education, Employment, or Training (NEET) category. This figure rises to 1 in 2 in India (PLFS 2020). The bottlenecks that impede the uptake of STEM education and careers for girls can manifest at three levels – personal, institutional/structural, and social.

Research reveals that girls initially display interest in STEM

during their formative years, typically between the ages of 8 and 10. However, during adolescence, self-esteem concerning their competence in these subjects takes a sharp hit, leading to a decline in enthusiasm. Additionally, stereotypes around gender and STEM further the belief that only boys excel in mathematics and science while girls are inclined toward other fields. These stereotypes manifest early in life and influence young girls' choices during adolescence.

As per the report by Sattva Knowledge Institute, girls face various challenges at different life stages. Apart from institutional bottlenecks of access, affordability, and infrastructural challenges, several factors related to classroom practices impact girls' confidence to choose STEM education.

**Advancing gender equality**

One such hurdle is parents' and teachers' limited exposure and awareness regarding gender-sensitive approaches to STEM education. Along with the absence of innovative gender-sensitive pedagogy, the lack of female teachers and role models also deters STEM uptake. The absence of effective teaching methodologies to inculcate scientific curiosity among students results in students' inability to build subject proficiency. This and low self-esteem hinder girls' inclination towards STEM subjects.

Although the situation looks grim, there are several reasons to be optimistic about the future of



gender equality in STEM education. In the past decade, several measures carried out by philanthropists and the government in partnership with NGOs have shown hope for scaling up successful pilot interventions. Some of them are listed here:

■ **Atal Tinkering Labs:** This Indian government's initiative to foster scientific temper and entrepreneurial mindsets, with its presence in 10,000 schools, has reached approximately 7.5 million middle and high school students.

■ **Tejaswini Project:** This World Bank project contributes to improving girls' enrollment in STEM and graduation rates in secondary and higher secondary schools.

■ **Vigyan Mitra:** This project by Pratham Foundation exposes rural students to the world of science by training a few senior students in the

village as ambassadors of STEM who become role models for primary and middle school students.

■ **Mobile Science Labs:** Driven by CARE India and Agastya Foundation, this initiative helps overcome the lack of labs in rural schools. To enhance accessibility to learning resources, these mobile science labs, equipped with science models and experiments, traverse long distances to reach students in under-resourced schools.

■ **Gender-sensitive pedagogy:** Aavishkaar Center for Science, Math, Arts, and Technology empowers teachers to practice gender-sensitive pedagogy to make learning science and maths fun and experiential – thus addressing institutional-level bottlenecks.

Some interventions initiated towards building life skills, especially self-esteem, critical thinking, and

problem-solving skills, have been fruitful in igniting girls' interest in STEM courses.

■ **STEM for Girls programme:** Launched by IBM and Quest Alliance, this focuses on building a STEM mindset, which includes both the subject knowledge as well as building crucial attitudes, values and core skills of gender education and building agency to enhance their ability to negotiate gender norms and motivate them to seek more inclusive solutions to problems at hand. Engaging with parents and exposure to role models is also critical to the programme.

■ **Plan it Girls intervention:** The International Center for Research on Women aims to shift girls' self-perception of gender attitudes by collaborating with key institutions like schools and stakeholders like teachers and parents, thus tackling the societal bottlenecks.

■ **Fully funded residential programme:** This programme by Navgurukul helps students from marginalised communities (especially girls) by building life skills, developing subject proficiency, and providing job opportunities.

As young girls remain missing data points in the journey from STEM education to STEM professions due to structural, social, and personal barriers, an intersectional and inclusive approach must be embedded in solutions for enabling their enrollment in STEM and retention in higher education, leading to gainful STEM careers.

(The writer is an Engagement Manager of a knowledge platform at an impact consulting firm)



# Making sense of the employment challenge

**B**y proposing that Indians work longer to achieve a larger national output, N.R. Narayana Murthy, the founder of India's iconic business house, Infosys, has issued something akin to a challenge to his compatriots. In particular, he proposed a 70-hour work week. To strengthen his case he has pointed to the experience of Japan and Germany after the Second World War, when citizens worked longer hours than we do on average in India today. It is indeed correct that these countries had a miraculous rise in the 1950s, but is the comparison valid? Can Indians simply choose to work longer hours to replicate their experience? This is not obvious.

## Output, demand and labour

Ever since the Keynesian Revolution in economics, we know that output is determined by aggregate demand, which is the demand for the total volume of goods and services produced in an economy. The demand for labour is entirely dependent upon this demand. There is no demand for labour independent of the demand for goods. Firms that employ more labour while aggregate demand has not increased will find themselves with unsold goods. So, an offer by workers to work longer hours will not ensure that they will find employment so long as firms are unwilling to hire them.

Firms are guided by the profit motive and will employ more labour only if there is increased demand for their product. Unemployment reflects just that – workers willing to work but firms unwilling to employ them for it would be unprofitable for them. The role of demand for goods and services in determining the demand for labour may be seen in the lay-offs in the 'tech' sector globally at the beginning of this year. Since then, Google and Amazon have shed hundreds of employees hired during the COVID-19 pandemic, when the demand for their products was high due to the lockdown or the work-from-home arrangement. In a variant of the 'just in time' strategy, whereby manufacturing firms are hesitant to hold an inventory of materials for long, software services companies (a segment Mr. Narayana Murthy is no doubt familiar with) optimise the number of employees 'on the bench', i.e., waiting to be deployed in production. So, when there is unemployment, to exhort workers to work longer hours is somewhat irrelevant, even when it is not meant to be callous.

Now, what about Germany and Japan in the early post-War years? Actually, nothing demonstrates the role of the demand for labour services being a crucial determinant of hours worked than the history of these economies.



**Pulapre Balakrishnan**

is an economist

Understanding the history and experience of Germany, Japan and South Korea will add clarity to the context in which the recent proposal that Indians work for 70 hours a week was framed

Their economies were pulverised by the relentless bombing during the Second World War. They had also experienced a decline in their workforces due to greater mortality, both from combat and the bombing. So, when it came to rebuilding these economies, the demand for labour was abnormally high. Minimally, prior to the resumption of production, the cities would have had to be cleared of rubble – a task requiring massive deployment of labour given the scale of the devastation. It is also necessary to keep in mind where the financial heft for the expansion of employment came from. In the case of west Germany, there was the Marshall Plan by which the United States had assisted the country's revival. If it had been insisted that the post-war recovery of Europe had to be confined to private enterprise, the revival would surely have taken far longer. In fact, it was out of an astute assessment of what private initiative could have achieved in the context that the World Bank, funded by western governments, was set up. So, the very high working hours clocked in post-war economies of the mid-20th century is *sui generis*.

## The case of South Korea

Though it was not mentioned by Mr. Narayana Murthy, another economy that saw long working hours in this period was South Korea. Some of its features are similar to those that had prevailed in Germany and Japan then. It too was recovering from a war, though a different one, and its resurgence was supported by considerable foreign aid received from the U.S., of which it was an ally. However, a political aspect beyond finance, common to all these three countries, is a strong nationalistic element that is likely to have accompanied their post-war reconstruction. It is not inconceivable that there was a voluntary supply of effort to rebuild the nation after a shared catastrophe imposed by 'foreigners'.

There was an additional dimension in Korea though – a dictatorship that saw the commandeering of able-bodied men to work in the countryside on large-scale projects of preparing the land for raising agricultural productivity. There is insufficient recognition of the fact that the manufacturing success of the east is underpinned by prior success in agriculture. The high working hours that contributed to this are unlikely to have been witnessed in a system in which labour was allocated according to consideration of profit. The case of high working hours in Germany and East Asia in the middle of the last century, backed by public funding and coercion, is not an experience helpful to understanding the present in India (a market economy where firms are driven by consideration of profit and coercion is

ruled out). In the economic rise of the three countries mentioned, it was post-war reconstruction that provided the demand for greater output in the first instance. Longer workdays had followed.

## Economic strategies for India

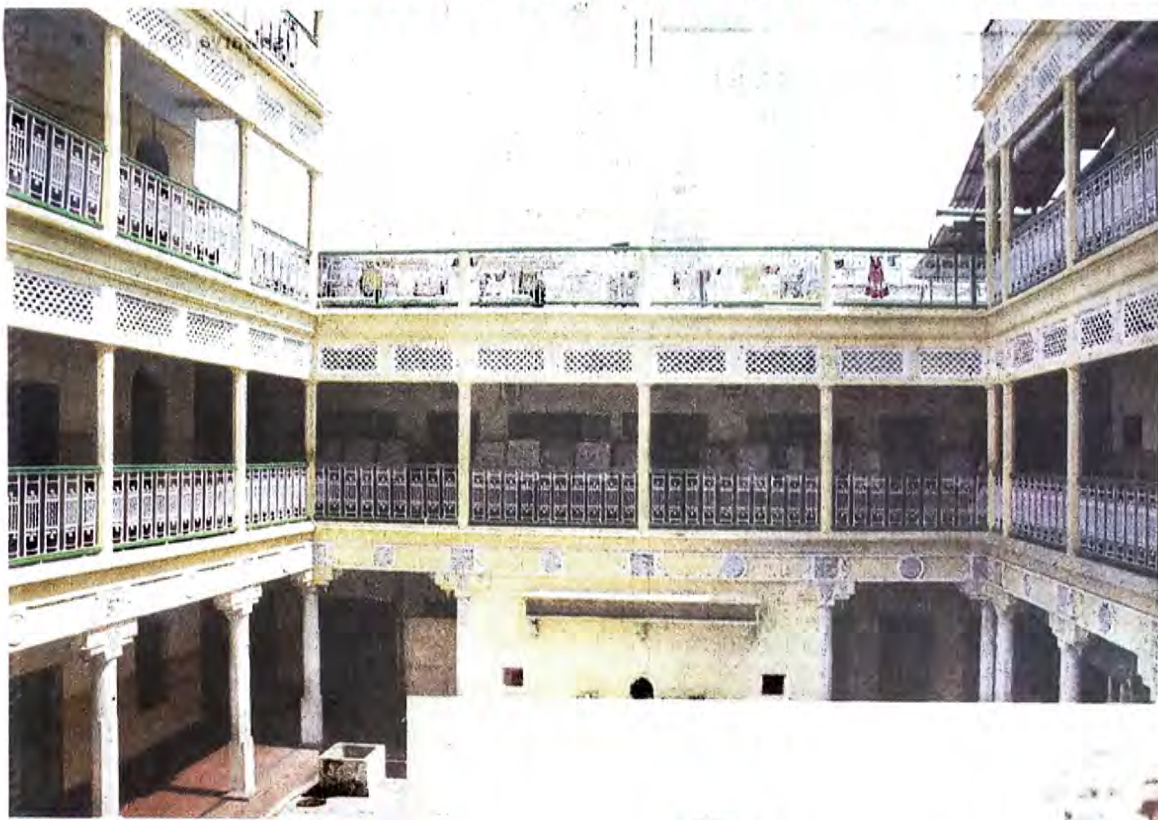
Does it mean, then, that there is an iron law of the market pinning us down helplessly to high unemployment through low aggregate demand in India? Not at all. There are two strategies economic policy here can attempt. The first is to use the global market or world demand to grow the domestic economy, but India's goods would have to be globally competitive. Here, the experience of South Korea is relevant. As most of the produced inputs into production are available to all countries via trade, a country's competitiveness is ultimately determined by the productivity of its workforce and the physical infrastructure that complements labour. The strength and dexterity of a workforce, manifested as productivity, is related to its health and skill. In both these categories, India's workers are at a disadvantage compared to the most successful economies of Asia. To have not brought its workers on a par with the rest has prevented India from using the world market to grow. It can do so now.

A second route to greater output and employment is to expand the domestic market – and thus aggregate demand. To see how this can be done, recognise that the economy produces both food and non-agricultural goods and services. These are placed differently in relation to our consumption needs. If food can be produced at lower cost, the real income of the majority of Indian households would rise. They would now have more to spend on non-agricultural goods and services having satisfied their need for food. This would generate the demand needed to spur production in the rest of the economy. And with this, output will also grow, and in turn employment, with or without the longer hours in question.

In conclusion, it cannot be emphasised enough that Mr. Narayana Murthy's proposal that Indians work for 70 hours a week is surely meant for those in the formal sector, where specified work hours and a minimum wage stipulation exist. Ethnographic studies of India's informal sector show that in some of its segments, unorganised workers are already labouring this long at very low wages and without any such protection. Here, the challenge is to activate the long arm of the law to ensure acceptable working conditions that encompass fewer hours, higher wages, and more equipment to lessen the physical burden of labouring.



# The success story of Sister Nivedita's school over 125 years



**TARUN GOSWAMI**

A meeting was held at the house of Balaram Basu in north Kolkata in 1898 where Sister Nivedita urged the gathering, comprising mostly men, to send their daughters to her school which she had set up at 16, Bosepara Lane. Swami Vivekananda was among the listeners. The men were not ready to send their girls to the school run by a westerner (called *mlechha* in those days) as there was a belief that if a girl was sent to a school run by a *mlechha* (untouchable) there will be difficulties in getting her married and even if her marriage is organized she will be a widow.

Swamiji intervened as no one was ready to accept Sister's proposal. He took the hand of his friend Haromohan Mitra, lifted it up and said, "Margot (Swamiji often lovingly called Sister by this name), here is a person who is ready to send his daughter to your school." The school started with five students.

In 1898, one hundred and twenty five years ago, on the day of Kali Puja, which fell on 13 November, Maa Sarada performed a puja and started the school. She prayed to goddess Kali about the prosperity of the school and said those who had taken education here would be ideal women. Swamiji, along with his brother monks, Swami Brahmananda, first president of Ramakrishna Math and Mission and Swami Saradananda, first general secretary of the Order was present at the



function.

This is how Ramakrishna Sarada Mission Sister Nivedita Girls High School, one of the finest educational institutions started its journey.

It was the first private school run by a westerner. Margaret Elizabeth Noble, who later became Sister Nivedita, had set up a school at Wimbledon. Swamiji, who visited the school in 1895, could not resist his tears when he compared the condition of women education in Calcutta which was the capital of the British Empire in India. On 29 July, 1897 Swamiji wrote a letter to Margaret and requested her to come to India. She initiated Margaret in March 1898 and gave her name Nivedita, meaning 'the dedicated'.

Nivedita's school had success-

people. It is for the nation to learn its strength, and for the individual to strive mightily therein and nothing will be to resist its progress. All difficulties will be broken before it like cobwebs."

Sister Nivedita was assisted by Sister Christine, one of the disciples to run the school.

Sister insisted that the students should ask questions and got financial assistance from Ole Sara Bull, an American disciple of Swamiji to set up a laboratory at the school.

Over the past 125 years, the school set up by Sister, grew. The present building was set up 100 years ago. Ganen Maharaj had supervised construction of the structure.

The achievement of the girls are manifold. The results, both in Madhyamik and Higher Secondary are remarkable. Most of the students who appear for the Madhyamik examination get a star, 75%.

The school authorities give spe-

fully combined Indian and western education. There were classes on English, Bengali, mathematics, and geography. The Sisters insisted that the students should be physically strong and often removed the belt of her gown and with that piece of cloth she taught them skipping. The girls also played badminton wearing Sari.

Nivedita got the students acquainted with Indian culture and tradition and taught them how to perform Shiv Puja. She took personal interest to teach them stitching and knitting. She ensured that the girls were able to read and write Bengali. She taught them to become unselfish and develop love for people and become fearless.

Sister delivered a lecture on 4 February, 1902 in Madras where she said, "Indian people are mightier

cial emphasis on cultural activities. The students take part in singing, elocution, essay and general knowledge competition and so on. The school has a well-defined library. As the school is run by the nuns of Ramakrishna Sarada Math and Mission, the students are taught discipline from day one.

It is remarkable to note that many students are third generation students, which means their grandmother, mother were also students of the school.

Sister Nivedita School is undoubtedly an educational institution with a difference where besides giving academic training moral training is given emphasis to ensure that the students who pass out from the school become ideal women and useful citizens. *sted*



# Industry-academia partnerships drive technological advancement

PROF. AVIRENI SRINIVASULU

In today's rapidly evolving world, technological advancement is at the forefront of innovation and progress. Industries are constantly seeking to develop cutting-edge solutions, and academic institutions are hubs of knowledge and research.

The synergy between industry and academia has emerged as a dynamic force driving technological advancement.

Industry and academia have traditionally occupied distinct spheres. While industries focus on market-driven innovations and profitability, academic institutions are centers of knowledge creation and dissemination. However, these two worlds have increasingly recognized the potential benefits of collaboration.

Academic institutions are repositories of knowledge exchange.

They conduct research, produce scholarly publications, and nurture young minds. Industry, on the other hand, brings practical experience and real-world challenges to the table.

When they collaborate, this knowledge exchange is invaluable. Industry partners provide insights into the pressing issues they face, and academia offers fresh perspectives, research findings, and expertise.

Academic research often remains confined to laboratories and academic journals. Industry-academia partnerships bridge this gap by translating theoretical knowledge into practical applications. This process accelerates

the development of new technologies and their integration into industries. It allows research to move from the bench to the factory floor, impacting the world in tangible ways.

Next being the technological advancements. Collaborations between academia and industry often lead to joint research and development projects. Industry partners fund research that aligns with their needs, and academic experts conduct the research. The result is the creation of new technologies, products, and processes. For example, in the field of pharmaceuticals, industry-academia collaborations have led to the development of innovative drugs and medical technologies.

Academic institutions are equipped with state-of-the-art facilities and equipment. When industries partner with academia, they gain access to these resources without the burden of ownership and maintenance costs. This access accelerates the development and testing of new technologies, making it a win-win situation for both parties.

Academia also plays a vital role in training the future workforce. Industry-academia partnerships allow students to work on real-world projects, gaining practical experience and insight into industry needs. This alignment between academic programs and industry requirements ensures that graduates are well-prepared to contribute to technological advancements upon entering the workforce.

Industry-academia partnerships

foster innovation ecosystems where ideas can flourish. These ecosystems encourage the free flow of ideas, resources, and talent. Innovators and entrepreneurs can easily access the knowledge and network they need to turn their ideas into reality.

While industry-academia partnerships hold great promise, they are not without challenges. These challenges include intellectual property rights, funding disparities, and differing goals and timelines. However, the future looks promising, with the Open Innovation Models & the support provided by the Government initiatives.

Open innovation models are gaining traction, where companies collaborate with multiple academic institutions, start-ups, and research organiza-

tions simultaneously. This approach broadens the innovation network and increases the chances of technological breakthroughs. Governments are increasingly recognizing the importance of industry-academia partnerships and are providing incentives and funding for collaborative

research projects. These initiatives encourage cross-sector collaborations to drive innovation.

In a world where knowledge is power, collaboration between these two pillars of society

holds the key to unlocking new possibilities and pushing the boundaries of what is technologically achievable.

The author is dean, research and innovation, Mohan Babu University





# लड़कियों की शिक्षा से सामाजिक क्रांति

**हि** जाब, घूँघट, दहेज, तीन तलाक और दुष्कर्म की घटनाओं के बीच अच्छी खबर यह है कि लड़कियाँ शिक्षा के क्षेत्र में लगातार आगे बढ़ रही हैं। हाल की एक खबर के अनुसार दक्षिण भारत में आइआईटी में लड़कियों की संख्या पिछले पाँच साल में 19 प्रतिशत से बढ़कर 26 प्रतिशत को पार कर गई है। यह किसी सामाजिक क्रांति से कम नहीं है। कुछ साल पहले तक लड़कियों को विशेषकर लड़कों के मुकाबले कमजोर मानकर गणित के बजाय होम साइंस पढ़ने के लिए मजबूर किया जाता था। आज स्थिति बदल रही है। लड़कियाँ विज्ञान और गणित के क्षेत्र में भी अपना दमखम साबित कर रही हैं और कई बार तो लड़कों से बेहतर प्रदर्शन करती हैं। स्पष्ट है कि सरकार ने उन्हें मौका दिया और सही समय पर कदम उठाए तो परिणाम सामने हैं।

2014 तक आइआईटी में लड़कियों का प्रतिशत सिर्फ 14 प्रतिशत था। 2018 में यह बढ़कर 17 प्रतिशत हुआ। अब यह 20 प्रतिशत हो गया है। नतीजतन, जहां 2017 में आइआईटी में लड़कियों की संख्या 995 थी, वहीं मौजूदा समय यह संख्या 3,411 हो गई है। आने वाले वर्षों में यह संख्या और भी बढ़ेगी। इसमें भी यह तरक्की मुंबई समेत दक्षिण के राज्यों में ज्यादा बेहतर है। दूसरे सामाजिक अध्ययन भी बताते हैं कि दक्षिण के राज्यों की प्रगति में महिलाओं की शिक्षा का विशेष योगदान रहा है। यही बात उन अन्य देशों की प्रगति बताती है, जहां महिलाओं की शिक्षा के लिए विशेष कदम उठाए गए। क्या जाति के विभाजनकारी और अवैज्ञानिक विमर्श के बीच सामाजिक बराबरी और सौहार्द के लिए यह कदम ज्यादा सार्थक नहीं है? 21वीं सदी के भारत में सिर्फ जाति के भरोसे विकास और सच्ची बराबरी संभव नहीं है।

आज देश में लड़कियों की शिक्षा के लिए उठाए कदमों के बहुत अच्छे परिणाम मिल रहे हैं। हाल में चंद्रयान-3 की सफलता के पीछे भी अनेक महिला विज्ञानियों का योगदान रहा। युवा विज्ञानी पुरस्कार पाने वालों में महिलाओं की संख्या लगातार बढ़ रही है। पिछले 100 वर्ष तक महिला विज्ञानियों में सिर्फ एक विदेशी मैडम क्यूरी का ही नाम इस देश के लोग जानते रहे हैं, लेकिन अब विज्ञान के कई क्षेत्रों में भारत की महिलाएं भी अपना नाम दर्ज करा रही हैं। संघ लोक सेवा आयोग यानी यूपीएससी



प्रेमपाल शर्मा

**हमें यह समझना होगा कि 21वीं सदी के भारत में सिर्फ जाति के भरोसे विकास एवं बराबरी संभव नहीं है**



हर क्षेत्र में सफल हो रही लड़कियाँ • फाइनल

की सिविल सेवा परीक्षाओं के परिणाम तो पूरा देश जानता है। वर्ष 2022 की परीक्षा में पहले पांच में चार लड़कियाँ थीं। उससे पिछले चार वर्षों में भी लगातार लड़कियाँ ही टाप करती रही हैं। हर वर्ष सिविल सेवा परीक्षा में लड़कियों की सफलता लड़कों के मुकाबले कई गुना अधिक रहती है। ज्यादातर राज्यों की बोर्ड परीक्षाओं के परिणाम हों या सीबीएसई के रिजल्ट, लड़कियों की सफलता भविष्य के प्रति उम्मीद जगाती है।

जो रक्षा सेवाएं दशकों तक महिलाओं के लिए बंद रहीं, उनके दरवाजे भी अब खुल गए हैं। लगभग 10,000 महिला अधिकारी इस समय देश की तीनों सेनाओं में काम कर रही हैं और यह संख्या लगातार बढ़ रही है। बावजूद इसके उनके साथ भेदभाव की खबरें भी आती रहती हैं। देश के कई हिस्सों में आज भी लड़कियों के साथ भेदभाव होता है। जहां लड़कों को कोचिंग में पढ़ने के लिए देश के दूसरे शहरों में अच्छा पैसा खर्च करके भेजते हैं, वहीं बेटियों को कालेज तक भी मुश्किल से भेजते हैं। कानून व्यवस्था और सामाजिक कारण भी इसके लिए उतने ही जिम्मेदार हैं, लेकिन मानसिक स्तर पर समाज को उन्हें बराबरी का अधिकार देना होगा। लगभग 10 साल पहले उत्तर प्रदेश में मुजफ्फरनगर

दंगों के बाद सबसे बुरा असर लड़कियों की शिक्षा पर पड़ा था और दोनों समुदायों ने लड़कियों को स्कूल या कालेज में भेजना रोक दिया था। कई ऐसे परिवार हैं जिनके बेटे तो इंजीनियर और आइएएस बने, लेकिन उनकी बेटियों को नहीं पढ़ाया गया और उम्र से पहले ही शादी कर दी गई। इस तस्वीर को तुरंत बदलना होगा।

मौजूदा केंद्र सरकार द्वारा महिलाओं के लिए संसद में 33 प्रतिशत आरक्षण का प्रविधान इस दिशा में एक बहुत सकारात्मक कदम है। ऐसे राजनीतिक कदम का संदेश दूर तक जाता है। 73वें और 74वें संविधान संशोधन के द्वारा पंचायती राज और नगर निकायों में महिलाओं के लिए आरक्षण का प्रविधान किया गया, उसके बहुत अच्छे परिणाम आए हैं। फिर भी भारत के लोकतंत्र में महिलाओं को वह स्थान नहीं मिला, जिसकी वे हकदार हैं। महात्मा गांधी ने 1925 में जब सरोजिनी नायडू को कांग्रेस अध्यक्ष के लिए नामित किया था, तब तक महिलाओं की ऐसी बराबरी की बात यूरोप, अमेरिका और चीन में भी नहीं होती थी। अभी भी राजनीति में जो महिलाएं सक्रिय हैं, वे ज्यादातर राजनीतिक घरानों से संबंध रखती हैं। महिला शिक्षा के जरिये इस वंशवादी लोकतंत्र में भी बदलाव संभव होगा, लेकिन महिलाओं की सच्ची बराबरी के लिए अभी बहुत प्रयास करने होंगे। मौजूदा लोकसभा में भी महिलाओं का प्रतिशत मात्र 14 है, जो दुनिया में लोकतंत्र के पैमाने पर बहुत अच्छा नहीं कहा जा सकता। यूरोप, अमेरिका और कई देशों के संसद में महिलाओं का प्रतिनिधित्व 50 प्रतिशत से भी ज्यादा है। अफ्रीका के रवांडा की संसद में तो 60 प्रतिशत महिलाएं हैं।

दुनिया के किसी भी देश को मानवीय आधुनिकता के संदर्भ में महिलाओं की बराबरी के पैमाने से ही आंका जा सकता है। इस मामले में जहां यूरोप, अमेरिका दुनिया भर में अव्वल हैं तो मुस्लिम देशों में महिलाओं की स्थिति बहुत निराशाजनक है। सरकार के स्तर पर महिला उत्थान के जो कदम उठाए जा रहे हैं, उसमें पूरे समाज को भी सक्रिय भूमिका निभानी होगी। तभी महिलाओं की स्थिति पूरी तरह सुधर सकेगी।

(भारत सरकार में संयुक्त सचिव रहे  
लेखक शिक्षाविद हैं।)



# 100 glorious years of AAU-ARRI

■ Bidyut C Deka, PK Pathak & SK Chetia

Assam Agricultural University (AAU) is celebrating the centenary year of its most prized research centre, AAU-Assam Rice Research Institute (AAU-ARRI), which was established in 1923 at Titabar as the Rice Experimental Station and was until recently known as the Regional Agricultural Research Station. Just a decade before this, the first rice research station (Karimganj Agricultural Experiment Station, also known as Sylhet Agricultural Station) in Assam was established in 1913 to initiate systematic rice research in the State. However, rice research in Assam got real impetus only after the establishment of today's AAU-ARRI at Titabar in 1923.

Since the very beginning of rice research in Assam, rice germplasm improvement (development of varieties) suiting to diverse growing situations and farmers' needs has been a major focus of research. Appreciating the immediate and long-term value of the rich rice genetic wealth, emphasis was given to the collection of indigenous rice germplasm, their evaluation, cataloguing, conservation, and improvement. Today, about 7,000 rice accessions are being maintained at AAU-ARRI, of which more than 4,000 are indigenous. In this context, it may be mentioned that a gene bank is being established at AAU-ARRI this year with the financial support of the Government of Assam.

In the early era of rice breeding, in the State, purelines were isolated from collected germplasm and

the promising lines were recommended and promoted for cultivation after thorough evaluation. The pureline selection, as a method of rice breeding, continued to play a very important role till the 1950s. Following this method, 49 rice varieties were developed till 1959, of which 16 were developed at Titabar, 14 at Karimganj, and the rest at Habiganj (now in Bangladesh) and Raha station (no more in existence).

Hybridization followed by selection is still the most predominant approach to breeding self-pollinated crops. The hybridization programme, in Assam, was initiated as early as 1921 with the dual purpose of studying the inheritance pattern of different characters and breeding varieties by combining the desirable traits from different varieties. Following this method, in the pre-independence period, 13 rice varieties were developed – 9 at Karimganj and 4 at Titabar. A variety named 'Andrew Sali' developed at Titabar in 1940 is still finding a place in the 'packages of practices' recommended to farmers by AAU and the State agriculture department.

The advent of the modern semi-dwarf plant type concept and introduction of high-yielding semi-dwarf varieties like Taichung Native-1 and IR 8 in the 1960s had a remarkable impact on the breeders of India, including Assam, and since then the rice breeders began to use at least one semi-dwarf parent in the breeding programmes

to develop rice varieties. In the meantime, the breeders also started to have better access to germplasm and elite breeding lines with the launch of the ICAR-sponsored All India Coordinated Rice Improvement Project (AICRIP) in 1965. This helped the breeders widen the genetic base for the breeding programmes to achieve much better results.

The new approach to breeding resulted in the development of a few high-yielding semi-dwarf photo pe-

**The institute is continuing to develop new varieties to prepare the farmers to face different challenges including climate change, and has also worked out cultural and nutrient management practices and plant protection practices for growing a rice crop under varied agro-ecological conditions.**

riod-insensitive rice varieties for both Ahu and Sali seasons. Among these, Madhab was the first one to be developed at Titabar in 1977 followed by Rongdoi in 1981. Both were recommended for the Sali season. Two semi-dwarf high-yielding varieties, Lachit and Chilarai, were recommended in 1987 from this institute for Ahu season. With renewed vigour and focus on the development of need-based, situation-specific, and problem-solving varieties and technologies, as envisioned by the National Agricultural Research Project launched in 1979, the university could develop, in the last five decades of its existence, 65 rice varieties adapted to diverse rice growing situations and suited to

varied needs of the farmers, consumers and other stakeholders. The university, particularly, AAU-ARRI achieved massive breakthroughs in its rice breeding programmes in the 1990s by developing several promising rice varieties with high yield, having better quality and resistance to biotic and abiotic stresses. The rice varieties recommended during this period are still ruling the rice fields of Assam and a few like Ranjit, Bahadur and Aghoni are even popular in the neighbouring states as well.

Unlike many other states, Assam doesn't have much to claim in technology generation or scientific innovation. But, if an objective assessment is made to assess the socio-economic impact of whatever technologies were developed or scientific innovations made in post-

independent Assam, one would most likely find the variety Ranjit to be the most impactful one. An assessment has indicated that this variety alone contributed more than Rs 3,000 crores to the State's economy just in 20 years (1994-2014). With its breeding programme, the institute has tried to address almost all the major issues of farmers and consumers. To address the rice farmers' vulnerability to floods, the institute has developed very early maturing varieties Luit, Kopilee, and Dishang for growing in pre and post-flood situations; submergence-tolerant varieties like Jalashree, Jalkuwari, Ranjit Sub-1 and Bahadur Sub-1 for flash-flood situation; Gitesh and

Prafulla for staggered planting with aged seedlings; Chakralahi, Dhan-siri, Manah and Diphalu for growing in waterlogged situation. Similarly, the institute has developed high-yielding varieties of Bora (Aghoni, Bhogali, Rongalee); Chokuwa (Diyung); and Joha (Keteki Joha) to meet the demand for promising varieties of specialty rice of Assam. One purple-grained aromatic variety Labanya has gained popularity among consumers for its several positive qualities. The institute has developed medium-duration varieties like Satyaranjan, Basundhara, Swarnabh, Numoli, Mulagabharu and Dholi (submergence tolerant) for doubled crop area and several other varieties to meet specific needs. The institute is continuing to develop new varieties to prepare the farmers to face different challenges including the likely effects of climate change.

The institute has also worked out cultural and nutrient management practices as well as plant protection practices for successfully growing a rice crop under varied agro-ecological conditions. A large proportion of the rice cultivation packages of practices recommended to the farmers by the university is developed and continuously updated in this institute. Over the years, the institute has evaluated the rice germplasm of the State for many different agro-botanical traits, resistance to the major biotic and abiotic stresses and quality characteristics, etc. On the whole, AAU and the entire State have good reasons to be proud of this institute's existence for the last 100 years and hope to gain still better success and service from the AAU-ARRI.

11/10/26



# Mapping minds in govt schools

**BANSIE VASVANI**

**T**he principal turned on the air conditioner like a pro with a flick of the remote. It was getting too hot for comfort in her clammy office that just about accommodated her desk and two red stained chairs. "You're throwing my children in the deep," she said accusingly, as her diamond nose ring glistened in the white tube lit room. Deep end is good I thought, remembering how my father watched me flounder in the deep before I learnt how to swim.

I had just joined her low income English medium school after spending three years volunteering and teaching in ostensible English medium government schools and after school programmes for the underprivileged. The fallacy of such schools in which the students were scarcely conversant in English was downright distressing. I wanted to help make a change.

"We give notes," she intoned, masking her irritation and impervious attitude towards educating more than a thousand students in that school. By now I could decode that notes meant generating standard questions and answers that the children memorised and regurgitated on cue. However, more than half of eighth and ninth grade students performed below grade level.

Barely a handful could write a basic grammatically correct sentence in English. I needed to backtrack. The linguistic process of conjugating regular and irregular verbs, and having a firm grasp of the tenses seemed like Greek to my students. Meanwhile, the principal assured me that my mounting concerns were misplaced and all was well.

Note giving was anathema in my book. My crime was trying to make my students think and write on their own. Yet I had to find a way to comply, lest I be summoned more regularly to the principal's stuffy room. Though I will say, I admired her beautiful wardrobe of colourful silks and starched cotton sarees as she droned on.

While the allotted ninth grade English textbook for the Karnataka state board exam, SSLC (Secondary School Leaving Certificate), comprised an interesting mix of poetry, prose

and drama by both Indian and Western writers, the students were unable to discern narratives by Kushwant Singh and Vijaylakshmi Pandit for example from lack of adequate training. Nonetheless, after laboriously working through each text word by word, I introduced the strategy of brainstorming to help my students begin to think critically.

This activity of non-linear mind mapping was music to their ears. They felt like they had been released from a cage. Someone was actually giving credence to their ideas. Schools such as theirs' existed on the premise that first generation learners were incapable of learning or thinking. Mindless, tiresome spoon feeding was the mode of their education with complete disregard to whether they were learning. Over time, my 9th graders reveled at rapid ideation, and writing their own answers to questions in the textbook, and ones I made up to encourage lateral thinking.

I can't claim that the exercise was easy, because to them it appeared like a bolt out of the blue. It took a few months for the students to grasp what brainstorming entailed. They were hesitant and afraid, then struggled to expand their thoughts into sentences, especially with so much emphasis on grammar and structure. We did indeed have a book full of notes, but not in the manner they were used to.

They began to understand that there could be variations in their answers, and that it was okay. They were allowed to experiment and introduce ideas they wouldn't have dreamt of doing. I hovered over them, my eagerness spilling into every corner of the room.

As the quicker students began to flourish, the average ones made an effort to think and write properly. Even the weakest lot wanted to learn.

The management and I had a fall out over my insistence on a methodology of correction they were averse to. I left abruptly before completing the school year. Even though I was full of remorse, and I would never know if brainstorming was the key, I came away with the notion that, yes, I did throw my students into the deep end, but at least I showed them how to swim.

04/22/1



# Parochial law

States need to implement labour rights uniformly and not rely on protectionism

**T**he Punjab and Haryana High Court has done the right thing by quashing the Haryana State Employment of Local Candidates Act, 2020 that provides for 75% reservation to State domiciles in the private sector in jobs that provide a monthly salary of less than ₹30,000. The court stated that it was beyond the purview of the State to legislate on the issue and restrict private employers from recruiting people from the open market. It also held that the Act was violative of equality guaranteed under Article 14 and freedom under Article 19 of the Constitution. The court said that by allotting 75% reservation for "locals", the Act militates against the rights of citizens of the rest of the country, and that such acts could lead to other States coming up with similar enactments, in effect putting up "artificial walls" throughout India. It argued that the Act was imposing unreasonable restrictions on workers' right to move freely throughout the territory of India. The court termed the requirements on private employers stipulated in the Act as akin to those under "Inspector Raj".

Other States such as Andhra Pradesh and Jharkhand have also enacted similar legislation. The Andhra Pradesh High Court observed that the State's Bill, passed in 2019, "may be unconstitutional", but it is yet to hear the case on merits. Workers move to other States seeking job opportunities that are relevant to their skills and abilities. If States build walls and impose restrictions that prevent job seekers from other States from accessing opportunities, citizens of poorer States will have to eke out a living within their own regions. This will affect the economy of the entire country. While legislation that seeks to reserve blue collar jobs for locals is problematic and unconstitutional, there is a reason why there is resentment among locals in better-off States over their jobs being taken up by "migrant" workers and which has compelled their governments to come up with knee-jerk protectionist measures. There are more than a few private employers who exploit the migrant labour market as such workers tend to work long hours for low wages with little or no social protection and benefits. This creates a segmentation of the labour market with low-wage migrant workers on the one side and local workers with better bargaining power on the other. If States are truly concerned about protecting workers' rights, they should ensure that migrant workers in all establishments enjoy basic labour rights that are legally due to them, thereby creating a level playing field for all workers. This will also be a curb on exploitative practices by employers. Protectionism in the labour market is not the answer. *Y/a*



# Learning in the mother tongue — the NEP way

India, renowned for its extraordinary diversity, proudly showcases a rich tapestry of languages and cultures that has flourished over centuries. From the majestic Himalayan peaks in the north to the lush landscapes of southern India, our nation embraces a remarkable array of languages, each intricately interwoven with its unique history, traditions, and heritage. This diversity stands as one of India's most formidable strengths, and we must undertake all necessary measures to safeguard this cultural treasure.

The predominance of English, a colonial legacy, has prompted a gradual shift away from our native languages. Proficiency in English is often perceived as the key to success in various fields. While this holds practical merit, it must not eclipse the significance of preserving and promoting our indigenous languages. Our languages are not mere tools of communication; they serve as repositories of history, traditions, and folklore, encapsulating the collective wisdom of generations and offering a unique worldview. These languages carry our cultural heritage, serving as the voices of our ancestors and gateways to understanding our past. However, the ascendancy of English, a language foreign to India and disconnected from its cultural heritage, poses a substantial threat to the foundations of our linguistic diversity. While proficiency in English undeniably offers advantages in an increasingly interconnected world, it should not come at the cost of our indigenous languages. Striking a balance that allows our native languages to prosper alongside English is essential for us to preserve the essence of our cultural identity.

When Prime Minister Narendra Modi proudly asserts, "I proudly speak India's languages even at the UN. If it takes a while for the listeners to applaud, so be it," he not only showcases a commitment to preserving India's linguistic diversity but also highlights the value of linguistic pride. This dedication finds its embodiment in the National Education Policy (NEP) introduced in July 2020. The NEP is a visionary blueprint that seeks to revolutionise the way we educate our children, it promises to reshape the country's educational landscape, emphasising the importance of preserving linguistic diversity and promoting Indian languages.

The NEP places significant emphasis on promoting mother tongues as mediums of

instruction. It acknowledges the cognitive advantages of learning in one's language, especially during the formative years of a child's education. Research has consistently shown that children learn best when they are taught in a language they understand well, which has a profound impact on their cognitive development and their ability to grasp complex concepts.

The policy encourages the use of the mother tongue or local language as the medium of teaching and learning. This approach recognises that children are most comfortable when they are taught in the language spoken at home. It not only makes learning more accessible but also ensures that students have a solid foundation in their mother tongue, which is essential to understanding more advanced concepts in other subjects.

The NEP also addresses the crucial need for developing high-quality teaching and learning materials in various Indian languages. To effectively promote local languages, textbooks, workbooks, videos, plays, poems, novels, magazines, and more are being developed in these languages. These languages must have up to date vocabularies and dictionaries so that contemporary issues and concepts can be effectively communicated in these languages.

Another unique feature of the NEP is its endorsement of multilingualism in education. This means that children will not only learn in their mother tongue but will also have the opportunity to become proficient in multiple languages. Through the three-language formula, students are encouraged to learn and become proficient in their mother tongue, the regional language, and a modern Indian language. Additionally, students will have the option to learn other languages based on their interests and the resources available in their schools.

The NEP sets the stage for a brighter future where linguistic diversity and cultural pride go hand in hand with academic excellence. It is a journey towards an India that is not only educated but also deeply rooted in its rich cultural heritage, a land where every child has the opportunity to learn and succeed in his or her language while becoming proficient in a multitude of languages.



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The views expressed are personal

HT/16



# CASTE OUT

Insecurity can be triggered by the environment. The situation today has made caste an acutely sensitive issue in institutional contexts. Students view it with suspicion; it is their peers in different educational institutions who allegedly face discrimination, occasionally culminating in suicide. In spite of the negative associations, a few companies conducting placement interviews in Indian Institute of Technology campuses asked students for their caste or their Joint Entrance Examination results in the application forms. Students foresaw in this a “potential career risk” since their credentials as engineers have nothing to do with their caste background. Applicants from scheduled castes, scheduled tribes and other backward classes feared that the companies would promote discrimination at the entry point or later. They blamed the IITs, which were either complicit in allowing or ineffectual in preventing such inquiry. The JEE ranks would indicate whether they came in on reserved seats, since the entry marks are lower for these. So asking for three-year-old JEE results was just a roundabout way to reach the same information — the caste identity of the applicant. It was not surprising that the students felt anxious or insulted.

Among the protests, one alumnus wrote to the SC and ST minority commissions and the education ministry, focusing on the complicity of the IITs in creating the fear of discrimination. Other alumni said that these questions were asked earlier as well, but there had been no protests. Clearly the protests this time suggest that not just the fear but also the experience of being discriminated against is sharp enough for students to speak up. Oppressive divisiveness is too widespread now for the environment to emanate security. There might be a contributory reason too. As another alumnus pointed out, many students from reserved categories did not apply when asked their caste background for they felt a sense of ‘shame’, however misplaced. Here, then, the discrimination is silent, invisible, as though it never happened. Others have said that recruiting companies should not ask for caste backgrounds unless they are offering benefits. This relates to a broader point — asking for caste identity is a breach of privacy; it can only be relevant in the case of reservations. No assurances of non-discrimination and diversity in recruitment from the companies would be adequate answer for the questions the students’ protests have raised.

Tel/2410



# In step with the evolving global landscape of skills

**I**ntricately woven into the fabric of the G20 agenda, skilling has emerged as a focal point on the global stage. As we traverse the path of transforming the global skills landscape from school to work, a synchronised effort from schools, higher education institutions, industries, MSMEs, governments, and individuals becomes imperative. The question that lingers is: What are our next moves?

In the wake of a world recovering from the pandemic, signs of economic slowdown persist. Simultaneously, a technology revolution is unfurling, presenting a paradox of diminishing traditional jobs and the ascent of tech and green jobs. The World Economic Forum's projection of 85 million jobs disrupted by 2025, accompanied by the emergence of 97 million new ones, underscores the evolving synergy between humans, machines, and algorithms. In this dichotomy of progress, traditional roles face disruptions, yet start-ups and small businesses armed with technology are slated to generate 70% of new jobs — a unique and challenging scenario.

Industries and technology are hurtling forward, rendering traditional teaching methodologies obsolete. In high-paced domains like cybersecurity, traditional approaches to teaching no longer suffice, and the shelf life of professional degrees dwindles to a mere few years. Furthermore, professionals often lack essential skills such as critical thinking, problem-solving, communication, and teamwork — crucial for workplace success.

Even graduates, armed with professional degrees, find themselves lacking the essential skills that make them "wanted" or "employable". A short-term solution, unfortunately, entails additional time and money spent on soft skill courses, creating a barrier for many. Consider an example of engineering graduates specialising in Artificial Intelligence (AI). Despite possessing technical know-how, they might struggle to secure a job due to a lack of effective communication and teamwork skills. This highlights the pressing need for a holistic and comprehensive approach to education that addresses both technical and soft skills.

This glaring deficiency necessitates not only appropriate skills but also a reimagined education framework. Time and resources are essential to acquire the in-demand and future-proof skills needed for the evolving job landscape. For instance, collaborative projects between industries and educational institutions can expose students to real-world challenges, fostering critical thinking and problem-solving abilities.

India, projected to possess the world's largest workforce by 2027, holds the potential to become a global HR powerhouse. However, bridging the gap between industry-required skills and academic outputs is paramount. Integrating "wanted" skilling programmes into high-school curriculums, with collaboration between industry and academia in curriculum design, can empower students to choose relevant skilling programmes early in their academic journey. Initiatives like Skill India and Samagra Shiksha are steps in the right direction, but acceleration is needed to ensure future readiness.

However, the story doesn't end here. There is a swaggering new entrant whose impact needs to be factored in too. The global landscape is witnessing a revolution driven by AI in skilling and education. The integration of AI is transforming the learning landscape, providing personalised, anytime, anywhere learning. AI-driven platforms are bridging gaps in traditional education models, offering tailored learning experiences that cater to individual needs.

Consider an AI-driven platform that adapts its content based on a student's learning style, ensuring a more engaging and effective educational experience. Virtual classrooms and immersive learning environments, powered by AI, simulate real-world scenarios, enhancing problem-solving skills and critical thinking. Imagine a virtual medical simulation where aspiring health care professionals can practise complex procedures, refining their skills in a risk-free environment. The scalability of AI-driven education solutions transcends geographical boundaries. Moreover, AI facilitates continuous learning, allowing individuals to upskill or reskill throughout their careers — a necessity in a rapidly evolving job market.

As we navigate the future of skilling, the collaboration between traditional pedagogy and AI-driven innovations promises a dynamic learning experience. The implementation of AI in mass-scale skilling and education marks a transformative moment.

In conclusion, the global community stands at a pivotal juncture, tasked with redefining and revitalising the skilling ecosystem to embrace the future. The unanimous adoption of the New Delhi Leaders' Declaration at the G20 Summit ushers in hope. With India predicted to provide 25% of the global workforce and contribute 15% of the Gross Domestic Product by 2047, must I add that the world is indeed banking on us to lead the way!



Ajay Kela

Ajay Kela is president and CEO, Wadhvani Foundation. The views expressed are personal



# An inclusive pursuit

Nexus of Good

*Beginning from Chhattisgarh, Indus Action aims to bridge the gap between policy and action with a vision to realise the dream of inclusive education across India*



ANIL SWARUP

**I**ndus Action was deservedly selected as one of the awardees for Nexus of Good Annual Awards, 2023. Prabhat Kumar, former Governor of Jharkhand State and former Cabinet Secretary, Government of India, gave away the award at a glittering ceremony organised at FICCI, Delhi.

In the heart of India lies a state with diverse demographics, rich culture, and an inherent socio-economic disparity: Chhattisgarh. As a nation, India's long-standing commitment to uplifting its vulnerable populace resonates strongly through its Right to Education (RTE) Act, 2009. This legislation was enacted primarily to ensure that every child in the country got quality education as a matter of right. While the legislative intentions were laudable, its implementation posed a number of problems as is true of most of the policies and legislations in the country. This legislation, in particular, had some additional issues around the issue of inclusion. This gap between policy and on-ground action is where Indus Action has anchored itself.

## Objectives

**Access to quality education:** One of the paramount objectives was to ensure that economically and socially disadvantaged children in Chhattisgarh get access to quality education as per RTE's 12(1)(c) provision. Under provision, private schools must reserve 25 per cent of entry-class seats for students belonging to economically weaker (EWS) sections and disadvantaged groups (DG) to promote inclusive education.

**Technology-driven solutions:** Recognising the power of technology in the modern age, Indus Action sought to leverage it to streamline the admission process, making it transparent, effi-



The journey of Indus Action represents hope, resilience, and a promise of a brighter future for India's next generation

cient, and user-friendly.

**Awareness and community participation:** Real change can only be initiated when the community is informed and involved. Therefore, Indus Action aimed to raise awareness about RTE provisions and promote active community participation.

**Strengthening grievance redressal mechanisms:** An effective grievance mechanism ensures accountability and trust in the system. Establishing and fortifying such a system was a pivotal objective.

## Achieving the objectives

**Access to inclusive and quality education:** The need to partner with the state government was recognised upfront. By collaborating with the Chhattisgarh government, Indus Action played a significant role in establishing a centralised web portal for admissions under RTE 12(1)(c). This ensured a systematic, transparent, and efficient admission process, leading to increased enrolment rates. The initiative increased inclusive school spaces and improved vulnerable children's access to quality education. 60 per cent of

students enrolled are from EWS; 40 per cent are from socially disadvantaged groups.

**Technology-driven solutions:** Technology came handy in delivering the objectives. Creating the online portal for admissions and implementing an online reimbursement module in partnership with the Public Financial Management System (PFMS) represent the organisation's emphasis on tech-driven solutions. These platforms offer ease of use and ensure transparency in the process.

**Awareness and community participation:** Through strategic campaigns, Indus Action contacted schools, communities, and civil society organisations. They used existing data systemic channels and partnered with CSOs to ensure maximum outreach. Workshops, conferences, and on-ground campaigns made communities aware of their rights and the opportunities available under RTE. They became active participants in the entire process as willing partners.

**Strengthening grievance redressal mechanisms:** The introduction of a technol-

ogy-enabled helpline has been instrumental in addressing grievances promptly. It offers real-time solutions to parents, schools, and government officials, ensuring that issues or concerns about the admission process are addressed swiftly.

## Plans for the future

**As Indus Action looks to the horizon, the vision remains clear:** to make the dream of inclusive education a reality for every child in India.

**Replicability and expansion:** The success of the Chhattisgarh model has set a precedent. Indus Action replicates this model across other states, aiming for a pan-India impact. Collaboration with more state governments will be crucial to achieve this.

**Enhancing technological infrastructure:** With the ever-evolving landscape of technology, continuous updates and improvements to the existing tech platforms are on the cards. The aim is to make them more user-friendly, efficient, and inclusive.

**Community empowerment:** Indus Action recognises the power of an informed com-

munity. More grassroots-level campaigns, workshops, and interactive sessions are planned to empower communities further via the Samaaj 3.5 per cent programme, making them active stakeholders.

**Policy advocacy:** With the insights and experience gained from on-ground implementation, Indus Action plans to engage in policy advocacy. By working closely with policymakers, the organisation hopes to influence changes in the education policy framework, making it more effective and inclusive.

In conclusion, Indus Action's endeavour in Chhattisgarh is not just an initiative but a movement towards an inclusive, equitable, and just future for India. The organisation has successfully bridged the gap between policy and action through strategic interventions, unwavering commitment, and a clear vision. As we forge ahead, our journey represents hope, resilience, and a promise of a brighter future for India's next generation.

Indus Action epitomises the philosophy of Nexus of Good. In the initial stage it set up a model that is replicable and scalable. The key here is public-private partnership that makes scaling feasible. There is an appreciation of the fact that whereas innovation can come from the private domain, scale will happen only through public participation. The good news is that the model created by Indus action for ensuring inclusion in school education is already scaling and is set to scale further fulfilling the objectives of the Right to Education Act. It is also demonstrating that private and public domains need to come together to make things happen.

Views expressed are personal

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# Transformative approach to upskilling youth



MANAV SUBODH

By embracing transformative approach to upskilling youth, we can ensure that they not only thrive but also lead us toward a more sustainable future

In a world marked by rapid evolution and constant change, it is imperative to recognise the significance of preparing our youth for the future. With over 1.8 billion individuals aged between 10 and 24, as highlighted by the United Nations, the potential of this demographic to drive progress and transformation is immense. But it is equally important to acknowledge the challenges they face in a job market that is constantly in flux.

The statistics are revealing: in 92 countries, nearly three out of four young people aged 15-24 lack the emerging skills needed for employment, as per estimates by the Education Commission and UNICEF. This challenge is particularly pronounced in developing countries where access to education and resources can be limited. This glaring disparity underscores the urgency of providing our youth with skills that are not only relevant but also adaptable, transcending borders and empowering. Let's consider India, a nation with a vast talent pool in the information and technology sector. India has the potential to



become a hub of technology and innovation, expanding beyond its role as one of the biggest IT exporters globally. However, it is imperative to transition from merely acquiring new skills to creating well-rounded individuals with the capacity to address social issues.

**Changemakers Mindset:** Fostering a Changemakers mindset leveraging entrepreneurial thinking and problem solving is essential to equip the next generation for the 21st century's challenges and opportunities. Global leadership programs and initiatives offer a unique platform to instill this mindset in young students. By immersing them in a curriculum that emphasises on innovation and entrepreneurial thinking around some real life challenges, we can prepare students to excel in the 4th Industrial Revolution. Programs aligned with the United Nations Sustainable Development

Goals provide students with a sense of purpose and responsibility, reinforcing the importance of changemaking in creating a more sustainable and socially conscious future.

**Nurturing Digital Skills:** Technology is a crucial tool for transformative education. It connects students to a wealth of knowledge and experts worldwide, enabling innovative problem-solving. Beyond job readiness, it empowers youth to address pressing issues using advanced tools like Artificial Intelligence (AI), Augmented Reality (AR), and Virtual Reality (VR).

The focus should shift to a holistic, interdisciplinary education, preparing youth for a tech-centric future in various sectors even in traditionally non-technical fields like medicine or psychology.

**Beyond the Classroom:** Learning extends beyond the confines of a traditional classroom. Students acquire knowledge and skills through experiential opportunities, such as engaging in projects centred around environmental sustainability, social justice, and community involvement.

**Empowering Youth:** Involving youth in shaping their own education is crucial. Instead of imposing a strict, top-down approach, a more flexible, bottom-up method is desirable. This means listening to the ideas and opinions of young people about what they're learning. By equipping youth with new skills, we empower them to pass on their knowledge to the next generation in their communities. This results in a collaborative system where everyone has a role in making sure young people gain valuable skills.

The path to equipping our youth for the future is multifaceted. It involves fostering a changemakers mindset, nurturing digital skills, emphasising socio-emotional growth, empowering youth to take charge of their education, and extending learning beyond the classroom. By embracing these transformative approaches to upskilling our youth, we can ensure that they would lead us toward a brighter, more sustainable future.

*The writer is Founder & chief mentor 1M1B (1 Million For 1 Billion). views are personal*

20/6



## THE QUOTA VS QUALITY ARGUMENT IS WRONG

# Reservations have their own merit: inclusion

M S SRIRAM

IIMs have implemented reservations in MBA programmes for years. There is no evidence to show that it has compromised their quality and rankings.

In a recent Op-ed piece in this paper, titled A working hypothesis: Reservations won't help, Prof V Raghunathan used data and anecdotes to highlight the pathetic quality in doctoral programmes across universities. It is fair to grant the argument that the doctoral programmes in several universities of the country need a serious look. While that is an important argument, he slips in the issue of reservations and conflates it with quality. He raises a concern saying "compelling higher rated institutions like IIMs and IITs to admit underprepared students from socio-economically weaker backgrounds into their PhD programmes will not correct the ills of a fundamentally flawed system..." So if the system itself is fundamentally flawed, then to insinuate that it gets worse due to students from socio-economically weaker backgrounds is problematic because both the general category students and those from the socially weaker sections come from the same (inferior) cohort under this system.

Conflating reservations and merit to argue against the former is not a new argument. First, the argument of merit: What is defined as merit is a moot question. Michael Sandel questions the very notion of merit in his seminal book, *The Tyranny of Merit*. But that is a larger argument. Where the notion of merit is narrowly defined, it throws up a set of "people like us" coming from a very limited section of the society. Ajantha Subramanian's fantastic book *The Caste of Merit* uses the case study of IIT Madras to document the limitation of this approach of a narrow definition of merit. Reservations facilitate inclusion and diversity. They pry open the space by widening the concept of merit by providing for the unidentified strengths accrued from lived experience and negotiating hierarchies. This is done while slightly slipping down the bar of the classical and narrow definition of merit.

For the purposes of admission to higher education, broadly there are three axes on which 'merit' is measured -- disciplinary knowledge (represented by the undergraduate marks which

have a cut-off higher than the pass marks); the computational ability; and the comprehension and language skills, which are assessed through a series of tests that help students to qualify. What do reservations do? They throw up a larger cohort of applicants with a lesser cut-off point for consideration.

Compelling higher education institutions to look at a larger cohort obligates them to look at the applications carefully and with some element of empathy. In higher education, particularly in the IIMs, where graduates of engineering

ate level increased in each IIM/IIT, but also the number of IIMs/IITs have also increased.

What do reservations do? They make it inevitable for us to look at admission applications carefully. They bring in diversity in the student body, which would later translate to diversity in the faculty body. They help in a better connect with the student body who (due to reservations) represent the diversity. Let us look at two other instances of reservations -- that of women in local bodies and women on corporate boards. Both these have led to a new generation of leaders emerging -- those who might not have been otherwise considered because of our inherent biases.

There are ways in which the so-called "deficiencies" can be bridged to make reservations and inclusivity work. IIM-Bangalore, for instance, runs the N S Ramaswamy Pre-Doctoral Fellow Programme specifically aimed at students who are eligible for reservations to prepare better for a doctoral course.

With the reservation policy, we are obligated to examine every application from the reserved category carefully before saying no. Applications do get rejected on merit. But before that, they are examined carefully to see if there is an inherent merit in the candidate while being ranked relatively lower. The applicants on the margins of the meritocratic cut-off thus get a better chance. After all, these cut-offs are arbitrary and subjective, while appearing to be objective criteria. How is someone a notch below the cut-off significantly lacking than someone a notch above? The experience with reservations till now has not raised red flags on merit or excellence. Opposing reservations with the merit argument actually misses the point.

If there are no compromises on basic qualifiers, no significant deficits in disciplinary knowledge, and a candidate from the classes that claim reservations is offered in favour of someone from the general category, we are making the pool more inclusive and diverse. Prof Raghunathan should continue to write about the pathetic state of research and output in our academic world and argue for reform, without training guns on reservations. There is no evidence to point out that reservations have been the reason for the pathetic state of higher education. The reform of higher education needs to be addressed urgently without conflating it with reservations. Reservations certainly are not the primary reason for the pathetic state of higher education.

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may obtain a doctorate in human resource management or economics, the issue of pre-existing disciplinary knowledge or methodological skill is not assumed but these are imparted as a part of the course work. Therefore, one is looking basically at a potential graduate who has aptitude to undertake a rigorous research project and live with research as a profession. Whether linguistic competence is crucial as a measurement of merit is another question. There are multiple ways to bridge that gap.

A similar hue and cry was raised when IIMs and IITs were mandated to provide 27% reservations for the Other Backward Classes (OBC) way back in 2008. In the 15 years since, there has been no indication that the merit of the IIMs or IITs have fallen due to this policy. Co-incidentally, the IIMs and IITs have started moving upwards on the global rankings of business schools and universities. If IIMs are to implement reservations in their doctoral programmes, this is the time. We have around 15 years of experience in graduating students who have gone through the grind of an MBA. Apart from the global pool, these are also the pool of students available for the PhD programmes. Not only have the total number of student admitted at gradu-





LINA ASHAR

# Significance of creativity in the curriculum

Creativity in education is the catalyst for transforming knowledge into innovation, encouraging learners to think, explore, and connect

As the world of education continues to evolve, a growing consensus is emerging that creativity is essential for defining the future of education. Rather than relying on textbooks and standardised assessments, a creative approach to curriculum is becoming increasingly popular as a means of unlocking students' potential.

Creativity is not only an art form but also a cognitive ability that spans multiple disciplines and enables students to develop critical thinking and problem-solving skills. Educators can create an environment that encourages learners to dwell on varied innovations and skills by incorporating creative elements into the educational curriculum. A creative curriculum accommodates diverse learning styles and preferences. Students are encouraged to explore their interests, fostering a sense of autonomy and personalisation in their educational journey. All skills begin in the brain. Whether learning to swim breaststroke or solve an equation, it all starts with neurons firing in the right area of



the brain repeatedly until you master it.

The right amount of creativity inspires children to learn new things and fosters innovation. Innovative educational environments have the power to significantly change how students learn and apply what they learn in the real world.

**Emotional and Social Development:** Creative activities often involve self-expression and collaboration, contributing to emotional and social skill development. Students learn to express themselves confidently and understand others' perspectives.

**Enhanced Critical Thinking:** It encourages students to think critically, analyse information, and develop problem-solving skills. This, in turn, improves their overall cognitive abilities.

**Skill Development:** There is a

wide range of skill development among the students. Once engaged in creative pursuits often enhance their communication skills, collaboration abilities, and adaptability.

**Increased Engagement and Motivation:** Creative elements in the curriculum make learning more enjoyable and relevant to students' interests. This heightened engagement fosters intrinsic motivation, leading to increased effort, participation, and a positive attitude toward academic tasks.

**Personalised Learning:** Being engaged in creative activities allows students to develop different forms of expression, catering to diverse learning styles. For instance, students who struggle with traditional methods can thrive when allowed to express themselves creatively, leading to a more inclusive and effective learning environment.

**Retention Power:** Creativity enhances the retention of information and knowledge. When students connect academic content to creative projects or real-world applications, they are more likely

to remember and apply what they have learned.

The inclusion of creativity in the curriculum has a positive impact on student performance. It makes learning a dynamic and meaningful experience that equips students for success in the classroom and lifetime.

In an era marked by rapid advancements in AI, robotics, 3D printing, AR/VR, and biotech, it's crucial to question: Are our schools truly equipping our children for this future? India is on the verge to transform the education ecosystem by adopting personalized learning concepts. We need to move with the times and create a learning ecosystem that creates future professionals and citizens who can compete and flourish anywhere in the world. Investing in a creative curriculum ensures that students are equipped to contribute meaningfully on the world stage. By embracing a curriculum that values and nurtures creativity, educators can transform education.

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Learning; views  
are personal)*



# B.Ed bugs

The NCTE's major failure has been its inability to regulate the spurious institutions that run teacher training courses by violating the rules. This has created the problem of recognition, nowhere perhaps as acutely as in Bengal where there have been, right from the beginning, the maximum number of institutions operating without the necessary affiliation of the NCTE



That the education system in West Bengal is sullied by politicisation that does not spare even primary education is not refutable. Teachers' training institutions, starved of basic infrastructure, have alarmingly added to the mess. In a recent move, the West Bengal government has cancelled the approval of 253 colleges of the state's 624 private B.Ed colleges after investigations revealed anomalies and malpractice at these institutions. The Baba Saheb Ambedkar Education University (BSAUE), responsible for controlling their functioning, found that they failed to meet the NCTE norms.

Previously also, NCTE, the statutory body for ensuring quality of training for aspiring teachers, was justified in expressing concern that private institutions in West Bengal had hardly cared to seek recognition from the National Council in defiance of the Act under which it was set up in 1993. Rigorous scrutiny by the Council had led to the closure of substandard institutions.

Capitalizing on the increasing marketability of B.Ed degree, a good number of institutions mushroomed in the country with sinister mercantile motives which, after securing nominal affiliation from universities, flouted all norms of teacher education by diluting the set curricula and even opening distance courses that proved ridiculously substandard in view of imparting professional competence. Hence, the necessity to have a statutory body to manage teacher education was felt.

The NCTE, made a statutory body in 1993 and constituted formally in 1995, has laid down norms, standards and guidelines for quality teacher education. In the process, it has identified and largely eradicated the main cause of deteriorating standards – correspondence and distance education B.Ed courses run without proper scrutiny of candidates, and basically to earn money by improper means. Reportedly, in many cases, false certificates showing teaching experience were forwarded by such institutions. Many of them failed to obtain the NCTE recognition essentially because of the state's inability to provide the required grants. Many state governments failed to provide resources required to maintain the laid-down minimum teacher-

student ratio of 1:10.

What West Bengal, largely responsible for the plight of these institutions, should acknowledge is that there is no virtue in numbers. This is, no doubt, in keeping with the Left Front's policy of increasing the number of degree holders, many of whom remained unemployed and were unemployable.

Meanwhile, the regional office of the NCTE served notice

to all teachers' training institutions asking them to adopt necessary procedures for affiliation within the stipulated period. The Council even derecognised such institutions and asked universities not to take exams of such courses which were so declared. But who cares? It may be recalled that in 2006, Calcutta High Court passed an order holding the admission of students to the B.Ed courses for 2005-06 in 36 colleges in the state as illegal because they had not been recognised by the NCTE. What occasioned surprise was how the authorities could grant affiliation to those private institutions without the necessary infrastructure. It was learned that most of these illegal colleges had been running B.Ed courses for more than four decades. Following a PIL in Calcutta High Court, the revelation came.

Interestingly, the ministry of school education in West Bengal established the School Service Commission to appoint school teachers, and it was made clear that B.Ed should no longer be an essential requirement to appear at the selection test. The intention of delinking B.Ed from teaching jobs was unequivocal.

This enigmatic phenomenon continued to be sustained in the field of education for years for unknown reasons. It is a tragedy that West Bengal is either unwilling to learn from its mistakes or has consciously decided to sacrifice quality in favour of numbers.

Admittedly, if qualitative improvement of teacher education is related to the quality of school education, and if the

NCTE is authorized to develop teacher education accordingly, it has to have its say in the appointment of school teachers. Is the NCTE in a quandary – or is it that only a paper tiger has been produced by an Act of Parliament, an Act which needs strengthening?

While the 30-year-old body has been given statutory powers, constitutionally it faces turbulent weather charged with politico-educational rainstorms.

Different opinions are aired, such as i) education is a state subject, so what authority does the NCTE have to dictate terms? ii) universities are autonomous bodies and they possess absolute authority to affiliate colleges and offer degrees, and iii) what measures can NCTE adopt if any state delinks B.Ed from teaching jobs.

The objectives of NCTE were no doubt laudable. But because the canvas was made so vast, there were many other regulatory bodies already operating on the scene for years. Their jurisdictions and mandates had wide overlaps with the NCTEs.

The most obvious overlaps showed up between the UGC Act and the NCTE Act with respect to regulating teacher education in colleges and universities. Also, there were disturbing overlaps with the constitutional responsibilities of some other bodies and of the state governments themselves.

These are related to functions like laying down courses for teacher education, norms for recruiting teachers, fixing student fees and providing minimum physical facilities. The Supreme Court did have a general solution of sorts: if in doubt, follow that later Act – a later Act might not be a saner one.

Compared to its broad spectrum mandate, the NCTE had meager human and physical resources. For covering the whole gamut of teacher education including research and training of persons for equipping them to teach, NCTE had little resources to spend, no regular staff with credible educational accomplishments, and

weak infrastructure in comparison to UGC, NCERT or any of the state education departments. It could not be expected to play the vital role of a regulator of teacher education in the Indian perspective. As to the macro-economic teacher manpower projections or planning as part of the NCTE's job, these needed additional faculty resources far beyond what NCTE ever had or was even promised.

It was not for nothing that the Union HRD ministry's decision in 2009 not to disband the NCTE flew in the face of the recommendation of a former union education secretary that NCTE ought to be scrapped because it had failed to regulate the standards of instruction.

The recommendation, advanced to the Centre in 2007, had suggested that the NCTE be replaced with a "new stronger, teacher education regulatory structure". Implicit was admission of the failure of the "regulator" to fulfill its primary task.

Though it would not be dissolved – NCTE got a breather – its wings would be clipped and its regulatory powers could be entrusted to individual universities. But the idea of allowing the NCTE to retain a wholly notional existence, it seems, was as illogical as it is inexplicable.

But, perhaps, it would have benefited the process of learning if the repeal Bill were allowed to take its legislative course, leading to a more efficient regulatory mechanism.

Ironically, the government continued with the failed system while leaving the task of better teaching to the universities.

The NCTE's major failure has been its inability to regulate the spurious institutions that run teacher training courses by violating the rules. This has created the problem of recognition, nowhere perhaps as acutely as in Bengal where there have been, right from the beginning, the maximum number of institutions operating without the necessary affiliation of the NCTE. Central to the problem is its failure to check the mushrooming of unauthorised teachers' training institutes.

Its latest norms reveal that the NCTE is fast becoming a fossilized agency with little flexibility and innovative quality control ideas. It is high time the Council evolved into an effective monitoring agency with vision.



**A K GHOSH**

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# भारतीय विश्वविद्यालयों के विस्तार का समय



कृपाशंकर चौधे

विदेशी विश्वविद्यालयों के बजाय भारत के प्रतिष्ठित शिक्षण संस्थानों को अपने केंद्र देश के विभिन्न हिस्सों में खोलने के लिए प्रोत्साहित किया जाना चाहिए

विश्व के प्रमुख विश्वविद्यालय और शैक्षणिक संस्थान भारत में अपने परिसर खोलने जा रहे हैं। विश्वविद्यालय अनुदान आयोग यानी यूजीसी ने इसकी अनुमति प्रदान कर दी है। यूजीसी के इस कदम के पीछे एक उद्देश्य विदेशी मुद्रा की बचत भी है। साथ ही यह उम्मीद भी कि इससे प्रतिभा पलायन रोकने में बड़ी मदद मिलेगी। हर साल साढ़े सात लाख से अधिक भारतीय छात्र अरबों डालर खर्च करके विदेश पढ़ने जाते हैं। आरबीआई के अनुसार 2022 में लगभग 13 लाख छात्र विदेश में पढ़ रहे थे। वित्त वर्ष 2021-2022 में भारतीय छात्रों की विदेश में पढ़ाई पर 25 अरब डालर की विदेशी मुद्रा खर्च हुई। फिलहाल आक्सफोर्ड विश्वविद्यालय, मेलबर्न विश्वविद्यालय, बर्क्सलेड विश्वविद्यालय, टेक्सास विश्वविद्यालय और सेंट पीटर्सबर्ग विश्वविद्यालय जैसे कई संस्थानों ने भारत में अपने परिसर खोलने में रुचि दिखाई है। सवाल है कि क्या विदेशी विश्वविद्यालयों के परिसर

भारत में खुल जाने से ऐसे मेधावी विद्यार्थियों को लाभ होगा, जो आर्थिक तंगी के कारण विदेशी विश्वविद्यालयों का रुख नहीं कर सकते? भारत में विदेशी संस्थानों के परिसर खुल जाने से विदेश में रहने का भारी खर्चा निश्चित रूप से घटेगा, मगर क्या भारत में उनके परिसर छात्रों को ट्यूशन फीस में कोई बड़ी कूट देंगे? फिलहाल ऐसे कोई संकेत नहीं हैं।

विदेशी विश्वविद्यालयों के परिसर स्थापित करने के पीछे यदि सरकार की मंशा भारत को वैश्विक शिक्षा के एक केंद्र के रूप में विकसित करने की है तो उसके लिए ऐसा करना आवश्यक नहीं। भारत में तो प्राचीन काल से ही उच्च शिक्षा के वैश्विक केंद्र थे। अंग्रेजी राज में जरूर भारत में उच्च शिक्षा का प्रसार स्वदेशी को अनदेखा करके हुआ था। इसी कारण 1968 में डा. दौलत सिंह कोठारी को प्रथम राष्ट्रीय शिक्षा नीति की प्रस्तावना में लिखना पड़ा था कि दुर्भाग्य से भारत की शिक्षा व्यवस्था भारत केंद्रित न होकर यूरोप केंद्रित है। उस यूरोप केंद्रित शिक्षा से राष्ट्रीय शिक्षा नीति, 2020 ने एक बड़ी हद तक मुक्ति दिलाई। इस नीति का बल जीवन निर्माण पर है। उसमें जीवन के निर्माण के लिए ज्ञान की उसी गरिमा को स्थापित करने की आकुलता दिखती है। स्वामी विवेकानंद ने यथाथं ही कहा था कि जिससे हम अपना जीवन निर्माण कर सकें, मनुष्य बन सकें और विचारों से सामंजस्य कर सकें, वही वास्तविक शिक्षा है।

दिल्ली के तीन केंद्रीय विश्वविद्यालयों से लेकर विश्वभारती विश्वविद्यालय और शांतिनिकेतन तक ऐसे अनेक विद्या केंद्र हैं, जो उच्च शिक्षा में गुणवत्ता को लेकर उठने वाले प्रश्नों को समझने का यत्न



अवधेश राजपूत

करते हैं। वे गुणवत्ता के नाम पर विदेशी मानकों का अंधानुकरण नहीं करते। जहां तक विदेशी विश्वविद्यालयों के भारत में परिसर खोलने से उच्च शिक्षा में गुणवत्ता और स्वस्थ प्रतिस्पर्धा बढ़ने, शोध एवं नवाचार को प्रोत्साहन की बात कही जा रही है तो हाल में घोषित क्वाक्रेलेली साइमंड्स की एशिया यूनिवर्सिटी रैंकिंग 2024 की सूची देखने से ही स्पष्ट है कि भारत के विद्या केंद्र गुणवत्ता में कितने आगे हैं। पिछले साल की तरह दिल्ली विश्वविद्यालय, आईआईएससी बेंगलुरु और पांच भारतीय प्रौद्योगिकी संस्थानों-चांबे, दिल्ली, मद्रास, खड़गपुर और कानपुर ने एशिया के शीर्ष 100 संस्थानों में स्थान हासिल किया है। रैंकिंग विश्वविद्यालयों की संख्या में भारत ने चीन को पछाड़ दिया है। रैंकिंग के अनुसार भारत अब 148 विशिष्ट विश्वविद्यालयों के साथ सबसे अधिक प्रतिनिधित्व वाली उच्च शिक्षा प्रणाली है।

ऐसे में यह प्रश्न उठना स्वाभाविक

है कि भारत सरकार ने विदेशी विश्वविद्यालयों के परिसर देश में खोलने का जो आवेग दिखाया है, वही आवेग उसे दिल्ली विश्वविद्यालय और शांतिनिकेतन जैसे विद्या केंद्रों के परिसर देश के विभिन्न राज्यों में स्थापित करने के लिए क्यों नहीं दिखाना चाहिए? दिल्ली में प्रवेश के इच्छुक छात्रों की भीड़ हर साल बढ़ती जा रही है। जाहिर है इसकी वजह यहां शिक्षा की गुणवत्ता है। यहां पर्याप्त ज्ञानी, अनुभवी एवं गुणी शिक्षक हैं और सुविधाओं और संसाधनों की भी उपलब्धता है। ऐसे में यदि देश के विभिन्न इलाकों में दिल्ली विश्वविद्यालय के परिसर खुलेंगे तो जाहिर है कि वहां और आसपास के प्रवेशार्थी विद्यार्थियों की भीड़ को वहीं रोककर उनका बहुत उपकार किया जा सकेगा।

दिल्ली की तरह पूरे भारत में अनेक ऐसे विश्वविद्यालय हैं जो उच्च शिक्षा के अंतरराष्ट्रीय मंच के रूप में विकसित हो रहे हैं। तभी तो भारत की शिक्षा व्यवस्था

को बार-बार अंतरराष्ट्रीय स्वीकृति मिलती रही है। यूनेस्को द्वारा इस वर्ष शांतिनिकेतन को विश्व विरासत स्थल घोषित करना गुरुदेव रवींद्रनाथ टैगोर की शिक्षा व्यवस्था को अंतरराष्ट्रीय स्वीकृति ही है। वहां 1921 में शुरू हुए विश्व भारती विश्वविद्यालय में रवींद्रनाथ टैगोर ने भारतीय धर्म, दर्शन, ज्ञान, साहित्य, संगीत और कला के साथ ही एशिया एवं यूरोप की भाषाओं और साहित्य के अध्ययन और अनुसंधान की यथोचित व्यवस्था की थी। रवींद्रनाथ टैगोर की आकांक्षा थी कि भारतीय संस्कृति में जिस सर्वधर्म का मिलन हुआ है, उसकी प्रत्येक धारा का विशद अध्ययन और अनुसंधान विश्व भारती में हो। संतोष का विषय है कि शांतिनिकेतन में वैसा ही हुआ।

उच्च शिक्षा को वैश्विक और स्थानीय दोनों ही तरह के सरोकारों से जोड़ना चाहिए और विशिष्ट ज्ञान क्षेत्रों में उत्कृष्टता की ओर अग्रसर भारतीय ज्ञान केंद्रों का विस्तार करना चाहिए। भारत के कई विद्या केंद्र ज्ञान के सृजन, संवर्धन और संरक्षण में जुटे हैं और वे उन योग्यताओं एवं क्षमताओं के निर्माण का भी दायित्व बखूबी निभा रहे हैं, जो समाज के संचालन के लिए अपरिहार्य होती हैं। अतः गुणवत्तापरक शिक्षा के लिए विख्यात भारतीय विद्या केंद्रों के विस्तार के लिए संसाधनों की व्यवस्था को प्राथमिकता देनी चाहिए। बजट में शिक्षा का हिस्सा यह ध्यान में रखते हुए बढ़ाना चाहिए कि देश के विभिन्न राज्यों में विख्यात भारतीय विश्वविद्यालयों के परिसर खोलने से ज्ञान के नए क्षितिज उदित होंगे।

(लेखक महात्मा गांधी अंतरराष्ट्रीय हिंदी विश्वविद्यालय, वर्धा में प्रोफेसर हैं।)



# मिथकों का मोल

## रामायण-महाभारत जीवन का अभिन्न हिस्सा

NCERT की सात सदस्यों वाली उच्चस्तरीय समिति ने हाल ही में सिफारिश की है कि सातवीं से 12वीं तक के बच्चों को सोशल साइंस के सिलेबस के तहत रामायण और महाभारत जैसे महाकाव्य पढ़ाए जाने चाहिए। हालांकि इस आशय की सिफारिशें पहले भी दी गई हैं। समिति ने भी माना है कि कुछ एजुकेशन बोर्ड स्टूडेंट्स को रामायण पढ़ाते हैं, लेकिन वहां इन्हें मिथक के रूप में पढ़ाया जाता है। अगर समिति की सिफारिशों को मान लिया गया



**NCERT : सिफारिशों पर सवाल**

तो स्कूलों में स्टूडेंट्स को इतिहास की कक्षा में रामायण और महाभारत पढ़ाई जा सकती है। लेकिन इतिहास और मिथक के बीच की सीमा का इस तरह धुंधला होना कोई अच्छी बात नहीं कही जाएगी। इसके कई तरह के नुकसान आगे चलकर देखने को मिल सकते हैं। भारतीय समाज में मिथकों की बड़ी खास जगह रही है। मिथकीय कहानियां हमारे रोजमर्रा के जीवन, रहन-सहन और बोलचाल का अभिन्न हिस्सा रही हैं। इतिहास इस लिहाज से एक रूखा विषय है कि इसमें

घटनाओं, लड़ाइयों और तारीखों का अंतहीन ब्योरा अक्सर इसे सिरदर्द बना देता है। छात्रों के लिए तो यह एक कठिन विषय हो ही जाता है, एक समाज के रूप में भी भारत में इतिहास के इस रूप को ज्यादा तरजीह नहीं मिली। घटनाओं के ब्योरो में जाने के बजाय कहानियों के रूप में उन घटनाओं से निकले सबकों और मूल्यबोध को स्थायी रूप देना यहां ज्यादा जरूरी माना गया। संभवतः इसी का परिणाम है कि एक समाज के रूप में हम घटनाक्रम और उसके कारण शक्ति समीकरणों में आने वाले तात्कालिक बदलावों के ब्योरो पर दृष्टि जमाए रखने के बजाय जीवन को गति देने वाले उदात्त और सनातन मूल्यों को कहानियों में पिरोकर उन्हें सुरक्षित रखने पर ज्यादा ध्यान दे सके। यही वजह है कि वे मिथक आज भी हमारे जीवन, आचरण और मूल्यबोध को स्वरूप देने में इतनी अहम भूमिका निभाते हैं, जितनी दुनिया के शायद ही किसी समाज में निभाते हों। इन सबके बावजूद इन्हें इतिहास का हिस्सा बनाने से परहेज करना जरूरी है। औपचारिक तौर पर इतिहास लिखने और उसका अध्ययन करने की प्रवृत्ति पश्चिम की देन है। उनका कहना है कि आगे बढ़ने के लिए अतीत की गलतियों से सबक लेना जरूरी है। लेकिन व्यवहार में अतीत पर पर ज्यादा जोर हमारी समझ को परिपक्व बनाने के बजाय पुराने हिसाब-किताब बराबर करने की भावना से लैस करके ज्यादा हिंसा की ओर ले जाता है। मतलब यह नहीं कि एक विषय के रूप में इतिहास को पढ़ना या समझना गलत है। लेकिन इसका अध्ययन करते हुए वस्तुपरकता, एक तरह की तटस्थ दूरी बरतने की तमीज जरूरी है ताकि अतीत की परछाईं हमारे वर्तमान और भविष्य के तकाजों को धुंधला न करने लग जाए। और हां, मिथक को सिकोड़ कर उसे इतिहास में तब्दील करने की भूल तो हमें बिल्कुल नहीं करनी चाहिए।





Scheduled for 2021, the centenary celebrations of GMC, Amritsar, were delayed due to the pandemic.  
TRIBUNE PHOTO

# Ode to Glancy Medical College



SK SHARMA

**I** WAS a student of Glancy Medical College in Amritsar, which was later renamed as Government Medical College, from 1959 to 1964. Set up by the British in Lahore in 1864 as a medical school and later relocated to Amritsar in 1920, Glancy Medical College was one of the leading centres of excellence in north-west India.

The medical college had some of the most renowned faculty members. These included Prof Inderjit Dewan (Anatomy), Prof Shiv Kumar (Physiology), Prof NL Chitkara (Pathology), Prof KN Garg (Pharmacology) and Prof SS Anand (Principal and Head of Surgery). Other well-known teachers included Prof Yudhvir Sachdeva (Surgery), Prof RP Malhotra and Prof PN Chuttani (Medicine), Prof SR Dhall (Gynae and Obstetrics) and Prof MS Nirankari (Ophthalmology).

We were a batch of 100 students: 80 boys and 20 girls. Right on the first day of college, we were advised to wear a special dress — white pants and shirt in summer; white pants, shirt, neck tie and red blazer in winter. The girls wore white *salwar-suit*. Our uniform, with the college insignia, gave us a unique distinction and recognition, and we felt a sense of pride wearing the same.

Hostel life had a fair measure of cordiality, which we cherished. While a washerman would regularly come to take clothes for laundry, a barber would visit the hostel. At the hostel mess, we were served nutritious food, with a varied menu.

Our time in college was full of action. The dissection halls, where we studied human anatomy, would be vibrant with energy and excitement. We would dissect each part gradually in a phased manner. The lessons we learnt there laid a strong foundation of our practising career.

After our classes in the medical college, all the students would ride their bicycles to reach VJ (Victoria Jubilee) Hospital and other allied hospitals (gynae, ENT and eye), which were nearly 2 km away. There, we were given classes in clinical practical training.

In the first year of our college, we also joined the National Cadet Corps. Every year in December, an NCC camp would be held. Once, we had a camp in Jabalpur.

After completing my MBBS from Amritsar, I joined the PGI for my MS, following which I did my MCh (super specialisation in Surgery) from AIIMS.

The first blow to the college came in 1956 with the establishment of the All India Institute of Medical Sciences (AIIMS), New Delhi. The second one was the setting up of PGIMER in Chandigarh in 1962. We were in our third year when PGI came into being. The birth of these two premier medical institutes in the region saw most of the top faculty from this mother institute moving to Delhi and Chandigarh. Not only this, even the second line-up of teachers moved with them.

The first exodus saw Prof KL Wig, Prof BK Anand and Prof KC Kandhari moving to AIIMS. The second saw leading faculty members like Prof Tuls Das (Eye and ENT), Prof SS Anand, Prof Chuttani and Prof Dhall moving to the PGI. With such renowned teachers leaving, the institute was unable to retain its position as among the top medical institutes of the country.

## Birth of AIIMS & PGI saw top faculty from Amritsar moving to Delhi and Chandigarh

Today, the alumni of the institute are settled all over the globe and have brought laurels and distinction to the institute. Some have adorned the high offices of director of PGI. These include Prof IC Pathak, Prof PL Wahi, Prof JS Neki, Prof BK Sharma and the incumbent, Prof Vivek Lal.

I went back to the college twice later, including once for the golden jubilee celebrations and another time for the alumni meet of our batch. The old hostel for boys had been given to the girls. As I stood on the campus with my old friends, it brought back memories of the time we'd spent together in college. The medical college has expanded over the years. Even as I want to relive the past with those memories, it is sad to see that while AIIMS and PGI have today become the premier medical institutes of the country, this mother institute has not been able to recover its past grandeur.

As my alma mater is celebrating its centennial year, I pray and hope that dedicated and unwavering commitment will help it regain its lost glory.

— The writer is former Director, PGI, Chandigarh

T-26/MS



# Techniques to keep students engaged

**Teachers can use various tools in classrooms to enhance engagement, writes Poornima Charantimath**



**S**tudent engagement in the classroom is a critical factor for effective teaching and learning. It refers to students' level of interest, participation, and investment in their learning experiences. When students are actively engaged, they are more likely to understand and retain information, develop critical thinking skills, and perform better academically.

Pedagogical tools are strategies, techniques, and methods that teachers use to enhance learning and promote student engagement in the classroom. Here are some pedagogical tools that can help enhance student engagement in the class:

■ **Inquiry-based learning:** This pedagogical tool is a student-centred approach that encourages students to ask questions, investigate, and explore topics that interest them. Teachers can use this tool by presenting real-world problems or scenarios that students can explore and solve through research, discussion, and experimentation. Technology Integration: Technology can engage students in the learning process. Teachers can incorporate various technological tools into their lessons, such as interactive whiteboards, tablets, videos, or educational apps. These tools can make learning more interactive, collaborative, and engaging.

■ **Quiz:** They can be used as a formative assessment tool to provide feedback to students and help them identify areas where they need to improve. They can also be used as a summative assessment tool to evaluate student learning outcomes. Quizzes can be created in different formats, such as multiple-choice, true/false, fill-in-the-blank, or short-answer questions. They can reinforce learning, review material, or introduce new concepts.

■ **Flashcards:** Flashcards are an effective

tool for memorization and recall. They are handy for learning vocabulary, formulas, and concepts. Flashcards can be created using physical cards or digital tools like Quizlet or Anki. Flashcards are especially helpful for visual learners, as they can use images and diagrams to help them remember information.

■ **Case studies:** Case studies are a powerful pedagogical tool for promoting critical thinking and problem-solving skills. They provide students with real-world scenarios and allow them to apply their knowledge to practical situations. Case studies can be used in many subjects and disciplines, from business and economics to science and engineering.

■ **Project-based learning:** Project-based learning is a pedagogical tool that involves students working on a project that requires them to apply what they have learned in a real-world context. This can be done individually or in groups, ranging from short-term to long-term projects. Projects can help students develop critical thinking, problem-solving, and collaboration skills.

■ **Cooperative learning:** This pedagogical tool involves students working in small groups to achieve a common goal. Cooperative learning can help students develop teamwork and collaboration skills, as well as promote engagement and motivation.

■ **Classroom discussion:** Classroom discussions are a pedagogical tool that can help students develop critical thinking skills, enhance communication skills, and promote engagement. Teachers can use

various strategies to facilitate classroom discussions, such as asking open-ended questions, using probing questions, and using wait time to give students time to reflect.

■ **Active learning:** Active learning is a pedagogical tool that involves students actively participating in the learning process. This can be done through various activities such as role-playing, simulations, experiments, or gamification. Active learning can promote engagement, motivation, and deeper learning.

■ **Digital storytelling:** Digital stories are short films (under 5 minutes) that present a central topic, idea, or conflict through images, narration, and sound. With simple and accessible video creation programs like iMovie and Wevideo, this format has become an increasingly popular communication genre.

■ **Simulation:** It is a technique used to model and replicate real-world processes, systems, or situations in a controlled and artificial environment. The purpose is to imitate the behaviour of a real-world system or process to gain insights, test hypotheses, make predictions, or train individuals without having to interact with the actual physical system.

Student engagement is a dynamic and multifaceted aspect of education. Teachers can use various pedagogical tools to enhance student engagement. The key is to choose the appropriate tools based on each student's learning goals and needs to engage students and keep them motivated and successful.



# The anti-national university

# A broken pact

## SAIKAT MAJUMDAR

Last month, Donald Trump and several other Republican presidential candidates called for the deportation of international students in the United States of America who have expressed support for Palestine or criticised Israel's military response in Gaza. Donors, including Jewish philanthropic organisations, severed financial ties with major private universities in response to what they have described as the institutions' lack of explicit support for Israel. The Florida governor, Ron DeSantis, called on all affiliated institutions to deactivate their Students for Justice in Palestine chapters and investigate whether chapters of the SJP were supported by a foreign terrorist organisation.

The fatal blitz of violence that has flared in the Middle East since October 7 has sharpened political polarisation in American campuses to threatening levels. But the mercury of this threat has been high for a while, as anyone following the attacks on Critical Race Theory in US schools and colleges knows well. A total of 44 states have taken measures or are considering ways of restricting the teaching of CRT in schools and colleges. And it's not merely a post-Trump phenomenon. I recall the fevered atmosphere from my own student days on a US university campus in the years following 9/11 when the conservative writer and activist, David Horowitz, came out with his incendiary book, *The Professors: the 101 Most Dangerous Academics in America*, a hall of shame/fame (depending on your perspective) of the most radical-Left professors in American universities, who, according to the author, were destroying the nation's fabric. Praising the book as revealing the story of "almost any campus in America", the former Congressman, Jack Kingston, the sponsor of the congressional resolution for an Academic Bill of Rights, wrote: "Parents know college professors 'tend to be liberal' but they don't realize how truly anti-middle class and anti-American they can be."

Educationists such as Clark Kerr and David Larabee have variously pointed to the humble, local origins of the American institutions of higher education which have nourished its deep community connections and the popular support behind it, enhanced through the bonding of alumni-outreach and the festivity of collegiate and intramural athletics. Legislative measures such as the Land-Grant Acts and the G.I. Bill supporting free college for returning soldiers also deepened the mass-appeal of college in the US. But those were 19th and 20th century phenomena and, now, in the second decade of the 21st century, that pact of faith between the general American populace and its institutions of higher education seems to be broken. While the practical matter of skyrocketing tuition fee has



Contested space

had much to do with this, an inevitable ideological force behind this disruption is the perception of college as the place for dangerous liberal ideas.

When did this pact break? Vietnam? The tumultuous years of second-wave feminism, student activism, civil rights and Black Panthers with Ronald Reagan as California governor? It's hard to tell. From my own American university years, I just remember that standing formula of student politics — Republican in the freshman year, Democrat as a senior, the four years of college enacting a progressive Leftward arc.

The fire in Palestine has brought many eyes to the storms brewing across US campuses where the support for free speech allowing criticism of Israel has always come under heavy pressure from wealthy, pro-Israel donors and political repercussions from pro-Israel lawmakers. But a breach of trust between nation and university, following a perception of the campus as a place of dangerous Left radicalism, has been a deeply polarising reality in India for several years now. In a country of wide poverty and large-scale illiteracy, a pact of trust between the nation and its universities might feel like a fantasy. But in reality, the Nehruvian socialism that shaped the Indian landscape of higher education, offering an admittedly uneven, colonial-style education at low cost — in arts and sciences as well as in the professional fields — had, through the post-Independence decades, created the semblance of a continuum between the people and their universities. For instance, even the turbulent Naxalite years of the late 1960s and the 1970s that I recall from my parents' youthful memories did not seem to dislodge Presidency College or the University of Calcutta from their place of sanctity in the Bengali middle-class consciousness.

It is not a coincidence that the rapidly widening gulf between India and its universities has cracked into being since the fateful year of 2014. I've never

heard of Presidency in 1971 being described as 'anti-national'. Jawaharlal Nehru University in 2016? JNU the prime ANU, the Anti-National University, and so it continued till it became the place where Rashtriya Swayamsevak Sangh cadre hold their march with saffron flags and sticks, in their full regalia of white shirts and khaki pants, singing to wake up Hindus. Three major universities that grew outside the British colonial model of affiliating collegiate systems — JNU, Hyderabad Central University, and Jadavpur University — were quickest to catch the 'anti-national' logo, with particular suspicion reserved for Jamia Millia Islamia that simmered to a frantic fever during the anti-CAA protests.

When the partner of a colleague told me that they avoided using the Ashoka University parking permit in their car for fear of drawing unwanted attention from ANU-haters, I didn't know whether to laugh or cry. The new age private university with its hefty price tag and air-conditioned interior is scarcely a paradigm of radical anti-establishment thought. Anyone who has the slightest familiarity with the student bodies in India's public universities, particularly the rural students in the erstwhile JNU and the IITs, know that the radical critique that was once organic on those grounds is a far cry in the pricey private universities, notwithstanding their honest attempts to diversify their student bodies. It says much about the nation, its elected guardians, and their mass of supporters that the mere articulation of liberal thought — an occupational hazard in a liberal arts university — earns it the title of 'private JNU' or 'prime private ANU' — take your pick. The modern Indian university, notwithstanding its British origin in the 19th century, augured social reform, democratic thought, and even anticolonial struggle. Its distance from a great vocal mass of people says much about the state of democracy in the nation today.



# Academic freedom in peril

It is becoming difficult to express even the slightest ambiguity in the 'official' truth



AVIJIT PATHAK  
SOCIOLOGIST



**RECEPTIVE:** An academic institution should be open to new ideas, new possibilities and even a radical 'paradigm shift'. P1

should not be even the slightest form of physical and psychic violence in the academic culture. It is about nuanced dialogue, non-violent debate and contestation, and willingness to listen to other voices, or live with differences. For example, as a 'left-Ambedkarite' professor, you might not agree with your colleague who sees the world through the eyes of Golwalkar and Savarkar. However, this should not mean that you continue to castigate him as a *sanghi* and refuse to converse with him. Likewise, those who celebrate Marx and Foucault and raise their voice against the growing assertion of narcissism in the political arena should not be issued chargesheets or show-cause notices by the university administration. Furthermore, academic freedom needs the true spirit of studentship. As students, we grow, evolve and enrich our understanding of the world through openness, humility, perseverance and the art of listening. As a student, it is possible for me to disagree with my professor on his/her perspective on the ideology of Hindu Rashtra or the politics of the Israel-Palestine conflict. However, this difference should not mean that I will call the cops to arrest my professor. This is nothing but poverty of consciousness; this is the death of studentship; this is like allowing oneself to be hijacked by vested political interests.

And finally, I feel like appealing to our Vice-Chancellors. After all, they are not police inspectors. They are teachers/researchers/educationists. If they continue to allow their 'bosses' to dictate how universities should be administered, they would not be able to inspire young minds. Can they demonstrate their fearlessness, intellectual honesty and moral courage to save and heal our tormented universities? After all, to protect academic freedom is to protect democracy.

many creative thinkers, ranging from Gyorgy Lukacs to Antonio Gramsci? Likewise, can a nuanced understanding of the debates on nation and nationalism be possible unless students and teachers are allowed to engage freely with the discourses of Benedict Anderson, Rabindranath Tagore, Ashis Nandy and Partha Chatterjee? And even natural sciences cannot be taught meaningfully without an understanding of politics. Is science an integral component of technocratic developmentalism? Or, can science be experienced as emancipatory — a mode of thinking and practice for sustainable and ecologically sensitive development? Can the critical spirit of science be cultivated to interrogate all sorts of religious bigotry and oppressive thinking? Even if the Registrar of IIT-Bombay wants academics to be free from politics, the fact is that nothing is 'apolitical'.

Of course, the spirit of academic freedom is inseparable from moral responsibility. I can cherish my academic freedom only when I value the same freedom for my philosophical opponents. Likewise, there

and quickly, leading to immediate filing of FIRs, and where university authorities seldom come forward to safeguard the dignity, safety and freedom of the faculty, what else can you expect? Indeed, our academic institutions are decaying.

Why should one strive for academic freedom? The reason is that the traditions of knowledge, the modes of enquiry and epistemological orientations evolve and grow through perpetual reflections, new findings, philosophic debates and contestations. In other words, an academic institution ought to be open to new ideas, new possibilities and even a radical 'paradigm shift'. Furthermore, as far as liberal arts and humanities are concerned, not everything can be simplified as a solid/apolitical 'fact' like  $2+2=4$ . Instead, the ethos of hermeneutic traditions and resultant sensitivity to plurality of perspectives enrich our understanding of culture, aesthetics, politics and history.

A student of history ought to enrich her horizon through diverse and even contesting perspectives — say the debate between a 'nationalist' histori-

There should be no room for physical and psychic violence in the academic culture.

an and a 'subaltern' one. Likewise, a student of politics and sociology ought to be aware of diverse perspectives emanating from Gandhi, Ambedkar, Nehru and Savarkar. Even within a particular school of thought, there are subtle differences. To evolve as a good learner and researcher is to sharpen the art of comprehending the significance of this debate. Think of Marxism: isn't it a fact that the Soviet Marxist ideological orthodoxy was contested by

It is obvious that in these troubled times, when the tyranny of power tends to suspect all alternative voices, our educational institutions cannot remain insulated as creative sites of scholarly debate, dialogue and intellectual contestation. No wonder, the spirit of academic freedom, as a series of incidents in recent times indicates, is in danger. It is becoming increasingly difficult to express even the slightest ambiguity in the 'official' truth. Take, for instance, IIT-Bombay's cancellation of Prof Achin Vanaik's proposed talk on the Israel-Palestine conflict; or the police complaint filed by some students of this institution against a professor and a guest lecturer for the screening of a documentary film, *Arna's Children*. It is sad that instead of engaging in an informative and academically enriched conversation with their professor or the guest speaker, they saw the entire academic exercise as a 'support for Hamas and terrorists'.

In another incident, OP Jindal Global University in Haryana asked Professor Vanaik to express regret over a teach-in session on the history of Palestine. Talk to any sensitive and intellectually honest academic from our universities — whether from elite/liberal/private institutions or our much-condemned public universities — you are bound to sense the fear among the faculty. In an era where even a select part of your lecture can be transformed into a 'viral video' for the consumption of those whose 'nationalist'/religious sentiments are hurt instantly



# कट्टरता का पोषण करते शिक्षा संस्थान

**वि**भिन्न स्तरों पर बढ़ती वैश्विक साझेदारी के वर्तमान दौर में समावेशी एवं लोकतांत्रिक मूल्यों का महत्व और बढ़ा है। संप्रति कोई भी समाज एक-दूसरे से कटकर नहीं रह सकता, न ही एक-दूसरे के प्रति घृणा की सीमा तक कटुता एवं कट्टरता को पाले रख सकता है। पृथक पहचान की जिद में भिन्न-भिन्न सभ्यता एवं संस्कृति के प्रति पाई जाने वाली कबीलाई या मध्ययुगीन कट्टरता के लिए आज के विश्व में कोई स्थान नहीं है। ऐसे में देश-दुनिया की शिक्षण संस्थाओं का यह विशेष दायित्व बनता है कि वे भूलकर भी हिंसा, घृणा, आतंक एवं कट्टरता को बढ़ावा देने वाले विचारों को प्रश्रय एवं प्रोत्साहन न दें, बल्कि उन्हें एक ऐसे शैक्षिक-सामाजिक-सांस्कृतिक परिवेश की रचना करनी चाहिए, जिसमें संवाद, सहयोग, समन्वय एवं बहुलतावाद को सहज एवं स्वाभाविक रूप से गति एवं बल मिले। यह दुर्भाग्यपूर्ण एवं चिंताजनक है कि पिछले दिनों भारत समेत दुनिया के अनेक विश्वविद्यालयों में आतंकी संगठन हमास के समर्थन में नारे लगाए गए। पोस्टर एवं बैनर चिपकाए गए और व्याख्यानमाला आयोजित की गई। कई विश्वविद्यालयों में तो ऐसी गतिविधियों में केवल विद्यार्थी ही नहीं, अपितु प्राध्यापक, प्रशासन और प्रबंधन भी संलिप्त रहे।



प्रणय कुमार



कोलंबिया विवि में यहूदियों के खिलाफ प्रदर्शन फाइल कार्यक्रमों के माध्यम से इजरायलियों को अमानवीय बताने और इजरायल को 'श्वेत, औपनिवेशिक सत्ता-केंद्र' के रूप में प्रचारित करने का अभियान छेड़ा गया।

इस इजरायल विरोधी विमर्श से आखिर पश्चिम के विश्वविद्यालय प्रशासन आंखें क्यों मूंदे हुए हैं? इसका सही उत्तर एक गैर-लाभकारी शोध एवं अनुसंधान केंद्र-नेटवर्क कांटिगियन रिसर्च इंस्टीट्यूट में पाया जा सकता है। इस संस्था की रिपोर्ट के अनुसार कम-से-कम दो सौ अमेरिकी कालेजों एवं विश्वविद्यालयों को विदेशी सरकारों से लगभग 13 अरब डालर की राशि प्राप्त हुई और सभी दानदाताओं की जानकारी छिपाई गई। इस रिपोर्ट के अनुसार 2015 से 2020 तक उच्च शिक्षा के जिन अमेरिकी संस्थानों ने पश्चिम एशियाई देशों के दानदाताओं से धन स्वीकार किया, वहीं अन्य संस्थानों की तुलना में 300 प्रतिशत अधिक यहूदी विरोधी घटनाएं हुईं। इन विश्वविद्यालयों को गुप्त फंडिंग करने वाली ताकतों और वहां होने वाली यहूदी विरोधी गतिविधियों के अंतर्संबंधों का अनुमान इसी आधार पर लगाया जा सकता है कि उनका सबसे बड़ा विदेशी दानदाता वह कतर है, जो आतंकी संगठन हमास को भी धन प्रदान करता है। आशंका है कि यूरोप एवं अमेरिका के अनेक

**पश्चिमी शिक्षा संस्थानों में यहूदियों और हिंदुओं के प्रति नफरत पनपना खतरे की एक घंटी ही है**

विश्वविद्यालय पश्चिम एशिया से मिलने वाली फंडिंग बनाए रखने के लिए ऐसे विचारों, कार्यक्रमों, गतिविधियों को बढ़ावा देते हैं, जो उन देशों की धार्मिक संवेदनाओं एवं सरोकारों के तुष्टीकरण में सहायक हों। कुछ जानकारों के अनुसार कतर और ऐसे ही अन्य देशों से घोषित-अघोषित तरीकों से धन प्राप्त करना ही यहूदियों के विरोध का एकमात्र कारण नहीं। ऐसे कार्यक्रमों एवं विरोध-प्रदर्शनों के लिए भारतीय शैक्षिक संस्थानों में एक नया नाम ओपी जिंदल ग्लोबल यूनिवर्सिटी का जुड़ गया है। एक नवंबर को इस विश्वविद्यालय में 'द हिस्ट्री एंड पालिटिक्स आफ द फलस्तीनी प्रेजेंट' नामक एक व्याख्यान का आयोजन किया गया, जिसमें दिल्ली विश्वविद्यालय के अंतरराष्ट्रीय संबंधों एवं राजनीति विज्ञान के एक सेवानिवृत्त प्रोफेसर ने मुख्य वक्ता के रूप में यहूदी एवं सनातन विरोधी टिप्पणियां कीं तथा भारतीय सेना, हिंदू धर्म, भारत सरकार की आलोचना करते हुए हमास के समर्थन में तर्क प्रस्तुत किए। हद तो तब हो गई, जब उन्होंने आत्मघाती हमले की लगभग पैरवी-सी करते हुए मानव-बम के विस्फोट को 'स्वयं के सबसे बड़े बलिदान' के रूप में रेखांकित किया। इसी विश्वविद्यालय में कार्यरत दो महिला प्रोफेसर भी हमास का समर्थन और सनातन प्रतीकों एवं परंपराओं की सार्वजनिक आलोचना कर चुकी हैं।

एक ओर जहां इन कथित उदारपंथियों को हमास जैसे आतंकी संगठन के समर्थन में आयोजित कार्यक्रमों में कुछ भी अनैतिक एवं आपत्तिजनक नहीं लगता, वहीं उन्हें भारतीय परिप्रेक्ष्य में श्रीराम के नाम, जयघोष एवं अन्य सनातन प्रतीकों-परंपराओं के पालन पर घोर आपत्ति है। यह चिंता की बात यह है कि हाल के समय में हिंदुत्व के प्रति अनुदार रवैया कई अमेरिकी एवं यूरोपीय शैक्षिक संस्थानों में भी देखने को मिला है। बहुत दिन नहीं हुए जब अमेरिका में डिस्मेंटल ग्लोबल हिंदुत्व नाम से एक कार्यक्रम आयोजित किया गया था, जिसमें अमेरिका और यूरोप के तमाम शिक्षा संस्थानों के शिक्षकों ने हिस्सा लिया था। यह भी किसी से छिपा नहीं कि अमेरिका में किस तरह हिंदूफोबिया बढ़ रहा है।

(लेखक शिक्षाविद् एवं सामाजिक संस्था 'शिक्षा-सोपान' के संस्थापक हैं)

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28/11/23



# A promise at the precipice

## GTCI 2023 exposes skill shortfalls, education woes and the urgent need for India to invest in talent for a sustainable future



DIPANKAR DEY

**GTCI 2023 shows a longer-term path followed by countries covered by the index over the past ten years and describes how talent performance changes over a long period of time**

On November 7, the Global Talent Competitiveness Index (GTCI) 2023, titled, "What differences ten years make - and what to expect for the next decade", was published by INSEAD, the prestigious chain of business schools, in collaboration with Descartes Institute for the Future, and the Human Capital Leadership Institute. The 10<sup>th</sup> edition of the report covers 134 countries around the world, across all income groups. The index measures "how countries and cities grow, attract and retain talent."

GTCI 2023 has seen India fall sharply from rank 83 ten years ago to rank 103. India with a score of 30.37 is well below the median score of (47.8) in the countries evaluated. In 2023, China ranks 40. Ten years ago its rank in GTCI 2013 was 47.

Switzerland (1<sup>st</sup>), Singapore (2<sup>nd</sup>) and the United States (3<sup>rd</sup>) retain their leading positions as the world's most talented competitive countries. Denmark (4<sup>th</sup>), the Netherlands (5<sup>th</sup>), Finland (6<sup>th</sup>), Norway (7<sup>th</sup>), Australia (8<sup>th</sup>), Sweden (9<sup>th</sup>) and the United Kingdom (10<sup>th</sup>) make up the rest of the top 10 countries.

As before, the top 25 lists are dominated by European countries (17). Australia, Canada, New Zealand, the United Arab Emirates, South Korea, and Israel are the other nations in the Top 25. Japan is a notable exception. It has also been observed that the top ten countries have largely remained the same during the last decade. With the exception of Luxembourg and Iceland, eight of the top ten countries in 2023 were also in the inaugural top ten in GTCI 2013.

Global rank	Out of 134 nations	Scores between 0 and 100, higher scores indicate higher competitiveness
62nd	Uzbekistan	44.97
67th	Kazakhstan	43.01
86th	Kyrgyzstan	38.58
90th	Sri Lanka	37.36
103rd	India	30.37
107th	Nepal	29.37
109th	Pakistan	28.72
116th	Iran	28.72
123rd	Bangladesh	24.91

GTCI 2023 shows a longer-term path followed by countries covered by the index over the past ten years and describes how talent performance changes over a long period of time. To analyse how talent competitiveness has changed over time, the report compared the countries' performance in the two halves over the past decade - 2013 to 2018 and 2019 to 2023. It has categorised the countries into four categories namely: Talent Limpers, Talent Laggards, Talent Movers and Talent Champions. It is observed that several of the largest emerging economies are among the best improvers over the past decade. China has moved from being a talent mover to a talent champion; Mexico has moved from being a talent laggard to a talent mover. However, India has remained in the laggard category. India was in the 88th position in the 2013-18 period but slipped to 89<sup>th</sup> in the next one.

The 10<sup>th</sup> year edition of GTCI 2023 also offers a 'time capsule' of six key messages, to be confronted with the talent reality of 2023.

- ▶ Talent competitiveness will gain even more importance as a critical element of competitiveness, innovation and geo-political soft power for nations, cities and organisations.
- ▶ Talent competition will grow fiercer. As uncertainties and international tensions continue to accumulate (in trade, investment, politics and diplomacy), there will be growing talent wars.
- ▶ The world of work will further transform, driven by evolving expectations from younger generations, new economic models and emerging technologies like AI.
- ▶ Cities and regions will pioneer new talent strategies and innovation. Quality of life and sustainability will be

critical assets for those aiming at becoming talent hubs.

- ▶ Global talent-focused policies will be crucial to prevent tensions and harness human and technological potential for a better, more sustainable and equal world.

- ▶ Skills and education will remain vital tools to empower workers to make meaningful contributions to their economies and societies.

### Where India lags

GTIC23 refers to "an increased skills mismatch and a greater difficulty in finding skilled employees have pushed India to 121<sup>st</sup> in both the 'Employability' sub-category and the 'Vocational and Technical Skills' category.

The 2023 World Talent Ranking (WTR), published in September, by the International Institute for Management Development (IMD) also substantiates India's falling talent rank. Out of 64 economies, India has slipped four spots to 56<sup>th</sup> position, compared to its 52<sup>nd</sup> position in 2022. Though WTR has praised India's talent pool for its agility, tech-savviness, and readiness for the future, underscores the need for further enhancement in talent competitiveness. The report highlights India's weak educational system, ranking it second to last (63<sup>rd</sup>) in quality. This is attributed to unequal access to education, particularly in rural areas, and insufficient investment.

According to the new Annual Employability Survey 2019 report by Aspiring Minds, there had been no change in the employability prospects of Indian engineering graduates in the past nine years, with only a handful of them pos-

sessing next-gen tech skills. While every year India churns out about 15 lakh engineering graduates. The report reveals that 80 per cent of Indian engineers are not fit for any job in the knowledge economy and only 2.5 per cent of them possess tech skills in Artificial Intelligence (AI) that industries require.

Though India has the largest youth population with around 254 million people between the age group of 15 to 24 years, only 46.2 per cent were highly employable, a report by Indian School Finance Company (ISFC) has revealed. This includes 51.44 per cent females and 45.97 per cent males, the report stated. According to the Skill Financing Report 2023, there has been dissatisfaction among employers due to a lack of employability skills in the Indian youth. Around 78 per cent of young people in the country lack practical skills. Furthermore, India ranks 60<sup>th</sup> globally in terms of overall skills proficiency, reported the *Financial Express*.

Though the Indian education system needs a massive overhaul, the education budget has remained very low in India. In reality, the allocation for higher education has declined from Rs 55,078 crore in 2022-23 to Rs 50,094 crore in 2023-24. The combined expenditure on education by the Centre and States (as a percentage of GDP), has remained stagnant at 2.9 per cent during 2019-20 to 2022-23.

To retain and grow talents and be competitive in the global market, investment in education should be the top priority in India.

Views expressed are personal



# DESIGN YOUR SUCCESS STORY

Today, interior designing is a lucrative career choice. One can work for design firms, do freelance projects, or even start a business

ANINDITA ACHARYA

**D**uring the Covid-19 pandemic, Vadodara-based Ananya Bhattacharjee decided to revamp her interior design business. Through her YouTube channel 'Interior Maata', she showed how homes could be transformed affordably. Now, Ananya designs for homes and businesses across the country.

The booming real estate market in India, covering homes, offices, and hotels, is driving a demand for creative interior solutions. Property owners and developers understand that good design adds value. Also, as cities grow, more people are living in apartments. This has led to a need for clever, space-saving designs. Today's young generation prefers small, stylish homes where they can showcase their unique decorating style. This is why there's a high demand for interior designers who can optimise space, use eco-friendly materials, follow regulations, and understand what people want. In the last ten years, there's been a big increase in demand for interior designers.

"The interior design landscape in India, mirroring its global counterpart, has undergone significant transformations in recent years and we're witnessing a dynamic shift in trends and career opportunities. The integration of technology, especially 3D modeling and virtual reality, has revolutionised the way designers conceptualise and present their work. This technological shift not only enhances creativity but also improves client engagement," said Nitika Seth, Dean, School of Design, Director Communication, IILM University, Gurugram.

In 2022, the interior design market in India was worth \$28.6 billion. It's expected to grow to \$51.4 billion by 2028, with a yearly growth rate of 10.3% from 2023 to 2028, according to IMARC.

Shabnam Gupta, a celebrated interior designer, gained widespread attention for her outstanding work on the late actor Irrfan Khan's residence. However, she treasures her design at The Bar Stock Exchange in Mumbai's Kamala Mills, earning it the National IID Award and the Asia Pacific International Property Award. Starting her career at 17, interning at her father's office, Shabnam pursued a degree in commerce and a diploma in interior design. Her early professional journey included working with architect Tushar Desai. Later, she became the go-to designer for Bollywood stars like Rani Mukherji, Kangana Ranaut, Rajkumar Rao, and Parineeti Chopra.

Similar to Shabnam's journey, individuals interested in the field of interior design can pursue various courses after completing their class XII. There are options like BDes, BA/BSc, and diploma programmes in interior design available at both undergraduate and postgraduate levels. For those looking to deepen



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their expertise can go for MDes in interior design or MA/MSc in interior design. In India, several colleges have interior design programmes such as National Institute of Design (NID), Ahmedabad, School of Planning and Architecture (SPA), Delhi, Faculty of Design, Banaras Hindu University (BHU), Varanasi, National Institute of Fashion Technology (NIFT), New Delhi, Pearl Academy, Delhi and MIT Institute of Design, Pune to name a few.

With the advancement in technology, the sector has also seen a huge growth. Today, interior designers no longer just use drawings and trial and error. With Augmented Reality (AR), Virtual Reality (VR), and Artificial Intelligence (AI), they can make 3D tours of spaces. Clients can experience and see the design concepts before anything is built. Many clients now want a 3D design of their house to visualise the concept.

"The use of VR, AR has revolutionised the design process, allowing clients to visualise spaces before they are created. Interior designers

biophilic design, which incorporates nature into indoor spaces, and designs that promote mental and physical health are becoming more popular. Also, AI is gradually making its way into the field, streamlining processes like space planning, furniture selection, and even design recommendations based on preferences and usage patterns," said Dr (Ar) Atul Kumar Singla, Senior Dean, Chief Architect (LPU), Head of school (LSAD). According to Rekha Kejriwal, Academic Director of the Academy of Fashion and Art (AFA), since this profession includes deep research on various factors like clients' needs considering materials and costs according to budgets, conducting feasibility studies for projects, source products, such as fittings, furniture, lighting, finishes, decoration, and dressing along with providing samples for clients, prepare detailed working drawings, designs, plans, models and schemes, the interior designers often use computer-aided design (CAD) software.

Today, interior designers have lots of job options. You can work for design firms, do freelance projects, and even become your own boss as an entrepreneur. Start small by taking on projects from people you know, and over time, you can build up to bigger assignments.

"One can choose to work on residences, offices, retail, hospitality, institutions, and conservation projects as well as specialise in interior designing, interior styling, and visual merchandising. One can also explore select avenues such as exhibition design, set design, experience design, furniture design, and scenography. Interior stylists, visual merchandiser, heritage and conservation designer, exhibition designer, production designer, experi-

ence designer, furniture designer, lighting designer, and healthcare designer are some specialists which industry looks for. Also, jobs in the interior construction industry are expected to increase globally by at least 13% over the next decade," said Kejriwal.

The demand for interior designers will always stay high with the constant growth and development of infrastructure, believes Dr Singla. "From residential design, commercial design, hospitality design, sustainable design using renewable materials and eco-friendly principles, to designing functional kitchen, bathrooms, luxury residential design, commercial and corporate design, the market is huge. There are also designers who specialise in niche areas like yacht interiors, private aircraft design, or historic restoration and can yield higher financial rewards due to the exclusivity and specialised skills required," said the educationist.

For aspiring designers, the path is shaped by their passions and strengths. Yet, it's important for design students to balance their creative dreams with what the market and clients expect. This way, they can achieve both financial success and professional fulfillment. "One needs to pursue a specialised course or degree in your area of interest. This foundational knowledge is crucial. Gain practical experience and insights from professionals in your chosen specialisation. Build a portfolio that showcases your work and skills in your specific area of interest. Connect with industry professionals through events, associations, and social platforms and stay informed about the latest trends if you want to grow in the profession," said Seth of IILM University. *END*

## AVENUES TO EXPLORE

- » Residential design
- » Luxury residential design
- » Commercial & corporate design
- » Hospitality and hotel design
- » Healthcare design
- » Specialised niche markets
- » Sustainable design
- » Universal or inclusive design
- » Kitchen and bath design

now use advanced software for designing, planning, and even creating 3D models. Then, there's