ASSOCIATION OF INDIAN UNIVERSITIES

AIU INFORMATION RESOURCE CENTRE IN HIGHER EDUCATION

PRESS CLIPPINGS IN EDUCATION

01-29 FEBRUARY, 2024

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MILLENNIUM POST (P-13), 01 FEBRUARY 2024

INTERDISCIPLINARY EDUCATION IS THE FUTURE

In the current job landscape, it's crucial to comprehend complex challenges. This makes interdisciplinary approach to education more valuable than ever

ANINDITA ACHARYA

A travel vlogger dedicated to reducing carbon footprint might promote climate solutions. However, the vlogger must realise climate change isn't just a social issue. It involves economics, human behaviour, and politics. To truly engage, one should understand its scientific aspects, economic impacts, and issues like environmental justice and migration. An interdisciplinary approach is crucial for tackling the broader problem. Similarly, for a graduate in English, questioning the need for subjects like ethics and history is common. Yet, a holistic education integrating arts, humanities, sciences, and engineering enhances employability. Today's education values interdisciplinary exploration, breaking away from siloed knowledge and preparing individuals to excel in diverse and evolving careers.

There was a time when academic studies were often confined to one specific discipline. Traditionally, students pursued knowledge within the boundaries of a single field of study. But today the need is interdisciplinary education as there has been a contemporary shift in educational paradigms. In the present era, complex issues and challenges often require insights from multiple disciplines. Interdisciplinary education refers to an approach that integrates knowledge, methodologies, and perspectives from various academic domains.

"Interdisciplinary learning takes the integration a step further by creating seamless connections between different disciplines. It involves collaborative problem-solving, where students and educators from various backgrounds work together to address complex challenges. In the Indian education system, this could involve collaborative projects that blend elements of Science, Technology, Engineering, Arts, and Management (STEAM). Interdisciplinary learning fosters a collaborative mindset, teaching students how to leverage the strengths of different fields to find innovative solutions. It encourages adaptability, teamwork, and a deeper appreciation for the interconnectedness of knowledge domains," said Prof (Dr) Dhrubajyoti Chattopadhyay, Vice- Chancellor of Sister Nivedita University (SNU) in Kolkata.

Interdisciplinary learning enhances students' depth of knowledge by allowing them to explore subjects from multiple viewpoints

According to Singapore University of Social Sciences, interdisciplinary learning helps students gain more in-depth knowledge when they learn about topics from various perspectives. Also, useful skills such as critical thinking, synthesis and research are developed as students explore disciplinary boundaries to consider other viewpoints and compare concepts across subject areas.

The synergy of interdisciplinary learning significantly amplifies creativity and innovation among students, said Dr Yajulu Medury, Vice-Chancellor, Mahindra University. "By navigating through the intersections of various disciplines, students sharpen their adaptability and resilience. This adaptability stems from the exposure to different ways of thinking, enabling students to synthesise information, embrace ambiguity, and navigate the complexities inherent in today's rapidly changing world. The collaborative nature of interdisciplinary learning fosters a culture where creativity thrives through the synergistic exchange of ideas within diverse teams, laying the foundation for a future generation equipped to tackle the intricate challenges of our global society," he said.

Today several universities including the top IITs like IIT Kharagpur are offering interdisciplinary programmes, wherein students can opt for them either as regular degree programmes or as micro specialisations. For example, a student admitted to the four-year B Tech (Hons)/ four-year BS Programme through JEE (Advanced) is eligible for switch over to dual degree in Artificial Intelligence and Machine Learning (AIML) at the end of third year. At IIT Kharagpur, a student can do a BTech in any engineering discipline and pursue an interdisciplinary course in MTech in Financial Engineering and MTech in Engineering Entrepreneurship too.

"Technology has transformed the way we learn and acquire knowledge, and at IIT Jodhpur, education has been organised for some time now in a more interdisciplinary and transdisciplinary way. The goal is to further strengthen this approach. In today's scenario, for example, civil engineers are also delving into advanced AI applications within traditional civil engineering, showcasing the integration of data-driven science and AI across all engineering cores. To keep pace with these changes, education needs to adopt an interdisciplinary approach. Foundational elements, now crucial for any technological process, must be seamlessly integrated across disciplines. Moreover, skills such as creative thinking, design thinking, and the ability to formulate and develop scalable solution of problems are becoming a necessity in engineering education," said Prof Santanu Chaudhury, Director, IIT Jodhpur.

Professionals with an interdisciplinary approach to education are well-positioned to pursue a wide range of career opportunities that require a holistic understanding of complex issues. Like, a background in global health studies or a related interdisciplinary field can lead to roles in public health. Public health specialists can work on initiatives such as disease prevention, health promotion, and healthcare policy to improve the well-being of communities.

"Interdisciplinary education is a pivotal asset in preparing individuals for the dynamic job market and evolving career demands. By equipping students with a broad skill set and the ability to adapt to different contexts, interdisciplinary programmes nurture versatility and resilience. This adaptability ensures that graduates are well-positioned to thrive in a rapidly changing professional landscape, where cross-functional collaboration and a multifaceted skill set are increasingly valued," said Dr Medury of Mahindra University.

DAILY GUARDIAN (P-8), 02 FEBRUARY 2024

Is India ready for free access to quality higher education?

OPINION

G. D. SHARMA
FURQAN QAMAR

UNESCO has been championing the right to education at all levels, including higher education. It is convinced that making higher education freely accessible and guaranteed for all is essential. It believes that tuition-free public higher education is an important step in this direction.

Free access to quality higher education may have significant implications on the future means of production and distribution. The way the population on this planet works and lives would depend a great deal on their higher education qualifications. Free access to quality higher education for all appears imminent for realising the goals set by the United Nations' Sustainable Development Goal No. 4 (SDG4) by 2030.

A recent policy paper by the UNESCO's International Institute for Higher Education in Latin America and Caribbean (IESALC) argues that "the removal of tuition fees in higher education increases social demand for higher education and, ultimately, the level of educational attainment of the population".

WORLD SCENARIO:

A survey of 146 UNESCO member states (MS) spanning the Arab regions, Central and East Europe, Central Asia, East Asia and the Pacific, Latin America and the Caribbeans, North America and Western Europe, South and West Asia, and Sub-Saharan Africa, revealed that while 41 of them (29%) have already mandated by law to provide free higher education, 97 (68%) do not offer such a guarantee. The remaining 8 member states could not provide the data because such decisions were in the domain of the Sub National Government (SNGs) and did not fall under the purview of the national government.

REGIONAL SCENARIO:

The survey further reveals that nearly half of the MS in Central Asia, Central and Eastern Europe, Latin America, and the Caribbean provide free public higher education to their people. In the Sub-Saharan region, nearly 30% of the MS had mandated free higher education for their people.

Even in North America, Western Europe, and Southwest Asia, nearly 20% of the MS had been mandated by law to provide free higher education. Arab region and East Asia presented a different case as the number of MS mandating free higher education were no more than 12 and 6 per cent, respectively.

THE INCOME GROUP ANALYSIS:

Interestingly, only about 20% of the low-income and lower-middle-income countries were able to mandate free higher education compared to 40% of the upper-middle countries. In contrast, only 10% of the high-income countries had mandated free higher education.

High-income countries have already achieved near-universal higher education. It is the low-income and lower-middle-income countries that need special global attention. Higher inequity in population with higher education would seriously impact the global development agenda.

WHERE DOES INDIA STAND?:

India, too, provides free higher education to some select groups of persons. Most centrally funded technical institutions (CFTI) are mandated to provide tuition-free higher education to the Scheduled Castes (SCs), Scheduled Tribes (STs) and Other Backward Castes (OBCs).

Several states in India have mandated similar provisions for free higher education up to the postgraduate level for girls and socially deprived sections of their domiciles.

Participation rate in higher education, as reflected by the Gross Enrolment Ratio (GER) is presently hovering at 28.4%. The new education policy (NEP 2020) targets to achieve a GER of 50% by 2035, five years after SDG4 ends. Notably, a few states have already achieved the targeted GER.

India has had a policy of providing higher education either through public institutions or through grant-in-aid institutions. Since they had no motivation to make a profit and the governments were willing to invest in higher education, they provided higher education at an affordable cost.

AFFORDABILITY:

Universal access to quality higher education essentially hinges on the ability of the state to provide quality higher education at affordable cost, if not free. India has had a policy of providing higher education either through public institutions or through grant-in-aid institutions. Since they had no motivation to make a profit and the governments were willing to invest in higher education, they provided higher education at an affordable cost. This continued for nearly half a century since Independence.

The situation changed as the country moved toward economic liberalisation, privatisation and globalisation (LPG) as mandated by the structural adjustment policies. This led to slow but steady withdrawal of the state from higher education. This led to a rapid rise in the high fees charging higher education institutions. The process started with professional, technical and medical higher education but soon engulfed all kinds and types of higher education.

The trend now manifests in public higher education institutions as well. Self-financing courses, programmes and institutions, a euphemism for accelerated, if not full, cost recovery, are now more a norm than an exception.

NEP 2020:

The new education policy alludes to universal access to quality education but only in the context of school education. In higher education, its articulation is limited to attaining the GER of 50% by 2035 and expression of interest to take investment in education to 6% of GDP or to 20% of the budgetary allocation. It also mentions that the commercialisation of higher education will be discouraged and that private higher educational institutions are to be public-spirited, whatever the term may mean.

In the same breath, it also highlights the role and importance of private participation in higher education. It seeks to encourage entry and operation of foreign higher educational institutions in India with the freedom to charge fees to students. The new education policy has chosen to maintain a stoic silence on affordability barriers caused by the rising high education costs, except for the provision of loans and some fee waivers.

THE GROUND REALITIES:

The ever-increasing cost, in private as well as public, becomes a real barrier to accessing higher education in India per capita income is not only low but also highly skewed. In 2021, the rich 3% of the households earned more than Rs. 30 Lakh. In comparison, more than half of households in the country earned no more than Rs. 1.25 Lakh. Another 15% of households earned much less. The fact that nearly 60% of the population is provided free food to survive and that only 2.97% of people pay income tax, affordability is a real challenge in accessing quality higher education.

G.D. Sharma is a former professor of higher education at the National Institute of Educational Planning and Admission (NIEPA).
Furqan Qamar is professor of Management at Jamia Millia Islamia.

TRIBUNE, (P-4), 02 FEBRUARY 2024

Changing gender dynamics in higher education

PERSPECTIVE

AISHE report by the Union Ministry of Education points to a peculiar trend, which may see a change in the coming years. There are more women students pursuing higher education in the state, but men dominate when it comes to posts of professors and associate professors

BHARTESH SINGH THAKUR
TRIBUNE NEWS SERVICE

CHANDIGARH, FEBRUARY 1

A report by the Union Ministry of Education released on January 25 says the number of women enrolling for higher education in Haryana is much higher than men. The All India Survey of Higher Education (AISHE) 2021-22, however, also points out that this high enrolment does not reflect in faculty numbers, as there are more male professors and associate professors than women educationists.

Against the estimated enrolment of 5.62 lakh women in various higher education courses in the state, 5.42 lakh men applied for PhD, MPhil, post-graduation, under-graduation, diplomas, certificate courses and integrated/dual degree programmes.

The number of women students has generally remained higher in recent years. Only in the preceding year (2020-21), the number of male students was more: 5.18 lakh against 5.11 lakh women. In 2019-20 as well as in 2018-19, women outnumbered men.

The AISHE report says the trend of more women students in 2021-22 is reflected across almost all courses. For PhD, 2,385 women got enrolled against 1,784 men, while in post-graduation courses, the number of women is almost twice at 98,973 against 57,199 men. At the under-graduate level, too, there are 4.17 lakh women against 4.05 lakh men.

It is only in PG diploma and integrated degree courses that the number of male students is higher. In diploma courses, the men's (63,957) enrolment is twice that of women (31,839).

The number of male students is higher in polytechnics, while more female students have sought admissions in nursing institutions.

Besides Haryana, female enrolment in higher education is significantly more than males in Kerala, Telangana, Assam, Himachal Pradesh, Meghalaya, Chhattisgarh and Jammu and Kashmir.

Haryana has 56 universities, including one Central University, five institutes of national importance, 20 state public varsities, 24 private varsities, and three deemed universities (government and private). Besides, there are 1,090 colleges and 258 standalone institutions.

Both Haryana and Punjab have 33 colleges per lakh population (2021-22), which is much lower than neighbouring HP (47).

The Gross Enrolment Ratio (GER) in Haryana is just 33.3 per cent — 37 per cent among women and 30.3 per cent among men. This GER is almost 10 points lower than HP (43.1), while Punjab's GER stands at 27.4. The GER in higher education is calculated as the total enrolment in higher education, expressed as a percentage of the eligible official population aged between 18 and 23 years.

Teacher ratio

When it comes to teaching, the number of male faculty members is higher, particularly at the level of professors and associate professors. In the professors' category, there are 1,219 women against 2,519 men.

Women outnumber men across colleges and universities in Haryana. TRIBUNE PHOTO

WOMEN'S NUMBERS RISING

We are seeing more women as assistant professors. In the coming years, the number of female faculty members will rise and they will outnumber male teachers at the level of professors and associate professors as well. – Prof Som Nath Sachdeva, VC, KURUKSHETRA UNIVERSITY

FACULTY FIGURES IN HARYANA

PROFESSORS	ASSOCIATE PROFS	VISITING FACULTY	ASSISTANT PROFS
Men: 2,519	Men: 2,179	Men: 253	Men: 12,993
Women: 1,219	Women: 2,020	Women: 220	Women: 15,770

In the associate professors' category, the number of males is 2,179 against 2,020 female faculty members. In the visiting faculty category, the number stands at 253 men and 220 women. This is attributed to the earlier trend of a higher number of men opting for higher education. As a result, more were eligible for teaching positions.

The trend is changing slowly. Now, among assistant professors, the number of women is higher at 15,770 against 12,993 men. Among demonstrators and temporary teachers, too, there are more women than men.

In other categories such as SCs, Muslims, STs and persons with disability, male faculty members number higher at all levels.

According to Prof Rajbir Singh, Vice-Chancellor of Maharshi Dayanand University (MDU), the reason behind more number of male faculty members at higher levels is because "more male teachers reach the level of professor and associate professor after years of experience. However, as we are seeing more women as assistant professors, in the coming years, the number of female faculty members will rise and be more than male teachers at the level of professors and associate professors as well. In MDU, women comprise about 60 per cent of faculty at the level of assistant professors".

"Women are outnumbering men in several courses. Performance-wise, too, they are ahead. Out of 30 toppers in life sciences departments at MDU, 26 are women. There are 350 slots for PhD in MDU and 80 per cent of these have gone to women," adds Prof Singh.

Prof Som Nath Sachdeva, Vice-Chancellor of Kurukshetra University, echoes similar sentiments. "Most of the merit positions are being grabbed by women. So, more and more women are getting recruited as assistant professors. Recently, we recruited 40 teachers and most of them are women. Those at the positions of associate professors and professors came into the profession 15-20 years ago. In the next 10 years, women will outnumber men at these top positions too," says Prof Sachdeva.

Low SC representation

Scheduled Caste candidates have much lower GER (26.5) in Haryana, with women at 29.2 per cent and men 24.2. The enrolment of SC students at 1.86 lakh in higher education is just 16.8 per cent of the total enrolment against 20.2 per cent SC population of the state, as per the 2011 Census.

There are 2,823 SC teachers in the state, comprising 6.9 per cent of the total faculty. The number of teachers belonging to the Scheduled Tribes in the state is only 50.

The representation of Other Backward Castes (OBCs) in the faculty is 12.1 per cent at 4,970, while the OBC students' enrolment at 2.53 lakh forms 22.9 per cent of the total.

Minority students, teachers

As per the 2011 Census, the Muslim population of the state is 7 per cent. However, just 10,961 students enrolled for higher education in 2021-22 — 3,092 women and 7,869 men — forming only 1 per cent of the total enrolment. In 2019-20, 12,877 Muslims got enrolled in higher education. The number fell to 10,445 in 2020-21. Their representation in the faculty is equally low. At 748, Muslim teachers comprised only 1.8 per cent of the total faculty in 2021-22.

"Earlier, there used to be scholarships for Muslim students to encourage them for higher education. These have been discontinued in the past few years. We need to start these scholarships again. More higher education institutions should be opened in Nuh (a Muslim-dominated district). We have been demanding a university there. Presently, the educational institutions in Nuh do not have the required faculty. Teachers are sent here on punishment posting," claims Nuh MLA Aftab Ahmed, who is also Deputy CLP leader in the Legislative Assembly.

INDIAN EXPRESS (P-10), 03 FEBRUARY 2024

LANGUAGE & LEARNING

CBSE's new plan has possibilities for improving skill acquisition. But it must ensure that old faultlines are not reopened

ACCORDING TO A report in this newspaper, the Central Board of Secondary Education (CBSE) has proposed a major overhaul in the academic framework for secondary and higher secondary education. Students will be required to study three languages — instead of two — till Class X, at least two of which must be native Indian languages. At the higher secondary level, students will have to study two languages instead of one, at least one of which must be a native Indian language. Secondary-level students will now have to clear 10 subjects, as opposed to the current requirement of five. Graduating from high school will require clearing six subjects, instead of five. The shift is in accordance with NEP 2020's objective of doing away with the rigid separation between academic and extracurricular streams. A credit bank system will ensure that the student is rewarded for skills obtained outside the classroom. The CBSE's plan gives the learner the space to combine academic training with vocational education. It is, therefore, a welcome departure from pedagogic strategies that have contributed to the country's skill deficit by devaluing hands-on training. The examination authority must, however, make sure that the new system does not impose an extra burden on already stretched students.

A wealth of scholarship has underlined that knowledge of multiple languages improves learning outcomes and helps skill acquisition. At the same time, the three-language formula remains a politically fraught issue, especially in South India, which has a long history of language-based sub-nationalism. The Tamil Nadu government, for instance, has opposed the NEP even though the policy does not require non-Hindi-speaking states to include the language in school curricula. Linguistic activists in the state fear the implementation of the three-language formula could push schools to teach Hindi because of the scarcity of teachers in other languages. When it was first framed in 1968, the formula envisaged teaching a modern Indian language, apart from Hindi and English till Class VIII in schools in North India. But Hindi-speaking states have never had more than a handful of schools with teachers who can teach Malayalam, Kannada or Tamil — or, for that matter, Bengali, Marathi or Gujarati. The CBSE's proposal should occasion conversations on finding a greater play for the country's linguistic diversity in school curricula.

The CBSE has not specified a time-frame for rolling out the new system. The agency must hold wide consultations before finalising its plan. It must ensure that all sensitivities are respected and old faultlines are not reopened. 3e/3/10

INDIAN EXPRESS (P-13), 04 FEBRUARY 2024

history
HEADLINE

ADRIJA ROYCHOWDHURY

How revolt of 1857 lit the spark for setting up AMU

THE SUPREME Court on February 1 concluded the hearings in the case to decide if Aligarh Muslim University (AMU) can claim minority status under Article 30 of the Constitution. The case, which has been in courts for decades now, shines a spotlight on what's one of the premier universities in the country.

At its inception, AMU was a product of a concerted effort on the part of some of the most influential Muslims of that time to create a "Muslim" university. Sir Syed Ahmad Khan, who led the path in the 1860s, had witnessed the 1857 revolt from close quarters and saw the kind of misery it brought to Indians, especially the Muslims whom the British blamed for the uprising. Following the revolt, his uncle and cousin were killed and their house in Delhi looted. His mother is known to have starved while hiding in a stable near their house. "...in the aftermath of the revolt and its repercussions, the Muslim community too had boycotted the English rulers, their education and reforms. So within a decade or so, the Muslim community was declining as far as its fortunes were concerned," said Prof Ali Nadeem Rezavi of AMU's Department of History.

It was during this time that Sir Syed, employed by the East India Company as a sub judge in a Banaras court, visited England. As he toured the country, attending seminars and dinners, and visiting the campuses of Oxford, Cambridge, Harrow and Eton, he was convinced that Western style of education, rooted in scientific temperament, had propelled the West to the path of progress. He also felt strongly that it was the lack of similar education that had left Indians, particularly the Muslims, in the dark. While still on the trip, he discussed with his son, Syed Mahmood, the idea of building a college in India that would take the best from the Western style of education. Sir Syed wanted this institution to be the "Oxbridge of the East". "His idea was to show that the Quran and the Crown could go together in education," said Rezavi.

For the next few years, Sir Syed wrote extensively to rally support for building the college of his dreams. Finally, on May 24, 1875, the Madrasatul Uloom Musalmanan-e-Hind was inaugurated with seven teachers and the Oxford-educated HGI Siddons as its headmaster. Two years later, the school turned into the Mohammedan Anglo-Oriental College.

By the 1890s, however, the fortunes of the college started to dwindle. By the time of Sir Syed's death in 1898, the number of students enrolled had dropped to 189 from 595 in 1895.

In 1875, Sir Syed Ahmad Khan set up the Madrasatul Uloom Musalmanan-e-Hind, which went on to become Aligarh Muslim University. *Express Archive*

Soon, the college's board of management decided that it was necessary to elevate it to the stature of a university. What ensued was a movement, which, scholars say, was as political as it was educational. "The Muslim university movement was nothing less than an effort to create an all-India Muslim constituency and to carve out for it a decisive piece of political power," wrote historians Gail Minault and David Lelyveld in their article, 'The Campaign for a Muslim University, 1898-1920' (1974).

Mohsin-ul-Mulk, a close aide of Sir Syed who later became one of the founders of the All India Muslim League, started touring major Indian cities to gather subscribers for the cause of a Muslim university. Influential Muslims like the Aga Khan, Justice Badruddin Tyabji and Justice Amir Ali were roped in to help provide steam to the movement.

Wajihuddin, in his book, noted that in 1906, "(the) Aga Khan led a deputation of thirty-five leading Muslims to Viceroy Lord Minto in Shimla. Apart from asking for permission for Muslim representatives elected by Muslim votes in elected bodies, the delegation also demanded a Muslim university".

By 1910, the Aga Khan threw himself into the campaign in a way that surpassed all his efforts before. Along with Shaukat Ali, known for his role in the Khilafat Movement, he travelled across India to collect funds for the university. They travelled in a special railway carriage and gave fiery speeches on the necessity of a Muslim university that would affiliate colleges on the Aligarh model from all over India. Muslims from other parts of the country were now motivated to donate. By August 1911, nearly Rs 25 lakh had been pledged and Rs 4 lakh collected.

Following their lead, the Raja of Mahmudabad in the United Provinces decided to hire a train and run a similar campaign through Punjab and Sind.

It is important to note that by this time, Muslim politics in India was also shaping up steadily. The Muslim League, the Ottoman Sultan's Pan-Islamism movement, World War-I, the Mont-Ford reforms and the Khilafat movement provided the public contexts for events that led up to the Muslim university campaign.

By 1911, a draft constitution of the proposed university was submitted to Harcourt Butler, who was the education member in the viceroy's council. As per the draft, the main governing body of the university would be the court of trustees composed entirely of Muslims who would elect a 25-member executive council for three-year terms.

While the British accepted the proposal, they also put the condition that the proposed university would be under greater government control. Further, the British also did not consent to the idea of having other Muslim institutions affiliated to AMU.

The leaders of the Aligarh Movement agreed to the British government's terms, although seeds of discontent were sown among some of them, namely brothers Shaukat and Mohammad Ali. They went on to establish another university - Jamia Millia Islamia - to counter government control. Jamia took birth along with AMU in Aligarh in 1920 and shifted to Delhi five years later.

12/4/13

PIONEER (P-10), 04 FEBRUARY 2024

NEP 2020, NITI Aayog leave clinical psychologists in lurch

NEP 2020 has sparked concerns among experts who flag that MPhil discontinuation clashes with mandatory requirements for clinical psychologists under the Mental Health Act, finds out ARCHANA JYOTI

When you find yourself craving continental cuisine, but your chef is well-versed in Pacific culinary delights, it presents an interesting culinary challenge.

But, this experiment cannot be applied on, at least, health-related issues that too particularly when it comes to mental health issues.

Moreso, when we are seeing a huge surge in the mental health cases among younger generations including students, whether from medical or engineering to name a few.

To put in simple words, the cravings of craving continental cuisine with a Pacific-focused chef was used to illustrate a culinary challenge, but mental health challenges are complex and should be treated with the utmost seriousness and empathy.

This is what happened at a NITI Aayog meeting held last August to discuss the proposed modifications to the M.Phil in Clinical Psychology. Attended by psychiatrists with no adequate representation of clinical psychologists who understand the field's complexities, the outcome looks like not only chaos but also an attempt to degrade the quality of the aspiring professionals in the sector.

Now Indian Association of Clinical Psychologists (IACP), representing the sector has approached UGC and the PMO for their intervention after Niti Aayog failed to redress the anomalies in its suggestions.

Explains Dr Shweta Sharma, Clinical Psychologist and Joint Sectary IACP, "While the NEP explicitly states the discontinuation of the MPhil programmes (academic), it lacks clarity for current students and poses a challenge for clinical psychologists, as MPhil in Clinical Psychology (2 years professional degree) is mandatory after academic degree of Masters in Clinical Psychology for recognition and practice as a Clinical Psychologist by the Rehabilitation Council of India (RCI) under the Mental Health Act (MHA) 2017. Clinical Psychology MPhil programs recognised by RCI provide comprehensive training in various fields like, emergency care, child and adolescent psychology, behaviour medicine, maternal mental health, and neuro-science to name a few. This curriculum builds a strong foundation to sever people in need for mental health care."

However, the think tank's proposed 'modification,' in all likelihood, is set to impact the quality of mental health professionals in India.

This will lead to reducing the effectiveness of treatments, and the potential consequences for future generations seeking mental health support, adds Dr. Monica Sharma, Clinical Psychologist and Head, Department of Clinical Psychology IIS (deemed to be University), Jaipur.

Wasim Kakroo, a licensed clinical psychologist (alumni of Govt. Medical College Srinagar) and works as a consultant clinical psychologist at Centre for Mental Health Services (CMHS) at Rambagh Srinagar talks about the important role that clinical pschologists play in assessingchildren's psychology.

"Children find it hard to express their feelings, but psychologists can tell by watching how a child behaves around their parents, teachers, and peers. More complex emotions like assurance, hope, guilt, and pride become apparent as the child grows and develops. Teaching kids how to manage their emotions is crucial. Early detection of odd behavior by therapists or psychologists can help the child express their feelings in a healthy, constructive way."

The pscychologists have also argued that clinical psychology is part of the medical field and should not be subject to changes suggested by NITI Aayog. Its move is also in stark violation of the RCI Act and the Mental Health Care Act 2017, which clearly define the roles and qualifications of Clinical Psychologists.

Earlier the program was titled as "Diploma in Medical and Social Psychology" which was renamed as M.Phil. in Clinical Psychology. The MPhil is considered an entry-level requirement for the doctoral programme in institutions like NIMHANS, as it ensures candidates have confidence through theoretical tests, therapy skills and a research dissertation.

The experts say that only after the three-pronged evaluation process in MPhil, license is given. They argue that while the government may change the program's title, the essential nature of the training for clinical psychologists remains crucial and the rigorous process ensures competent practitioners.

They cite countries like Canada, USA, Australia, UK, where a basic graduation in Psychology is required after which the Clinical Specialization is offered at Masters Level.

So what one can gather is that the Think Tank is trying to increase the number of professionals but without thinking that its efforts at hindsight are all set to decrease the quality of Clinical Psychologists, thereby affecting the quality of mental health treatment, say the researchers.

"Instead of degrading the professional training of Clinical Psychologists, efforts should be made to increase the number of seats for professional training in RCI approved institutes.

"The foundation for effective mental health treatment lies in rigorous training post-master, and lowering the qualification to graduation level would compromise the necessary skills and maturity required for the profession," adds Dr. Dherandra Kumar, President IACP.

This will have Impact on future generations seeking help for mental health issues like anxiety, depression and various psychological issues. "Instead of altering the structure of the program, the Niti Aayog should have renamed the degree to emphasize its authenticity and align it with other medical fields," says the Association which is seeking intervention from the PMO in the matter.

There has been high demand for M.Phil. graduates in mental health field due to their field experience and extensive supervised clinical training. However, institutions are awaiting clarity on the programme continuation without any temporary solutions.

P10/4/24

TIMES OF INDIA (P-27), 04 FEBRUARY 2024

Coaching centres are a symptom of the problem, not the problem itself

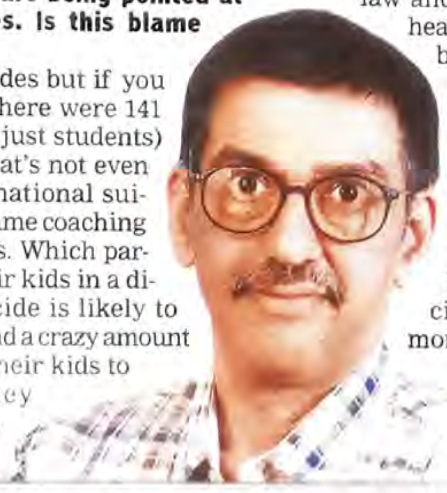
The recent suicide of an 18-year-old JEE aspirant in Kota has shocked the nation. But in a country with an estimated 1.7 lakh suicides every year, focusing only on the educational system may be myopic, argues ***Soumitra Pathare****, director of the Centre for Mental Health Law and Policy. The consultant psychiatrist, researcher and co-author of 'Life, Interrupted: Understanding India's Suicide Crisis' tells* ***Ketaki Desai*** *what possible solutions could look like*

There seems to be a cycle when it comes to student suicides — after a tragic death comes a lot of social media outrage, yet nothing changes, does it?

There are two big reasons for this — one, the sense of fatalism that there is nothing that can be done about it. Once an IAS officer told me, 'If people want to kill themselves, they will. What can we do?' That lies at the heart of this unwillingness to do something. Second, the myths that persist. For instance, one such myth is that suicide indicates weak character and that if you were strong, you wouldn't do it. It doesn't help that Indian media regularly flouts international guidelines on suicide reporting. Studies show that if stories were better reported, we could save two percent of lives which, in India, is 3,500 people a year.

A lot of fingers are being pointed at coaching institutes. Is this blame misplaced?

Yes, Kota has suicides but if you look at numbers, there were 141 suicides in all (not just students) in Kota in 2022. That's not even half a percent of national suicides. It's easy to blame coaching centres and parents. Which parent would push their kids in a direction where suicide is likely to happen? People spend a crazy amount of money to send their kids to Kota because they want their kids to get employment and better opportunities. They are also victims of the system. Coaching centres are a symptom of the problem, not the problem itself.



FOR THE RECORD

What are the leading causes of student suicides in India?

It's family problems in 25% of cases, according to NCRB data. In 15%, it is love affairs, which often comes down to family. The education system accounts for about 10%. But suicide is a chain of events that happen to a vulnerable individual. Plus, when we focus on the individual only, we miss out on the background. It's like treating an individual kid who lives in Delhi for asthma instead of looking at air pollution. In terms of the data, there are many issues with the NCRB data and how it's collected. We have been saying that it should be collected by a public health agency, but we see suicide as a law and order problem, not a public health problem. However, it is the best data we have. The issues with it are consistent at least, so the data is comparable.

What do we need to do when it comes to suicide prevention?

First, we should be collecting data on attempted suicides, but we don't. Attempted suicides are between 5 to 20 times more than suicides. The group at the greatest risk of dying by suicide is an individual 12 months after an attempt. Second, whatever interventions we have need to be multi-pronged. Third, you need different interventions for different age groups, genders and regions. With women, for instance, you need to address domestic violence. With farmers, it's debt. Ideally, all these things must be done at the same time and implemented at scale.

There is a National Suicide Prevention Strategy which aims to bring down suicides by 10% by 2030. Are there gaps in this strategy?

The National Suicide Prevention Strategy is sensible, but it is not being implemented. Each item on it is evidence-based but we won't know whether it works or not until we implement it and collect data to see if it works. We tend to spend years drafting a policy, doing nothing about it and then creating a new policy in a few years. It keeps everyone busy and occupied.

Given that family problems are cited in most cases, what can Indian parents do to better support their kids?

Families also face a lot of problems, but at the same time, our family systems are problematic. If you have to do any job, you're expected to be trained, but parenting is meant to be learnt on the job. Like anything else, parenting is a skill. Schools could have sessions for parents to help them deal with difficult situations and subjects, for instance.

Similarly, what can educational institutions and coaching centres do?

We need quality data on suicides at institutions. For instance, one thing that can be done is psychological autopsies. They're like physical autopsies, but they try to work out what the person's state was before the suicide. Other simple things include gatekeeper training programs, which train teachers to identify when a child is at risk and what the signs are. But coaching centres are reluctant to implement them because it may give them a bad name. They often send students who are suicidal home. It's a 'not on my watch' kind of approach. It doesn't help that the whole system and narrative around suicide is designed as a blame game.

TOI/4/24

TIMES OF INDIA (P-12), 05 FEBRUARY 2024

Invest In Jobs Too

FM's right on investment in sunrise sectors. But that has a fallout on job market

Trends in Indian economy's investment pattern have sparked debate. FM, in a post-budget interview to **TOI**, said public focus has been on traditional sectors while investment has flowed into sunrise areas such as AI and materials research.

IP, an investment magnet | Her observation is supported by a decade-long trend in National Statistical Office's data on investments. Between 2011-12 and 2021-22, the pattern of investments by private non-financial corporations underwent two important changes. In nominal terms, investment in plant and machinery declined from 18.4% to 13.8% of the overall national investment. Investments classified as intellectual property products grew from 5.9% to 9.7% of the total during the decade. Absolute level of incremental investment in nominal terms in intellectual property (IP) was greater than the same in plant and machinery.

Impact on jobs market | Technological evolution has brought IP to forefront. This is a good development. However, it's had some adverse impacts on the job market. Technology-driven growth in manufacturing in a country where many workers have limited skills has led to distortions. According to GOI's jobs data, between 2017-18 and 2022-23, the percentage of the workforce in manufacturing declined from 12.1% to 11.4%. Some of them seem to have gone back to agriculture where the proportion of the workforce during the same period increased by 1.7 percentage points.

Long-term phenomenon | Employment intensity of investment in India has been falling for decades. It's following a global pattern. A study by Azim Premji University showed that after adjusting for inflation, the number of jobs generated for every ₹1 crore investment fell between 1994 and 2015. In factories, ₹1 crore of investment led to 33 jobs in 1994. By 2015, it fell to eight jobs.

Small's not the answer | Decline in employment intensity was sharper in informal sector. Among family enterprise units there, ₹1 crore of investment led to 4,615 jobs in 1994. In 2015, just 702 jobs were created for the same investment.

Two-pronged effort | Two solutions need to play out simultaneously. Immediate solutions need to be found in removing constraints that prevent highly labour-intensive companies in sectors such as garments from expanding their scale. It will provide an easier entry point for people stuck in low-wage farm employment. Long-term, there's no substitute for improving human capital. That requires sustained effort at all levels. 10/2/5/12

DAINIK JAGRAN (P-6), 05 FEBRUARY 2024

प्रतिस्पर्धा पर सोच बदलने की जरूरत

डा. ऋतु सारस्वत

युवाओं की आत्महत्या का मूल कारण उपलब्धि वाली संस्कृति है। यह उन्हें एक मशीन से अधिक कुछ नहीं समझती

'मम्मी-पापा सारी, आइ एम लूजर। मैं जेईई नहीं कर पाई। इसलिए सुसाइड कर रही हूं। यही लास्ट आप्शन है।' इन पंक्तियों के साथ न जाने कितनी पीड़ा लेकर पिछले दिनों एक बच्ची निहारिका ने अपना जीवन खत्म कर लिया। वह कोटा में रहकर एक कोचिंग सेंटर में प्रतियोगी परीक्षा की तैयारी कर रही थी। कोटा में बीते सप्ताह आत्महत्या की यह दूसरी घटना है। इससे पहले नीट की तैयारी कर रहे मोहम्मद जैद ने आत्महत्या कर ली थी। ऐसा सिर्फ कोटा में ही नहीं हो रहा है। ऐसे हादसे पूरे भारत या कहें विश्व में घटित हो रहे हैं और हम किंकर्तव्यविमूढ़ बने ये सब घटित होते हुए देख रहे हैं। क्या इसके लिए पूरा समाज जिम्मेदार नहीं है? या फिर हम घोर स्वार्थी हो इसे बच्चों की मानसिक कमजोरी मानकर अपनी जिम्मेदारी से पल्ला झाड़ रहे हैं। घर के भीतर और बाहर अनकहे दर्द से भरी तमाम आंखें हमारी ओर देख रही हैं, पर हम अपनी आकांक्षाओं के आगे बच्चों की उस पीड़ा को अल्पकालिक समझ उन पर निरंतर दबाव बनाए जा रहे हैं। जब अभिभावक और समाज बच्चों के जीवन की कीमत पर अपनी महत्वाकांक्षाओं के घोड़े दौड़ा रहा हो तो समझ लेना चाहिए कि यह सामाजिक-सांस्कृतिक विध्वंस की पराकाष्ठा है। यह एक ऐसा गंभीर विषय है जिस पर विस्तृत चर्चा बेहद जरूरी है, परंतु यह हमारे शोध विषयों से गायब है।

आज यह जानना-समझना बेहद जरूरी है कि ऐसा क्या हुआ है कि विगत एक दशक में युवाओं की आत्महत्या में निरंतर वृद्धि हो रही है। एनसीआरबी की ताजा रिपोर्ट बताती है कि भारत में पिछले एक दशक में आत्महत्या करने वाले छात्रों की संख्या में सत्तर प्रतिशत की वृद्धि हुई है। वहीं अमेरिका में पिछले दो दशकों में युवाओं में आत्महत्या की दर में 62 प्रतिशत की बढ़ोतरी हुई है। अमूमन सभी देश युवा आत्महत्या के संदर्भ में एक ही पायदान पर खड़े दिखाई दे रहे हैं। हाल में 'एनल्स आफ पीडियाट्रिक्स एंड चाइल्ड हेल्थ' में एक शोध प्रकाशित हुआ, जिसमें बच्चों के मानसिक स्वास्थ्य के बारे में गंभीर प्रश्न उठाए गए हैं। इसमें वर्षों तक बच्चों के भीतर पनप रहे अवसाद, चिंता और आत्मघाती विचारों और व्यवहारों की तीव्रता के संबंध में गहन अध्ययन किया गया है। लास एंजिलिस स्थित कैलिफोर्निया विश्वविद्यालय की

बच्चों पर न डालें अनावश्यक दबाव ● फाइल

मनोचिकित्सक प्रोफेसर जोसेलीन मेजा कहती हैं कि 'हम व्यक्तिगत स्तर पर लक्षणों को कम करने पर बहुत ध्यान केंद्रित करते हैं, लेकिन उन कारणों की अवहेलना कर रहे हैं, जो कि प्रणालीगत हैं। हम वास्तव में सामाजिक संरचनाओं की अनदेखी कर रहे हैं।' यह एक महत्वपूर्ण तथ्य है कि आत्महत्या जिसे हम अमूमन 'व्यक्तिगत क्रिया' मानकर विश्लेषित करते हैं वह एक 'सामाजिक क्रिया' है। समाजशास्त्री एमिल दुर्खीम ने भी अपनी पुस्तक 'सुसाइड' में इस विषय पर गहन शोध के पश्चात यह स्पष्ट किया है कि सामाजिक तानाबाना तथा परिस्थितियां किसी भी व्यक्ति को आत्महत्या करने के लिए विवश करती हैं।

अगर इस दृष्टिकोण को केंद्र में रखकर बच्चों के जीवन को करीब से देखा जाए तो कुछ तथ्य स्पष्ट दिखाई देते हैं, जैसे-बच्चे तनाव और अवसाद में हैं। अवसाद कोई बाहरी तत्व नहीं है। यह आंतरिक रूप से शुरू होता है और इसकी जड़ में घोर अकेलापन, लक्ष्यों के प्रति भ्रम और सामाजिक दबाव हैं। बच्चों के भीतर पल रहे अवसाद का केंद्र मूलतः 'उपलब्धि संस्कृति' है, जो इतनी विषाक्त हो चुकी है कि वह बच्चों को एक मशीनी संरचना से अधिक कुछ नहीं समझती। उपलब्धि वाली संस्कृति उन पर 'सर्वश्रेष्ठ' होने का दबाव बनाती है। यह उन पर प्रतिस्पर्धी दौड़ में सम्मिलित होने के लिए दबाव बनाती है, जहां जीवन से कहीं अधिक महत्वपूर्ण 'सफलता' है। बच्चों के जीवन की प्रत्येक दिन की गणितीय गणना जिस प्रकार से अभिभावक करते हैं वहां बच्चों के लिए सांस लेने की भी जगह दिखाई नहीं देती। सर्वोच्च उपलब्धि हासिल करने का दबाव बच्चों के संगी-साथी सभी को अलग कर देता है। परिवार और समाज से प्राप्त इस संदेश को बच्चे आत्मसात कर रहे हैं कि उनकी 'उपलब्धियों' के अलावा उनका कोई 'मूल्य' नहीं है।

अभिभावक ही क्यों, संपूर्ण संस्कृति अलग-अलग स्तरों पर एक दबाव समूह की तरह कार्य कर रही है। 'नेवर इनफःव्हेन अचीवमेंट कल्चर बिकम्स टाक्सिक-एंड व्हाट वी कैन डू अबाउट इट' नामक पुस्तक में परिवार, शिक्षकों के साथ-साथ लगभग छह हजार से अधिक माता-पिता से साक्षात्कार के बाद उन तथ्यों को उजागर किया गया है, जिनसे परिचित होना जरूरी हो जाता है। पुस्तक की लेखिका जेनिफर ब्रेहेनी वालेस के अनुसार, 'लगातार अच्छा प्रदर्शन करने का दबाव बच्चों के मानसिक स्वास्थ्य पर घातक प्रभाव डालता है। उच्च प्रदर्शन का दबाव सिर्फ माता-पिता का मसला नहीं है, अपितु प्रत्यक्ष-अप्रत्यक्ष रूप से यह दबाव समाज का बनाया हुआ है।' सबसे दुखद यह है कि व्यवस्थाओं को कोसते अभिभावक यह भूल जाते हैं कि हर बच्चा स्वयं में विशेष है और उसकी अपनी कुछ विशिष्टताएं हैं। यह भी विस्मृत करने योग्य नहीं है कि सफलता खुशी का मापदंड नहीं है। अगर ऐसा होता तो सफल होने का एक तथाकथित मापदंड 'आइआइटी' अपने 33 विद्यार्थियों की पिछले पांच वर्षों में आत्महत्या का साक्षी नहीं बनता। अगर 'धन' वास्तव में संतुष्टि और सफलता का मापदंड होता तो कैलिफोर्निया के पालो आल्टो में युवा आत्महत्या दर राष्ट्रीय स्तर की तुलना में चार गुना अधिक नहीं होती, जहां औसत घरेलू आय दो लाख डालर है। अभी भी समय है कि समाज और अभिभावक अवलोकन करें कि सर्वश्रेष्ठता की जो परिभाषा वे आत्मसात किए बैठे हैं, कहीं वहीं उनकी सबसे बड़ी असफलता तो नहीं।

(लेखिका समाजशास्त्र की प्रोफेसर हैं)

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FIRST COLUMN

BUILDING TOMORROW'S LEADERS

The crucial role of discipline in education and parenting

SAKSHI **SETHI**

The term discipline can be put in different contexts. For some, it can be a way of life and for others, it can be a set of rules by which their life functions. It is one of the ways of aligning the efforts and activities of every individual. Discipline gives every individual a set of rules and regulations to work with.

Discipline has always played an integral part in a student's life since they are at the stage of their life where they can be the most flexible version of themselves. Although there is no age bar to following a disciplined life, it is quite possible that a student can get in the best shape physically and mentally when disciplined.

Talking about educational institutions, every school or college has a heterogeneous mix of students and teachers need a mix of varied approaches to understand and engage all these types of students within the classrooms. This makes school discipline a robust process. Discipline values need to be gravitated well to ensure that the teaching-learning process is seamless across the classrooms.

Several studies have found that the majority of the factors influencing the learning process come from the school environment such as inadequate material from school, poor seating arrangements in the classroom, student and teacher relaxation canters, poor ventilation and many more.

Nowadays, parents strive to raise competent, happy and successful children but it is not an easy task. Children of today need a loving home, but at the same time, they also need to learn boundaries and limits. One must teach their child that actions have consequences be they good or bad. It should be the duty of parents to always strive to give their children the emotional tools they will need to make good decisions.

In today's scenario, by creating a positive learning environment and implementing fair and consistent disciplinary measures, can educational institutions nurture responsible, motivated and successful individuals so that the young learners can or are ready to face the challenges of the future.

Everyone has his/her prospect of discipline. Without discipline, the life of a person will become dull and inactive whereas being disciplined will teach them how to behave properly and become responsible adults thereby proving to be a true sign of parental love and care. Remember, giving a badly behaved child a moderate spanking is not the same as hitting people. Whosoever can't see the difference doesn't understand either discipline or the parent. Having control over life gives the learner a sense of relief and satisfaction that triggers immense self-confidence and affects their learning.

Being in control can give them enough time to focus on their learning. A disciplined student will never be reluctant to learn new things and is always ready to accept new routines. This opens all the gates for learning and therefore affects the learning patterns of the students. There is no guarantee that a student in discipline is going to achieve all the good things in life. However, one thing that is guaranteed is that if they stumble, they will find ways to get back up. Instead of being angry or disappointed, they will be ready to work harder and achieve their goals. Disciplined student always learns from their missteps and forget if they even happened. This gives them a better chance at trying again instead of feeling guilty about everything.

(The writer is an educator; views are personal)

Q6/7

DAINIK JAGRAN (P-8), 06 FEBRUARY 2024

शिक्षा की गुणवत्ता सुधारने की चुनौती

जगमोहन सिंह राजपूत

अनेक प्रकार के सुधारों के बाद भी सरकारी स्कूलों की साख अभी भी स्थापित होती नहीं दिख रही है

पिछले दिनों एनुअल स्टेटस आफ एजुकेशन (असर) की रिपोर्ट की चर्चा देश भर में हुई। यह रिपोर्ट प्रथम नामक एनजीओ द्वारा 2005 के बाद लगभग प्रतिवर्ष देश के समक्ष आती रही है। इसके अनुसार ऊंची कक्षाओं में पहुंच चुके अधिकांश बच्चे भी कक्षा दो या तीन की गणित, भाषा या अन्य विषयों में अपेक्षित स्तर प्राप्त नहीं कर पाए हैं। स्पष्ट है कि कोई विद्यार्थी यदि कक्षा सात में पहुंच कर कक्षा तीन का गुणा-भाग नहीं सीख पाया है तो वह भले ही प्रति वर्ष सफल होता रहे, लेकिन कभी भी आत्मविश्वास युक्त एक ऐसा युवा नहीं बन पाएगा, जो अपेक्षित स्तर के कौशल तथा ज्ञान से युक्त होकर अपने कार्यस्थल पर गुणवत्तापूर्ण उत्तरदायित्व का निर्वहन कर सके। ग्रामीण क्षेत्रों में यह स्थिति पिछले अनेक दशकों से अत्यंत चिंताजनक रही है। इस वर्ष की असर की रिपोर्ट कहती है कि 14 से 18 वर्ष के लगभग 90 प्रतिशत बच्चे स्मार्टफोन का उपयोग करना जानते हैं। 43.7 प्रतिशत लड़कों के पास अपने स्मार्टफोन हैं, जबकि केवल 19.8 प्रतिशत लड़कियां ही इतनी भाग्यशाली हैं। यह भी अत्यंत निराशाजनक है कि 14 से 18 वर्ष के 21 प्रतिशत ग्रामीण बच्चे इस जिज्ञासा का कोई उत्तर नहीं दे सके कि वे आगे चलकर क्या बनना चाहते हैं और क्या करना चाहते हैं? सबसे अधिक 13 प्रतिशत ने पुलिस और 11.4 प्रतिशत ने अध्यापक बनने की इच्छा व्यक्त की।

अपने अनुभव के आधार पर मेरा निष्कर्ष पर यह है कि ग्रामीण क्षेत्र मे 14 से ऊपर के आयु वर्ग के युवाओं में निराशा धीरे-धीरे बढ़ने लगती है। जैसे-जैसे वे अपने आस-पास हो रही नियुक्तियों की प्रक्रिया को देखते हैं तो उन्हें लगने लगता है कि जो घोर प्रतिस्पर्धा उनके समक्ष आने वाली है, उसके लिए आवश्यक संसाधन और स्रोत जुटा पाना असंभव होगा। ऐसी स्थिति में यह वर्ग बड़ी अपेक्षाएं नहीं करता। उसे सबसे अधिक संभाव्य अध्यापक बनना प्रतीत होता है। इसमें आस-पास के इलाके में पद-स्थापना की संभवना अधिक होती है। नई शिक्षा नीति यह स्पष्ट करती है कि आगे के वर्षों में अध्यापकों की नियुक्तियां केवल नियमित आधार पर ही की जाएंगी। अस्थायी नियुक्तियों का चलन बंद किया जाएगा, क्योंकि इसमें गुणवत्ता नकारात्मक ढंग से प्रभावित होती है। राज्य सरकारें

सुधर नहीं रहे सरकारी स्कूल • फाइल

इस संस्तुति को कितनी प्राथमिकता देंगी, यह गंभीरता से देखना होगा।

आज भारत उस दौर में पहुंच चुका है, जहां माता-पिता अपने लड़के-लड़कियों को समान रूप से शिक्षित करना चाहते हैं। उन्हें अब अच्छी गुणवत्ता और कौशल प्रदान करने वाली शिक्षा स्कूलों में चाहिए, पर अनेक प्रकार के सुधारों के बाद भी 1960 के पश्चात लगातार गिर रही सरकारी स्कूलों की साख अभी भी सुधार की दिशा में अग्रसर नहीं है। यह कड़वा सत्य है। इसे स्वीकार करने पर ही इन स्कूलों की साख और स्वीकार्यता बढ़ाने के प्रयास ईमानदारी से प्रारंभ हो सकेंगे। यदि लोगों के पास विकल्प के रूप में पूरी तरह से तैयार सरकारी स्कूल उपलब्ध हों तो वे वहीं अपने बच्चे भेजेंगे। भारत सरकार ने अभी पीएम श्री स्कूल योजना के अंतर्गत 14,500 स्कूल खोलने की प्रक्रिया प्रारंभ की है। पहले से भी देश में केंद्रीय विद्यालय, नवोदय विद्यालय, मिलिट्री स्कूल, कस्तूरबा गांधी विद्यालय जैसे स्कूल स्थापित किए गए हैं, लेकिन इनकी संख्या सीमित होने के कारण ये सभी की पहुंच से दूर ही रह जाते हैं। पीएम श्री स्कूलों से अच्छे स्कूलों का देश भर में फैलाव बढ़ेगा। इसका असर अन्य स्कूलों पर भी पड़ेगा। राज्य सरकारें यदि स्कूलों के प्रति अपनी प्राथमिकता ऊंची करें और आवश्यक भौतिक तथा मानवीय संसाधन उपलब्ध कराने में कोताही न करें तो वे स्वयं भी पीएम श्री जैसे स्कूलों का अनुसरण करने की दिशा में आगे बढ़ सकती हैं। उन्हीं देशों का भविष्य सुनहरा है, जहां ज्ञान-बुद्धि-विवेक की प्राथमिकता स्वीकार्य होगी और जो राष्ट्र नई पीढ़ी को इसके लिए तैयार करने में कोई कोताही नहीं करेंगे। भारत में अभी भी 50-60 प्रतिशत से अधिक स्कूल ऐसे हैं, जहां कई प्रकार की कमियां लंबे समय तक बनी रहती हैं। इनमें कुछ सुधार तो हुए हैं, लेकिन उन सुधारों की निरंतरता प्रायः शिथिल हो जाती है।

स्कूलों का समय से खुलना और प्रतिदिन वहां पर हर अध्यापक द्वारा अपना उत्तरदायित्व निष्ठापूर्वक निभाया जाना आज भी भारत में व्यवस्थित नहीं हो पाया है। इसमें तो आर्थिक संसाधनों की आवश्यकता नहीं है, लेकिन नैतिकता, अनुशासन तथा ईमानदार अधिकारियों की सख्त आवश्यकता है। ऐसा तब संभव होगा जब देश के शिक्षक दैनंदिन कार्य संस्कृति में नैतिकता, समय पर उत्तरदायित्व निर्वाह और समाज के प्रति कर्तव्य-समर्पण को उजागर करते रहें। प्रसिद्ध चिंतक और दार्शनिक गुन्नार मिर्डल ने बहुत पहले कहा था कि विकासशील देशों के लिए शिक्षक प्रशिक्षण संस्थान गुणवत्तापूर्ण सामाजिक और आर्थिक परिवर्तन के मुख्य स्रोत हैं। भारत को इस दिशा में बहुत बड़े प्रयास करने की आवश्यकता है। राष्ट्रीय शिक्षा नीति-2020 ने इस संबंध में चिंता व्यक्त की है और अपेक्षा की है कि आगे चलकर अध्यापक प्रशिक्षित करने की प्रक्रिया में बड़े सुधार किए जाएंगे। इसे युद्ध-स्तर पर करना होगा, क्योंकि एक अपूर्ण अध्यापक हजारों बच्चों के जीवन में नकारात्मक प्रवृत्तियां सम्मिलित कर सकता है। शिक्षक प्रशिक्षण संस्थानों को नैतिक मूल्यों, नैतिकता-आधारित प्रबंधन और समर्पित कार्य संस्कृति के अनुकरणीय स्थल के रूप में अपने को विकसित करना होगा। यह करना ही होगा, कोई अन्य विकल्प है ही नहीं।

(लेखक शिक्षा, सामाजिक सद्भाव और पंथक समरसता के क्षेत्र मे कार्यरत है)

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HINDU (P-6), 07 FEBRUARY 2024

Understanding the nuances of the liberal arts

Liberal arts degree programmes are on the rise in the context of Indian private higher education. At the same time, liberal ideologies are gravely misunderstood and viewed with scepticism in contemporary popular and right-wing articulations. As a faculty in a liberal studies school, I find that a greater understanding of the value of liberal arts education and what it offers to future citizens are extremely essential for a more harmonious future. By better understanding the nuances of what a liberal arts education can offer, students who opt for this degree can better respond to their contemporary problems – whether it is the on-going Israel-Palestine war or the politics of merging the state and religion.

Anandini Dar

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A greater understanding of the value of liberal arts education is essential for a more harmonious future – a point being lost sight of in contemporary popular and right-wing articulations

The importance of context

A liberal arts education seeks to enable students and future leaders to understand contemporary social problems in context. This is to suggest that to understand and respond to any situation, we must engage with the historical, sociological, economic, and psychological contexts. Such an approach would necessitate openness, require an ability to comprehend a problem from multiple perspectives, and recognise the complexity of the issue at hand. No quick answers or solutions would be possible. Another important aspect of a liberal arts education is to learn how to historicise our contemporary problems. This can enable us to have a view of the present in a way that does not ignore the past but instead teaches us how historical events have led to contemporary crises.

This is why a historian may have a stronger and clearer opinion about present crises than someone in a non-liberal arts field. A nuanced perspective, fertile with critical thinking, would require us to recognise how and why we do have a problem or a conflict. Is there a context to the crises at hand? What are the larger geopolitical issues that affect the issue? Who is being affected and what is at loss?

For example, any armed conflict is not about a battle for physical resources or religious dominance, but represents multi-dimensional fault-lines over culture, language, perceptions of truth and justice. The construction of the idea of 'sovereignty' is itself often hinged on subjective perceptions of historical claims and injustices. Geopolitical and military interests add to the complications of a narrative of conflict. A liberal approach at the very minimum should recognise these complexities before denouncing any particular voice or narrative.

The subject of identity

People's identities are intrinsically linked to regional, national, religious, gender, and other markers. There is nothing reductive about recognising identities of people. No social scientist or historian or economist is, as often labelled as doing so, trying to reduce identities to characteristics. This would be a grave misunderstanding of these liberal disciplines. Instead, recognising identities means acknowledging difference, which is innate in human society. How can we forget the history of human evolution, the formation of societies, cultures, and groups, and speak from a naive position of "simply being human"?

In making sense of conflict between two groups, a student of the liberal arts would instead first ask the question 'when and why do national identities matter?' Does the erasure of identity of some lead to the dominance/flourishment of other identities? If identities did not matter, then why do passports matter when we travel? Why do nations not open up their borders to all religious and national subjects?

Power as a central vector

In aiming to answer these questions, the role of power in societies can be recognised as being extremely significant. Liberal arts education allows students to learn that power is a central vector in understanding contexts and crises. Incorporating the role of power in any analysis does not denude it of nuance, as Allison Schrager argues in a 'premium' media online article of December 3, 2023, "There is an economic case for redefining liberal arts education". Rather, it deepens the engagement with contemporary crisis situations. Ignoring power relations and hierarchies between identities often leads to flat, homogenised narratives that are hardly of use in the real world. It would be naive and ignorant to deny the role of power in war, or in societies at large.

Power itself may operate in a society, or between nations, in a complicated, multi-layered fashion, and thus a nuanced liberal understanding should anchor itself on a complex treatment of power – not by excluding or wishing it away. A liberal arts education, seeking to be transformative, encourages students to be more humane, while recognising differences and identities, and understanding how power operates within our societies. By asking critical questions first and then understanding the problems in-depth, students can learn to think about solutions, take informed stands, and find resolutions – which shall also have to be complex and nuanced.

HINDU (P-14), 07 FEBRUARY 2024

Letter she could have written to her parents

Kota reported yet another student suicide recently. Policymakers, teachers, and parents need to ask if the blame lies in the culture of competition encouraged in the school education system

The tragedy is that due to the education system, children are not aware of their potential and talents and what they are capable of achieving HT ARCHIVE

"*Mummy Papa — I can't do JEE so I Suicide. / I am loser. /I worst daughter/ Sorry Mummy Papa./ Yehi last option hai*". — Girl, 18, who committed suicide in January in Kota, Rajasthan.

All of us want to know from our mummys and papas what it is that we have to do to ensure that we are not losers. How do you plan to help us discover our passion and potential?

Everyone tells us that the world of tomorrow is very different but are you preparing us for this world? We are told that at the heart of education is me — your child — and everything should be focused on learning for human flourishing. Then why are so many of us not able to cope, relax, reflect, breathe, express our emotions or even understand if we have a self to find? Your only concern seems to be our employability.

Our life is not a package deal. It has within it the sights, sounds, colours, fragrances, reflections, impressions, and learnings of our growing up years. This will create the adult who will stand before you tomorrow. Today, we are expected to reach a stereotyped system of ordinates, which binds us into a straitjacket of choices, according to the demands prevailing in our families or a particular segment of society.

We are surrounded by a high pressure culture that has become a national problem, where the perpetrators are parents, teachers, coaching centres and schools. The entire plethora of society seems to be conspiring against us. No one looks at our deeper needs and ascertains our choices and challenges. How can an entire community, given the rate of success in competitive examinations, pin our lives on an imaginary supposition of being able to "qualify"? This is in itself a negative assumption.

Ameeta Mulla Wattal

There are guidelines on coaching centres that are released frequently. But why should there be any coaching centres at all? Why don't you fix the school system? The only policy and process that should be focused on is teachers teaching their discipline and schools becoming crucibles of critical and creative thinking. The basic learning syllabi for competitive exams for young adults should be dovetailed into school-leaving exams. Why is the gap not bridged with what is taught in schools and what is asked in competitive exams?

We need a revolution in our education systems because their inadequacy has created parallel learning communities around them. If we had thought differently about it in the first place, so many children would not have died. We have created our own crisis with the victims being the young: Suicide is the third largest cause of death among 15–20 years old in India.

The tragedy is that due to the education system in schools, children are not aware of their potential and talents and what they are capable of achieving. We have to understand that learning in its true sense is a combination of personalised development and mindfulness, not a product that is homogenised, atomised and industrialised.

There is a world that exists, whether we exist or not. An outer world of objects, physicality, other people and events. There is another world that comes into being when we do, which will be different according to our beliefs, private interests and personal belongings.

Education should bridge these two worlds by relating one to the other. The problem is that because of market needs, a great deal of time is spent educating the outer world while neglecting the inner one. Children have been fixed in the outer world, which loads them with information and increases distraction.

A crisis of human resources is facing us. In 20 years, there will be a revolution that will affect communities, schools, and entire education systems. We need to focus on this crisis because education today is mechanistic, data driven and filled with information whereas human beings are not mechanisms but organisms. In order to ensure the connection between the inner and the outer worlds and prevent disengagement and disaffection, we have to bring in a new real child-centric culture.

Over the millennia, humans have evolved a sense of imagination and creativity, from which we have obtained the power of empathy to put ourselves in someone else's position and imagine what it would be like for them. Empathy is very important — creativity and intuition flow from it. The reason so many of the young get depressed and seem lost is because they lose that connection and don't have a sense of purpose. True learning will help to connect. Today, schools, in order to adjust to new societal demands and expectations, are being transformed in identity and role. From socio-cultural enclaves that cultivate the mind and spirit, they have transformed into mere centres for the acquisition of skills for a world economic market. This may fetch monetary benefits but may necessitate decisions that have dire consequences.

Education has come to gain a quantitative significance and "having" is more important than "being". The result of this attitude is that education has not enhanced our humanism. The field of educational leadership must be reconstructed so that the transformation of schools and society becomes its central force.

As children, will we always need to adhere to the demands of society? Do we not need someone somewhere to see our own realities?

You have to answer these questions and reflect on these conundrums. Our life is not easy anymore!

Ameeta Mulla Wattal is chairperson and executive director, education, innovations and training, DLF Schools and Scholarship programmes. The views expressed are personal.

INDIAN EXPRESS (P-10), 07 FEBRUARY 2024

LAW IS NOT ENOUGH

Bill to curb cheating in public service exams is welcome. But more needs to be done to address a chronic breakdown

ON TUESDAY, LOK Sabha passed the Public Examinations (Prevention of Unfair Means) Bill, 2024 in Parliament. The legislation is an attempt to address a disturbing state of affairs. Examination malpractices tar the credibility of the public recruitment system. An investigation by this newspaper found more than 40 instances of paper leaks in 15 states over the last five years. The cascading effects touched the lives of at least 1.4 crore applicants for about 1 lakh posts. Paper leaks lead to either the cancellation or postponement of exams, adversely affecting the prospects of the aspirants — in seven cases investigated by this newspaper, candidates are still awaiting a re-examination. Some states do have anti-cheating laws, but they haven't proved to be effective deterrents. The Centre's Bill is intended as a "model draft", which aims to introduce "greater transparency and fairness". This is a much-needed step — accountability for paper leaks must be fixed. Much more, however, needs to be done to make sure that unfair practices have no place in the government recruitment system.

In recent years, several states have witnessed public outrage over the disruption of examination schedules. This issue was among the talking points in the recent state assembly elections in Rajasthan, Telangana and Madhya Pradesh. In Rajasthan, the BJP alleged that members of the then-ruling Congress were complicit in the paper leaks. The Congress hurled similar accusations against Telangana's BRS government. However, alleviating the anxieties of the young public service aspirants has never gone beyond trading charges, it is yet to become a major election issue — say, like the demands of caste groups. The political class's shortage of ideas on this issue is disturbing in a country that proclaims its intention to reap its demographic dividend in the next quarter century.

Even after more than 30 years of liberalisation, a large section of the country's young population, especially those from the middle and lower-middle classes, seek the safety of a government job. Regular salaries and social security benefits enhance the appeal of these jobs and multiple pay commissions have reduced the gap between private and public sector salaries. In large parts of the country, working for the government is seen as the most assured route of upward mobility. The number of aspirants for such jobs seems to have grown after the economic crises of 2008 and 2013 and the pandemic-induced disruption. At the same time, however, the government employment pie has been shrinking across states. This demand-supply gap creates fertile grounds for the job mafia and exam fixers. Comparatively, examinations conducted for the elite All India Services, IITs and medical institutions have been less prone to such controversies or scams. Introducing the new Bill, Minister of State for Personnel, Public Grievances and Pensions Jitender Singh said that "the government is aware of the concerns of youth regarding irregularity in examinations". The Lok Sabha has passed the bill without much debate. The discussions in the Upper House will hopefully suggest a way forward on framing broader and durable solutions to a longstanding problem. IE 110

INDIAN EXPRESS (P-10), 07 FEBRUARY 2024

The dead ends of education

What is it that forces the young, so many of them from lower castes, to extinguish themselves? It is the educators who need to be educated first

DIVYA DWIVEDI

THERE WERE 35,950 deaths by suicide by students between 2019 and 2021, according to the government. There is a lack of socio-economic data about these deaths. In elite educational institutions of engineering and management, 122 students committed suicide between 2014 and 2021, of which 68 were from "lower-caste" communities. Given that a majority of India's population belongs to lower castes, caste discrimination plays a significant role.

Elsewhere on our social scales, the affluent increasingly rarely send their children to an engineering college or university to pursue physics or chemistry — they are often destined for elite universities in the anglophone First World. It is now the upper-caste middle-income and the lower-caste majority families that often opt for technical or professional courses for their children. The arduous coaching for entrance examinations to elite Indian institutions of professional education is expensive. Their gruelling regimen is something that the most affluent prefer not to let their children encounter.

These coaching institutions are often found unliveable by some students. In Kota, Rajasthan, 26 students committed suicide in 2023. Earlier this month, it was the teenager Mohammed Zaid. Then, Niharika Singh Solanki, the daughter of a bank security guard, leaves a suicide note to her mother and father, which is also a note to India: "I can't do JEE so I suicide. I am loser. I Worst daughter. Sorry [...] This is the last option".

What is it in our educational spaces that forces young lives, so many of them from lower castes, to extinguish themselves?

There are two aspects to this. The first is the public sphere which suppresses discussions on the socio-economic conditions in which a child learns. Here, the marginalised are already judged as "losers" for the fatal accident of their birth as Rohith Vemula wrote, while the privilege of being upper in caste is simultaneously asserted and masked as "meritorious". The second is modern norms of equality and justice that are perverted to oppose provisions for equality, including reservation. Here, a notional equality at the starting gun — birth — is asserted only to deny the most terrible disadvantages of historic oppression.

Last week, according to reports, thousands of poor construction workers were screened at an ITI for temporary jobs in a war zone, Israel. One applicant said: "People like us are at war with society, and internally with our souls, from the time of our birth". The students, the farmers, and the workers are soldiers at war with society, their deaths are cannon fodder.

We should be horrified by the statistics of last options, which reveal a truth about society. Compressing Émile Durkheim's insights, suicide is homicide by social forces and laws. Indian societies are defined by two distinct laws in conflict — the ancient oppressive caste order founded on *graded inequality and subjection* and, the modern constitutional order of *equality and autonomy*. The experience of the "lower-caste" majority is that the adoption of the latter is punished by the former, often through the instrumentalisation of modern law itself.

Psychoanalytically, it is the torturous unease — *Unbehagen*, said Freud — where the pressing social reality of a person's world is at war with this world's ideals of moral law, building up in them a complex of psychic resistances to oppressive social organisation in the immediate world. When this world — the hostel, the classroom — becomes unendurable, the individual breaks down.

"Weak" is the diagnosis our society gives to the unarmed, unarmoured souls sent into this civilisational war, relegated by society to be born as broken gifts to their parents. It teaches a section of its wards to find in themselves the "worst daughter".

Then, those who have the power to make the world liveable again for others should feel responsible — academics, the media, judiciary and intellectuals, and perhaps, under ideal conditions, politicians too.

There are texts by important politicians and intellectuals of modern India on pedagogy: The remarks on modern education by Gandhi, its "uselessness" against caste-based training; the Nehruvian aspirational education programme; Phule's revolutionary educational programme; and Dr Ambedkar's rationalist project of education as emancipation. But, they answer differently the question of *what education is for*, and therefore do not constitute a tradition on pedagogy.

School education is a preparation for a student to graduate as an autonomous rational human being navigating constitutional rights and duties, trans-national rights, and having the literacy to master other forms of knowledge, either through universities or autodidactically. In *On Education*, Kant called it the cultivation of a faculty for "being adapted to various ends" — the faculty of freedom.

Educational programmes in most parts of the world repeat the temporal schema established in the 20th century — 12 years of school, three to four years for a graduate degree, and two years onwards for postgraduate education. The disciplines, however, have undergone extraordinary transformations since the 1940s. Twelve years of school are becoming insufficient to gain competent literacy for the world of today.

The norms and ethos under which people interact in a democratic state are to be determined by education alone, according to the values of justice and equality. In India, education is a means to be discarded, *futuram oblivionem* in Kant's words. It is the educators and the elders of India who need to be educated first about the ends of education.

The writer is a philosopher, teacher and co-author of the upcoming book Indian Philosophy, Indian Revolution: On Caste and Politics

TRIBUNE (P-8), 07 FEBRUARY 2024

Curbing cheating

Centre, states must join forces

FAIRNESS and credibility are meant to be non-negotiable aspects of any competitive examination. Media reports point to a troubling reality. At least 41 instances of paper leaks have disrupted the process of recruitment for government jobs in 15 states over the past five years. A staggering 1.4 crore applicants for about 1 lakh posts have been affected. The system is crumbling. Malpractices leading to delays and cancellation of examinations have become the norm. Passed by the Lok Sabha on Tuesday, the Public Examinations (Prevention of Unfair Means) Bill aims to fix the problem. The Centre is hopeful that the substantive legislation to curb cheating will serve as a model draft for states. Some have already enacted laws. A commonality of purpose warrants close coordination and cooperation among various stakeholders. The proposed national technical committee, tasked with enhancing the security of computerised testing processes, too, needs unqualified support.

The Bill mentions at least 15 actions that amount to using unfair means. The offender might face up to 10 years in jail and a fine of Rs 1 crore. Organised paper leaks would lead to harsher punishment. All offences will be cognisable, non-bailable and non-compoundable. The police can act without a warrant and offences cannot be settled through compromise. The cheating menace also turns the spotlight on widespread unemployment and the desperation to land a government job. Vulnerabilities are exploited to lure candidates into a trap. The significance of periodic hiring and timely results cannot be overstated.

The authorities have often gone to extreme lengths to curb cheating. That has not deterred organised gangs, in collusion with government officials, from indulging in malpractices. The draft legislation rightly puts the focus on them and seeks to protect candidates. Stringent laws may well be the answer. Tr/8

TRIBUNE (P-9), 07 FEBRUARY 2024

Board exams and the hollowness of counselling students

AVIJIT PATHAK
SOCIOLOGIST

DURING this season of board exams and all sorts of entrance tests, we seem to be busy advising and motivating young students or 'exam warriors', to borrow the term used by Prime Minister Narendra Modi. Like him, we engage in some sort of '*pariksha pe charcha*' and teach them how not to get stressed, remain focused, accept 'healthy competition', work on 'self- progress', 'recharge' the body and concentrate on studies with a relaxed mind. Furthermore, we love to console them by saying that everybody is unique and hence, one should not compare oneself with others. Indeed, there is no dearth of sweet words on our part.

However, I am not very sure whether these students take us very seriously. In fact, they know the harsh reality. With their lived experience, they know that no matter what we say in front of them, we have created a 'learning machine' in which it is the quantification of 'success' — say, 99 per cent marks in the board exams, or a good ranking in the IIT-JEE or NEET — that alone matters. In this hyper-competitive social milieu, their future, they apprehend, is bleak, if they do not manage to opt for the select career options and appropriate courses in medicine, engineering, commerce and business management. Hence, they cannot afford to be 'unique'; they are required to imitate the path set by the 'successful' ones. Yes, everybody loves 'success', and what the system regards as 'failure' is ugly; teachers and parents loathe it; and the spectre of 'failure' often leads to chronic nervousness, psychic disorder and even suicidal tendencies. Think of the latest suicide note of an 18-year student in Kota: 'I am a loser. I am the worst daughter. Sorry mummy papa.' As adults, parents, teachers and political masters, we are essentially hypocrites. We give them stress; and, yet, we advise them to be calm and composed.

In fact, amid this business of counselling and sweet talks at the time of exams, we escape from raising a series of critical issues relating to the social dynamics of education. Let me raise three such issues.

First, the system of school education we have normalised is essentially one-dimensional; the importance it attaches to a set of technical and academic skills leads to the devaluation of what makes life truly meaningful and creative- say, the art of relatedness, the sensitivity to nature, or the ability to integrate the brain and the heart, or the body and the soul. The irony is that we have reduced all radical and life-transformative visions of education as envisaged by the likes of Rabindranath Tagore and Jiddu Krishnamurti into fossilised museum pieces. The result is that what confronts our children is a highly life-killing and mechanised system of education that knows nothing beyond rote learning, exam strategies and success manuals. Passing the exams; settling down in life as doctors, engineers, bankers and traders; earning money; and nurturing the same ambition in the next generation — this seems to be the mantra of existence we ask our children to internalise. Hence, our counselling or sweetness at the time of exams is nothing but shallow and hypocritical.

IRONY: As parents and teachers, we give students stress while advising them to be calm and composed. PTI

What confronts our children is a highly life-killing and mechanised system of education that knows nothing beyond rote learning, exam strategies and success manuals.

Second, not many of us, including our political bosses, top academic bureaucrats and policymakers, are willing to accept that the world we have created in which these youngsters will eventually enter is essentially corrupt, violent and manipulative. Think of, for instance, the fate of the constitutional ideals like secularism, democracy and distributive justice. Yes, majoritarianism is the order of the day; ethics is a bad word in the realm of politics; greed is normalised amid rising consumerism and market-induced artificial needs; and the cult of narcissism diminishes the spirit of democratic decision-making. Under these circumstances, will the youngsters really accept our sweet words and motivational speeches? Or, for that matter, are we — I mean, parents and teachers — ready to embrace some of these youngsters if they dare to say 'no' to what the 'Kota factory' symbolises — the production of the 'toppers' through the tyranny of the time table, the cycle of the endless drilling and the circulation of aesthetically/spiritually impoverished 'coaching' strategies? Can we encourage them if they begin to cherish the spirit of critical pedagogy, debunk what our political masters and techno-capitalists are doing and, eventually, strive for a kind of living based on creativity, simplicity and austerity? Or, will we stigmatise them as idealist fools and send them to psychiatrists to cure their 'abnormality'? Likewise, how many of us have the courage and integrity to tell these youngsters that they are not 'exam warriors', nor are they 'resources' to be shaped and used by the techno-corporate world for its irresistible greed and 'productivity'? Do we really want to see them as creative souls rather than polished 'products' with a lucrative salary package?

Third, our counselling seldom bothers about the most difficult examination of life. This examination is not about physics, mathematics and English; this is about the intellectual clarity to distinguish the lamp of truth from the noise of the propaganda machinery; spiritual longing for love and oneness from the manipulative religious politics that causes hatred, division and violence; authentic existential needs like the art of loving and sharing from the selfishness implicit in what social psychologist Erich Fromm would have regarded as 'having a mode of existence.'

Is it really possible for our political masters or, for that matter, academic bureaucrats to initiate yet another kind of '*pariksha pe charcha*' and inspire the new generation to choose life, not death; ecologically sustainable living, not the techno-capitalist destruction of mother earth; and freedom, not the trap of the surveillance machinery?

MILLENNIUM POST (P-7), 08 FEBRUARY 2024

Catalysing change

Nexus of Good

ANIL SWARUP

Through his grassroots advocacy efforts, Pradeep Kauturi has facilitated tribal communities' access to essential necessities, including education, healthcare, and clean water, in the remote village Tapilamamidi

Empowering tribal communities with fundamental amenities holds vital importance in enabling them to maintain their residence in pristine locations, subsequently contributing to the preservation of the forests

As we commemorate 77 years of independence, the story of Chinnari, a 9-year-old from the remote tribal hamlet of Tapilamamidi in the eastern ghats of Andhra Pradesh, is worth a mention. Prior to June 2022, Chinnari was faced with a lack of educational prospects, leaving her future uncertain. In a mere span of two years, a remarkable evolution has unfolded—Chinnari's access to education has been established. This remarkable change can be attributed to the grassroots advocacy efforts of social worker Pradeep Kauturi.

Following his 2016 expedition to Antarctica, Pradeep committed himself wholeheartedly to grassroots initiatives centered around #climateaction, with a special focus on tribal communities. His primary objective remains the facilitation of their access to essential necessities, including education, healthcare, clean water, and government support programmes. This noble goal was achieved through persistent advocacy efforts aimed at both local and state government authorities. Pradeep capitalised on his valuable experience in collaborating with the Andhra Pradesh government to drive these impactful advocacy endeavours.

His conviction remained steadfast: empowering tribal communities with these fundamental amenities holds vital importance in enabling them to maintain their residence in these pristine locations, subsequently contributing to the preservation of the forests and the wealth of biodiversity they harbour. His journey began with interventions in the tribal hamlet of Rolugunta, followed by a ripple effect that reached numerous other hamlets including Venam, Anuku, Porlabanda, Suvapadu, Tadipalem, and recently Tapilamamidi.

Nestled within the Eastern Ghats of India, Tapilamamidi village is a secluded tribal enclave situated in Andhra Pradesh's Chintapalli Mandal within the Alluri Sitharama Raju district. This picturesque settlement accommodates approximately 150 residents who inhabit around 35 houses. They belong to the Kodu tribal community, categorised under the Particularly Vulnerable Tribal Group. Enveloped by the enchanting embrace of hills, this community's livelihood revolves around coffee plantations.

The children of Tapilamamidi have truly attained freedom by gaining access to education REPRESENTATIONAL IMAGE

In October of 2021, Pradeep responded to their request for educational support for their children by visiting the village. During his visit, he organised a community gathering and encouraged them to work together to construct a community building using locally available materials. A remarkable display of unity followed, transcending age and gender boundaries, as members of the tribal community came forward to collectively build the community centre. In a subsequent step, Pradeep appointed an educated tribal individual as a volunteer, tasked with imparting essential literacy skills to the children and started the education centre in June 2022. Acknowledging the value of their efforts, Pradeep ensured the volunteer received a stipend. The accomplishments of these initiatives were further enhanced by the dedicated engagement of volunteers such as Ramesh Babu (a government school headmaster) and Venkat Reddy (a retired mandal education officer) who mentored the volunteers in imparting education to the children.

Simultaneously, Pradeep initiated his advocacy endeavors at the state level, presenting a representation to the then Principal Secretary of Education, B Rajsekhar. The aim was to secure a regular government school, thereby establishing a sustainable solution for the tribal hamlet. The response from the officer was affirmative, resulting in Pradeep being connected with district authorities. In a subsequent meeting with the District Collector Sumit Kumar, alongside tribal representatives, Pradeep articulated the need for a school. Encouragingly, the young Collector reacted positively and allocated a special grant of INR 4,06,540 for the construction of the school building to the village secretary.

Once again, the tribal community stepped forward with unwavering determination, volunteering their efforts to construct their own school building. Their commitment was evident in the countless hours they dedicated to the construction process, driven by the desire to secure a better future for their children. Their involvement extended to various aspects, ranging from leveling the land, unloading sand and cement, sourcing stones from distant locations, and aiding in plastering works. This collective endeavor not only contributed to a reduction in the overall project cost but also fostered a profound sense of ownership within the community.

August 16, 2023, marked a significant occasion as the District Collector honored the remote village with his presence, marking the village's inaugural visit by a district official. Amid a festive atmosphere, he inaugurated the newly constructed school building along with the child Chinnari. In a heartwarming display of cultural exchange, he engaged in the traditional Dhimsa dance alongside the tribal communities and participated in grama sabha. In the meeting, Rajesh, from the tribal hamlet, underlined that after 77 years of independence, the children of Tapilamamidi have now truly attained freedom by gaining access to education and expressed his joy.

During the event, the District Collector declared this endeavor as a model project orchestrated by the community itself. He commended the dedicated efforts of Pradeep and his team for uniting the community, amplifying their voices, and facilitating access to education. Expressing his appreciation, he extended his support for the initiative and urged the team to identify five more villages for similar projects. He assured them of the necessary funding directly to the village community to realise these ventures, underscoring his commitment to the cause.

Pradeep manages these initiatives without the backing of any formal organisation, balancing them alongside his full-time commitment to a think tank named OMI Foundation, situated in Delhi. At the foundation, he is actively involved in advancing electric mobility in India. Moreover, he is looking forward to continuing his policy advocacy work with the tribal communities at the grassroots for their empowerment.

What Pradeep has demonstrated in this remote village of Andhra Pradesh is truly commendable. It represents a wonderful example of Nexus of Good that can be replicated through public-private partnership.

Views expressed are personal

MILLENNIUM POST (P-13), 08 FEBRUARY 2024

CEO SPEAKS

AI in Education: The Great Leap Forward

DR SANKU BOSE

In the ever-evolving landscape of education, the integration of Artificial Intelligence (AI) is poised to be a game-changer—reshaping the very way teachers instruct and students learn. It is a major transformative force that promises to revolutionise the paradigm of knowledge sharing in its entirety. AI is not merely a tool but a powerful ally and the possibilities for use are limitless!

While it may be impossible to predict every AI-related intervention in the education landscape at this very juncture, the broad avenues of intervention seem to be well-defined and agreed on by most experts. And there are products in the market already that are taking this quest forward! Intelligent tutoring systems, powered by AI algorithms can analyse students' strengths and weaknesses, adapting lessons in real time. AI also acts as a powerful ally for teachers, freeing up valuable time and resources. Grading assignments, analysing student performance, and tracking progress can be time-consuming tasks, but AI tools can automate these processes, allowing educators to focus on more impactful aspects of teaching such as fostering critical thinking and creativity.

As per the WEF's Davos Agenda discussions on AI in education, teachers currently spend only about 49% of their time in active direct interaction with students in an average work week of 50 hours as highlighted in a McKinsey study. AI usage can augment this by almost 30% ensuring that teachers can get to be the life guides for students that they were always meant to be but always struggled to find the time for!Let us analyse the immense benefits that AI brings to both students, as well as teachers at a more granular level and some of the tools, already taking this mission forward!

Intelligent tutoring systems, powered by AI algorithms can analyse students' strengths and weaknesses, adapting lessons in real-time

For students, AI is set to revolutionise the very essence of learning through:

- **Adaptive Content Customisation:** AI-powered platforms, such as DreamBox Learning intricately analyse students' strengths and weaknesses, crafting a tailored curriculum. This personalised approach ensures a deeper engagement and mastery of concepts.
- **Addressing Individual Learning Styles**: AI algorithms, integrated into platforms like Knewton, decipher students' preferred learning styles—whether visual, auditory, or kinesthetic. By delivering content in alignment with these preferences, AI ensures that students are not just passive recipients but active participants in their learning journey.
- **Mastery-Based Progression**: AI-driven adaptive learning systems, exemplified by McGraw-Hill's ALEKS, redefine the traditional concept of grades. Students' progress is based on mastery, not just completion. This shift from a time-based to a competency-based approach allows learners to focus on understanding and mastering concepts before moving forward.
- **AI Virtual Tutors & Homework Assistance:** Platforms like IBM's Watson Tutor and Squirrel AI act as personalised study companions. These virtual tutors provide instant feedback, clarify doubts, and offer additional resources. With 24/7 availability, students receive timely support, encouraging self-directed learning and problem-solving skills.
- **Continuous Real-Time Feedback Loop:** Real-time feedback on assessments allows students to identify and address areas of improvement promptly, promoting a culture of ongoing self-assessment and refinement.
- **Interactive Quizzes and Challenges:** Gamification in education, epitomised by platforms like Kahoot! and Duolingo, transforms learning into an engaging experience. AI-enhanced quizzes adapt to student responses, ensuring a challenging yet enjoyable learning environment that fosters healthy competition and motivation.
- **Immersive Learning Experiences:** Applications like Google Expeditions use AI along with VR to customise virtual journeys, transporting students to historical events or scientific wonders, making learning not just educational but also memorable.

For teachers, the benefits include the following:

- **Data-Driven Insights & Adaptive Learning Delivery:** AI-driven analytics, embedded in platforms like Knewton or McGraw-Hill's ALEKS, provide teachers with granular insights into student performance. By analysing data on individual learning styles, progress, and areas of struggle, educators gain a comprehensive understanding of their student's needs, enabling the creation of targeted and personalized teaching strategies.
- **Automated Grading & Attendance Tracking:** AI-driven tools like GradeCam and ZipGrade revolutionise the time-consuming task of grading. AI applications can also automate attendance tracking and resource management Teachers can then redirect their energy towards meaningful interactions with students.
- **Intelligent Lesson Planning through AI-powered virtual Assistants:** Virtual assistants like IBM's Watson Tutor provide teachers with an additional layer of pedagogical support. These intelligent systems offer insights into individual student progress, suggest intervention strategies, and contribute to a more comprehensive understanding of classroom dynamics.
- **Collaborative Planning Platforms:** AI facilitates collaborative planning through platforms like Smart Sparrow. Teachers can co-create adaptive lessons, share resources, and exchange insights, fostering a sense of community, lifelong learning and knowledge-sharing among educators.

As Bill Gates notes in his blog "GatesNotes", the next generation of AI "agents" are far superior algorithms than current generation text-based bots and will alter our world dramatically. According to him, "If a tutoring agent knows that a kid likes Minecraft and Taylor Swift, it will use Minecraft to teach them about calculating the volume and area of shapes, and Taylor's lyrics to teach them about storytelling and rhyme schemes." And I am certain that his predictions will come true---much sooner than we can imagine!

The inevitable integration of AI in education heralds a whole new era of personalised, efficient, and engaging learning experiences. Both students and teachers can focus more on creative and critical thinking and meaningful engagement with the empowering tools that AI provides. We, as a society, need to embrace these changes as we adapt to this brave new world!

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

MILLENNIUM POST (P-13), 08 FEBRUARY 2024

HOW AI IS TRANSFORMING EDUCATION

AI has the potential to make education more equitable and personalised, thereby improving learning outcomes through heightened engagement

ANINDITA ACHARYA

In the contemporary educational world, teachers often grapple with the overwhelming task of evaluating extensive answer sheets, alongside managing various administrative and research works. In this AI-driven educational landscape, there's Gradescope, an AI-powered grading system where students can submit assignments online, and Gradescope automatically grades multiple-choice, fill-in-the-blank, and coding questions. Artificial Intelligence (AI) is experiencing rapid growth in the education sector, revolutionising the way students acquire knowledge and enriching their learning experiences. Through the utilisation of Machine Learning (ML) algorithms, AI can dynamically adjust to individual student needs, offering personalised learning experiences tailored to their specific requirements. According to Global Market Insights, the AI in education market size reached USD 4 billion in 2022 and is projected to expand at over 10% CAGR from 2023 to 2032, owing to the growing inclination towards personalised learning.

AI has the potential to make education more equitable and personalised for students worldwide, and improve learning outcomes for students by enhancing their engagement and motivation, said Pratham Mittal, Founder, Masters' Union. "AI is enhancing personalised support for teachers at scale, which can help teachers identify the strengths and weaknesses of individual students and provide personalised learning experiences. Also, AI is changing what is taught and how it is taught. AI-powered intelligent assistants can provide students with access to educational resources without contacting teachers, and smart content can help teachers use real-life examples to help their students learn more effectively and quickly," he said.

AI TOOLS TO HELP YOU

- Tutor.ai
- Copyscape
- Otter.ai
- Mendeley
- Gradescope
- Grammarly
- AudioPen
- Curipod
- OpenAI
- ChatGPT
- Google Bard
- Audiopen.ai
- Brainly

Gaurav Goel, CEO and Co-Founder of Toprankers, also echoed similar sentiments. According to him, AI-powered educational software and tools are transforming the way students learn, making education more accessible, personalised, and engaging.

AI has the potential to change education in India. Reports suggest the AI market will be worth USD 7.8 billion by 2025. Microsoft's CEO, Satya Nadella, believes AI can be a gamechanger in India and said that the company will provide 20 lakh people in India with skilling opportunities in AI. "I really haven't seen anything quite like AI and it will only continue to scale up from here," he said.

When combined with management tools, AI has the potential to address key challenges, leading to substantial impacts on the future of the educational landscape. "AI can also automate administrative tasks such as grading, allowing teachers to focus on more meaningful student interactions. Also, AI-powered virtual assistants and chatbots can furnish 24/7 support to students, answering their queries and delivering support in real-time. Overall, AI has the potential to revolutionise the way we learn and teach, making education more accessible, efficient, and effective," said Goel.

According to Mudita Pasari, Academic Dean, The Design Village, AI can be an incredible learning tool if used properly. "There are people using AI to generate data and conversations for better understanding of subjects. But we must be aware like any educator anything AI generates is subject to bias on the data available to it. No information shared by AI is absolute and it can never replace the importance of thinking for us rather than believing in things blindly," she said.

The debate over the transformative impact of AI in education is incomplete without considering whether this technology will supplant traditional educator roles. Professor Pradipta Sau, from a government-aided college in West Bengal, asserts that AI can never replace human educators. Drawing an analogy, he likens AI to instant coffee, emphasising its role in swiftly resolving problems and queries for both students and teachers.

Meanwhile, Mittal sees AI as a tool to complement teachers' efforts and underpin significant improvements in education, rather than a replacement for human educators. "Human educators will remain pivotal to learning by setting ambitious learning goals, leading instruction, and motivating and inspiring learners. AI can enhance teaching and learning experiences by providing personalised support, automating administrative tasks, and offering real-time feedback. This allows teachers to focus more on providing individualised support and guidance to their students," said the Masters' Union founder.

As we inch closer towards an AI-driven education era, it's important to recognise its potential for transforming the sector with personalised learning and innovative teaching methods. Yet, a careful and responsible approach is needed to address ethical challenges, ensuring that AI benefits both educators and students.

STATESMAN (P-7), 08 FEBRUARY 2024

Innovation needs free and rational minds

PATRANGA BASU

It was neither in the apple nor in any element at the centre of the earth that the law of gravitation was discovered. It was in the mind of Sir Isaac Newton. The falling of the apple gave only a suggestion to Newton and he studied it in his own mind. The rearrangement of previous thoughts in his mind gave birth to the law of gravitation. This unique narration is given by Swami Vivekananda who asserted that knowledge is inherent in mind. "No knowledge comes from outside; it is inside". He further said: "Like fire in a piece of flint, knowledge exists in the mind. Suggestion is the friction that brings it out."

The Eastern philosophers always advocated that the goal of mankind is knowledge. We too propagate these days to build up a knowledge society for better living. Knowledge has become fundamental to economic development and technological advancement. The greatest resource of all economic development is the mind. In the words of E F Schumacher: '..the key factor of all economic development comes out of the mind of man.' [Small is Beautiful].

Education is the most effective tool to act as an external suggestion to bring out knowledge stored in the mind. It acts as the friction needed to fire the flint. It gives power to ordinary people to cope with the problems thrown up by life. The more modern the society, the more intricate its problems are. That is why every ordinary person aspires for education.

The uneducated parents desire and work hard to get their children educated. They do not want their children to be brought up the way they were. Man believes in the power of education; it makes us wonder, and can change lives for the better. Even uneducated villagers sit before an erudite person to listen with rapt attention to what he says.

Education is the instrument through which we look at the universe, interpret it and experience the world. When we think, it is with specific ideas already filled in the mind. The aggregate of ideas of the people impacts the value and ethics of society. "What matters most is the tool-box of ideas with which, by which, we experience and interpret the world" [Small is Beautiful].

Research found that an average person can process up to approximately 60,000 thoughts per day. The thoughts range from mundane daily tasks to deeper philosophical views about life and the world around us. But what is truly concerning is that 75 per cent of these thoughts are negative and 90 per cent are repetitive. The negative thoughts surely impact our lives adversely. They may result in insecurity, anxiety and depression.

The negative thoughts can be dislodged only by conscious efforts on the basis of experience and good education. However some of the ideas are fixed and are inherited by man without any effort. These universal and large ideas of the time are deep rooted in culture, habit and custom, integrated into lives.

When people ask for education they do not merely ask for training or for information or facts but for ideas that will help them develop intelligent and logical explanations of happenings of the world. People often simply take ideas and follow them. This is more comfortable than to build up one's own unique idea or a value judgement. If the mind cannot bring in powerful ideas, life may appear as a chaos, dull and disorderly.

In civilised society nobody wants to live an unintelligent life. After all, every human being has a brain and every brain works wonderfully. The quest for knowledge is in every one. The task of education therefore would be the transmission of ideas of value, of what to do with our lives.

Today's highly digitised society demands more education. Every aspect of life is becoming dependent on technology. One can learn and use the rapidly changing technology in daily chores if one has basic education. She therefore may not feel estranged from society.

Education institutions are the most powerful institution of society. Education is compulsory and a fundamental human right in our country. The mind-altering effects of education extend to all spheres of life. The first dividend of education is literacy. Literacy is the foundation of the rest of education. Educated people are enlightened, rational, and peace-loving. They are law abiding citizens and contribute to economic development of the country.

Often education leads us to unlearn too; such as the vulnerability of superstations, child marriage and quackery.

But a question often being asked now is why human beings are appearing to be losing their minds. Why are rationality and critical thinking retreating? It resembles a rejection of reasons and logic. It is well accepted that application of reason improves quality of life irrespective of one's social status. It was once believed that scientists, teachers, philosophers, economists, professors, authors, doctors, engineers i.e. the erudite persons of society, occupy centre stage and set goals for mankind. They contribute to innovation immensely. They are undoubtedly respected as the superior class of society and as the torch-bearers. They have the capacity to discover and accept the canon of rationality.

But the situation has changed radically. The geopolitical movements coupled with business activities now come to occupy centre stage. Mediocrity has engulfed everything. Mass-scale corruption, dishonesty, lies, intrusion into private lives and atrocities on beliefs and disbeliefs of individuals have reached an alarming scale. 'Freedom after speech' is also at stake. People try to avoid propagating rational thinking or logical arguments with the fear that it might lead to a conclusion that will not satisfy their interest. They may lose money, power or dignity.

People feel it necessary to regulate their arguments in such a manner that it will augur well to a predetermined and favourable conclusion. This may not raise the arguer's wisdom. However it might remind us of the concept of 'motivated reasoning', propagated by psychologist Ziva Kunda in the 1990s. It states individuals tend to accept information that coincides with their existing beliefs and reject any new information that contradicts them, although relevant.

Free thinking, counter arguments, open debate and exchange of ideas are the essential prerequisites of a vibrant society. If brain power is not allowed to function freely no new innovation will come up and it will stall progress, both material and moral.

The 2024 Edelman Trust Barometer Report, the annual online survey in its 24th year among 28 countries with over 32,000 respondents of 1150+ from each country, has been published. The report reveals that people have less trust on governments than on business and NGOs. Media is least trusted. Innovation is in peril.

India is no exception. The survey suggests people's perception that rapid innovation offers the promise of a new era of prosperity. But there is decline in trust on institutions responsible for steering us through change towards a more prosperous future. The concern revealed is that politics has too much influence on science.

An irrational or biased decision might lead to a war killing hundreds or thousands of people. A decision without critical thinking might result in a climate disaster causing loss of several lives. The theory of Einstein i.e. Ego = 1/Knowledge seems to have occupied a predominant position nowadays. An inflated feeling of pride in superiority to others defies reality.

Irrational, illogical, biased thinking along with authoritative oppression in the long run will one day culminate in disaster in society in the form of a threat to democracy and halt in the progress of economic growth. Common people and future generations will be the worst sufferers.

(The writer, a Cost Accountant, is a former General Manager of a state power utility.)

TIMES OF INDIA (P-18), 08 FEBRUARY 2024

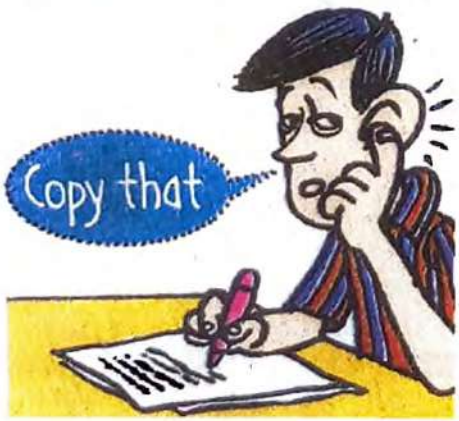
Job Half Done

Bill to prevent exam cheating tackles supply side. Key question: why's there a huge demand for cheating

Students who spend years preparing for govt exams truly feel cheated when some fellow candidates cheat. GOI has tried to address this growing problem with a new bill, cleared by Lok Sabha on Feb 5.

Severe punishment | Public Examinations (Prevention of Unfair Means) Act 2024 sets store on deterrence through harsh punishments. Offences under this legislation are cognisable, non-bailable and non-compoundable. In design, it's on par with legislations dealing with grave crimes.

All about supply | Cheating in exams needs to be understood from both demand and supply sides. GOI's bill focuses exclusively on supply side. Punishments are all aimed at collusions and disruptions that may facilitate cheating. That's necessary but not sufficient.



Demand measures | Students are absent from bill's provisions. They are buyers of dodgy services that lead to exam malpractice. It's likely that anti-cheating law sidesteps addressing demand issues because core problems are beyond its scope.

Craze for govt jobs | ASER 2023 survey of rural students threw up insightful results about their aspirations. Most popular choices among boys were army and police posts. Police was a popular choice amongst girls too. ASER survey showed that underlying virtually all responses were students' assumption that good jobs are only to be found in govt institutions.

Quality matters | But govt jobs are a small fraction of total jobs. But student responses showed they are preferred because they offer job security and pension, and command 'social respect'. This feeds into a huge coaching ecosystem and eventually creates demand for clearing exams – and for means to cheat exam systems.

So, this bill may deter cheating to an extent but it's unlikely to really dent it. What students need are better quality jobs.

TRIBUNE (P-6), 08 FEBRUARY 2024

Govt school crisis

Critical to win back trust of students

AS many as 30,000 posts of teacher are lying vacant in government schools in Haryana, reveals a report submitted by the state government in the Punjab and Haryana High Court. The affidavit claims that a process has been initiated for direct recruitment of 7,575 trained graduate teachers (TGTs) and 4,526 post-graduate teachers (PGTs). Even after the hiring, the gap between the required and the actual strength would remain large. Why such a mismatch fails to trigger sweeping reform confounds logic. Lack of funds is a lazy excuse. It all boils down to priorities.

According to a survey conducted for the 7-14 age group, the number of out-of-school children in the state has increased to 31,068 in the present academic session from 28,139 in the previous one. The government claims that follow-up action is an established practice. The numbers, it would agree, demand a relook at the strategy. It's not only the faculty shortage or the absence of basic facilities, such as benches, drinking water and toilets, that has come to be associated with government schools, especially in rural areas. Allegations of sexual assault and harassment of girl students by principals in Jind and Kaithal sent shockwaves across the region. A similar incident was reported from Punjab. Only stringent action and a robust grievance redressal mechanism will send out a message of security and safety. Winning back the trust of students and parents entails inculcating a culture of caring and a continuous engagement that inspires confidence. Piecemeal, half-hearted measures only add to the perception of disinterest towards government schools.

On a petition by Kaithal villagers demanding the safety of students attending classes in a dilapidated building, the high court has been seeking reports about infrastructural requirements and manpower. The judicial overview raises hopes of a course correction.

NAV BHARAT TIMES (P-12), 08 FEBRUARY 2024

हद से ज्यादा सख्त

प्रतियोगी परीक्षाओं में नकल, पेपर लीक और दूसरी गड़बड़ियां रोकने के लिए लाया गया लोकपरीक्षा (अनुचित साधन रोकथाम) विधेयक 2024 में एक गंभीर समस्या से निपटने की कोशिश की गई है। यह विधेयक मंगलवार को लोकसभा से पारित हो गया और अब इसे राज्यसभा में पेश किया जाना है। लोकसभा में इस पर बहस के दौरान सत्ता पक्ष और विपक्ष का जो रचनात्मक रुख रहा और जिस तरह की स्वस्थ बहस इस पर हुई, उसकी भी तारीफ की जानी चाहिए।

परीक्षा में गड़बड़ी रोकने का बिल

परीक्षाओं में अनियमितता | पिछले कुछ वर्षों में सरकारी नियुक्तियों के लिए होने वाली परीक्षाओं में गड़बड़ियों का जैसे ट्रेंड ही चल पड़ा है। बड़ी संख्या में युवा दिन-रात मेहनत करके इन परीक्षाओं में शिरकत करते हैं और फिर पेपर लीक या अन्य गड़बड़ियों की वजह से परीक्षाएं रद्द हो जाती हैं। सिर्फ पिछले साल की बात की जाए तो राजस्थान में शिक्षक नियुक्ति परीक्षा, हरियाणा में ग्रुप डी पदों के लिए कॉमन एलिजिबिलिटी टेस्ट, गुजरात में जूनियर क्लर्क नियुक्ति परीक्षा और बिहार में कॉन्स्टेबल नियुक्ति परीक्षा इनमें शामिल हैं।

संगठित अपराध | जिस निरंतरता से और जितने बड़े पैमाने पर परीक्षाओं में गड़बड़ियां देखी जा रही हैं, उससे यह संदेह होना स्वाभाविक है कि इसके पीछे कुछ संगठित गिरोहों का हाथ है, जिनकी सिस्टम के अंदर तगड़ी घुसपैठ है। ऐसे में इसे रोकने के लिए निश्चित रूप से बड़े प्रयासों की जरूरत है।

सख्त सजा | विधेयक में जिस तरह के कड़े प्रावधान किए गए हैं, वे सामान्य नहीं हैं। इनके अपने फायदे-नुकसान हो सकते हैं। हालांकि अच्छी बात यह है कि स्कूल-कॉलेजों की सामान्य परीक्षाओं को इससे बाहर रखा गया है और जो परीक्षाएं शामिल हैं उनमें भी स्टूडेंट्स और कैंडिडेट्स इस विधेयक के दायरे में नहीं हैं। फिर भी, ये प्रावधान इतने कड़े हैं कि इन पर अमल में विशेष सावधानी रखने की जरूरत है। इनका दुरुपयोग कई स्तरों पर खासा नुकसानदेह साबित हो सकता है।

कानून से आगे | मौजूदा हालात में इस समस्या के लिए नया कानून लाने के अपने तर्क हैं जो खारिज नहीं किए जा सकते। लेकिन सवाल यह है कि क्या यह काफी होगा? ध्यान में रखने की बात है कि जिन कार्यों और गतिविधियों को इस बिल में कवर किया जा रहा है, वे पहले से दंडनीय अपराध हैं और उनके लिए कानून की अलग-अलग धाराएं पहले से मौजूद रही हैं। इसके बावजूद अगर इतने लंबे समय तक और इतने बड़े पैमाने पर धांधलियां चलती रही हैं तो वह सिर्फ कानून की कमी के चलते नहीं हुआ है। उसके पीछे कुछ न कुछ भूमिका कानून लागू करने की जिम्मेदारी निभा रहे लोगों और एजेंसियों की भी निश्चित रूप से रही है। ऐसे में देखने वाली बात होगी कि इस नए कानून के आने के बाद इसे लागू किस तरह से करवाया जाता है और यह वास्तव में कितना कारगर साबित होता है।

ECONOMICS TIMES (P-20), 11 JANUARY 2024

JEFF MAGGIONCALDA CEO, Coursera

AI Will Change the Quality, Accessibility of Digital Education

GenAI could close the gap between average and high performers, he says

Team ET

New Delhi: Access to digital education will be a gamechanger in unlocking India's economic potential as generative artificial intelligence (GenAI) could provide a unique advantage for people here, Jeff Maggioncalda, CEO of edtech platform Coursera, said on Friday.

There is a huge reskilling opportunity for generative AI, which can close the gap between average and high performers, and reshape the world to make it a more equal place, Maggioncalda said. "For this to happen, people need access to education," he added.

"Covid laid the groundwork for online education as well as remote work opportunities," Maggioncalda said. "Generative AI could be a great equalising force, and provide a unique advantage for the people of India."

He added that AI will not just create the need for upskilling, but it will also change the quality and accessibility of education globally, making learning far more effective as well as more affordable.

"It used to cost us $10,000 to translate one course into a different language, now it costs us $20 – that's the kind of impact AI can have," Maggioncalda said.

"We have translated 4,200 courses into roughly 20 different languages, so language will no longer be the obstacle for people wanting to access high quality education."

The Coursera CEO further added that India will lead other countries in terms of learner numbers in online courses in a couple of years, if it keeps up the current pace of growth.

"Out of our 140 million learners (on Coursera), we have 23.4 million learners in India, which is only second to the US in terms of number of learners," he said.

Globally, only 41% of people who complete high school go on to start college; in India, this figure stands at 27%.

The National Education Policy 2020 aims to increase the gross enrolment ratio to 50% by 2035, and access to digital education will be key to this objective.

Coursera has launched a GenAI academy in order to assist businesses in training employees, as well as a career academy to help organisations reskill and redeploy their staff.

"Companies are looking to India for their future workforce, so the key here is talent agility and how fast talent can move to seize the opportunities," Maggioncalda said.

TALENT AGILITY KEY

Companies are looking to India for their future workforce, so the key is talent agility and how fast talent can move to seize the opportunities

IMPACT OF AI

It used to cost us $10,000 to translate one course into a different language, now it costs us $20 – that's the kind of impact AI can have

GT/20

PIONEER (P-09), 11 FEBRUARY 2024

INSPIRING JOURNEY OF AMITAVA MISRA

Marang Pandit revitalises Gobindpur with education, sanitation, and sustainable practices. From dilapidated classrooms to model school, his leadership sparks social transformation in rural West Bengal, WRITES MOUSHUMI BASU

National Teachers' Award event

Fondly addressed as "Marang Pandit" (which means a great scholar in Santhali), Amitava Misra is not just the head teacher of a remote primary school in West Bengal's Gobindpur village, but today, he is also the "guardian" to thousands of villagers in the region.

Back in April 2006, when then 35-year-old Misra took charge of the school in this tribal village of Purulia district, all he started with were two dilapidated mud-built rooms. A large banyan tree nearby served as the "classroom" under which a handful of children occasionally came to sit. The village lacked electricity and access to drinking water. Without an approach road to the village, a few spells of rain were enough to isolate it from its surroundings.

"But these situations did not perturb me as much as seeing villagers accustomed to open defecation, liquor addiction, and ignorance about basic health and nutrition," recalled Misra. However, within the next five or six years, the village made history by becoming one of the "Open Defecation Free" villages in the State with funding from the State Government. Each of the 240 homes in the village had its own toilet. In 2015, UNICEF recognised the village for its best practices in sanitation and hygiene and even produced a documentary film to highlight them. Side by side, the village also received electricity. Tube wells were dug, providing villagers with access to clean drinking water, in addition to the construction of an approach road. The formerly crumbling Gobindpur primary school building was transformed into a solid structure surrounded by a boundary wall. Today, it boasts six classrooms, a library, and four toilets, along with a playground.

Winner of numerous teaching awards, including the 2018 National Teachers' Award from the President of India and the State Shiksha Ratna, Misra's most formidable challenge, however, was gaining social acceptance among the villagers and integrating them into the social mainstream.

"I started by visiting door-to-door in the village to raise awareness among the villagers about health, hygiene, nutrition, and the importance of education," he said.

> FROM AN 'OPEN DEFECATION FREE' STATUS TO 100 PER CENT LITERACY, THE VILLAGE THRIVED. AMITAVA MISRA'S INNOVATIVE TEACHING METHODS, ECO-CONSCIOUS PRACTICES, AND COMMUNITY ENGAGEMENT EARNED NATIONAL ACCLAIM, MAKING GOBINDPUR A MODEL OF SUSTAINABLE DEVELOPMENT

The present school building

Fighting plastic pollution with eco bricks

National Level Swachh Vidyalaya Puraskar

A modern classroom in the school

The pre-primary students getting a taste of digital learning through digital card & pen

A handful of village youths were motivated by his initiatives, and together, they established adult education centres in the village. Initially reluctant, the villagers gradually started trickling into these centres, which soon became lively meeting places bustling with ideas and activities.

"More village youths came forward, and we organised into various groups," said 27-year-old Suraj Hansda from the village. According to him, these groups became responsible for coordinating with respective State departments and urging them to carry out various works for village welfare and amenities. Misra particularly trained them to provide various services such as distributing oxygen cylinders, food, medicines, masks, sanitizers, and disinfecting villages during the COVID period.

According to the 65-year-old village elder Anant Manjhi, teachers had come and gone in the past, but they had hardly made any changes in their lives. "Today, our village is 100 per cent literate; we are aware of the importance of education," he proudly asserted.

From sporadic attendance of 15-17 children back in 2006-07, today nearly 200 students from pre-nursery to Class 5 regularly attend the school. Funded by the Sarva Shiksha Mission, with contributions from local community members and also by Misra himself, the school now sustains three part-time teachers, mid-day meal cooks, and a gardener. Furthermore, village women are trained in various livelihood options such as aquaculture, livestock rearing, mushroom cultivation, and weaving items out of locally available babui grass to generate additional income in households.

"I was touched by the beautiful bond shared between the students and teachers, as well as the involvement of local communities in various school activities," said Proloyendu Bhoumick, District Inspector of Schools (Primary Education). Gobindpur Primary School has emerged as a model school under the Total Literacy Mission (TLM), garnering 18 accolades. Prominent among these are the Jamini Roy Award (2015), the Best School Award in the State (2016), and the National Swachh Vidyalay Puraskar (2017), the latter presented by the then Union Minister of HRD, Prakash Javadekar, for excellence in water, sanitation, and hygiene in schools.

The school operates on solar power (1100 watts), which powers 24 fans, 8 LED bulbs, and other appliances. According to Bhoumick, teaching practices seamlessly blend traditional and modern techniques. The students are proficient in digital learning through projectors and computers. The training begins at the pre-primary level, where children are taught Bangla, English, and Math using digital calendars and pens. The school has hosted exposure visits for over 1000 teachers from different schools in the district, as well as educationists from Japan, in 2019 and 2023.

According to the TLM curriculum, the children also engage in nature studies and educational tours. The boundary walls of the school classrooms are adorned with mural art depicting teaching and learning materials, indigenous culture, wildlife, and forests.

"Environment and forests have always been very close to my heart," said Misra. While the children and their parents have planted over 100 species of trees in and around the school campus and in the village, Misra has an innovative idea to combat plastic pollution.

"The children have been trained to make eco-bricks from plastic bottles," he said. Plastic throwaway packets are collected from across the village, cut into small pieces, and compressed into these bottles, which, when tightly filled, are sealed together with mortar. These serve as replacements for conventional bricks in the school and the garden.

An accomplished writer and poet, Misra has authored 14 books in Bangla and contributed articles to various newspapers on a range of social issues and education.

INDIAN EXPRESS, (P-08), 12 FEBRUARY 2024

CLASSROOM VS COACHING

Only schools can cultivate agency and impart a wholesome education

AMEETA MULLA WATTAL

IN A significant move, the Ministry of Education last month announced several guidelines for coaching centres. This comes in response to concerns about the welfare of students, student suicides and the unregulated growth of private coaching.

The coaching industry generates a revenue of Rs 6,000 crore annually and is growing at the rate of 7-10 per cent every year. There is now coaching not only for NEET or JEE, but even for CUET, as well as tuitions across subjects taught in schools. A new malaise has crept in where children are moving out of schools after Class X in order to join dummy schools which admit them without requiring them to attend classes, so they can enrol in coaching centres to crack CUET.

This is resulting in those who have opted for science dismissing the value of school. The government needs to reconsider its earlier decision to give weightage to board exam results in applying for competitive exams. If not, we will lose the franchise of high school education completely.

Unfortunately, policy makers have not been able to provide support to students for the journey beyond school. This has allowed institutions like Kota to become parallel systems. Coaching centres, such as those in Kota, have been established over three decades and are firmly entrenched in the lives and minds of Indians.

The National Education Policy goes beyond textbooks and lays emphasis on mental health, learning and understanding. It focuses on a child's inner needs. Only a school can develop these concepts.

Children are walking away from classroom teaching into coaching centres, often with parental support. A child in senior and high school needs to be counselled to prevent him or her from succumbing to peer pressure. This is a mandate for both parents and schools. If coaching centres are going to be the foundation of these years, then the youth of today will become directionless.

The teenage brain is vulnerable, affecting long-term personality development. Young adults need a lot of downtime through sleep, social interaction, reflection, developing their identities and articulating their needs. These aspects are not addressed in the coaching culture. In fact, coaching centres do not even give enough time to sleep. Children are not machines — they need communities that are nurturing, supportive, sometimes challenging but always caring.

We can't measure mental health only by the number of suicides. There are many acute and chronic conditions which are unseen. Children suffer from anxiety and are unable to cope. The teenage brain is vulnerable, affecting long-term personality development. Young adults need a lot of downtime through sleep, social interaction, reflection, developing their identities and articulating their needs.

These aspects are not addressed in the coaching culture. In fact, coaching centres do not even give enough time to sleep. Children are not machines — they need communities that are nurturing, supportive, sometimes challenging but always caring.

The role of education, defines and redefines itself, particularly in our country, which is socially and economically diverse, where deprived sections are increasingly going to demand their place under the sun by asserting their own identities and aspirations. This feeds into a highly competitive environment, which has reduced learning to tuition shops, thus affecting the emotional stability and well-being of our children.

Learning is a process, where society reflects upon the needs and aspirations of its children. True education is value imparting and goal setting. If the child finds that the idiom he speaks is at variance with the idiom of society, he faces a dilemma. Children are natural actors. They instinctively use pretend play in order to make sense of the world. They imitate words and actions, observe and respond to the environment, create situations and assume roles. They interact with peers and arrange space and objects to bring their stories to life. They direct one another to respond to each other's dramas. They observe and internalise the needs of the society around them through which a world of false expectations is created, which leads to stress.

We need to engage, discuss, clarify, and care for the aspirations of our young. As a country, we need a shared vision, where well-being is the goal of education and co-agency is a guiding light.

Students go to school to become purposeful, reflective, and responsible. Agency helps children to act independently and make their own choices. For life to work, our young will need to innovate, be responsible and sensitive, become creators of products, services and models for the future, alert to the claims that others make on them and open to the deepest emotions.

The obsession with coaching will never be able to validate and strengthen new ideas, approaches and research, required for human flourishing. Prioritising these is the need of the hour.

The writer is chairperson and executive director, Education, Innovations and Training, DLF Schools and Scholarship Programmes

PIONEER (P-07), 12 FEBRUARY 2024

Celebrating women in science: Recognising their achievements

Despite their significant contributions, women in science still face systemic barriers, including gender bias, unequal representation and limited access to opportunities

VEERENDRA MISHRA

Yesterday, we celebrated the International Day of Women in Science, a day dedicated to recognising and honouring the achievements of women in the field of science. This annual event serves as a reminder of the invaluable contributions women have made to scientific progress and innovation throughout history. It is an opportunity to highlight their accomplishments, shed light on the challenges they face, and inspire future generations of women to pursue careers in science.

Recently, while presenting the interim Budget 2024, Union Finance Minister Nirmala Sitharaman highlighted that female enrollment in Science, Technology, Engineering, and Mathematics (STEM) courses has reached 43 per cent, which is one of the world's highest figures. She said, "Female enrollment in higher education has gone up by 28 percent in ten years. In STEM courses, girls and women constitute 43 percent of enrollment—one of the highest in the world. All these measures reflect the increasing participation of women in the workforce." She also mentioned the empowerment of women through entrepreneurship, ease of living and dignity, mentioning, "Thirty crore Mudra Yojana loans have been given to women entrepreneurs."

From historic figures like Savitribai Jyotiba Phule, who was the first female teacher of India and founded the first girls' school, to Lady Abala Bose, who was the first Indian woman to study medicine at Madras University, to Kamala Sohonie, the first Indian woman to receive a PhD in a scientific discipline, to Ayyalasomayajula Lalitha, India's first woman engineer, to Shakuntala Devi, who was popularly known as the "Human Computer," women continue to leave an indelible mark on the scientific landscape. Today, women scientists are assuming leadership positions in groundbreaking projects like Chandrayaan-3 and the Aditya-L1 solar mission, showcasing their continued influence and expertise in pushing the boundaries of scientific exploration.

The Government has taken significant strides to bolster STEM (Science, Technology, Engineering, and Mathematics) education, recognising its pivotal role in driving innovation, economic prosperity, and societal advancement. Initiatives like the Vigyan Jyoti Scheme, spearheaded by the Ministry of Science and Technology, are breaking gender barriers by empowering young girls in STEM fields through exposure and mentorship programs. Additionally, programmes like INSPIRE foster innovation among students through scholarships and research opportunities, while Atal Tinkering Labs nurture creativity and problem-solving skills among school students. The Rashtriya Avishkar Abhiyan promotes a culture of innovation in schools, bridging the gap between theory and real-world applications. Moreover, the government provides research fellowships and grants, digital learning resources through the National Digital Library, and skill enhancement programmes via Skill India, all aimed at nurturing a skilled workforce and fostering growth in STEM-related industries. These concerted efforts underscore the government's commitment to nurturing a robust ecosystem for scientific inquiry and technological advancement in the country.

Women in STEM in India have been steadily challenging stereotypes and contributing significantly to various disciplines. Pioneers like Dr. Tessy Thomas, known as the "Missile Woman of India," have shattered glass ceilings in fields traditionally dominated by men. Indian women researchers are excelling in areas like space technology, biotechnology, and mathematics, making remarkable advancements. Additionally, the government's Vigyan Jyoti scheme aims to encourage young girls to pursue STEM education and careers, fostering inclusivity.

Women have made groundbreaking strides in diverse scientific domains, ranging from astronomy and biology to engineering and computer science. Their discoveries, innovations, and leadership have enriched our understanding of the world and advanced technological progress.

Women have played a pivotal role in shaping the scientific landscape, yet their contributions have often been overlooked or undervalued. By celebrating the International Day of Women in Science, we aim to rectify this imbalance and bring attention to the remarkable achievements of women scientists. It is crucial to showcase diverse role models in science to inspire young girls and women to pursue their passions and break down the barriers that still exist in the field. While progress has been made, women in science still face numerous challenges. Gender bias, a lack of representation, and unequal opportunities persist in many scientific fields. It is essential to work towards creating a more inclusive and equitable environment for women in science. By providing equal opportunities, mentorship, and support, we can empower women to thrive and contribute their unique perspectives to scientific advancements. Despite their significant contributions, women in science still face systemic barriers. By encouraging and showcasing the achievements of women in science, we hope to ignite a passion for discovery and innovation in young girls.

(The writer is an IPS officer and the director RACE Lab, Samvedna India, views are personal)

12/2/24

TIMES OF INDIA (P-21), 12 FEBRUARY 2024

Raj nurses seek 'Dr' title after completing PhD, govt says 'no'

Intishab.Ali | TNN

Jaipur: Three nurses sent proposals to state govt to allow them to use the title of 'Dr' after completing PhD programmes in nursing, which the health department of Rajasthan rejected recently.

The nurses sent their proposal to directorate (non-gazetted) of health department. Many nurses are showing interest in research in the state and, after completing their doctoral programmes, they are seeking permission from state govt to use the title of "Dr".

The director (non-gazetted) of health department got back to them on Feb 8 stating that the administrative department has denied permission to nurses posted in the health department to use the title of "Dr" even if they have completed PhD in nursing.

Jogendra Sharma, principal of govt college of nursing in Jaipur, said: "Nurses are using 'Dr' as a title after completing PhD in nursing but, in govt sector, it is not easy. It is like changing the entire name for which a process is followed, and it is changed only through gazette norms."

Nurses working in govt healthcare facilities are discouraged with this position of the state govt. "If govt allows nurses to use 'Dr' title, it will encourage nurses to do more research which will benefit patients," Narendra Singh Shekhawat, a nurses leader posted at SMS Hospital, said.

HINDU (P-7), 13 FEBRUARY 2024

Telangana's education paradox

While gross enrolment ratio in school is poor, students do well in competitive exams

STATE OF PLAY

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Telangana presents a rare paradox in the education sector. Its students perform exceptionally well in the All India Joint Entrance Examination every year. In 2023, 11 out of 43 students scored 100 percentile, the highest among all States. But the Annual Status of Education Report for 2022 makes for grim reading. The State also has the highest share of students in the 14-18 group who are not in the education system. Ironically, the students from the State who crack national competitive exams are from the same age group.

Other States with poor social indicators are better off than Telangana. While 22.1% of children in the age group of 14-18 in Telangana were out of the education system, the national average was 13.2%. School students in the State don't have skills that match their counterparts in other parts of the country. For instance, nationally, 43.3% of students could do basic arithmetic calculations, while in Telangana, only 19.75% could do so in the 14-18 age group.

Low investment in education by successive governments lies at the heart of the problem. The State has 3,274 junior colleges of which only 420 are managed by the State government. But it has 1,349 privately run junior colleges, most of them in urban areas. The result is that many students have to travel long distances to reach college. The State also runs other residential junior colleges and facilities, but the admission for them is through a competitive exam. This also keeps a high share of students out of the education system.

Telangana

The interim Budget presented by the incumbent Congress government appears to recognise both the quality of education and the funding gap for the sector. "Our government's biggest priority will be school education. Apart from providing the required funds for various facilities and schemes on a regular basis, the government has decided to set up digital classrooms in the schools," said the Finance Minister, Mallu Bhatti Vikramarka, in his maiden Interim Budget speech. Funding has been raised from ₹18,955 crore, earmarked in the 2023-24 Budget, to ₹21,839 crore – a substantial increase of 15.21%. But this is not enough. Telangana has consistently underspent on the education sector over the past decade. The budgetary outlay for education in 2014-15 was 10.89%. If the State had maintained the same pace of sectoral outlay, the education budget for 2024-25 should have been ₹30,044.53 crore.

When the Telangana Rashtra Samithi came to power, it used the slogan of 'KG to PG' free education for the poor. But the investment required to fulfil the promise was never made. The State managed to build only one show-piece facility in Sircilla, the Assembly constituency of former Municipal Administration and Urban Development minister K.T. Rama Rao. Even this was not developed with State funding, but with monies under Corporate Social Responsibility from a building conglomerate.

NGOs in the State have been highlighting the abysmal state of educational infrastructure by sharing information and photographs of schools without boundary walls and of cattle roaming around in dysfunctional washrooms. The high dropout rate among girls of the 14-18 group is directly linked to the absence of hygienic toilet facilities.

The quality of education has been affected by the slow pace of recruitment in the education sector which has scuppered the hopes of lakhs of aspiring teachers. In 2019, the State government appointed eight serving Indian Administrative Service officers as in-charge vice-chancellors as an ad hoc measure after the tenure of the vice-chancellors ended. The universities which had IAS officers as vice-chancellors included Kakatiya University, Jawaharlal Nehru Technological University-Hyderabad, and Osmania University. Only in May 2021 did the universities get academicians as full-fledged vice-chancellors. It was clear that the State cared little about educational institutions.

One of the United Nations' Sustainable Development Goals is to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all". It is clear that Telangana will not achieve this goal in time. It will also be unable to achieve the goal of ensuring 50% Gross Enrolment Ratio goal in higher education by 2030, a stated goal of the Union government. It is time for the Telangana government to follow through on its promises in education. H/7

INDIAN EXPRESS (P-13), 13 FEBRUARY 2024

A science for us

It remains to be seen if SWATI, an initiative to address gender gap in science and technology, manages to break old habits

NANDITA JAYARAJ AND AASHIMA DOGRA

C R Sasikumar

ON FEBRUARY 11, a panel representing India's science academies launched SWATI, a portal to a database that they hope will someday include each and every woman in science in the country. This marks the latest in a list of initiatives by the academies to address the gender gap that began with a hard-hitting report published 20 years ago. It's pertinent to look back at some of these efforts.

The 2004 report by the Indian National Science Academy (INSA) stands out because it was likely the first such report to be supported by the government, and also because of its content. The 66-page document articulated ideas about the gender gap in STEM that were far from mainstream back then. It presented evidence of discrimination in the workplace, not just on the basis of gender but also caste. A full 10 pages were dedicated to solutions.

The high level of nuance in this report could be chalked down to it being a product of collaboration between scientists and social scientists. Though a social issue, the Indian scientific community rarely engages with social scientists on the gender gap plaguing it. Consequently, discourse on the topic largely relies on the fallacy that only marriage and motherhood are to blame.

A slew of other initiatives followed that first report by INSA. Highlights include the Indian Academy of Sciences' (IASc) compendium Lilavati's Daughters and a national conference featuring over a thousand women scientists. Both happened in 2008. The latter was organised by a Department of Science and Technology (DST) task force set up in response to the INSA report. The national conference is especially notable because it featured some groundbreaking announcements by then Science and Technology Minister Kapil Sibal: He promised women scientists flexible working hours, in-house creches, work-from-home options, research grants and residential accommodation.

Unfortunately, the standing committee set up to implement Sibal's promises never took off.

In 2010, another team of sociologists and scientists backed by IASc released a report that focused on why women scientists leave academia. A survey of about 800 scientists, both men and women, threw up several revelations. When asked why so many women drop out of science, most men pinned the blame on family and sociocultural factors. The women agreed but a significant proportion pointed out that the lack of opportunities and disabling organisational factors (flexible timings, logistics and infrastructure, discrimination, etc) were also setting them back. Expectedly, these were also the areas that the women felt needed improvement to enable them to stay in science. The men, however, believed that their female peers could also benefit from refresher courses, fellowships, awareness and sensitisation campaigns.

Uncovering gendered perceptions is tremendously helpful in understanding where policies come from and why they look the way they do. It explains why we see so many initiatives that "help" or "motivate" girls and women to stay in science — mentorship programmes, workshops, books about role models, and women-specific awards/grants. The subtext of this approach is that it is the females who need to be "fixed". This is a sore topic among many women in science, but what else can we expect from a top brass that has always been male-dominated?

While these initiatives may be needed, they're not enough. We also need rules and laws to address the unique challenges faced by women from multiple marginalities of caste, transgender identity and disability. Gender equity policies need to boldly state that discrimination exists, and engage with the idea of placing some accountability on the overrepresented in science — upper caste cis-men.

Newer initiatives like the Gender Advancement for Transforming Institutions (GATI) charter and the draft Science, Technology and Innovation Policy (STIP) 2020 have adopted more progressive language — for instance, they bring up transgender identities and gender-neutral parental leave. Unsurprising, as these policies involved a more inclusive group, comprising cis and trans women scientists and sociologists.

February 11 is celebrated worldwide as International Day For Girls and Women in Science. SWATI, or Science For Women: A Technology & Innovation portal, was launched on that day by a panel representing scientists from INSA, IASc and the third academy National Academy of Sciences India (NASI). An active inter-academy panel offers hope that the three academies' gender gap-related efforts will be more streamlined.

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Good intentions notwithstanding, it is prudent to be wary, considering how often new initiatives are launched with much hype, only to fizzle out soon after. SWATI itself has been victim to this. It was first announced on International Women's Day in 2021 by then Department of Biotechnology (DBT) chief Renu Swarup as a "portal dedicated to all Women Scientists in DBT and its Autonomous Institutions". There was no word about it after that until recently. Over the past few weeks, the panel has been soliciting women in science to sign up for SWATI's 2024 avatar through a Google form. However, there is no disclosure of how this personal information will be used and what it means to sign up for SWATI.

It remains to be seen if the inter-academy panel can break old habits and be more inclusive, transparent and efficient. There are a number of positive signs: The SWATI form is inclusive of all non-male genders, and does not seem to impose criteria such as PhDs. This acknowledges that cis-women are not the only marginalised gender, and that women work in science in various capacities with or without specific degrees. It is also refreshing to see that the panel is composed of men and women scientists — a nod to the fact that equity is not just a women's issue.

Jayaraj and Dogra are independent science journalists and co-authors of Lab Hopping: A Journey to Find India's Women in Science

IE/13

PIONEER (P-6), 13 FEBRUARY 2024

Develop skills with experimental learning

KIRANJIT SINGH
PANNU

Embracing experiential learning may well be the key to preparing students for the challenges and opportunities of the changing world

In an ever-evolving world, the ability to acquire and adapt skills is crucial for success. While traditional learning methods hold value, experiential learning emerges as a powerful tool for skill development. By immersing individuals in real-world scenarios, it fosters deeper understanding, boosts knowledge retention, and cultivates essential soft skills.

Experiential Learning?

Experiential learning, rooted in the work of David Kolb, emphasises learning through active engagement and reflection on experiences. It's a hands-on approach, contrasting with passive knowledge absorption. Individuals "learn by doing," applying theoretical concepts to practical situations, whether through simulations, projects, internships, or real-world challenges.

Key Componentsg:

Engagement: Experiential learning places a strong emphasis on engagement. Students are actively involved in the learning process, whether through experiments, projects, field trips, or interactive activities. This engagement helps capture

their attention and encourages a sense of curiosity.

? Reflection: A crucial aspect of experiential learning is the reflective process. After engaging in an activity, students are prompted to reflect on their experiences, analyse the outcomes, and connect the practical knowledge gained to theoretical concepts. This reflective phase enhances their critical thinking skills.

Application: Experiential learning encourages the immediate application of knowledge. By directly applying what they have learned in real-world scenarios, students can see the practical relevance of their education, leading to a deeper understanding and retention of information.

Experiential Learning in Skill Development:

? Critical Thinking and Problem-Solving: Experiential learning challenges students to think critically and solve problems on their own. Through hands-on experiences, they learn to analyse situations, make decisions, and adapt to changing circumstances - essential skills for success in both academic and real-world settings.

? Teamwork and Communication: Collaborative projects and group activities inherent in experiential learning help students develop strong teamwork and communication skills. They learn to express their ideas, listen to others, and work cohesively towards common goals, mirroring the dynamics of the professional world.

Creativity and Innovation: Hands-on experiences stimulate creativity and innovation by encouraging students to think outside the box. When faced with real-world challenges, students are prompted to generate unique solutions, fostering an entrepreneurial mindset and adaptability.

Emotional Intelligence: Experiential learning enhances emotional intelligence by exposing students to diverse situations. They learn to understand and manage their emotions, as well as empathise with others, preparing them for a more emotionally intelligent and socially aware future.

? Long-term Retention: The active involvement and application of knowledge in experiential learning contribute to better retention. Students are more likely to remember and understand concepts that they have personally experienced, as opposed to those learned through passive methods.

In the 21st century, where adaptability and a diverse skill set are crucial for success, experiential learning emerges as a powerful tool for skill development in schools. By integrating this pedagogical approach, educators can foster not only a deep understanding of academic concepts but also the critical skills needed for future success. As schools continue to evolve, embracing experiential learning may well be the key to preparing students for the challenges and opportunities of the rapidly changing world.

(The writer is an educaor and expert on education policies; views are personal)

STATESMAN (P-11), 13 FEBRUARY 2024

Trends that will dominate higher education in 2024

PROF SWATI SHARMA

In the ever-evolving world of professional growth, reskilling and upskilling have emerged as the cornerstones of transformative learning and development (L&D) strategies, technological advancements, societal changes, and economic shifts are few of the factors that are transforming the learning ecosystem rendering the traditional skill sets obsolete at an unprecedented rate.

L&D strategies are backed up by the emergence of the concept of reskilling and upskilling. World Economic Forum projected reduction of skill gaps by 2028 and promises to revitalize labor activity, potentially contributing a staggering $ 6.5 trillion boost to the world GDP by 2030. The future workforce must embrace a mind-set of lifelong learning to navigate the challenges posed by technological disruptions, economic shifts and societal changes.

Traditional education models are being redefined with a shift towards immersive learning, microlearning, data driven learning and continuous and lifelong learning programs enabling professionals to upskill, keeping pace with the rapid changes in their industries. Soft skills and Communication skills are also gaining prominence in the continued voyage of skill enhancement.

IMMERSIVE LEARNING: REVOLUTIONIZING EDUCATION

In the year 2024, Augmented Reality (AR) and Virtual Reality (VR) will loom large as immersive experience takes up the limelight. These technologies disrupt conventional learning paradigms, providing professionals with interactive and captivating educational journeys. The enterprises are striving hard to leverage the power of experiential learning via the implementation of AR and VR in the L&D framework. Gamification serves as a powerful tool within the realm of immersive learning, contributing to the development of a future-ready workforce. Blending game mechanics with educational content, gamification enhances engagement, motivation, and skill acquisition

MICROLEARNING: NURTURING KNOWLEDGE IN BREVITY

Microlearning is emerging as a huge potential in an era where individuals are trying to cope with the pressure of fleeting attention spans. It is gaining momentum slowly and gradually among the new aspirants as it upholds the ability to deliver targeted bursts of information, customized for specific learning outcomes. By providing concise, easily digestible modules, microlearning aligns seamlessly with the cognitive patterns prevalent in the digital age. The core characteristics of the approach are – information retention and seamless integration of new knowledge into daily practices.

DATA-DRIVEN LEARNING: TAILORING STRATEGIES FOR ORGANIZATIONAL GOALS

In the era of data proliferation, learning strategies pivot towards a data-driven paradigm.

L&D teams harness the power of analytics to decipher organizational objectives, tailoring training regimens that seamlessly align with these goals. Since the future is data driven, the future workforce needs to be data literate, possessing and understanding data-based tools and ability to analyse and take data driven decisions.

CONTINUOUS LEARNING

Continuous learning mechanism is at the forefront of contemporary workplaces. The pulse of contemporary workplaces reverberates with the rhythm of continuous learning. Statistics echo this sentiment, revealing that 76% of professionals are drawn to organizations that advocate for ongoing skills enhancement. Henceforth, the focus on continuous learning positions the workforce to not only meet the challenges of today but also to anticipate and navigate the future upcoming challenges, fostering a truly future-ready workforce

COMMUNICATION: EVOLVING TRENDS

While technical skills remain crucial, there is a growing recognition of the importance of soft skills in the professional front. Upskilling programs are addressing the demand for skills such as adaptability, emotional intelligence, and effective communication, recognizing their impact on career success and organizational resilience. Upskilling initiatives are also incorporating a DEI lens, acknowledging the importance of providing equal opportunities for skill development. The industry is recognizing that fostering diversity and inclusion is not only a moral imperative but also a strategic advantage in driving innovation and organizational success.

CONCLUSION: PIONEERING THE PATH TO DYNAMIC FUTURES

In 2024, the learning and development industry is set to undergo a transformative meta morphosis characterized by innovation and adaptability. The convergence of immersive technologies, gamification, microlearning, continuous learning, data-driven approaches and evolving communication trends heralds a new era in professional development. The expanding scope of these transformative trends indicates a shift in the very fabric of the professional world. Organizations are poised at the precipice of a significant evolutionary leap, one that hinges on the adaptation and integration of these innovative methodologies into their core structures. Employers, educational institutions, and individuals all play critical roles in fostering a culture of reskilling, upskilling and continuous learning. Success lies in achieving mastery and embracing a continual voyage of skill enhancement. Organizations embracing these future trends will fuel personal growth, foster organizational dynamism, and propel global progress.

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TIMES OF INDIA (P-16), 13 FEBRUARY 2024

IITs: Made In India, Going International

Union education minister writes IIT-Delhi's Abu Dhabi campus in UAE, which PM is visiting, will boost GOI's efforts to export the best of Indian education abroad

Dharmendra Pradhan

On Jan 29, classes commenced at IIT-Delhi's Abu Dhabi campus, a fine example of India-UAE friendship in the field of education. PM Modi's visit to UAE comes at a time when bilateral relations between India and UAE have been elevated to a Comprehensive Strategic Partnership.

Common vision | PM Modi and UAE president Sheikh Mohamed bin Zayed Al Nahyan's idea of an IIT-Delhi campus in Abu Dhabi was reaffirmation of this strategic engagement. Its actualisation in record time is a significant milestone that attests to both leaders' common vision and priorities. The agreement of early 2022 saw an MoU being signed on July 15, 2023. Its campus was set up in no time and classes commenced last month for the first batch. The distance travelled in a very short time exemplifies remarkable bonhomie in India-UAE bilateral relations.

An example of New India's innovation and expertise, the campus is set to serve as an edifice of India-UAE ties in the field of education, reflecting a shared vision for educational excellence, innovation, knowledge exchange and investment in human capital.

Internationalisation goals | IIT-Delhi-Abu Dhabi aligns with internationalisation goals for educational institutions as outlined in New Education Policy. It takes forward recommendations of Radhakrishnan Commission, set up to conceptualise international campuses for institutions like IIT-Delhi and IIT-Madras, whose Zanzibar campus was inaugurated in Nov 2023.

Abu Dhabi campus underscores India's commitment to promptly fulfil its bilateral commitments, reflected in the seamless collaboration between Union ministry of education and Abu Dhabi department of education and knowledge (ADEK).

India pioneered internationalisation of education with Nalanda University, considered "the world's first residential university", where renowned scholars from many countries came and studied. IITs are carrying forward this legacy.

Tailored curriculum | Academic excellence is its hallmark, the institution's curriculum has been meticulously tailored to align with the region's unique needs and aspirations. Leveraging IIT-Delhi's unparalleled experience in undergraduate and graduate-level teaching and research, the Abu Dhabi campus aims not only to offer top-notch academic programmes but also to diversify its offerings, becoming a hub for innovative and region-specific initiatives.

Focus on future | The inaugural academic programme, Master of Technology in Energy Transition and Sustainability, exemplifies this forward-thinking approach. It addresses the pressing need for clean energy transitions in addressing climate and other sustainability challenges and aims to train students to lead this transition effectively.

The curriculum's multidisciplinary approach integrates technical knowledge with transition management, innovation processes, and energy-sustainability interconnections.

Industry-academia linkages | This is in keeping with UAE's designating 2023 as Year of Sustainability and hosting COP28 Conference in Dubai. Majority of students in the programme are sponsored by ADNOC, Abu Dhabi's major oil and gas company, as it explores renewables amid an energy transition. This academia-industry interface augurs well for the institute's future.

AI, data analytics, energy and sustainability, and healthcare are at the core of the curriculum. Its research agenda will be aligned with needs of the host country and emerging global challenges.

Quality assurance | Benchmarking student intake through standardised tests and internships, along with mechanisms of accreditation, periodic curriculum review, and institutional assessments, align with the quality assurance goals highlighted by Radhakrishnan Commission.

Abu Dhabi is more than just a location – it exemplifies seamless and productive bilateral initiative as visualised in Comprehensive Strategic Partnership.

Cultural melting pot | Intermingling of cultures, ideas, and perspectives expected on-campus will be critical towards strengthening cultural ties between our peoples as Indian students study side by side with Emirati and international students. Similarly, IIT-Delhi also expects to recruit faculty and staff from UAE and beyond to develop and deliver world-class teaching and research programmes at the Abu Dhabi campus.

Partnership between India and UAE via IIT-Delhi Abu Dhabi campus will train students and researchers for international academic joint ventures. As leading Indian institutions like IIT-Delhi expand their global presence, they contribute to India's reputation as a global leader 'Vishwa Mitra' committed to shared prosperity and the philosophy of 'Vasudhaiva Kutumbakam' – the world is one family.

HINDU (P-8), 14 FEBRUARY 2024

The wrong cooks spoiling the scientific broth

Manu Rajan

is an information scientist who retired recently from the Indian Institute of Science, Bengaluru

While religion is a sacred cow that doubles up as a cash cow, science is a cash cow that can often double up as a sacred cow in India. The popular belief is that a good dose of science in our educational system makes students intelligent, unprejudiced good citizens and inculcates objectivity and other "scientific qualities of mind" in them.

Yet, our institutions are flush with scientists with quarter-cooked scientific temper: power often has the upper hand over knowledge even within these scientific cantonments. The only knowledge that flows freely in our country is that from the barrel of the American journal. All other knowledge remains locked up as grey matter in our human resources. Information and knowledge want to be free, but any such 'misadventure' is instantly thwarted by the powers that be, brandishing a *sengol* in one hand and a sword in the other. A scholarly paper on the "giant gravity hole in the Indian Ocean" scores way above one dealing with the perennially recurring froth in Bellandur lake in Bengaluru. The frothing lake does not attract as many eyeballs as the ocean: the taste buds of the American journal are distinctly American.

Climb down the ivory tower

The travails of Bellandur, like the threats posed by developments such as artificial intelligence, should be forcing science to slow down its agenda based on a pursuit motivated by quick rewards and a misguided curiosity. The time has come for a large chunk of scientific forces to be re-deployed on the science-society border to scout for solutions to real-life problems. The new road is arduous and bumpy: while the space scientist can look up at the sky and continue romancing the moon, her earthly counterpart needs to climb down from the ivory tower where he has been ensconced tied to the 'scientific method', mingle with the crowd below, and get his hands dirty.

The majority of scientists trained in specific disciplines are content to solve puzzles by applying whichever theory is currently predominant in their discipline. A discipline acts like a lens: it filters out certain phenomena to be able to focus exclusively on others. Such scientists produce quantifiable results through simplified models and experiments that do not consider input from outside the sciences and overlook the social embeddedness of their activities.

The scientific method is based on beliefs in empiricism, replicability, and free exchange of information (so that others can test or attempt to replicate). It has predominantly followed the strategy of reductionism, an approach to understanding the whole of something by examining its parts (such as explaining heat in terms of the motion of molecules). But the reductionist approach cannot succeed in all cases. We can make sense of some things only by looking at them holistically. The whole is greater than the sum of its parts: the whole contains properties that cannot in principle be discovered through an analysis of its parts.

In the real world, it is often difficult to untangle a complicated web of causal relationships to determine which one is decisive. Relying only on individual disciplines to confront real-life problems provides a skewed perspective. If humans need to be served by science, science needs to be subservient to humans. Science then must confront the uncomfortable prospect of dealing with human complexities: diverse languages, vocabularies, world views, value systems, beliefs, faiths and cultures.

Many real-life problems call for practical knowledge generated to solve them long before there is enough research to establish an irrefutable point. The goal of achievement of truth or even full factual knowledge becomes a luxury. The boundary between subjectivity and objectivity becomes blurred. Ignorance, assumptions, value systems, uncertainty in fixing system boundaries and formulating problems, indeterminacy and differences in culture have all to be dealt with in the new regime. The carefully structured rule-based turf of normal science or faithful adherence to theoretical principles or agreed upon methodologies is of limited value in solving such complex problems. The natural sciences then need to work in tandem with human sciences.

The human sciences explain phenomena in terms of meanings and purposes rather than mechanical causes and effects. If you want to figure out what a group of people are up to, you cannot simply observe their physical movements; you must try to get 'inside their heads' and understand how they see the situation. The social sciences focus on behaviour: psychology seeks internal explanations while economics, sociology and political science seek explanations that are external to the individual.

Tap the humanities

The disciplines encompassed by the humanities – art and art history, history, literary studies, music and music education, philosophy, and religious studies – offer strategies for addressing dilemmas and acknowledging ambiguity and paradox. They provide tools for logical analysis and modes of discussing and debating moral and ethical questions.

Philosophy has interacted fruitfully with business and medicine on issues of ethics and reproductive technologies as well as with social scientists who are interested in rational choice theory. A wide variety of phenomena such as the debates on abortion and euthanasia, human cloning, stem cell research, terrorism and the Israeli-Palestinian conflict have a religious component. The humanities are organised around the production of qualitative knowledge arrived at through sound argument rather than the empirical testing of theories. Other sources that facilitate addressing real-life problems include oral histories, eye-witness testimonies, artifacts, artistic creations, and forms of tacit knowledge.

A variety of perspectives and methods from different disciplines need to be brought to bear on a complex real-life problem. Connections need to be made between problems and disciplines, between problems and theories, and between problems and accumulated knowledge. All the relevant disciplines and their conflicting insights need to be identified, evaluated, and common ground created among them. An integrative model is then constructed that proposes a realistic solution to the problem. Science leaves this kind of integration of knowledge from other sources out of the "scientific method" altogether.

A traditional puzzle solver scientist is like the mediocre artist who starts with a clearly visualised picture in mind and ends up painting it without leaving any scope for growth and change during the process. The knowledge integration required to address complex real-life problems is, on the contrary, akin to that followed by a highly creative artist who starts painting with a general and often vague idea of what she wants to accomplish and discovers as she goes along what it is that she wants to do, using feedback from the developing work to suggest new approaches.

Questions to be asked

Are our scientists battle ready for this new role? Do our scientists possess the personality traits to work in collaboration with other disciplines? Will they recognise the ability of common citizens to become both critics and co-creators in knowledge production as part of an extended peer community? Will our scientists learn to live with and plan for contingencies: of managing complexity, uncertainty, and risk? Will they be able to think abstractly and dialectically?

Will our scientific institutions have linkages with external communities to foster multidirectional knowledge flows? Design incentives for sharing knowledge beyond publications? Will our scientists embrace all the elements of a proper scientific temper that must include humility and a yearning to learn lessons from the past and from other co-participants? Engage in cross-cultural conversation? Recognise different forms of knowledge – traditional, local, explicit, tacit? Adopt a humanistic approach to problem solving?

Are our scientists ready to let go of the *sengol* and the sword? Will they engage with other professionals and citizens and make a beginning by harnessing the diverse and dispersed forms of knowledge that are needed to address problems that impact their immediate neighbourhood and beyond? For Indian science and the public at large, that would be the best thing to happen since the invention of *dal-roti*.

The time has come for many of India's scientific forces to scout for solutions to the country's real-life problems

HINDU (P-11), 14 FEBRUARY 2024

Too many IITs lead to unrealistic expectations and quality problems

While excellent engineering/STEM institutions are needed, they all do not have to be IITs. Some of the newly established institutes can be renamed and provided with sufficient resources to produce high quality graduates and good research

Philip G. Althbach
Eldho Mathews

The results of JEE Main 2024 have just been declared. In this article, dated February 20, 2021, Philip Althbach and Eldho Mathews discuss the need to maintain the standard of IITs.

Without question, the Indian Institutes of Technology, or the IITs, are the crown jewels of Indian higher education. They are world-renowned for the quality of their graduates and for their academic programmes in a range of fields in technology and engineering – and in the past decade, in research and innovation through research parks as well. They are among the few Indian higher education institutions that do reasonably well in the global rankings. However, for the past decade or so, and according to current plans, the IIT "system" has expanded beyond its capacity to maintain its high standards and is in danger of sinking into mediocrity. The recent decision of the University Grants Commission to permit select IITs under the 'Institutions of Eminence' category to set up campuses abroad could further weaken these already stretched institutions. It is time to rethink the changing role of IITs in order to ensure that quality and focus are maintained, by prioritising the needs of India, but with a 21st century twist.

What the IITs are, are not

The original five IITs were established in the 1950s and early 1960s . Four had a foreign collaborator: IIT Bombay (the Soviet Union), IIT Madras (Germany), IIT Kanpur (the United States), and IIT Delhi (the United Kingdom). Currently, there are 23 IITs. After setting up IIT Delhi in 1961, it took another 34 years to establish the sixth IIT in Guwahati (1994). Since then, 17 more IITs have been established, including several that resulted from upgrading existing institutions.

Funded generously by the central government, the IITs focused exclusively on technology and engineering. They later added the humanities and social sciences – but these programmes were modest until the 2020 National Education Policy emphasised the IITs should focus more on "holistic and multidisciplinary education".

According to data available with the Council of Indian Institutes of Technology, the IITs are small institutions with average student enrolments in the five older IITs of around 10,000. Some of the newer ones remain quite small, with fewer than 400 students. The older IITs have faculties of around 1,000, while some of the new ones, such as those in Palakkad and Jammu, employ 100 or so. Further, most of the IITs suffer from a severe shortage of professors. For example, IIT Dhanbad is approved to hire 781 instructors but only 301 positions were filled as of January 2021.

Offerings, students, faculty

The IITs are not universities; they have neither the range of disciplines nor the size that characterise universities worldwide. The IITs started as undergraduate institutions; they gradually added small post-graduate programmes, but some are now adding significant post-graduate offerings. IIT-Bombay's student enrolment , for example, was 58% post-graduate during 2019-20. The IITs were, and are, self-consciously elite institutions aiming at the highest international academic standards – a tradition which, in our view, is important but increasingly difficult to maintain.

It is not surprising that IITs graduates are so successful – the schools may be the most selective institutions in the world. Around 7,00,000 students sit for the national engineering entrance examination for the IITs and several other elite institutions each year and a vast majority of them target the 16,000-plus seats available in the 23 IITs. According to an answer provided in Lok Sabha by the Minister of Human Resource Development, in February 2020, dropout rates at the IITs are infinitesimal and declining, from 2.25% in 2015-16 to 0.68% in 2019-20.

Similarly, the IITs have traditionally attracted high quality faculty, where most have doctorates from the most respected western universities. Top quality professors have been attracted to the IITs because of the quality of the students, the chance to work with the best academic minds in India, and a commitment to India's development. While salaries do not compare well on the international market, working and living conditions on the older IIT campuses are comfortable.

In recent years, however, things began to change. The IITs could not attract a sufficient number of young faculty to fill vacancies resulting from retirements. The emerging IT and related industries in India offered much more attractive salaries and exciting work opportunities, and many were lured to universities and industry in other countries.

At the same time, the government dramatically expanded the number of IITs, spreading them around the country. Most of the new IITs are located in smaller towns such as Mandi (Himachal Pradesh), Palakkad (Kerala), Dharwad (Karnataka), and others. While it is important to provide educational opportunities outside the major metropolitan areas, top institutions are seldom located far away from urban amenities. There is no doubt a sufficient number of excellent students to attend all of the IITs, but there are not now, nor will there be in the future enough top-quality faculty to staff all of the new institutes, especially those in mofussil locations. Facilities and infrastructure are unlikely to be "world class." It is, thus, inevitable that quality will decline and the "IIT brand" diluted. This would be very unfortunate for India, since the IITs are without doubt India's most recognisable and respected academic institutions.

Another area is the lack of correlation between the local needs and IITs. Most of the IITs and other prominent "Institutes of National Importance" are 'academic enclaves' with little connection with their regions. Only a few State governments are effectively utilising the presence of IITs in the local milieu through knowledge sharing networks involving universities, colleges and schools, and local industries and firms. Similarly, there are few community outreach programmes. Such an approach could prevent disruption, such as that occurring in Goa, where local groups are resisting locating a new IIT in their region.

What needs to be done

While excellent engineering/STEM (science, technology, engineering and mathematics) institutions are needed, they all do not have to be IITs. Perhaps 10 to 12 "real" IITs located near major cities are practical for India. Some of the newly established institutes can be renamed and provided with sufficient resources to produce high quality graduates and good research. A more limited "IIT system" needs to be funded at "world class" levels and staffed by "world class" faculty, perhaps with some recruited from top universities internationally. Recent decision to liberalise the recruitment rules to attract more foreign faculty is a good step in the right direction.

Further, the IITs need to pay attention to internationalisation beyond sending their brightest graduates abroad and recruiting Indians with foreign PhDs; starting overseas branches is a bad idea, but in-depth collaboration with the best global universities, and hiring foreign faculty, perhaps as visiting scholars, would yield excellent results, and further build the IITs international brand. IIT Bombay-Monash Research Academy, and University of Queensland-IIT Delhi Academy of Research (UQIDAR), are promising examples. The IITs need robust policies to attract international students. And, of course, adequate and sustained funding is mandatory – both from government and from the philanthropy of tremendously successful IIT graduates at home and abroad. It would be tragic for India's "jewel in the academic crown" to be diminished. And overexpansion will inevitably mean exactly that.

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MILLENNIUM POST (P-7), 14 FEBRUARY 2024

Copyrighted legacy?

Mahatma Gandhi's works have been available freely thanks to his copyright philosophy, but not those of Martin Luther King Jr

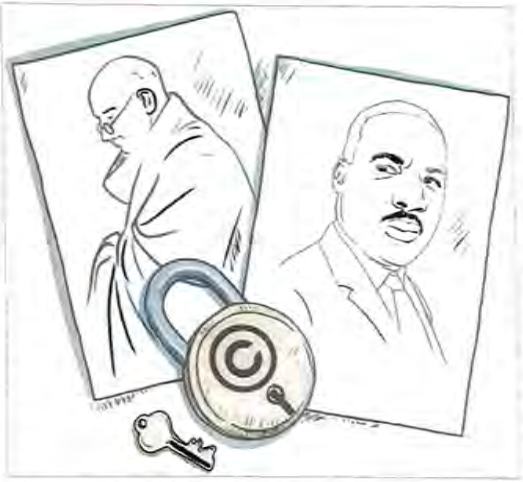
LATHA JISHNU

January is a bleak month in Delhi. At least for some of us. There is the damp, grey and foggy weather, for one, and for another, the memory of the cold-blooded assassination of a revered figure that hangs over the city. It is a memory that still haunts the nation, increasingly faintly, perhaps, as it pulses to a new beat. The Republic Day celebrations that overshadow all else in this month are held not far from where Mahatma Gandhi was shot dead by a right-wing Hindu fanatic on January 30, 1948, for trying to heal the bleeding wounds of a nation torn apart. That was less than six months after he had brought independence to India.

It is a pity that American public seldom sees more than snippets of one of the most significant speeches in its history — Martin Luther King's 'I have a dream'

Searching for Gandhi's last speeches as he embarked on his final fast in Birla House (now Gandhi Smriti) to end the communal bloodletting in the capital, I was able to quickly find what I wanted on the internet. But this column is not about the sage advice he gave his violence-prone countrymen 76 years ago; it is about the ease with which one is able to lay one's hands on his writings and speeches if only we wanted to understand our freedom struggle, Partition-related history and ourselves.

The focus here is on the copyright law and its impact on the works of two great men in different countries and of different generations: Gandhi and US civil rights campaigner Martin Luther King Jr, who fought for the rights of African Americans. There were strong links between the two. King was deeply influenced by Gandhi's non-violent struggle against forces of oppression and hate, calling him the guiding light of his technique of social change. Sadly, the other similarity is tragic. The Black rights leader was also assassinated, five years after he made the momentous "I have a dream" speech during the March on Washington in 1963. There is a January link here, too, as the US commemorates January 15, his birthday, as Martin Luther King Jr Day.



Visionary leaders such as Gandhi and King belong to the ages and so do their works

There is, however, a sharp divergence in the way the two iconic leaders dealt with copyright. Gandhi, being a lawyer, had a clear understanding of the abstractions of the copyright law, but he applied a contextual frame to this understanding to arrive at a practical solution to how it affected his works as a writer and publisher. It is a subject that has been rarely highlighted, much less researched. The exception is Shyamkrishna Balganesh of the Columbia Law School, who has written an absorbing research paper on this rather recondite aspect titled Gandhi and Copyright Pragmatism. The development of Gandhi's views on copyright, says Balganesh, shows that he anticipated several of today's critical debates on copyright concerns and developed what he describes as "copyright pragmatism."

Gandhi's initial stand on copyrighting his works was a firm rejection. In 1926, Gandhi began publishing instalments of his autobiography, titled *The Story of My Experiments with Truth*, in two journals that he edited: *Navjivan* and *Young India*. Gandhi's autobiography was hugely popular with readers, and he allowed other newspapers to reproduce the chapters without his permission. "Writings in the journals which I have the privilege of editing must be common property. Copyright is not a natural thing. It is a modern institution, perhaps desirable to a certain extent. But I have no wish to inflate the circulation of *Young India* or *Navjivan* by forbidding newspapers to copy the chapters of the autobiography."

Gradually, though, Gandhi was forced to acknowledge the value of copyright, starting with the time when the US publisher of his autobiography, Macmillan, demanded that he assign all rights in the work to the publisher. In order to do so, Gandhi had to first assert and claim them under copyright law, which was against his principles. But he yielded because "I felt that there might be no harm in my getting money for the copyright and using it for the charkha propaganda or the uplift of the suppressed classes."

Eventually, Gandhi bequeathed the copyright in his works, comprising thousands of articles and several books of which the autobiography is a bestseller, to a trust that he had helped establish, the Navjivan Trust. In 2009, some 60 years after the death of Gandhi, the works came into the public domain despite a strong campaign by Gandhi scholars that Navjivan should retain it. Their argument was that once such works came into the public domain, commercial entities would profiteer from them and not maintain their purity.

In the case of King, public access has not mattered so far in a copyright battle that has turned ugly. His epochal *I have a dream* speech is not in the public domain as the copyright continues to be with his estate, which enforces it strictly and seeks extortionate fees for licensing it. King took out a copyright on the speech in 1963, and under US law, what was then a 56-year copyright has been turned into a 95-year run. This is a pity, because it means the American public seldom sees more than snippets of one of the most significant speeches in its history. Experts point out that this has undermined the fair use doctrine because even those users that might have a plausible right under this rule have either dropped their plans or been forced to pay stiff licence fees to the King Estate or the commercial entity with which they have tied up. DTE

Views expressed are personal

ASSAM TRIBUNE (P-4), 15 FEBRUARY 2024

School attendance: A collective responsibility

■ Bibhash Deva Nath

Attendance in school has always been a top priority for the State government. Consistent attendance of both students and teachers plays a crucial role in the educational system leading to better academic achievement and success in the future endeavours of the students and in the overall development of the State. The State Govt has recognised the problem of low attendance in schools and is taking various effective initiatives to address it. However, ensuring attendance of students needs to be taken as a collective responsibility; government, teachers, guardians, social organisations, all have a role to play.

Among the main reasons for low attendance, child labour and child marriage dominate. Many children are forced to work to support their families, while others are married off at a young age, leading to an early drop-out from school. To tackle this issue, the government has implemented strict laws against child labour and child marriage and has launched several campaigns to raise awareness about the importance of education. Another factor contributing to low attendance is the lack of infrastructure in schools, especially in rural areas. Many schools in these areas lack basic facilities such as proper classrooms, toilets and clean water, making it difficult for students to attend school regularly. The government has taken up various effective measures to improve school infrastructure to ensure that students have a comfortable and conducive environment to study in.

Furthermore, the government is also working towards improving the quality of education in schools by conducting regular teacher training programmes, providing them with necessary resources and support systems, and introducing modern teaching methods. Besides these, several schemes and initiatives are there to incentivise attendance. The Mid-day Meal programme, which provides free meals to students, has been a tremendous success in increasing attendance and reducing school drop-outs. The government has also implemented a scheme where students are provided with free bicycles to commute to school, especially in remote areas. The government has also been actively involving various stakeholders in this endeavour, such as parents, local communities and various groups to create a collaborative effort towards improving attendance. Through awareness programmes, parent-teacher meetings and regular communication, parents are being encouraged to send their children to school regularly.

Regular attendance helps students build a routine, discipline, responsibility and accountability in students, which are essential skills for their personal and professional growth. Moreover, being present in school allows students to interact with their peers, enhancing their social skills and promoting a sense of belonging in the school community. Similarly, the presence of teachers in class is equally important. Teachers are there not just to impart knowledge but also to serve as mentors and role models for their students. Furthermore, attendance is essential in school for maintaining a healthy balance between academics and extracurricular activities. Students who are regularly present in school are more likely to participate in various extracurricular activities such as sports, debates or clubs, which not only enhance their overall development but also help them discover their talents and interests. For teachers, being present in school allows them to oversee and support these activities, creating a well-rounded educational experience for students.

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As the primary care givers and role models in a child's life, guardians have a crucial responsibility in their education and academic success. It is important for guardians to establish a routine for their children that prioritises attendance of their child in school. This may include setting appropriate bedtimes to ensure a good night's rest and waking up on time for school, yoga, meditation as well as providing a healthy breakfast to fuel their day. Guardians should also monitor their child's homework and ensure it is completed on time, as well as communicate regularly with teachers to stay updated on their child's progress and any potential issues. By showing an interest and actively participating in their child's education, guardians can instill a sense of importance and value in attending school. Furthermore, guardians should act as positive role models by demonstrating the benefits of education and being supportive in their child's academic journey. This can include praising their accomplishments, celebrating their efforts and encouraging them to set goals and strive for academic success. Guardians should also communicate the consequences of skipping school and the negative impact it can have on their future. By emphasising the importance of attendance and creating a supportive and motivating environment, guardians can play a pivotal role in their child's attendance in school.

Social organisations also can play an important role in improving attendance of school students. The organisations can provide a platform for students to connect with others who share similar interests and goals, fostering a sense of community and belonging. This sense of belonging can be a powerful motivator for students to attend school regularly as they feel a sense of responsibility towards their peers. Additionally, social organisations can organise various educational and extracurricular activities that not only engage and educate students but also make learning fun and enjoyable. This not only keeps students interested in their studies but also encourages them to attend school regularly to participate in these activities and events. Moreover, mentorship programmes can be offered where students can learn from successful individuals in their field of interest. This not only inspires students to work hard and excel academically but also instills in them a sense of responsibility towards their mentors and motivates them to attend school regularly. Social organisations also provide a platform for students to engage in volunteer work and community service, instilling a sense of social responsibility and empathy in them. This can be a powerful motivator for students to attend school, as they feel a sense of purpose and impact in their community. Various social organisations in the State have been already engaged in these activities and this should reach each and every school and its nearby areas.

The Govt's dedication and efforts towards ensuring attendance of students and teachers in schools are commendable. The initiatives have not only addressed the issue of low attendance, but have also had a positive impact on the overall education system. With continuous efforts and support from all stakeholders, it is hoped that the government would achieve the goal of providing quality education to all children in Assam.

AT/4

PIONEER (P-6), 15 FEBRUARY 2024

Gender disparity in Indian science

BIJU
DHARMAPALAN

Despite strides towards gender equality, female scientists continue to face challenges and barriers in India's scientific landscape

Science has been dominated by the male gender since its origin. Even the image of a scientist is always depicted in the male gender in media. The disparity is even evident in the way our media covers the achievements of male and female scientists. In spite of this public shaming, many notable female scientists have made their mark in the history of science from 1900 BCE to the present day.

While many male scientists made it to the history of Indian science, very few female scientists can be observed on the long list, and that, too, is due to the initiatives by the government in recent times. The premier scientific organisation CSIR, which leads 38 national institutions, had to wait more than 75 years after independence to get a female Director General till Dr N Kalaiselvi took charge in 2022. Unfortunately, ICAR, which heads 113 research institutions, hasn't found a female Director General to date. Similar is the case with IITs, which found its first female director in 2023, and that too only in the new overseas

campus IIT Zanzibar, through Prof. Preeti Aghalayam.

According to recent statistics, India has a total of 56,747 female researchers, which is 16.6 per cent of the total researchers in the country. This is very low compared to advanced countries. The government of India has implemented women-specific schemes to provide opportunities to women scientists like the Women Scientists Scheme-A (WOS-A), Consolidation of University Research through Innovation and Excellence in Women Universities (CURIE) programme and the Gender Advancement for Transforming Institutions (GATI). Even after providing various schemes for promoting women in science, very few stick to the scientific profession in the long run.

It is very unfortunate that even after having schemes and rules to protect women in the workforce, many instances of female research scholars being exploited sexually and mentally go unnoticed. Most of the successful women scientists we see today are those who have come out of this glass ceiling.

In order to promote science and bring down the gender gap, we need to connect with these unfortunate groups and develop policy guidelines to support them. It is at this juncture we need to appreciate the effort of National Science Academies' (INSA, IASc and NASI) in coming out with SWATI, or Science For Women: A Technology & Innovation Portal. The Portal is a complete interactive database and the first of its kind in India, which is developed, hosted and maintained by the National Institute of Plant Genome Research (NIPGR), New Delhi, under the leadership of leading women scientist of the country, Dr. Subhra Chakraborty, Director, NIPGR, New Delhi. The portal is open to the public, and every female researcher can join through the link https://bit.ly/JoinSWATI. Irrespective of their position or status, every Indian woman in science can update their details in their portal. The various Sections in the portal include Icons - Awardees & Directors, Secretaries Academy Presidents; Faculty; Research fellows- Postdocs, JRFs, SRFs, Technical Staff; Students-PhD Scholars, Research Interns, Graduates, Postgraduates, Undergraduates; WiS Entrepreneurs, Startups, Business & Science Administrators; STEMM background professionals in alternate careers like science journalism.

It can facilitate connections between women in different stages of their careers, provide mentorship opportunities, and offer resources for professional development. By highlighting the accomplishments of women in science, it can help challenge gender biases and stereotypes. The database will act as a repository for future researchers and inspire young females to take up challenging roles in science.

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

NAV BHARAT TIMES (P-12), 15 FEBRUARY 2024

लोकल लैंग्वेज में सबसे अच्छा सीखते हैं बच्चे

बच्चा जिस भाषा को पहले सुनता है, जिसमें पहला शब्द बोलता है, उसी में कम से कम 10-12 साल तक पढ़ेगा-लिखेगा तो दुनिया में किसी भी विषय को समझने में दिक्कत नहीं होगी

धर्मेंद्र प्रधान

देश में राष्ट्रीय शिक्षा नीति के तहत अब बड़े महत्वपूर्ण बदलाव लाए जा रहे हैं। स्कूलों समेत सभी शिक्षा संस्थान शिक्षा नीति को लागू कर रहे हैं। शिक्षा नीति का तीसरा वर्ष पूरा करके अब हम चौथे वर्ष में आगे बढ़ रहे हैं। यह सहमति बनी है कि जिस पैटर्न से हम कंटेंट पढ़ाते थे, नई पीढ़ी बनाने के लिए आने वाले कम से कम 25 वर्षों को ध्यान में रखते हुए उसका पैराडाइम शिफ्ट करने की जरूरत है। NCERT इसे अमल में ला रहा है।

जादुई पिटारा | देश में पहली बार प्ले स्कूल से तीन वर्ष को फॉर्मल लर्निंग ईयर माना गया है। इस साल से बाल वाटिका 1, 2, 3 यानी KG 1, 2, 3 को टीचिंग लर्निंग मटीरियल के साथ जादुई पिटारे के रूप में सामने लाकर फॉर्मलाइज किया गया है। 1 और 2 की टेक्स्टबुक आ चुकी है। 3, 4, 5, 6, 9 और 11 यानी कुल छह साल की टेक्स्टबुक लाने के लिए तेजी से काम किया जा रहा है। अब तक लैंग्वेज, मैथ्स, साइंस, सोशल साइंस, एनवायरमेंटल साइंस पढ़ाया जाता है और स्पोर्ट्स, आर्ट, स्किल्स- ये सब एक्स्ट्रा करिकुलर एक्टिविटीज का हिस्सा थे। लेकिन राष्ट्रीय शिक्षा नीति ने सिफारिश की है कि पांच विषयों के अलावा स्पोर्ट्स, आर्ट और स्किल परमानेंट एजुकेशन सब्जेक्ट होंगे।

लोकल बनाम इंग्लिश | भारत की युवा आबादी के पास दो अवसर हैं। एक, हमारे देश की जरूरतों को पूरा करना। दूसरा, दुनिया की जॉब मार्केट में अपनी जगह बनाना। शिक्षा नीति की सिफारिशों को लागू करने से ये दोनों मकसद पूरे होंगे। ऐसी दुविधा में नहीं रहना चाहिए कि व्यक्तित्व इंग्लिश पढ़ने से ही बनता है। आंकड़े कहते हैं कि भारत में कुल स्टूडेंट्स आबादी का बमुश्किल दस फीसदी हिस्सा ही इंग्लिश में पढ़ता है। बाकी 90 परसेंट से ज्यादा स्टूडेंट्स किसी न किसी लोकल लैंग्वेज में पढ़ते और समझते हैं। विज्ञान कहता है कि बच्चा जिस भाषा को पहले सुनता है, जिसमें पहला शब्द बोलता है, उसी में कम से कम 10-12 साल तक पढ़ेगा-लिखेगा तो दुनिया में किसी भी विषय को समझने में दिक्कत नहीं होगी।

AI Image

कॉमन रूम

सुपर पावर है, इंग्लिश नहीं जानता है। चीन मैन्युफैक्चरिंग का हब है, इंग्लिश नहीं जानता है। क्वॉलिटी प्रॉडक्शन का बेंचमार्क जापान इंग्लिश नहीं जानता है। इंग्लैंड का पड़ोसी इटली कई सारे सेक्टर में ग्लोबल लीडर है, फैशन टेक्नॉलजी में ग्लोबल लीडर है, इंग्लिश नहीं जानता। इसलिए संविधान की 8वीं अनुसूची में शामिल भारतीय भाषाओं में स्टडी मटीरियल डिजिटल रूप में भी तैयार किया जाएगा। इसमें AI जैसी तकनीक मदद कर रही है। बच्चा जिस लैंग्वेज में समझना-पढ़ना चाहता है, उसे सिखाने के लिए रणनीति बनानी होगी।

थिंकिंग कैसे आए, इसका कोई सिद्ध साइंस नहीं है। यह स्कूल के प्रिंसिपल, फैकल्टी की जिम्मेदारी है। स्कूल का प्रिंसिपल नई सोच लेकर आएगा, तो असर स्कूली बच्चों पर भी दिखेगा। AI इसमें मदद कर सकता है। आज टेक्नॉलजी उपलब्ध है। प्रधानमंत्री नरेंद्र मोदी जब हिंदी में बोलते हैं तो AI के माध्यम से सामने वाले लोग अपनी भाषा में समझ सकते हैं। मैं खुद को जितना एक्सप्रेस उड़िया में कर पाऊंगा, उतना न मैं हिंदी में कर पाऊंगा, न इंग्लिश में। इसके लिए ट्रांसलेशन टूल 'अनुवादिनी' अभी भी उपलब्ध है।

सीखने का सारांश | 'परीक्षा पे चर्चा' एक जन आंदोलन बन चुका है। इसमें 2.25 करोड़ रजिस्ट्रेशन हुए, करोड़ों लोगों ने इसे लाइव देखा। आज के बच्चे शायद हम लोगों से कम से कम 100 मील आगे हैं। उनका जो एक्सपोजर है, नए आइडिया हैं, सब देख ही रहे हैं। बच्चों को इसी सोच के सहारे इस देश को विकसित अर्थव्यवस्था में बदलना है। इस देश को नॉलेज बेस्ड इकॉनमी का सुपर पावर बनाना है। उसका कोई दूसरा मार्ग नहीं है, आपके ही जरिए बनाना है। अपने बच्चों को दुनिया की नई जरूरत के हिसाब से तैयार करना है तो यही उसका सारांश है।

(लेखक केंद्रीय शिक्षा, कौशल विकास और उद्यमिता मंत्री हैं।)

HINDU (P-10), 16 FEBRUARY 2024

An intervention that will help strengthen legal education

Prabhash Ranjan

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The Parliamentary Standing Committee on Personnel, Public Grievances, Law, and Justice recently submitted a significant report on legal education, making several path-breaking recommendations to strengthen the quality of legal education in India. Since Independence, legal education, unlike medicine and engineering, has not been a top priority for India's policymakers.

Things started to change for the better in the 1990s with the advent of the national law universities (NLUs) in India. Buoyed by the winds of liberalisation and globalisation, the Indian economy in the 1990s threw up many new opportunities for lawyers, which, in turn, led to bright young students opting to study law right after school. Several NLU graduates got placed in high-paying law firm jobs while many others went abroad to study at top universities, with quite a few bagging prestigious scholarships such as Rhodes and Chevening.

However, the same cannot be said about hundreds of other law schools nationwide that essentially represent a "sea of institutionalized mediocrity". Most of the NLUs too, while successfully attracting excellent students, have failed to emerge as centres of excellence in legal research. This is borne by the fact that only two Indian law schools, Jindal Global Law School and National Law School of India University, figure in the QS rankings of the top 250 law schools worldwide.

A new regulator

Against this backdrop, a key recommendation of the committee is to limit the powers of the Bar Council of India (BCI) to regulate legal education. The BCI's role in regulating legal education that pertains to acquiring basic eligibility to practise in the courts is indispensable.

However, several other facets of legal education, especially at the post-graduation level, do not pertain to litigation. The committee recommends, and rightly so, that regulating these parts of legal education should be entrusted to an independent body called the National Council for Legal Education and Research (NCLER). This proposed body will develop qualitative benchmarks to regulate legal education. Eminent legal academicians who deposed before the parliamentary committee batted for the creation of the NCLER. In addition to judges and practising lawyers, the NCLER should have eminent law professors with an unimpeachable track record of research and serving legal education.

The recommendations made by the Parliamentary Standing Committee on Personnel, Public Grievances, Law, and Justice, on research and other issues, are timely

Bolstering research

Many of India's 1,700-odd law schools principally focus on teaching, with scant attention to research. Consequently, India is chiefly the consumer of legal knowledge generated in the West, not its producer. An important data point that reveals this is that out of more than 800 law journals globally indexed in Scopus (an internationally recognised database that lists leading journals in all fields) barely a handful are Indian law journals. This shows the abysmally poor level of research in India's law schools.

The committee emphasises the need to prioritise and promote research in legal education, which, in turn, will lead to better teaching outcomes and help students develop a critical perspective. As Albert Einstein said, "The value of a college education is not the learning of many facts but the training of the mind to think" To strengthen research, there is a need to recruit "world class global faculty who are top researchers". While this is easier said than done, the fact that the committee has highlighted this aspect is an encouraging development.

As the committee remarks, augmenting the research ecosystem in our law schools undoubtedly involves a greater need for state funding. Bolstering research will also equip India's law schools to thrive in the globalising world. The committee is cognisant of the effect of globalisation on legal education. It thus correctly recommends developing and delivering a global curriculum, promoting student and faculty international exchange programmes, incorporating more international law courses in the curriculum, and increasing students' exposure to different legal systems.

Changing mindsets

The parliamentary committee's suggestions are like a breath of fresh air that may help many law professors keep their chin up. In some form or the other, such suggestions have been made before. But none of this will be implemented as long as higher education does not become the topmost priority for everyone.

Additionally, legal education reform is impossible without these: first, the leadership positions in our university's law faculties and law schools should be held by passionate, charismatic, and visionary academicians who inspire and create an enabling and supportive environment that allows younger academicians to realise their potential as outstanding teachers and brilliant researchers. Sadly, barring a few notable exceptions, the deans of law faculties and vice-chancellors of law universities in India have failed to provide professional leadership. These flawed academic leaders detest talented professors and are the biggest bottleneck in striving for excellence. No amount of money or perks can overcome such a primary institutional deficiency.

Second, to boost the culture of legal research in our law schools, there should be complete academic freedom and autonomy. As Jawaharlal Nehru said, "a university stands for humanism, for tolerance, for reason, for the adventure of ideas and for the search of truth". A law school or any other academic institution can accomplish this goal only if academicians are free to offer their well-researched views without any fear, even if these views are at variance with popularly held beliefs in society or contest the dominant ideas of the time.

The parliamentary committee's intervention is a welcome development, and one expects all stakeholders to work together to improve the quality of legal education in India.

The views expressed are personal

TIMES OF INDIA (P-23), 16 FEBRUARY 2024

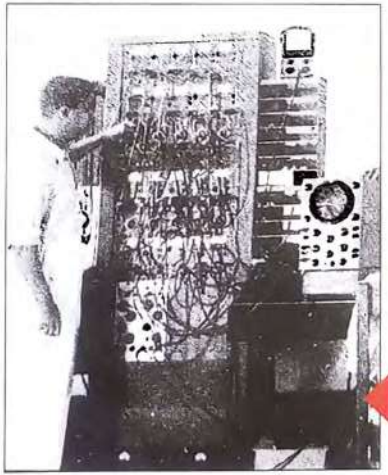
PIONEERING IT ACADEMICS IN INDIA

A LITTLE BIT OF HISTORY

N Dayasindhu
CO-FOUNDER, ITIHAASA RESEARCH AND DIGITAL

The entrepreneurs and leaders who nurtured Indian IT over the decades are part of Indian industry folklore. The teachers and researchers who cultivated IT when it was still a nascent domain in India are legends as well. They had the belief that IT will transform India in an era when the general perception was computers were expensive imported machines that will take away jobs. It is thanks to their tenacity that India has fostered top-class skilled IT professionals from the 1960s.

V Rajaraman is a household name among Indian IT professionals. We have all used at least one of his many books on programming or computers. His book, Principles of Computer Programming, was first published in the 1960s. The publisher printed it on newsprint since Rajaraman insisted that the book should be affordable to students and not be priced more than Rs 15! Rajaraman is instrumental in starting India's first MTech programme with a specialisation in computer science, and the first BTech programme in computer science in IIT Kanpur. While a student in IISc in the 1950s, Rajaraman added non-linear units to the Philbrick Rideout Electronic Differential Analyzer (Preda) – the first analog computer built in IISc using transistors – to enable it to solve non-linear ordinary differential equations.



V Rajaraman demonstrating the Preda analog computer. He helped design this computer while a student in IISc

> The over 5 million Indian IT professionals today stand on the shoulders of our teachers and researchers.

Rajaraman's colleague in IIT Kanpur was **H N Mahabala** who subsequently established the computer science department in IIT Madras in the early 1970s. He convinced the Germans who were funding the computer at IIT Madras that they needed the top-of-the-line IBM 370. And that they could run the computer themselves! This computer was one of the most powerful in Asia in that era. Mahabala devised a computer aided simulation to check if the illumination provided by the lights at the newly constructed Jawaharlal Nehru stadium were adequate for the 1982 Asiad Games.

C R Muthukrishnan, another founding faculty of IIT Madras' computer science department, obtained his PhD from IIT Kanpur in 1969. He was among the earliest PhDs awarded in India in computer science. **Kamala Krithivasan** was one of the early faculty members in the computer science department of IIT Madras. She worked on the interesting area of array grammars and on generating kolam or rangoli patterns.

J R Isaac started IIT Bombay's computer science department and was instrumental in getting a Soviet era Minsk II computer. He was deeply passionate about computer education and later became an advisor to NIIT. **Deepak Phatak** is a long serving faculty of computer science in IIT Bombay. As a Master's student in IIT Bombay, Phatak learnt programming on the Minsk II computer. In the early 1970s, IIT Bombay designed a full-fledged 32-bit mainframe computer and started building a prototype. **P C P Bhatt** is an iconic faculty of computer science in IIT Delhi and his book on operating systems is very popular in India.

The Tata Institute of Fundamental Research (TIFR) in Mumbai has a legacy in IT that predates that of the IITs. **R Narasimhan** and **P V S Rao** built India's first digital computer, Tifrac, in the early 1960s in TIFR. Narasimhan was recruited into TIFR by Homi Bhabha since he was familiar with the now legendary John von Neumann's report that had the first description of the logical design or architecture of a stored program computer. Rao was a key architect of the ingenious adder design that was quicker than that of the comparable IBM 701, and a CRT display for the Tifrac that was among the earliest such displays in the world.

S Ramani of TIFR is credited with the proposal for an academic computer network in India, which later became the Ernet project and brought e-mail and internet to Indian academic institutions. He was an integral member of the National Centre for Software Development and Computing Techniques and led the National Centre for Software Technology that pioneered IT education for working professionals. A veteran who donned many hats was **Keshav Nori**. He taught in IIT Kanpur, was a leader in TCS, and later a faculty member in IIIT Hyderabad. He was one of the pioneers of software research at the Tata Research Development and Design Centre focusing on automated language translators, data entry automation, etc. in the 1980s.

The over 5 million Indian IT professionals today stand on the shoulders of our teachers and researchers.

JBS/23

HINDUSTAN TIMES (P-14), 17 FEBRUARY 2024

Undermining the right to learn

Maharashtra wants to exempt private schools from RTE provisions. This will undermine the law and diminish educational outcomes

The Maharashtra government's decision to conditionally relieve private unaided schools of the Right to Education (RTE) obligation of reserving 25% of the seats in the early years (nursery to Class 1) for students from economically weak households goes against the spirit of the landmark law. Through a gazette notification, the state's education department has exempted private unaided schools within a kilometre of a government or government-aided school from the reservation provision.

The RTE Act was introduced in 2009 for two reasons: One, to maximise the demographic dividend from a largely young population and two, to address the failure of public education to deliver the desired learning outcomes. It envisaged a way to use the private sector to remedy deficiencies in the government schooling ecosystem. The 25% reservation provision was intended to serve the larger goal of free and compulsory education for all children aged six-14 years. This is being undermined, as Maharashtra's move and a similar attempt by the Karnataka government in 2018 — which has been challenged in the courts — seem to suggest.

Maharashtra's decision seems to be driven by fiscal considerations, which though not small — the state owes ₹1,463 crore to private schools as fee reimbursement for RTE admissions in the last 12 years — must be weighed against the demand for subsidised schooling. Government data shows that demand from households that qualify as economically weak under RTE far outstrips supply — against 364,413 applications under the quota in 2023, just 94,700 received admission. Given this dire situation, the wisdom of the conditional exemption of private unaided schools seems unfathomable for a state where one in three in the six-seven-year-olds cannot read letters of the alphabet, according to the Annual Status of Education Report (Aser) 2022.

Critics of the RTE's 25% quota argue that the private sector must not be shackled with the responsibility to address the failure of public education. It is important to recall here the 2022 Supreme Court judgment that upheld the quota. "Unaided private institutions, including those imparting professional education, cannot be seen as standing out of the national mainstream," the Court said. Maharashtra alone, though, can't be put in the dock. In 2021, a decade after the RTE Act was rolled out, the National Commission for Protection of Child Rights reported that just 16 states and Union Territories were implementing the quota for disadvantaged children. Such delays could erode the demographic potential, given that robust foundational literacy and numeracy are key to learning outcomes in later years. Poor learning in earlier grades partly explains India's high dropout rates and low transition rates at the secondary level — 12.61% and 78.41% in 2021-22.

Aser findings over the years have made it clear that states must harness private sector capacity in school education if the demographic dividend is to be realised substantially — a higher proportion of children in Class III and Class VIII in Maharashtra's private schools could read Class II level texts in 2021. Given that the Covid-period learning losses are yet to be recouped, states can't afford to deliberately shrink opportunities for discernibly better learning.

PIONEER (P-7), 17 FEBRUARY 2024

Skill development: Key to India's shifting job market

DINESH SOOD

Skill-based education is paramount to bridging the gap between potential and realisation in a job market increasingly favouring specialised technical skills

In today's rapidly changing job market, skills development is of paramount importance. The job market is constantly evolving due to technological advancements, economic developments, and shifting client preferences. To excel in this dynamic environment, people must adapt and develop new abilities.

The future of work will not only revolve around hard skills but also encompass holistic skills. India, with over 808 million young workers below the age of 35, needs to reflect seriously on the correlation between skills and employability, potential versus realization, and ambition versus support. The current skill deficit of only 5% being formally skilled, and a focus on formal learning, leaves graduates unprepared for the competitive job market. Therefore, the shift towards holistic skill-based education, as outlined in National Education Policy 2020, is imperative for success.

The primary goal of skill development is to enhance sustainable employability, transition unskilled workers into formal employment, and improve job quality and livelihoods. The evolving job market demands skills that align with business productivity. The impending job landscape in India requires a blend of advanced technical skills and softer, transferable skills. It is crucial to provide early exposure to these skills during high school to ensure that young individuals are adequately prepared for the future job market.

According to a World Economic Forum report, by 2027, 69 million new jobs will be created, while 83 million will be eliminated. The era of generalists is giving way to an era of specialists. The next few years will witness significant demand for Artificial Intelligence (AI) professionals, sustainability specialists, business intelligence analysts, and information security specialists.

In today's highly competitive job market, there are still plenty of opportunities for those with the right skills. To stay ahead of the competition, even many traditional skill-based businesses are now actively seeking out AI and automation experts. Professions are being transformed by automation and artificial intelligence, with certain jobs becoming obsolete and new opportunities emerging in growing industries. As machines take over repetitive tasks, there is now a greater demand for specialized technical skills. Currently, data science, artificial intelligence, robotics, and machine learning are the leading job creators. This means that job seekers must possess a different set of skills to remain competitive.

> TODAY, TECHNOLOGY AND DIGITAL LITERACY SKILLS ARE ESSENTIAL FOR MOST EMPLOYMENT ROLES. PROGRAMMING LANGUAGES, DATA ANALYSIS, CLOUD COMPUTING AND CYBER SECURITY EXPERTISE ARE CRITICAL AS DATA-DRIVEN BUSINESSES MUST PROTECT THEIR DATA FROM CYBER THREATS

Today, technology and digital literacy skills are essential for most employment roles. Programming languages, data analysis, cloud computing, and cyber security expertise are critical as data-driven businesses must protect their data from cyber threats.

Moreover, in this digital age, soft skills are more crucial than ever. Communication skills, problem-solving, creativity, and critical thinking are all essential to navigating an automated world successfully.

Those who can combine technical skills with these soft skills will have a significant advantage in today's job market.

In the current Asian job market, candidates with adaptable skills are the most sought-after. Employers demand individuals who can rapidly acquire new skills and apply them effectively in a dynamic work environment. Given the dynamic nature of the job market, many job roles become obsolete over time, and new ones emerge.

Therefore, adaptability and the ability to reskill and upskill have become highly valued and critical for both employees and employers to remain competitive and relevant.

As technology continues to reshape job creation and the implementation of AI and automation, deep data analytics across functions are driving these changes. The introduction of new technologies has compelled businesses to reskill their workforce. With over 54% of India's workforce requiring reskilling, traditional jobs in manufacturing, administration, and retail become obsolete due to automation, and the workforce in these fields must reskill to find new opportunities.

Upskilling, on the other hand, is the process of enhancing existing abilities to meet the changing needs of a job function to be more effective and reliable. Hence, a salesperson, for example, may need to upskill in digital marketing to remain competitive.

Sustainable Employability: Lifelong learning is an absolute necessity for adapting to the ever-evolving job market. It is imperative to understand that learning should not be confined to formal education, as it holds greater significance than ever before. Continuous learning is the key to remaining employable and excelling in a career.

Furthermore, businesses highly value individuals who can embrace change and seek out new learning opportunities. Adopting a mindset of constant improvement is an invaluable asset in a job market that values adaptation and creativity. Additionally, lifelong learning can significantly improve an individual's job satisfaction and overall well-being.

It is the prime responsibility of individuals to take charge of their skill development and always adapt to the changing landscape of today's job market. As India approaches a transformative era, rethinking education and prioritizing on-the-job training are crucial.

Embracing apprenticeships can shape a workforce equipped not only with theoretical knowledge but also practical tech-based skills, essential for gaining a competitive edge and thriving in the dynamic economic landscape.

Lifelong learning is paramount in adapting to the evolving job market, where adaptability and creativity are highly valued. Individuals must take charge of their skill development to remain employable and excel in their careers. The future of work demands a blend of technical proficiency and soft skills, underscoring the necessity for continuous self-improvement and adaptation.

In conclusion, as India stands on the brink of an era of transformation, it is vital to rethink education, give priority to on-the-job training, and embrace apprenticeships to shape a workforce that not only possesses theoretical knowledge but also has the practical tech-based skills necessary to gain a competitive advantage and thrive in the dynamic landscape of the country's economy.

(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 Centres (an initiative of GoI). Views are personal)

Pioneer 17/2

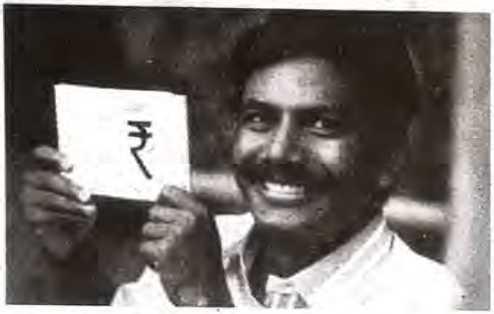
ASSAM TRIBUNE (P-6), 18 FEBRUARY 2024

'Design has become an innovation leading process'

Face to Face

Prasanta J Baruah

Udaya Kumar Dharmalingam is Professor in the Department of Design, IIT, Guwahati. He is recognised as the Designer of the Indian Rupee symbol.



What is the significance of design in human civilisation?

Design can help improve the quality of life through innovative products and services. It has the power to transform life even a society. A classic example is the 'I Love New York' campaign that changed the face of the city in the late 1970's. The visual design is so iconic that many cities around the world still continues to imitate its design. There are many such examples where design has played a significant role in the development of human lives.

What is the difference between traditional and modern design paradigm?

The India Design Report by Indian Design Council succinctly provides the differences as follows, "Design has evolved from being a vocation dealing with form and function to a new approach of developing business models. Design has also evolved over the past years from being a mere function of styling or aesthetics (where form and function are the focus) to design as a process (where design thinking is integrated into the development process). Today it has become a strategic element and an innovation leading process."

You designed the Rupee symbol of the country? How did you go about it?

In 2009, Government of India announced a competition to design a symbol for the Indian rupee with certain guidelines. One the objective was that the symbol should reflect our cultural ethos and tradition which became my focus. After researching, I found Indian scripts best reflected our culture. Studying scripts was indeed part of my PhD thesis on Tamil Typography that I pursued at IDC, IIT Bombay. I based my concept on Devanagari script because of its uniqueness and Indian-ness. The symbol denotes Devanagari letter form 'Ra' and partly Roman capital letter 'R' (without the vertical stem). It is derived from the word Rupiah in Hindi and Rupees in English both denote the currency of India. I blended both the scripts to make it a universal symbol.

What are the applications of Design in modern life?

Design is a vast subject, there are several specialisations within design like Industrial Design, Visual Communication, Architecture, Animation, New Media Design, Automotive Design, Retail Design, Human Computer Interaction and Fashion Design to name a few. Each of the disciplines has evolved in terms of its application depending on the technological advancements and changes in life styles. At present, we see newer applications like Augmented Reality (AR), Virtual Reality (VR), Mixed Reality (MR) and Extended Reality (ER) where design is an integral part.

What is Industrial Design?

Industrial Design is about designing and developing physical products for mass production. World Design Organisation (WDO) defines Industrial Design as, "Industrial Design is a strategic problem-solving process that drives innovation, builds business success, and leads to a better quality of life through innovative products, systems, services, and experiences." Industrial Design can be further categorised into Product Design, Furniture Design, Automobile Design, Toy Design, Lighting Design, Tool Design etc.

What are its application in the Communication sector?

Visual Communication Design, one of the core branches of design contributes directly to the communication sector. There are several disciplines in Visual Communication depending on the visual medium like Graphic Design, Animation, Photography, Film Making, Human Computer Interaction etc. Each of which has many applications that communicates the content, concepts or ideas through words, images and graphical elements.

What attributes are needed in a student to become a good designer?

I often tell my students if you want to be a good designer you need to have the following attributes, good observation skills, visualisations skills, conceptualisation or ideation, creativity, communication and representation skills.

What is the scope of study of Design in the country? Which are the institutes imparting Design education?

There is tremendous scope for design in our country. This is evident from the emergence of many new design schools and design department in established institutions. Lately, one could witness, both students and parents are seeking alternate career opportunities and design is one among them. Thanks to internet and easy access to it that helps people to be aware and informed of new career paths.

Design schools offer several programs at different levels from certificate, diploma, under graduate, post graduate programs, doctoral and post doctoral programs. There are many design institutes in our country both government and private institutes. Some of the known Centrally Funded Technical Institutes (CFTI) are National Institute of Design (NID), IDC School of Design IIT Bombay, Department of Designs – IIT Guwahati, IIT Hyderabad, IIT Delhi, IIT Kanpur and IIT Roorkee, National Institute of Fashion Technology (NIFT), School of Planning & Architecture, IIITDM Jabalpur and more.

What is the contribution of IIT Guwahati in Design education? What is the status of NID, Jorhat?

Department of Design at IIT Guwahati is one of the first among IIT's to start a Bachelors in Design (B.Des) program. It is also known for its PhD program in Design. Recently, the department has started a two year Master's in Electronic Product Design (M.Des) program funded by Ministry of Electronics and Information Technology (MEITy).

National Institute of Design Jorhat is an autonomous institute established in 2019 in line with NID, Ahmedabad to promote design education across country. It offers a four year BDes program in Communication Design, Industrial Design and Textile & Apparel Design.

What is the scope of employment and research in the design sector ?

Students enrolled in design programs do find ample opportunities in the industry. An example is our own Department of Design at IIT Guwahati which has a successful placement record nearly equivalent to Computer Science Engineering for almost a decade. Some students travel abroad and pursue higher studies especially for a Masters program. There are students who get into PhD programs to do research and become an academician or work in the Research and Development (R&D labs) of major companies. Some even start their own business and become entrepreneurs.

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ECONOMICS TIMES (P-6), 19 FEBRUARY 2024

Crafting a career-oriented mindset

■ Jayanta Mallabaruah

APJ Abdul Kalam had once said, "If you want to shine like a sun, first burn like a sun".

In contemporary discourse, the topic of employment transcends regional boundaries, resonating not only in Assam or India but across the globe. As the world's second-most populous nation, India grapples with the challenge of providing dignified employment, a narrative mirrored in Assam as well. The plight of unemployed youth, seeking meaningful employment opportunities, reverberates through both local and national discussions, underscoring its profound impact on social dynamics. Both nation and State confront a myriad of socioeconomic and political upheavals, often stemming from the dearth of employment avenues for its burgeoning youth population. This issue has been identified as very relevant, especially in Assam. A closer look at the map of Assam in the last 4-5 decades portrays the terrible and unexpected situation that the State faces if the suitably qualified unemployed youth are not employed within a stipulated timeframe. Since the upcoming generations are the future pillars of our nation, timely employment for the youth is imperative if a State is to move in a healthy and progressive manner in economic, social, cultural, sports and political fields. In contrast, the pace of progress is hindered in the absence of peace. Therefore, the symbiotic relationship between peace and progress becomes apparent.

Until recently, the discourse surrounding gainful employment for qualified but unemployed youth predominantly revolved around securing Government positions, particularly in Assam. However, it is evident that the unemployment crisis cannot be adequately addressed solely by increasing the number of Government positions available annually. In Assam as well as across the country, the issue of unemployment among hundreds of thousands of skilled youth with technical and non-technical educational qualification, graduating from various institutions every year remains a pressing concern. Further, the number of unskilled youth without specific or proper educational qualification is also a matter of consideration. In other words, addressing this appalling problem in a State like Assam, which is full of skilled and unskilled unemployed youth, is a matter of in-depth analysis.

During the previous Congress regime, there was a notable prevalence of an open market for recruitment in various departments, including the Assam Public Service Commission (APSC). Only the children of affluent and influential families could secure jobs, completely sidelining merit and qualifications. Fortunately, under the leadership of Chief Minister Himanta Biswa Sarma, the BJP-led Government, which assumed office nearly three years ago, pledged to initiate one lakh Government recruitments through a transparent process. At present, even the worst critics are forced to acknowledge that under the tenure of Himanta Biswa Sarma, close to one lakh unemployed youths have secured employment in various departments, including the APSC. The employment of numerous talented individuals from economically disadvantaged backgrounds serves as evidence.

However, relying solely on Government employment is not a realistic solution to address the unemployment issue. The private sector offers ample opportunities for our youth. However, determining which specific industries and positions will absorb these individuals is crucial. Understanding the process of securing employment in the private sector, including the various stages like examinations and interviews is essential for our unemployed youth. Similarly, preparing oneself for employment in the Central or State Government through the Public Service Commissions and other examinations requires preparation. The selection of subjects, institutions, cost of education, and employability are crucial aspects that shape a student's career trajectory. Failure to proactively address these elements during one's academic journey can lead to significant personal and societal burdens unknowingly.

Relying solely on Government employment is not a realistic solution to address the unemployment issue. The private sector offers ample opportunities for our youth. Understanding the process of securing employment, including the various stages like examinations and interviews is essential for our unemployed youth.

Keeping these aspects in mind, a comprehensive career counselling programme and fair took place at NEDFi House, Guwahati on February 2 that was organized by the Directorate of Employment and Craftsmen Training, under the purview of the Department of Skill, Employment, and Entrepreneurship, Government of Assam. It is important to clarify that this was only a career fair, not a job fair. This implies that the attendees, including students and youth looking for jobs were not to receive any job appointment letters. Instead, they were provided with information about career-related institutions in Assam and outside to better prepare themselves for job opportunities. Another objective of the fair was to provide counselling and motivation by counsellors to inspire students in their career pursuits. The fair was attended by students from classes 9 to 12 and graduate levels.

The fair helped students in making informed decisions about their careers right from the school level and also prepare plans and strategies to achieve their goals. Another feature of this fair was to introduce the opportunities in the fields of self-reliance, business and entrepreneurship. The fair attracted 31 established institutions from all over the country.

Prime Minister Narendra Modi has emphasized the importance of fostering self-reliance to propel India towards becoming a global leader (*Vishwaguru*). This was highlighted during the career fair. With over 30,000 participants from 200 educational institutions, the event focused on guiding students towards career paths that encourage self-sufficiency, moving beyond traditional employment. This writer wants to reiterate that various employment and career-related initiatives have already been taken in the recent past ever since the writer took over charge and this career fair was just one example of the Government's commitment towards fostering opportunities for personal and professional growth.

The 'Skill Yatra' initiative, spearheaded by the Chief Minister, is another such initiative aimed to cultivate enthusiasm for skill development. The inaugural phase commenced in four districts, involving 10,000 students from classes 9-12, with the objective of nurturing an early interest in skill development and addressing the gap between education and industry requirements. In the subsequent phase, launched in Dibrugarh and expanded to over 10 districts, the focus shifted towards college-going students, aiming to raise awareness about skill training opportunities and career prospects.

However, it is crucial to understand that the role of a Government department to guide the students in their career pursuits is limited. It's the students themselves who must propel themselves forward. Late former President of India APJ Abdul Kalam, one of the world's most renowned scientists, had said, "If you want to shine like a sun, first burn like a sun".

Success is achieved through diligence, perseverance and sacrifice. Simply by finishing academic courses at educational institutions without any clear career strategy in mind will eventually lead to frustration over unemployment. To thrive in today's competitive environment, students must prioritize career planning from a young age. That is the call of the hour.

(The writer is Minister for PHED, Skill Employment and Entrepreneurship, and Tourism, Government of Assam.)

PIONEER (P-6), 19 FEBRUARY 2024

The security of Indians abroad is paramount

SIDDHARTH **MISHRA**

The recent data revealing a distressing trend of Indian student deaths abroad underscores the pressing need for heightened awareness and intervention

The year 2024 began with a series of tragic incidents involving some Indians living in the USA, starkly highlighting the vulnerability of persons of Indian origin abroad. Recently an IT executive Vivek Taneja, 41, was killed when he tried to save a female colleague from molestation outside a restaurant in Washington. Vivek became the seventh victim of attacks that took place on Indians in America this year. A spate of incidents of death of Indians living in foreign countries has ensued in the recent past. The government of India had recently informed the Parliament that around 403 incidents of death of Indian students living abroad have been reported since 2018 due to various reasons including natural causes, accidents and medical conditions. The data reveals a disheartening scenario for Indians aspiring to go abroad for various purposes as it showed that 91 Indian students died in Canada, 48 in the UK, 40 in Russia, 36 in the US, 35 in Australia, 21 in Ukraine and 20 in Germany, 14 in Cyprus, 10 each in Philippines and Italy and nine each in Qatar, China and Kyrgyzstan.

Among other factors responsible for the death of Indians abroad, the crimes and attacks upon Indians have emerged as a major cause of concern. The recent incidents of attacks on Indians in America also raise concerns about the probable escalation of xenophobia and hate crimes against immigrants and minority communities in the United States. The attacks highlight the vulnerability of Indian Americans and other minority groups and underscore the need for increased awareness and intervention if the attacks were prompted by hatred and discrimination. These incidents might also be a reflection of the broader trend of racially motivated violence and anti-Asian hate crimes that witnessed a surge in anti-Asian racism and violence especially during and post the COVID-19 pandemic.

The year 2024 has witnessed many consecutive deaths of Indian or Indian-origin students due to various causes, some of which the cause of deaths is still unclear. These incidents serve as a catalyst for a broader discussion about the challenges faced by Indians living overseas. While the specific details surrounding each death remain under investigation, they collectively underscore the critical need to address the risks and dangers encountered by Indian nationals abroad. As investigations into the recent incidents continue, it is crucial to examine the root causes and systemic issues that contribute to the vulnerability of Indians living abroad. Factors such as racism, xenophobia, inadequate security measures, and cultural misunderstandings are likely to play a role in endangering the lives of Indian nationals overseas.

Organizations like the South Asian Americans Leading Together (SAALT) report hate violence against South Asian communities, including Indians, and press for increased measures to address these crimes and enhance community safety. It is likely that systemic racism still continues in various institutional practices and policies, creating a disadvantageous environment for Indians and other minority groups in the USA. Disparities in hiring and promotion practices, unequal treatment within the criminal justice system, and limited access to quality education and healthcare are probable systemic issues that might require immediate attention. Reports suggest a need for greater awareness and accountability regarding systemic racism, requiring policy reforms and initiatives that promote equity and inclusion as Indian Americans become targets of hate crimes fuelled by racial or ethnic animus resulting in incidents of verbal harassment, vandalism, and physical assaults across the nation.

THE GOVERNMENT OF INDIA BEARS A SIGNIFICANT RESPONSIBILITY FOR SAFEGUARDING THE INTERESTS AND SECURITY OF ITS CITIZENS LIVING ABROAD. THE INDIAN GOVERNMENT HAS TAKEN UP SUCH MATTERS WITH FOREIGN GOVERNMENTS AND HAS CONSTANTLY EXPRESSED ITS CONCERNS IN THE PAST

In cases where individuals are found responsible for crimes against Indian nationals abroad, there is a growing demand for extradition and legal accountability. Extradition of guilty persons to India for trial and punishment is essential to ensure justice and deter future crimes. India and the US had signed an extradition treaty in 1997. This treaty outlines the process for extraditing individuals who commit crimes in one country and flee to the other. While the extradition treaty exists, navigating it is usually complex and time-consuming. Delays occur due to lengthy legal processes, gathering evidence, potential appeals etc.

The Government of India bears a significant responsibility for safeguarding the interests and security of its citizens living abroad. The Indian government has taken up such matters with foreign governments and has constantly expressed its concerns in the past. Indian consulates in the US and elsewhere must enhance the process of providing assistance to Indian citizens, offer guidance on various issues like legal rights, visa concerns, and emergency support etc.

The government must raise awareness about safety concerns and resources available to Indian citizens in foreign lands, including collaborating with community organizations. The Indian government may also consider collaborating with organizations like SAALT to provide support, resources, and advocacy for Indian communities abroad. Consulates can connect Indian citizens with legal resources and provide guidance on navigating the foreign legal system in case of discrimination or hate crimes. Tragedy in the US underscores the urgent need for multifaceted solutions. The death of Indian or Indian-origin individuals in America serves as a stark reminder of the urgent need for comprehensive measures to address the safety and security of Indian nationals living abroad.

(The author is a Sr Assistant Professor at the Faculty of Law, the University of Delhi. research inputs by Shreyansh Gupta; views are personal)

PIONEER (P-7), 19 FEBRUARY 2024

THE ROLE OF DISCIPLINE IN EDUCATION

Discipline shapes individuals, fostering success and resilience

SAKSHI **SETHI**

The term discipline can be put in different contexts. For some, it can be a way of life and for others, it can be a set of rules by which their life functions. It is one of the ways of aligning the efforts and activities of every individual. Discipline gives every individual a set of rules and regulations to work with. Discipline has always played an integral part in a student's life since they are at the stage of their life where they can be the most flexible version of themselves. Although there is no age bar to following a disciplined life, it is quite possible that a student can get in the best shape physically and mentally when disciplined. Talking about educational institutions, every school or college has a heterogeneous mix of students and teachers need a mix of varied approaches to understand and engage all these types of students within the classrooms. This makes school discipline a robust process.

Discipline values need to be gravitated well to ensure that the teaching-learning process is seamless across the classrooms. Several studies have found that the majority of the factors influencing the learning process come from the school environment such as inadequate material from school, poor seating arrangements in the classroom, student and teacher relaxation canters, poor ventilation and many more. Nowadays, parents strive to raise competent, happy and successful children but it is not an easy task. Children of today need a loving home, but at the same time, they also need to learn boundaries and limits. One must teach their child that actions have consequences be they good or bad.

It should be the duty of parents to always strive to give their children the emotional tools they will need to make good decisions. In today's scenario, by creating a positive learning environment and implementing fair and consistent disciplinary measures, can educational institutions nurture responsible, motivated and successful individuals so that the young learners can or are ready to face the challenges of the future. Everyone has his/her prospect of discipline. Without discipline, the life of a person will become dull and inactive whereas being disciplined will teach them how to behave properly and become responsible adults thereby proving to be a true sign of parental love and care. Remember, giving a badly behaved child a moderate spanking is not the same as hitting people. Whosoever can't see the difference doesn't understand either discipline or the parent. Having control over life gives the learner a sense of relief and satisfaction that triggers immense self-confidence and affects their learning. Being in control can give them enough time to focus on their learning. A disciplined student will never be reluctant to learn new things and is always ready to accept new routines. This opens all the gates for learning and therefore affects the learning patterns of the students. There is no guarantee that a student in discipline is going to achieve all the good things in life. However, one thing that is guaranteed is that if they stumble, they will find ways to get back up. Instead of being angry or disappointed, they will be ready to work harder and achieve their goals. Disciplined student always learns from their missteps and forget if they even happened. This gives them a better chance at trying again instead of feeling guilty about everything.

(The writer is an educator, views are personal)

HINDU (P-6), 19 FEBRUARY 2024

A ruling that gives primary schoolteaching a new slate

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In August 2023, the Supreme Court of India upheld the decision of the Rajasthan High Court in ruling that the Bachelor of Education (B.Ed) degree cannot be considered appropriate for primary schoolteaching – the relevant degree for this level of school is the Diploma in Education (DEd) or Diploma in Elementary Education (DElEd) or Bachelor of Elementary Education (BElEd). Effectively, this nullified an earlier notification by the National Council for Teacher Education (NCTE) that the BEd degree can be accepted. This may seem like a minor point with regards to a profession that is widely believed to not be very aspirational. But this is a decision that has wide implications for recruitment and policy – and rightly so.

Primary teaching has different requirements

Teaching young students in primary grades is quite different in its requirements when compared to being a subject teacher for middle and high school. Understanding Foundational Literacy and Numeracy (FLN), and being able to design and involve all students in a manner that ensures that they grasp these basic and foundational competencies is a very non-trivial task. Almost all of us have forgotten how we learned to read or manipulate the number system. Hence, teaching these competencies has to be learnt by prospective primary schoolteachers, through specialised teacher education for this stage, i.e., the DEd, or DElEd or BElEd. It cannot be reconstructed through autobiographical memory; love for children and good communication skills are not enough, and by no means does the BEd degree, with its focus on teaching subjects to students in middle school upwards, prepare teachers for this. The Right to Education Act 2009, therefore, not only lay emphasis on the need for professional qualification but also the appropriate qualification to teach. Yet, 15 years later, we find that graduates with BEd qualification continue to be employed for this stage of school.

The overall extent of professionally qualified teachers in the system looks good. The State of Teachers, Teaching and Teacher Education Report 2023 (SoTTTER-23) shows that 90% of teachers have some form of professional qualification. Of the 10% who do not have professional qualifications, 61% are in the private sector; 61% of this group are in rural areas. However, it is a different picture when it pertains to the issue of appropriate qualification. Overall, only 46% of teachers teaching primary grades have the DElEd (and equivalent) qualification; 30% of teachers in this stage have the BEd degree, and 10% have no professional qualifications. The proportion of DElEd qualified teachers in the government and aided sectors is between 60%-68%, as government recruitment norms, by and large, have regulated recruitment.

However, in the primary school level of the private unaided sector, 22% have the DElEd or equivalent; 43% of primary schoolteachers in private schools have BEd degrees, and another 17% do not have any professional qualification. In the relatively elite English medium schools run by government societies, which include the Kendriya Vidyalayas, the Army, Sainik, and Railway schools, the proportion of DElEd or equivalent holders at the primary school level is only 24%, with about 56% being BEd degree holders.

Following the Supreme Court ruling, these anomalies that have crept into the system will have to be set right. First, greater attention will need to be paid to increasing the supply of good quality DEd/DElEd/BElEd programmes in the country. Analysis of Teachers Eligibility Test (TET) data from one State shows that quality in this sector is only from the government-funded institutions (District Institutes of Education and Training, or DIETs, and aided colleges), while the self-financed sector is doing very poorly: 59% of students from DIETs qualified with a mean score of 86/150 in comparison with only 31% of students from the self-financed sector qualified with a mean score of 77/150.

In all DIETs, at least 50% of their students succeeded in qualifying. Only 7% of the self-financed sector were able to ensure that at least 50% of their students qualified. This suggests that better students seem to prefer government-funded institutions and that these institutions are probably functioning more effectively, more regularly and with less corruption.

However, there are concerns for the sector as a whole: only 14% of qualifying candidates had a mean score of 60% or above. The low mean scores in mathematics, at 46%, are cause for concern. There will have to be more attention in ensuring higher quality and pedagogical content knowledge of candidates. The Teacher Eligibility Test (TET) may also need to have section-wise qualifying cut-off marks included in addition to an overall qualification cut-off mark, to ensure that primary schoolteacher competence in mathematics.

Need for government support

There is an urgent need to strengthen government support and innovation in this sector. Programmes such as BElEd offered by the Delhi University have demonstrated successful curriculum to strengthen knowledge, understanding and practice for this level/stage, long neglected in the university space. The recently announced Integrated Teacher Education Programme (ITEP) holds out the possibility of extending the successful model of bringing primary schoolteacher preparation into the university/Higher Education space. It is, therefore, disappointing that the bulk of the new ITEP programmes approved in 2023 are for BEd (about 3,4,00 seats), with only about 10% for the preparatory and foundational stage.

Survey's findings

Additionally, there is value in crafting innovative programmes which can provide pathways for BEd holders to receive professional development and gain credible certification for primary schoolteaching, without having to re-enrol for the entire degree/diploma programme. The SoTTTER 2023 survey finds that 4% of students enrolled in DElEd already have a B.Ed. Most developed countries offer multiple pathways into the teaching profession, recognising that the decision to become a teacher can also occur at different stages and the value of having teachers with different life experiences in the system. The two-year B.Ed is appealing for mature and older students who are looking to change careers.

The SoTTTER survey shows about 22% of B.Ed students (and 26% women students) are married. Offering the two-year B.Ed with specialisation for the preparatory/primary level could also be an option to consider, rather than requiring these students to join under graduate programmes.

The Union Budget 2023 announcement included commitment to continue the Scheme of Pandit Madan Mohan Malaviya National Mission on Teachers & Teaching (launched in 2014) to strengthen teacher education in the country. The scheme was finally unveiled on September 5, but, disappointingly, had a focus only on faculty development in higher education, neglecting schoolteacher preparation and innovation in the university space.

A recent Ministry of Education initiative to strengthen DIETs is welcome. With a full Budget expected in a few months' time, one hopes that the government will respond in a comprehensive way to these issues, and provide allocation to strengthen primary/preparatory stage teacher education through greater government support and incentives for innovation in this sector.

The writers are the lead authors of The Right Teacher for Every Child: State of Teachers, Teaching and Teacher Education Report for India, 2023

It sets the stage for ensuring suitably qualified teachers as the B.Ed degree does not serve all school stages

HINDU (P-6), 19 FEBRUARY 2024

Recalibrating merit in the age of Artificial Intelligence

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The concept of meritocracy, wherein individuals are rewarded and advance based on their abilities, achievements and hard work, rather than their social status or background, has been extensively debated. Proponents and critics of meritocracy offer compelling arguments about its impacts on society, highlighting its virtues and shortcomings. The evolution of meritocracy has witnessed significant transformations, influenced by the critiques and analyses of thinkers such as Michael Young, Michael Sandel, and Adrian Wooldridge.

Varied views

Young, a British sociologist, foresaw a dystopian meritocratic world in his satirical book, *The Rise of the Meritocracy* (1958) . He envisioned a future, specifically 2034, as a society where social class and mobility were determined solely by intelligence and effort, as measured through standardised testing and educational achievement. It was a critique of the then-emerging trend towards a merit-based system, which he feared would lead to a new form of social stratification.

Sandel's critique focuses on the divisive consequences, arguing that meritocracy fosters a sense of entitlement among the successful and resentment among those left behind, thereby eroding social cohesion. Critical theorists, including those from the Frankfurt School, also argue on similar lines by critiquing meritocracy for masking deeper power dynamics and inequalities. They say that meritocracy can perpetuate social hierarchies by legitimising the status of the elite under the guise of fairness and neutrality.

Post-structuralists challenge the notion of merit, questioning who defines merit and how it is measured. They argue that concepts of merit are socially constructed and reflect the biases and interests of those in power. Post-structuralism highlights the fluidity and contingency of merit, suggesting that meritocratic systems are inherently subjective and can reinforce existing inequalities.

In contrast to Young's dystopian vision of meritocracy leading to a rigid class system and Sandel's emphasis on its moral and social repercussions, Wooldridge lays stress on the practical evolution of meritocracy and its potential for reform. In his book, *The Aristocracy of Talent*, he explores how meritocracy, initially a force for progress and social mobility, has inadvertently fostered new inequalities by becoming somewhat hereditary, with privileges being passed down generations. Despite recognising the potential for meritocracy to create a new elite, Wooldridge believes in its intuitive fairness and proposes reforms that include making selective schools as "escalators into the elite" while improving access for underprivileged students and advocating better technical education.

There needs to be a sophisticated understanding of the interplay between technology and societal structures

AI as a disruptive factor

However, introducing Artificial Intelligence (AI) into this equation completely complicates the idea of reforming meritocracy. AI, with its rapidly evolving capabilities, will be reshaping merit and the idea of meritocracy in six ways.

First, by its very nature, AI questions the basis of human merit by introducing a non-human entity capable of performing tasks, making decisions, and even 'creating' at levels that can surpass human abilities. If machines perform the majority of tasks previously deemed as requiring human intelligence and creativity, the traditional metrics of merit become less relevant. OpenAI's Sora is evidence that creativity is not an exclusive human trait any more.

Second, the advent of AI challenges the traditional notion of individual merit by prioritising access to technology. Individuals with access to AI tools gain a significant advantage, not necessarily due to their personal abilities, but because of the enhanced capabilities of these tools.

Third, AI systems trained on historical data can perpetuate and even exacerbate biases present in that data, leading to discriminatory outcomes in areas such as hiring, law enforcement, and lending. These biases can disadvantage groups which are already marginalised.

Fourth, a recent paper published in *Nature Medicine* showed that an AI tool can predict pancreatic cancer in a patient three years before radiologists can make the diagnosis. Capabilities such as this can lead to the displacement of jobs that involve routine, predictable tasks. This also means that AI would impact high-wage jobs.

Regardless of these, AI would push the workforce towards either high-skill, high-wage jobs involving complex problem-solving and creativity or low-skill, low-wage jobs requiring physical presence and personal interaction, which AI cannot replicate yet. This polarisation will exacerbate socioeconomic disparities, as individuals without access to high-level education and training are pushed towards lower-wage roles.

Fifth, the opaque nature of many AI algorithms, coupled with the concentration of power in a few tech giants, poses significant challenges to accountability. In a meritocratic society, individuals must understand the criteria by which their efforts and talents are evaluated. However, the 'black box' nature of many AI systems can obscure these criteria, making it difficult for individuals to know how to advance or challenge decisions made by AI, thus eroding the meritocratic ideal.

Sixth, at the organisational level, the core of AI's power lies in data and algorithms that process this data. Tech giants with access to unprecedented volumes of data have a distinct advantage in training more sophisticated and accurate AI models. This data hegemony means that these entities can set the standards for what constitutes 'merit' in the digital age, potentially sidelining smaller players who may have innovative ideas but need access to similar datasets.

Thus, recalibrating meritocracy in the face of AI advancements demands a sophisticated understanding of the interplay between technology and societal structures. It calls for a deliberate rethinking of how merit is defined and rewarded when AI tools can both augment human capabilities and deepen existing inequalities.

The views expressed are personal

DECCAN HEARLD (P-11), 20 FEBRUARY 2024

Teachers with right skills can do a lot

Not all children have equal learning skills. A good teacher can turn around the game, writes Rajani Padmanabhan

Classroom practices have a large bearing on children's learning. Inclusion, inclusive practices, Universal Design for Learning (UDL), differential assessments, provisions and accommodations—the technical terms of inclusive education are many.

Theory and implementation are the areas to be addressed. While the professional development of practising teachers and those entering the field is essential for a classroom to be inclusive and to ensure that all children learn, interactions with teachers and observation of classroom sessions demonstrate that if teachers want to make a difference, they can.

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) defines inclusion as an approach where 'every learner matters, and matters equally'. If that is taken to heart as a guiding principle, any teacher can contribute to a child's learning.

Attitude towards teaching, mindful teaching and an abundance of common sense are important attributes of an effective teacher. In a Class X mathematics period in a mainstream school where teachers generally rush to complete the syllabus and at least one round of intense revision, a teacher was seen entering a class and engaging the children in 2-3 minutes of banter followed by a minute of silence. After that, she proceeded with calculus.

She explains that the class would anyway not pay attention to her for the first few minutes. Her strategy was to disengage the class from the previous session and ensure they were ready for the maths class. What she did was an example of 'class readiness', one of the foremost principles of effective teaching.

All learning is cumulative. Children constantly pick up skills. When children learn to write in paragraphs in middle school, many skills, such as ideation and cohesive flow of thoughts, syntax and grammar, spelling and neat and legible handwriting, must converge. While some children may have all these skills in place, many may not, and some do not.

A young teacher with three to four years of experience in a mainstream school clearly explains how she ensures all children feel at ease when they begin paragraph writing. She divides the children in the class into groups with different strengths. For example, a group could have one child with good ideas, one who spells well, one who draws well, one who can lead the group and one with good procedural language knowledge.

She says this ensures that all children participate and learn from others, and when corrections are made, children do not feel singled out. The principles of teaching pedagogy that come into play here are peer, group, and student-directed learning. The teacher was practising them without using these technical words. She adds that she constantly learned the art of grouping children based on her experiences.

Middle school is when children are introduced to new concepts in most subjects, and demands on all academic skills such as reading and writing, and abilities such as problem-solving, decision-making, and critical and creative thinking start to develop intensely.

A middle-school teacher in a mainstream school says that her mantra is that every child in the class could learn, albeit at different paces. She succinctly said that just as a jump from 80 to 85 marks has to be praised, a jump from 40 to 45 marks is also worthy of praise. She adds that figuring out how different children learn kept her interest in all students alive.

Appreciative inquiry is a positive approach to organisational change that believes every organisation has something that works well. Instances of the appreciative stance seen in these teachers who demonstrated high levels of efficacy could be the starting point for continued positive change. Leadership teams in schools should invest in workshops that focus on helping teachers collaborate to work collectively on co-creating a shared vision, goals, and beliefs.

The leadership can identify teachers who are more likely to anchor these workshops and use them for the professional development of their team of teachers. Teacher workshops that connect theories with effective and positive classroom instances and practices in school would resonate more with teachers and appear as 'doable' and not far-fetched. These instances that stem from the school's ecosystem are more likely to influence the teacher community's attitude, beliefs, values and culture.

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Engineering graduates are steering the service industry

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In a rapidly evolving global economy, the services sector has emerged as a significant player, contributing 53% of India's Gross Value Added (GVA) versus the 28% of the industry sector. This dominance, of services, is also evident in employment distribution – 31% of employment is generated in the services sector versus 25% in industries. This massive growth is fuelling the demand for entry-level employees across the spectrum of the services sector. This growth is not just limited to IT services, but is more broad based. The organised Indian service sector, that comprises retail, telecom, consulting, hospitality, banking and health care, has been growing consistently. Further, for each of these sectors, India is also the offshore hub, delivering these services for the entire world through captive and third party shared services and Global Business Services (GBS).

The market reality

This massive service industry needs continuous supply of skilled manpower which is being fulfilled from a rather unusual education stream – engineering. According to Statistica, only 57% of engineering graduates are employable. An All India Council for Technical Education commissioned report highlighted that less than 60% of available engineering seats have enrolment. Another industry report claims that about 80% of graduate engineers end up in a non-technical job which is unrelated to their field of education.

It is not surprising to find a number of engineering graduates in India steering towards the services sector not merely due to an ideal alignment of skills and job demand, but propelled by the dynamic and burgeoning nature of service-oriented opportunities and a lack of relevant jobs for their skills in their core sector. As a result, over the last decade, a large number of engineers are employed in non-technical sectors such as banking, insurance, hospitality, health care and retail across a variety of roles such as sales, customer service, back office operations, logistics and supply chain management.

This shift highlights a nuanced reality. Engineers are increasingly finding employment not solely based on a precise match of skills but due to the adaptability and problem-solving mindset ingrained in their education. Employers, who are faced with a dynamic market, are recognising the transferability of engineering skills, even if the roles themselves are not conventionally engineering-centric. Critical thinking, problem solving, creativity, innovation, dealing with ambiguity, adaptability and flexibility are some of the most relevant skills required to succeed in these modern organisations. The analytical prowess, problem-solving abilities, and structured thinking ingrained in engineering graduates make them highly sought-after in sectors that may not traditionally be perceived to be engineering-centric. The rising prominence of the services sector has opened avenues for these professionals to be gainfully employed in white-collar jobs.

This trend, of engineering graduates moving towards the services sector, points to the evolving nature of job markets

The need for a generic course

This trend prompts a critical reflection on the evolving nature of job markets and the role of education in preparing graduates for a diverse array of professional challenges. As engineers seamlessly transition into roles such as sales, customer service and finance across a wide variety of sectors, it becomes imperative for the educational ecosystem to evolve and address this need from the service industry, and recalibrate their approach towards curriculum design and pedagogy.

Currently, services-oriented educational courses are only available in niche domains such as health care or hospitality. There is no generic course to cater to the needs of the services sector. As a result, services are consuming engineers, and to some extent management graduates/postgraduates, into entry-level jobs. Rather than focusing on bridging the gap between existing engineering education and job demand, there is a pressing need to develop generic services-oriented courses that can equip students to thrive in white-collar service environments. Just as an engineering education equips the student with the basic skills to find a vocation in an industrial setup, we need an equivalent services skill education that instils the necessary competencies to excel in the service-oriented landscape.

Such a course can offer a holistic blend of technical proficiency, soft skills, and industry-specific knowledge essential for success in service-centric roles. These courses should not only emphasise technical proficiency but also cultivate soft skills, business acumen, and industry-specific knowledge that are essential for success in the service sector.

By integrating cutting-edge technologies such as Artificial Intelligence and the Internet of things (IoT) into the curriculum, these programmes can enhance students' employability, particularly in emerging sectors such as fintech and edutech. Such a course would foster a cadre of professionals adept at navigating the complexities of modern service-oriented industries, with skills around process reengineering, problem solving and client management.

Structured around a diverse curriculum, this course could encompass essential subjects and skills tailored to meet the demands of today's dynamic service landscape. Professionals enrolled in this course would gain a solid foundation in service delivery fundamentals, covering core sector overview and nuances of service delivery in a physical as well as digital environment.

Additionally, they could receive training in service management principles, process improvement methodologies such as Lean Six Sigma, and critical thinking frameworks, empowering them to optimise service processes, drive operational efficiency, and tackle complex challenges with confidence. An emphasis on client management, communication skills and ethical conduct would foster a culture of professionalism and integrity among professionals, crucial to build strong client relationships and maintain trust in service-oriented roles.

As a growth booster

The introduction of such a course – let us call it "service engineering" – holds transformative potential, offering a pathway to enhanced employability, improved service delivery, and sustained economic growth. Graduates would emerge as highly sought-after professionals, equipped with the knowledge, skills, and mindset needed to excel in white-collar service environments across a variety of industries. Moreover, the affordability and accessibility of service engineering courses would make them an attractive option for students from tier 2 and 3 cities. The recent Periodic Labour Force Survey (PLFS) 7 reported the women's participation in the workforce to be 37%. Since services typically offer better flexibility to employees, such a course can also help enable a supportive environment for women to balance work and family commitments while contributing to the workforce.

Unlike conventional engineering programmes that require extensive hard infrastructure, service engineering courses would leverage digital platforms and virtual learning environments, significantly reducing costs and eliminating geographical barriers to education. This democratisation of education not only fosters inclusivity but also unleashes the potential of aspiring professionals from diverse backgrounds to contribute to India's burgeoning services-driven economy. By investing in the development of a skilled workforce tailored to the needs of the services sector, India can position itself as a global leader in service innovation and delivery, driving prosperity and competitiveness in the services-driven economy of the future.

The views expressed are personal

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Artificial Intelligence and the global economy

Disruption ahead

RENU KOHLI

Artificial Intelligence and its transformative potential are creating enormous excitement in the world. The machine-driven simulation of human intelligence in its generative form — called generative AI — is capable of creative, innovative tasks and making original content. As a general-purpose technology that mimics or replicates the human mind, generative AI differs from traditional AI that is driven by logic, reasoning, and pattern-recognition rules. The applications and the possibilities of generative AI seem boundless because of its universal nature and the continuous changes and improvisation that are embedded in its adoption, which itself is inherently fast and at scale due to the internet-based medium. Superhuman in expanse, this technological innovation is set to upend most aspects of our lives, ranging from the social and the economic to the political. While the undesirable side includes deep fakes, misinformation and such like, the positive aspects point to a tremendous boost to productivity and growth that many anticipate seeing the quick adoption of large language models such as those powering ChatGPT. Is this overhyped?

The potential productivity gains from generative AI are yet to be fully understood. The range is wide and hope of what this can accomplish is high. The productivity impact is expected to be profound because of the magnitude of tasks that can be done more quickly, with greater precision and efficiency. Early adoption and related experiments show significant productivity leaps for some roles and kinds of work, including those in public goods and services, with better performance and satisfaction; the scope extends to rapid learning and the augmentation of existing knowledge and skills. Some illustrations of the deployment of this brain power are in science and medical research and development, leading to faster innovation and earlier and accurate diagnosis of diseases and disorders, as well as in education and learning and in many customer-interface services, public governance and so on.

The extent of reskilling, redesigning, rescaling, and rejigging of current business and work processes that will happen ahead is unclear at present. The breadth, magnitude, and time span of these changes are also unknown and hard to predict. But these changes could be massive and disruptive because of enormous human imitation embodied in generative AI. Consider that most business heads are either closely examining or being asked to exploit this technology to increase productivity in their respective fields and roles. At the World Economic Forum in Davos last month, the foremost interest of attendee CEOs and business leads was AI (along with climate change) and what its adoption could achieve.

The other side of productivity, or the increase in value of output with given levels of inputs such as labour and capital over a period, is the impact on employment. The implications are expected to be huge in this realm. Whether the deployment of AI will drag this down and trigger reallocations across segments and working groups is a critical issue. The outstanding difference of this technological innovation, unlike past waves such as information technology and communications or automation that affected low-skill, low-earning jobs in manufacturing processes and services industries, is its disproportionate incidence upon jobs requiring higher order skills, especially those oriented to cognitive tasks.

Net employment outcomes of technological innovations are hard to measure. However, churning and disruption following capital substitution with displacement of labour have been routinely observed. In one of the earliest aggregate assessments, the International Monetary Fund examined the potential labour market impact of the AI revolution across countries; the exercise included supplementary and replacement effects of AI adoption. It found that almost 40% of global jobs are exposed. The disaggregated exposure is skewed towards the advanced economies in which as many as 60% of the jobs may be impacted; this is explained by their comparatively bigger services sectors and larger skilled employment profile, features that also position this group more advantageously in benefiting from AI adoption. Exposure of the emerging market economies, including India, equals the world average of 40%; for now, the middle-to-low-income countries are unlikely to witness similar and significant disturbances in total or specific types of jobs. Depending on infrastructure and skilled workforce levels amongst other features, an AI-readiness index constructed for individual countries shows a mid-position for India that has a large services segment for its stage of development.

The distributive impact is closely related. The substitution of capital for labour points to increased concentration of wealth and power or higher inequalities, at least initially. Because of their initial advantage and early adoption by advanced nations, inter-country inequalities are likely to increase. Likewise, within-country inequality is also visualised to widen as AI adoption complementarities are positively associated with incomes — skill acquisition takes time, such as years spent in education and learning, whereas quick adoption widens the demand-supply gap for those already skilled, pushing up their wages. Some playout of this effect has been visible in India following the pandemic: spurred by rapid growth of the AI-based research and development models, global capability centres have drawn skilled workers away from the outsourcing-based, domestic information technology companies.

Optimists uphold that the productive deployment of AI will eventually increase prosperity and well-being universally, as had happened with electricity or telephones. A few surveys by experts suggest that generative AI impacts will be disruptive, heterogenous, increase uncertainty on the returns to investment in education until the innovation becomes part of our lives, with a likely increase in income inequality. If productivity gains turn out to be robust, leading to higher growth and incomes, the increased demand for work could outweigh the negative replacement effects. Then too, if the productivity-boosting capabilities of AI are assured, affordability could be a constraint for poorer or resource-strapped countries: technologies as smart as this one require enormous skills and capital investments.

These possibilities are all up in the air. What can be said is that the AI technological innovation, which has the potential to increase productivity and growth with significant implications for employment and distribution, follows on the heels of a series of far-reaching changes compressed in a short span after the Covid-19 pandemic. That itself triggered or accelerated signal shifts, such as clean energy transition and digitisation, while poverty and inequality increased. Unexpected geopolitical events then upset global trade arrangements, causing fragmentation and the restructuring of production chains. All fundamental disturbances raise the uncertainty levels of our times. Technology, along with human capital, research and development and sectoral shifts (from low-productivity agriculture to higher-productivity manufacturing in the process of economic development), is a known source of productivity growth. Hope should outweigh hype in this case.

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ASSAM TRIBUNE (P-4), 21 FEBRUARY 2024

Technology-led innovative practices

■ Dr Dhruba K Bhattacharyya

With the fast emergence of computing and communication technologies, the world has seen rapid evolution and transformation in the education systems. In such transformations, the technology-led learning practices have been playing crucial roles. It has the potential to accelerate the transformations towards achievement of the SDGs by the 2030 deadline. Traditional ways of teaching have been found inadequate for preparing our youth for the technology-rich and competitive future. Hence, technology-led innovative practices (TLIP) are considered helpful to achieve such transformations in an higher education institution (HEI). Eight such innovative learning practices are discussed next, which an HEI can adopt to experience a technology-led personalized education system:

(a) *Interactive learning*: In this pedagogical learning approach, emphasis is given more on hands-on practices to engage students more actively in problem solving and critical thinking. Unlike the other learning approaches, interactive learning (IL) enhances students understanding of the subject matter by stimulating their thought process while handling a real-life problem. Technology-led practices can help implement interactive learning in a better way. To implement IL, we need flexible, open-ended classrooms which facilitate freedom of interactive course selection or correction, better student-teacher and student-student relationship building and thus be able to handle negative peer pressure. Use of ICT in such flexible classroom environment, can help teachers to provide students with a wide range of sources, up-to-date knowledge and experiences and better opportunities for their self-discovery.

(b) *Personalized learning*: Personalized learning was introduced long back, however, the technology-led learning practices further fuelled it and now it is considered as one of the mainstream learning approaches. It is not to be considered something to assist only an individual, rather a scalable learning strategy. The learning capabilities of the students are not same, and hence for effective learning, one needs to keep track of learning experiences for each student. Here, the technology can help a lot. With the appropriate use of technology, we can solve the challenges of personalizing the learning experiences. It can help deliver the right content in appropriate form to each individual and can keep track of performances individually.

(c) *Hands-on training on ICT*: The increasing growth and popularity of ICT technologies has made the learners more reliant on ICT-enabled learning approaches. The use of such tools and applications as supplements to classroom pedagogy, has now become more dominant in effective learning. In addition to tools, applications and repositories, such technologies include online platforms such as Google meet, Webex, Zoom, Google/Moodle classrooms for conduct of classes, meetings, webinars, or special discussions. The effectiveness of such a learning approach depends on how much the learners are learning by doing. Hands-on ICT-enabled learning aims to provide learning from examples where the students actively engage themselves in a subject to learn. ICT-enabled classrooms help in making the learning process more interesting, creative, cost-effective, impactful, and inclusive.

(d) *Collaborative learning*: Collaborative learning ensures involvement of every learner in a group of moderate size in working together on learning tasks or activities. Such tasks may be different for each individual learner but must contribute to achieve a common goal. Collaborative learning technologies range from communication tools (for both synchronous and asynchronous text), voice or video chat to online environment for document creation/editing, presentations and brainstorming sessions. For collaborative idea generation, a good number of whiteboard or real-time collaboration tools are available including Google Docs, Padlet, Mindmeister, Lino, etc. Such tools allow to type, draw, chat, talk or share contents in a secure manner. Rather than sending documents of different versions as attachments with emails, one can use cloud-based document creation and sharing during collaboration. Google Drive, Evernote, Etherpad, and Zoho are some commonly used document creation tools.

(e) *Industry-connect learning*: Industry-connect academic initiatives encourage focused, goal-oriented skill building, where students are motivated and given opportunities to solve real-life problems and share findings, help improve themselves to achieve best possible capabilities, and to transform into market-ready human resources with more self-confidence. Industries seek collaborations for new ideas and knowledge from institutions to explore their abilities to solve real-life problems with high precision at low cost. Institutions seek collaborations to enhance educational possibilities and values by creating improved resources for higher and advanced education, facilitating the exchange of innovative ideas and technology transfer and cultivating an environment conducive to continuous learning. In such mutually beneficial initiatives, technology can help a lot. AI-enabled ICT technologies play a crucial role in such collaborative activities. A distinctive feature of such technology-led learning is its capacity for customization, creation and analysis of personalized learning paths.

(f) *Learning with live simulations for personalized skill building*: Learning with live simulations provides a wide range of opportunities to acquire complex skills and to implement wide variety of scaffolding to facilitate hands-on learning in HEI. In a multi-disciplinary personalized learning framework including the subjects from science, technology, engineering, and mathematics (STEM) streams, live simulations have been found highly effective in offering a deeper understanding of the complex concepts, their relationships, advance inquiry, critical problem solving, and decision making. Further, to facilitate the learners to help acquire the 21st-century skills in such a framework, integration of live simulations can be of great help.

(g) *Experiential learning*: Technology has been integrated to assist experiential learning in various ways. However, the main objective should be to facilitate creation of resources and their enhanced mobility. The use of AI-enabled ICT technologies help record the experiences in a wide range of media formats. Web-enabled dynamic applications enable students to use their smartphones and other hand-held devices to capture the key elements of their experiences dynamically.

(h) *Feedback engineering*: Feedback should not simply be considered as mere information provision, rather it is an active process that learners undertake using relevant information from a wide variety of sources. Technology-led feedback engineering includes systematic high-quality digital recording, automatic debugging, and customized analysis. AI and Chatbots have already been established as effective tools to gather personalized and adaptive feedback automatically for its subsequent use. Such feedback data can be selectively used based on need, preference, and behaviour.

Finally, we can summarize that by an appropriate integration of emerging ICT technologies with learning practices, we can acquire personalized learning experiences and empower students to discover themselves with full potential.

DECCAN HEARLD (P-6), 21 FEBRUARY 2024

Another suicide. It's a wakeup call

A multifaceted approach involving parents, society and clinicians is imperative to address the problem

BHAVANA C J

On February 13, the body of an IIT aspirant was discovered in his dorm room. This was the fourth student suicide of the year in Kota. Shubh Choudhary, a Jharkhand resident preparing for JEE-Mains, was shocked by his lower-than-anticipated score when the results were announced. He went back to his dorm room, only to be found hanging from a ceiling fan.

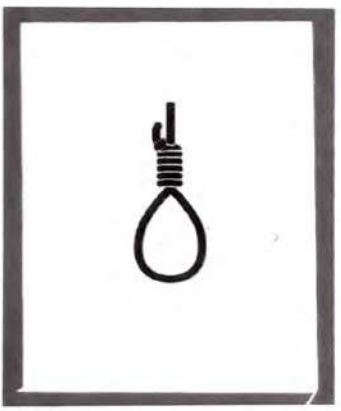
A total of 12,31,874 candidates were enrolled for both components of the JEE Mains examination this year, with 11,70,036 individuals actually taking the test. The question arises: Is it parental pressure or societal obligation to enrol in these competitive exams, or do 12 lakh Indian students actually aspire to become engineers every year?

In India, the pursuit of academic excellence is closely tied to success in life, and children are under constant pressure to perform well in school from an early age. In addition to parental pressure, deeply ingrained cultural expectations from society also contribute to this stress. Their career path is ingrained with intense pressure and competition, from doing well in school exams to getting into esteemed colleges. In many Indian homes, maintaining family honour and ensuring a "bright future" are as important as personal fulfilment when it comes to the pressure to perform well academically.

The pressure to perform well is most intense over competitive tests such as the Joint Entrance Examination (JEE) for engineering programmes at the IITs or the National Eligibility and Entrance Test (NEET) for medical programmes as these are viewed as the only doors to well-paying jobs. Parents frequently have lofty expectations from their children because they want to see them achieve "success".

Pressure to perform well in school can take many different forms, such as enrolling children in a lot of extracurricular activities to give them a well-rounded profile, or even starting tutoring or coaching programmes at an early age. Although these behaviours could have the best of intentions behind them, they can add to feelings of inadequacy and increased stress in students, sometimes leading them to the extreme step of taking their own lives.

Data from the National Crime Records Bureau (NCRB) shows that some 13,000 students committed suicide in 2021, a 27% increase from 2016. Twenty-six students ended their lives in Kota alone in 2023; the majority were preparing for the Joint Entrance Examination (JEE) Main and Advanced for engineering, or the National Eligibility cum Entrance Test (NEET UG) for admission to medical colleges. Across age groups, 2,095 people ended their lives after failing examinations. Maharashtra had the largest number (378), followed by Jharkhand (174) and Madhya Pradesh (277). Gujarat (155) and Karnataka (162) also have high rates of suicide fatalities linked to examination failure.



Suicidal thoughts typically come from a sense of helplessness in an apparently overwhelming life circumstance. If one does not think there is hope for the future, one might conclude that suicide is the best course of action. When facing a crisis, one could have a kind of tunnel vision and think that the only thing they can do is end their life. Though parental and societal pressure to perform well can be an important contributing factor to student suicide rates, other reasons such as social isolation, substance abuse, loss of a loved one, or stressful life events can also be vital reasons for suicide.

There are several different and related reasons why students take the extreme step of ending their lives when under academic stress. Exams, competition, and lofty expectations of performance are all major causes of academic stress, but these factors are frequently aggravated by underlying mental health conditions. The pressures of school can cause anxiety in students, and other factors like social isolation, financial stress, and expectations from family can make it worse.

The alarming rise in student suicides caused by academic stress and pressure is a major problem, emphasising the need for a varied approach that goes beyond professional therapies. This complicated condition has several roots and symptoms, indicating that treating it merely in clinical settings is insufficient. Parents, society, and new non-clinical approaches will play important roles in reducing student suicides. It is critical to identify the warning signs and symptoms of student suffering in order to prevent suicides. These might include social disengagement, behavioural or emotional alterations, academic degradation, and depressive or worthless emotions.

Parents play an essential role in helping their children's psychological stability and well-being. Essential actions parents may take include being aware of symptoms of distress, developing healthy communication, and creating a supportive and open environment at home. Parents may also advocate for modifications to the educational system that put the needs of their children's overall health above their academic performance. The structural problems that contribute to students' academic stress and pressure must also be addressed by society as a whole. Important preventive measures include lowering the focus on standardised testing, advocating for mental health education in schools, and developing welcoming environments where children feel appreciated for who they are outside of their academic achievements.

Creating a culture of support also requires de-stigmatising treatment for mental health problems and making resources easily accessible. Extra levels of support and intervention can be provided by peer support groups, mentorship programmes, school-based wellness initiatives, and community outreach projects.

These non-clinical options offer places where students can interact, exchange stories, and get information in a less structured setting. Students can also avail themselves of psychometric tests to assess aptitude, interests, and strengths that can guide them towards fulfilling paths before making a career choice.

By aligning pursuits with natural abilities, students may experience less pressure and find greater success, instead of being forced into mainstream fields such as engineering and medicine disregarding their aptitude and ability. Preventing student suicides brought on by stress and pressure due to academics calls for a comprehensive approach involving parents, the community, and clinical as well as creative non-clinical methods.

This is the least society can do for its children.

(The writer is a BSc (Hons) Psychology student at the School of Social Sciences, Ramaiah University of Applied Sciences)

21/2/24

STATESMAN (P-11), 21 FEBRUARY 2024

Enhancing supply chain resilience

PROFESSOR LENNY

In the ever-evolving landscape of our interconnected world, supply chains serve as the backbone of the modern economy. Yet, looming threats such as trade wars, regional conflicts, and protectionism underscore the need for a paradigm shift in how we approach supply chain structures. The recent disruptions caused by the pandemic serve as a poignant reminder of the urgency to cultivate resilient supply chains for sustainable economic growth.

Article Overview: The article, inspired by groundbreaking research from the University of Sheffield, will delve into the intricacies of mapping supply chains, conducting life cycle assessments, and developing innovative strategies to fortify the resilience of these complex systems. It will explore the global challenges faced by nations and industries, emphasising resource efficiency, sustainability, and decarbonisation. Employing a comprehensive approach, how it integrates methodologies such as life cycle assessment, advanced modeling with artificial intelligence, machine learning, and social science research.

Key Findings -- Case Study (Rolls-Royce): A highlight of the University's research is a recent publication delving into the antecedents of organisational resilience. This groundbreaking work has created a practical tool that empowers companies to measure and enhance their performance.

Practical Implications: The University's focus on providing actionable tools, grounded in rigorous research, empowers organisations to make informed decisions. This approach allows for a comprehensive evaluation of an organisation's current standing and a targeted strategy for improvement. The tool is currently used in the advanced manufacturing industry, offering tangible solutions to real-world challenges.

Collaborations and Partnerships: Beyond collaborations in the UK, the University's research extends globally, fostering partnerships with renowned institutions such as Penn State in the US and partners in India. This international perspective not only enriches the findings but also enhances the relevance and applicability of the research on a global scale.

Industry Relevance: In a world where companies demand more goods and services, supply chain resilience becomes paramount. The University's research aligns with the imperatives of ESG, climate change initiatives, and the broader world economy agenda by mapping and eliminating carbon hotspots while minimising supply chain risks.

The author is a professor at Sheffield University Management School, UK

INDIAN EXPRESS (P-10), 22 FEBRUARY 2024

STAIN ON CAMPUS

By punishing students, Jindal University risks becoming a cautionary tale rather than the role model it aims to be

UNIVERSITY ADMINISTRATIONS — public and private — across the country have, in recent years, unfortunately not always stood up for academics and students when the latter have questioned the dominant ideas and powers that be. Teachers and students have been arrested, discussions, even movie screenings stalled or called off. Academics at prestigious private universities that claim to champion liberal values have been forced out and university authorities have not refrained from inviting the police on campus. In this milieu, OP Jindal Global University (JGU) seemed to have, quietly and without fuss, created a space even as others in its neighbourhood ceded it. However, the JGU administration's action against two students for "putting up posters and engaging in conversation" that involved "derogatory and provocative words" flies against its own record and stated principles. More importantly, it undermines the idea and promise of a university. It's a stain on the campus.

The action against the students was in response to posters and discussion on the Ram temple at Ayodhya. Reportedly, the framing of the discussion was critical of the dominant politics surrounding the consecration. On February 10, the students were suspended for a semester and late that night, they were "evicted" from campus housing. According to the university's Student Disciplinary Committee, the punishment was for "a serious violation of the student code of conduct". This wasn't a frightened university administration giving in to goons, this was the university punishing free speech.

JGU is an "Institution of Eminence" and, to the credit of its leadership, its law school has been ranked among the top 100 in the world. Its faculty includes a former Chief Justice of India, a former SC justice and social scientists. They could tell the JGU administration that ideas are tested through debate, and a campus can remain "excellent" only if it allows students to experiment with them. After all, a campus is the only place where you have the right to be wrong. There's no evidence that the two students were fomenting violence or breaking a law. "At the core of JGU's vision and mission", according to its website, "is our aspiration to be a role model for excellence in higher education in India and among the leading universities of the world". It also promises to remain sensitive to the "deepening of democratic traditions in India". The university should revoke the suspensions, ensure that expressing an idea can't be the reason for students to be evicted from a residential campus. Otherwise, JGU's words on democracy will ring hollow, its global ranking a mere marketing number. IC/10

PIONEER (P-7), 22 FEBRUARY 2024

Preserving the symphony of voices

SANTOSH **MATHEW**

We must strive to preserve languages, as the disappearance of a language is not merely the loss of words but the erosion of culture and tradition

International Mother Language Day is celebrated on 21st February, under the auspices of UNESCO. This international observance was first proclaimed by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) in 1999 to promote linguistic and cultural diversity. It started being observed annually in 2000. Each year they come up with a theme. The theme for the International Mother Language 2024 is"Multilingual education is a pillar of intergenerational learning".

The date holds historical significance as it commemorates the sacrifices made by students of East Pakistan (present-day Bangladesh) during the Language Movement of 1952, who bravely protested for the recognition of their mother tongue, Bengali, as one of the official languages of Pakistan. 54.1% of the population of the then East Pakistan spoke Bengali. Apart from the identity of Islam, there were many linguistic, cultural, ethnic and geographical contradictions between West Pakistan and East Pakistan. Amidst this cultural clash, the rulers of Islamabad declared Urdu as the official language, totally neglecting the Bengali language which the population held close to their hearts.

Thousands of students gathered in Dhaka, the capital of East Bengal, and launched an agitation. West Pakistan was trying to brutally suppress the protests by students at Dhaka University and Dhaka Medical College. Student leaders Abdul Salman, Rafiquddin Ahmed, Abdul Barkhad and Abdul Jabbar were also martyred in the military operation which claimed several lives. This language movement, which took place on 21st February 1952, finally succeeded and Bengali along with Urdu became the mother tongue of undivided Pakistan.

Mother language is not just a means of communication; it is the cradle of our cultural identity, the keeper of our heritage, and the bridge that connects us to the wisdom of generations past. However, today, many languages are disappearing with time. It is estimated that every two weeks a language disappears in the world. About 43 per cent of spoken languages may disappear in the future. The day, organised by UNESCO, is especially meant to emphasise the need to preserve languages. There are about 6000 languages in the world, both with script and without script. Chinese or Mandarin is the most widely spoken language in the world, with 16 per cent of the world's population using it as their mother tongue. English and Hindi occupy the second and third positions respectively.

People who speak multiple languages are called polyglots. Proficiency in as many languages as possible is considered to be a great skill in the present globalised society. Former Prime Minister Narasimha Rao, who was fluent in 17 languages, is a good example of a polyglot.

More than 3000 languages are endangered. After 1950 alone, 230 languages that existed in the world disappeared from the face of the earth. Under the leadership of Irina Bokova, the former Director-General of UNESCO, several projects had been formulated for the conservation of endangered languages. One of them is the International Mother Language Institute established in Dhaka, the capital of Bangladesh.

With the aid of the United Nations, several schemes have been put together for the protection of the mother tongue. 2008 was celebrated as the International Year of Languages and efforts are being made to preserve the vanishing languages. The fourth item in the UN-led Millennium Development Goal is to provide better and more inclusive education through the mother language. According to UN estimates, half of the approximately 7000 languages spoken in the world are not guaranteed to last for another generation. Of these 96 percent of the languages are currently used by only 4 percent of the world's population. Linguists have documented that among some societies in Asia and Africa, there are languages that are spoken only by women. The Dakhini language, which is still popular in Gulbarga in Karnataka and Solapur in Maharashtra, is one such language. According to the 2011 language census, the Eighth Schedule of the Constitution contains 22 languages, including 121 mother tongues. 52.8 crore individuals, i.e. 43.6% of the population, speak Hindi. Bengali is the mother tongue of the next largest number of people—8%. Out of the 2.6 lakh English speakers (who have their mother tongue as English) more than one lakh are in Maharashtra. As a second language, English is preferred over Hindi in the North-Eastern parts. In 2011, of the 17.6 lakh people whose mother tongue was Manipur, 4.8 lahks declared English as their second language. While English, along with Hindi, is one of the two official languages of the Central Government, it is not among the 22 languages in the Eighth Schedule; it is one of the 99 languages that are not scheduled.

MORE THAN 3,000 LANGUAGES ARE ENDANGERED. ONLY SINCE 1950, 230 LANGUAGES THAT EXISTED IN THE WORLD DISAPPEARED FROM THE FACE OF THE EARTH

In terms of mother tongue, the number of English speakers in India in 2011 was just 2.6 lakh — a small fraction of the 121 crore people estimated in that census. In Fiji, Hindi is the official language spoken by 44 per cent of the population. In percentage terms, Fiji has more Hindi speakers than India.

In India, a land of linguistic diversity, apart from Hindi and English, 22 regional languages also occupy official status through the Eighth Schedules of the Constitution. However, Sanskrit, the heritage language, can be seen fading in the society. Less than 15,000 people use Sanskrit as a spoken language. While the central and state Governments have launched several schemes to promote Sanskrit, there is only one daily newspaper in the world in this language which is Sudharma. Uttarakhand is the only Indian state to have included Sanskrit in its official languages. According to the 1961 census, there were 1,652 languages in India classified as 'mother tongue'. However, according to the 2011 census report, the number of mother tongues in India is 234. More than 800 mother tongues have disappeared in the last fifty years. Nihali is still considered the mother tongue of more than 15,000 people in about 15 villages in Madhya Pradesh and Maharashtra, similarly around 1,000 Portuguese-speaking people in a village in Maharashtra. Arunachal Pradesh, where the population is much smaller, yet has the highest level of linguistic diversity. The multilingual tribes and regions are the identity of Indian culture. In India, 220 languages have recently become extinct due to a lack of adequate care. As many as 197 Indian languages have been listed by UNESCO among the most likely to be alienated. According to the 2011 census, 96.71 per cent of the population speaks 21 languages recognised by the Constitution of India. English, Spanish and French are languages that have not developed their own script. These languages borrowed from the Latin script for writing. Hindi is a language which does not have its own script. Devanagari is the script used by Hindi today. Arabic is a language that is precisely convinced that language is a culture. Arabic is the spoken language of about 422 million people and the mother tongue of 24 countries in the world and is a perfect example of how one of the oldest languages developed strongly and has become one of the leading modern languages.

Amar Sonar Bangla, the national anthem of independent Bangladesh, was composed by Rabindranath Tagore in 1905 in the backdrop of the first partition of Bengal. Ananda Samarakoon, a disciple of Rabindranath of Visva-Bharati, composed the national anthem 'Namo Namo Matha' of Sri Lanka in Sinhalese. Ten decades before the Sri Lankan civil war that ended in 2009, Tamil, along with Sinhalese, was recognised as the official language of Sri Lanka.

The Universal Declaration of Linguistic Rights was held in Barcelona in 1996, but hundreds of languages are still fading away from time to time. It is doubtful whether writing will have any significance fifty years from now. The technology to turn sound into text is already in vogue.

Of the 6,000 languages in use in the world, at least 4,000 are likely to be extinct. According to language researchers, 90 per cent of the languages currently in use will disappear from the earth's surface by 2050. Less than 10,000 people use one-third of the world's existing languages. According to the Central Government, more than 200 Indian languages have disappeared since 1961. Most of these are languages used by tribals, including Adivasi communities. After the 1961 census, the Government decided to do away with the national status of languages used by less than 10,000 people. We must recognise that the disappearance of a language is not merely the loss of words but the erosion of culture and tradition. As put by Noam Chomsky "A language is not just words. It's a culture, a tradition, a unification of a community, a whole history that creates what a community is. It's all embodied in a language." Allowing languages to become extinct is a sin being committed to our ancestors and future generations.

(The writer is an associate professor, views are personal)

TELEGRAPH (P -10), 24 FEBRUARY 2024

LOST WORDS

A day celebrating mother tongues may be beautiful, but it is complicated too. Not everybody has access to his or her mother language, neither can everyone speak it openly and fearlessly, or even intelligibly. The map of languages is inscribed with invisible tussles of power — Indians know this well — that are recalled every year within the tribute to those who died for their language on February 21, 1952 in what is Bangladesh today. At the moment, 40% of the world's children do not receive education in their mother tongues. That also means losing their grip on their cultural heritage and feeling marginalised, both effects of the power play underlying language use. By reminding the world of the multiplicity of languages and the honour and love due to all of them, for each language is a 'mother tongue' to someone, the International Mother Language Day attempts to undercut the power dynamics underlying dominant languages, focusing instead on linguistic and cultural diversities.

> Multilingual education is this year's theme of Mother Language Day. But the language of images is yet to be included

But the celebration of linguistic diversity is yet to include a powerful language that crosses all boundaries. This is a new form of power play, not quite underlying language use yet encroaching on its territory. The visual language of forms of social media, at its best communicating moods and emotions, narratives and poetry, facts and also lies, seems to be overtaking the need for purely verbal communication. Its appeal may not be the same as that of the mother tongue, but it is as primal in its attraction, stimulating the imagination and gripping attention, and thus competing with it in potency. The most important attribute of the language of pictures is that it is everybody's mother tongue; anyone who can see can understand and interpret it. The verbal and the visual may be complementary or conflicting, and it is in the insidious effects of the conflict that danger lies. Forms of social media, such as the meme, while using images or video clips, simplify not just language or do away with it, but simplify ideas as well. They can be humorous or sardonic, politically effective or ideologically damaging. The effect of this on language is ominous, because language and thought are inextricable, and the reduction of one would mean the flattening of the other.

No account of communication today would be complete without including the role of visuals. The need for multilingualism, for keeping languages alive or even reviving moribund ones, of recognising in the variety of languages multiple facets of human belief, history and practice must be placed against this tidal wave of visual communication. Inevitably, thought processes and opinion-forming, expression and understanding will change with it. How will the capacity of complicated thought and expression or the ability to use language in exciting and unprecedented ways be affected by the waning of its traditional forms in social media? What would this mean for cultural legacies? It has become unavoidable for a day commemorating languages to address this challenge.

BOOKS

The New Delhi World Book Fair is a celebration of the written word that transcends boundaries and bridges cultures. Here - as in others counties of the world - the significance of books reverberates with resounding clarity

EXPLORING PAGES OF POSSIBILITY

By **Rajdeep Pathak**

As the vibrant panorama of the New Delhi World Book Fair unfolded its final chapter on February 18, 2024, it bid a fond farewell to nine days filled with the symphony of literary marvels and cultural splendour. Nestled within the expansive embrace of Bharat Mandapam at Pragati Maidan, this majestic event, inaugurated on February 10th, played host to a multitude of nearly 15 lakh book lovers, who traversed its labyrinthine corridors in search of enlightenment and inspiration. Here, amidst the grandeur of more than 1,000 publishers hailing from 40 illustrious nations such as India, the United Kingdom, Argentina, Spain, and beyond, over 2,000 enchanting stalls stood as beacons of literary excellence.

Organised by the National Book Trust (NBT) under the nurturing wing of the Ministry of Education, this year's fair unfurled its vibrant banner under the resplendent theme of "Bahubhashi Bharat - Ek Jeevant Parampara" (Multilingual India - A Living Tradition). With the Kingdom of Saudi Arabia taking part as the guest country, the air was suffused with the heady aroma of cultural exchange, literary discourse, and harmonious dialogues, weaving a rich flavour of mutual appreciation and understanding between the two nations. While traversing through the stalls with long overhanging signages guiding paths for visitors, one could also wonder at the very craftsmanship of the engineers who put up the display in a manner that attracted students, school children, writers, authors, guest speakers, men and women with their families alike from far end - thanks to the event management groups of companies who designed this panoramic extravaganza, the effect was spell-binding.

However, what really attracted once again is the versatility and the imaginative and creative manner of enticing the readers/visitors and capturing (read holding on) to their interest. There were many window shoppers who just passed by. While some stalls engaged children in solving different crossword puzzles through creative games, there were others like ours (Gandhi Smriti and Darshan Samiti), where spinning on the traditional charkha became a centre of attraction for the young and the old who wanted to try their hands on spinning. What came as a surprise in this digital age where Kindle and other such forums have become the latest fad, is that the Autobiography of Mahatma Gandhi, "My Experiments with Truth" was still a popular choice amongst the buyers.

The Children's Pavilion became a delightful sanctuary for young book enthusiasts, offering a diverse array of activities including storytelling, illustration workshops, calligraphy sessions, art demonstrations, drama classes, and explorations into the wonders of space. Notably, the fair has demonstrated its dedication to inclusivity and accessibility in literature through specialized events tailored for children with special needs, in line with its overarching 'Books-for-All' initiative.

> ORGANISED BY THE NATIONAL BOOK TRUST (NBT) UNDER THE NURTURING WING OF THE MINISTRY OF EDUCATION, THIS YEAR'S FAIR UNFURLED ITS VIBRANT BANNER UNDER THE RESPLENDENT THEME OF "BAHUBHASHI BHARAT - EK JEEVANT PARAMPARA" (MULTILINGUAL INDIA - A LIVING TRADITION). WITH THE KINGDOM OF SAUDI ARABIA TAKING PART AS THE GUEST COUNTRY, THE AIR WAS SUFFUSED WITH THE HEADY AROMA OF CULTURAL EXCHANGE, LITERARY DISCOURSE, AND HARMONIOUS DIALOGUES, WEAVING A RICH FLAVOUR OF MUTUAL APPRECIATION AND UNDERSTANDING BETWEEN THE TWO NATIONS

Further, amidst this vibrant mosaic of India's cultural panorama, as showcased at the World Book Fair, the symphony of myriad languages, dialects, and traditions harmoniously intertwined into a seamless expression of unity. Here, as one flapped through the pages of literature and glanced at the strokes of artistry, the feeling resonated with a profound testament to the nation's rich heritage. The unveiling of 'Jaadui Pitara', an enchanting e-learning oasis, emerged as a beacon of enlightenment in consonance with the vision of National Education Policy (NEP) 2020. Overflowing with the treasures of puzzles, riddles, and tales, this marvellously inclusive repository, deftly translated into 22 languages through the marvels of (artificial intelligence) AI, stood poised to revolutionize the landscape of childhood education. Alongside, a constellation of specialized modules, meticulously crafted in alignment with NEP 2020, adorned this educational tableau, offering a cornucopia of resources and insights tailored to the modern learner. Embracing the noble vision of fostering a nation of avid readers, an ethereal e-library welcomed all with its boundless offerings, inviting one and all to immerse themselves in the splendour of knowledge.

In this timeless mosaic of human civilization, books stand as luminous threads weaving together the very fabric of knowledge, imagination, and cultural heritage. Like radiant beacons illuminating the path of enlightenment, books beckon us into realms of limitless discovery and profound insight. Amidst this vast literary landscape, book fairs emerge as vibrant marketplaces of intellect, where bibliophiles and seekers of wisdom converge in a harmonious symphony of literary delight.

The English author Neil Gaiman once remarked, "Literacy is more important than ever it was, in this world of text and email, a world of written information. We need to read and write, we need global citizens who can read comfortably, comprehend what they are reading, understand nuance, and make themselves understood." His words underscore the contemporary relevance of literacy in an age dominated by digital communication.

Maya Angelou, the celebrated poet and civil rights activist, aptly encapsulated the transformative power of literacy when she asserted, "Any book that helps a child to form a habit of reading, to make reading one of his deep and continuing needs, is good for him." She underscored the profound impact that exposure to literature can have on shaping young minds and nurturing a lifelong love for reading. Book fairs, with their wide array of offerings spanning genres and age groups, play a crucial role in instilling this habit of reading and nurturing a generation of literate and intellectually curious individuals.

Book fairs also serve as vital platforms for promoting diversity and inclusion within the literary world. Chimamanda Ngozi Adichie, the acclaimed Nigerian author, emphasized the importance of diverse representation in literature when she said that "Stories matter. Many stories matter. Stories have been used to dispossess and to malign, but stories can also be used to empower and to humanize. Stories can break the dignity of a people, but stories can also repair that broken dignity". Therefore, by showcasing literature from diverse cultures, perspectives, and voices, book fairs contribute to a more inclusive literary landscape, fostering empathy, understanding, and interconnectedness among readers.

Book fairs, by bringing together a diverse array of literature, empower individuals to engage with various forms of written expression, thereby fostering critical thinking and communication skills essential for navigating the complexities of the modern world.

The New Delhi World Book Fair is a celebration of the written word that transcends boundaries and bridges cultures. Here - as in others counties of the world - the significance of books reverberates with resounding clarity, underscoring the enduring relevance of organizing such transformative events with new creative engagements. It is time when we move beyond just literacy...

(The writer is programme executive, Gandhi Smriti and Darshan Samithan. Views are personal)

TRIBUNE, (P-5), 25 FEBRUARY 2024

Bengali and International Mother Language Day

GJV PRASAD

'ARE we celebrating Sanskrit Day today?' asked someone on one of the WhatsApp groups. I didn't know that. I replied. 'Today (February 21) is something called International Mother Language Day,' she said. 'And Sanskrit is the mother of all languages, whatever westerners and you Tamilians may say. Sanskrit is the mother language! So, today is Sanskrit Day!'

This got me thinking. Why is it called the Mother Language Day instead of Mother Tongue Day? Mother language seems like a literal translation into English from the many languages where they are called just that — like *matrubhasha, thaaimozhi, langue maternelle*, etc. But English has 'mother tongue', and 'mother language' sounds like 'mother ship'! No wonder my WhatsApp group friend misunderstood what it meant and began to argue for Sanskrit, thinking the westerners may be celebrating Greek or Latin!

Obviously, the friend doesn't know that the day originated from the subcontinent! It is the day that commemorates the Bengal Language Movement, the day that memorialises the martyrdom of many students shot dead by the police when they were protesting for the inclusion of Bengali as the co-official language of Pakistan, as opposed to Urdu being the only official language. This fight for Bengali found resonance in India and among Bengalis in many states in India. The mother language that gave rise to this celebration of International Mother Language Day is actually Bengali!

This day was proclaimed by UNESCO in its General Conference in 1999, accepting a proposal by Bangladesh. The UN General Assembly adopted a resolution to celebrate the International Mother Language Day in 2002. Each year the celebration has a theme associated with it. This year, it is 'Multilingual education — a pillar of learning and intergenerational learning'. India has always realised the need for inclusive education in terms of languages, even if it hasn't been able to implement this successfully. This theme highlights for all nations of the world the need to ensure the survival of all languages — by delivering education in the mother tongues of the learners, while subsequently teaching them other languages as well.

Our richness of understanding depends on the survival of our various languages, the cultures they are part of, and the worlds and knowledge systems they embody

Our attempts at implementing the three-language policy were steps towards such inclusive education. We need to broaden and strengthen our attempts even more. As I have insisted before in these columns, we cannot have equity and equality without paying attention to all our languages. It is only by education in these languages that we will create conditions for our constitutional aims of equality, equity and strong democracy. Access to education is a right of every citizen of the country and it will lead to an access to and the enforcement of all rights conferred by citizenship.

We know the need for translation from and into all our languages, we need to have access to education in all our mother tongues — this is how we can achieve our early and constant dream of unity in diversity. Diversity is the important term here; there can be no forced cultural and linguistic unity in a democracy, and definitely not in a large country like ours. We do not want to create secondary citizens, ones whose sense of identity is always under threat, whose lives and cultures are marginalised.

This is a lesson, 'the' lesson, for the world — the health of the planet depends on how well we are integrated as humankind. We can be so integrated only when no community's sense of self is trampled underfoot by forces unleashed by globalisation or other economic or political practices. Each language is a different view and understanding of the world. When a language disappears every two weeks, we are harming ourselves as much as we harm the planet when species disappear. Our planet depends on sustainable practices, on our understanding that our earth belongs to others as well and that is how we have come to exist and that we have no future without the survival of other species. In the same manner, we have no future as humanity if we lose our languages.

Our richness of understanding depends on the survival of our various languages, the cultures they are part of, and the worlds and knowledge systems they embody.

Sure, celebrate whichever language you want to, but celebrate other languages as well. More power to all mother tongues!

PIONEER (P-7), 26 FEBRUARY 2024

Indian education system: The quest for perfection

JS **RAJPUT**

The Indian education system stands at a crossroads, poised between recognition and realisation of its inherent potential

Looking back from the transition point to the third millennium, it could indeed be interesting—and revealing—as to what was the most encouraging achievement in the pivotal sector of education! The most mentioned of the responses to the query from seasoned academics and scholars, as well as the policymakers who had contributed to policy formulation and implementation for three-four decades, referred to the change in social responses from various strata of society.

The most serious impediment was ignorance of the value of education in the lives of the individual and the family. One wonders whether anything more could be expected from a society seriously emaciated for centuries, and subjected to live their lives in abject misery! Social structures that practised exclusion, seriously flawed assumptions on the role of women and its relationship to female literacy, and the excruciating hold of the clergy in deprecating the education of girls were indeed serious handicaps before all those who were assigned to implement the constitutional directive of providing free and compulsory education to all children till they achieve fourteen years of age!

The widely prevalent practice of early marriage, child labour, compulsions to earn daily bread, and the need for extra hands in farms and fields, were also prominent factors that severely impeded the process of enrolment in schools. It may be tough for the millennials to visualise a situation that for decades together, girls' education in India suffered for want of toilets for girls in schools. This is one area that remained neglected all along.

After the Prime Minister of India spoke from the ramparts of the Red Fort about sanitation practices, and the need for immediate reforms, things have changed, and this deserves appreciation. However, considerable alertness and appreciation of the need are still necessary. Why do I say this? What one learns from personal interactions just cannot always be extricated from data! In 2016, one visited several institutions as a member of the TSR Subramaniam Committee on Education policy. In one of the colleges with an enrollment of around two thousand, a mention was made of the neglect of sanitation, the Director had this to say: Oh, it is too dirty and unhygienic for me to inspect! I mention this for two reasons; first; the systems of education paid little attention to such a significant impediment. Second; even after the universally acknowledged and appreciated movement for sanitation, and its great success, there is much more to be achieved on this front!

OUR EDUCATION INITIATIVES AND EFFORTS, IT MUST BE ACKNOWLEDGED, DRIFTED MORE TOWARDS THE ACQUISITION OF EDUCATION FOR MATERIAL AND PHYSICAL GAINS

We are much better off at this juncture in educational achievements, particularly in the context of girls' participation in education and subsequently in every sector of knowledge, skills, services, defence and the like. What was the most ignored aspect of Indian education during the second half of the 20th century? Some academics and scholars—adherents of negativity included—would like to criticise all that has been done and achieved during this period. Those who are, ideologically unconstrained and capable of taking an objective analytical view express concern about certain aspects that are essential ingredients total the personality development of any individual. This is usually articulated in every policy and programme, but current education practices get ignored in schools and even certain well-reputed institutions. Moral and ethical aspects of education, education in human values, and similar expressions are regular parts of every education initiative.

We also have the legacy of Mahatma Gandhi, who could say "My life is my message"! How many of our present-day leaders—political leaders—could say that with inner conviction and confidence? There are still the old guards and young ones who took Gandhi, Rajendra Prasad, Rajagopalachari, Karpuri Thakur, LK Advani, Narendra Modi, and the like as their role models.

A committed work culture, a sound value system, and a pursuit of higher and larger goals in life could only be inculcated in educational institutions and that remains a big challenge before the Indian education system. Our advantage is that we are familiar with how it could be achieved.

Indian education has achieved sufficient recognition and success; within and outside the country. India and its ancient education systems aimed at comprehensive personality development, the comprehension of 'Ekam Sat Viprah Baudha Vadanti, 'Sarv bhut Hite Ratah', 'Sarve Bhavantu Sukhina", and much more on similar lines. We were privileged that MK Gandhi gave us a practical model of education that focused on enhancing the economic aspect but did not neglect this totality, and wanted the best to be drawn out of out of head, hand and heart. Sri Aurobindo; and the mother; dwelled in higher echelons of human advancement, apart from what is usually aimed at imparting education.

Our education initiatives and efforts, it must be acknowledged; drifted more towards the acquisition of education for material and physical gains. Education, said the Mother; is not to prepare learners to succeed in life and society but 'to increase his perfectibility'! Addressing the students of the Ashram Schools she said: "Do not aim for success. Our aim is perfection.

Remember you are on the hold of a new world, participating in its worth and instrumental in its creation. There is nothing more important than the transformation. There is no interest more worthwhile." The Mother goes on to delineate it further for our comprehension: "To learn for the sake of knowledge, to study to know the secrets of Nature and life, to educate oneself to grow in consciousness, to discipline oneself to become master of oneself, to overcome one's weaknesses, incapacities, and ignorance, to prepare oneself to advance in life towards a goal that is nobler and vaster, more generous and truer..."

Could anything more need be said on how our schools and institutions could move ahead in pursuit of excellence once they absorb the golden words and the strength of the philosophy behind them?

(The author works in education, social cohesion and religious amity, views are personal)

DECCAN HEARLD (P-8), 27 FEBRUARY 2024

What's NExT for medicos?

NMC must address concerns over the exam's dual nature and prioritise student welfare

NANDIMATH OMPRAKASH V AND ALEXANDER THOMAS

The NMC conducted due stakeholder consultations and then brought into force the NMC National Exit Test Regulations on June 28, 2023. The question is: Why now, seven-and-a-half months later, are they seeking stakeholder feedback on the same topic?

On February 8, 2024, the National Medical Commission (NMC) released a notification seeking feedback regarding the National Exit Test (NExT) within 10 days by February 17. The notification also states that a committee is being constituted by the Minister of Health and Family Welfare to examine the implementation of the NExT exam. This article examines these concerning developments and their implications.

What is the National Exit Test? NExT refers to the final year medical undergraduate examination for two specifically identified reasons:
(i) to grant a licence to practice medicine (subject to other conditions being fulfilled by the candidate passing NExT); and
(ii) to form the basis for admission to broad-speciality medical education in medical institutions.

NExT also replaces the current examination of foreign medical graduates who intend to practice medicine in India. The primary aim of NExT is to bring uniformity and efficiency to the assessment process for Indian postgraduate medical professionals.

In order to prevent any plausible conflict of interest scenarios, the National Medical Commission Act, 2019, mandates NMC to have the test conducted through any other designated authority by specifying modalities and details. Therefore, the NMC conducted due stakeholder consultations and then brought into force the NMC National Exit Test Regulations on June 28, 2023.

Why now, seven-and-a-half months later, are they seeking stakeholder feedback on the same topic once again? Does this indicate an attempt to revamp the existing regulations? Moreover, it is alarming to see that the Minister of Health and Family Welfare is establishing a committee on NExT when the conduct of NExT through any other agency or authority is the statutory privilege of the NMC and not the government, as specified under the National Medical Commission Act, 2019. Under Section 15 of the Act, *inter alia*, the conduct of a National Exit Test (NExT) is the statutory mandate of the NMC.

Despite the statutory mandate that NExT shall become reality within three years from the date of starting NMC, it has yet to materialise.

One of the major causes of this delay is the confusion among the stakeholders regarding the legal position of NExT. The authors of this article came across multiple stakeholders advancing an argument that the 'regulatory' and 'competitive' aspects of the NexT examination cannot be effectively combined. Perhaps they are stating that the final year exams of MBBS, which are currently conducted by the concerned state health universities or other universities in the absence of the health university, are done according to the respective university regulations, and the NMC Act may not impede that autonomy of theirs.

The existing regulations indicate that NExT will be conducted in two stages, viz., NExT Step 1 and NExT Step 2. The first is testing through multiple-choice type via computer-based online mode (implying that the testing is done without human intervention and subjectivity), and the second is ascertaining the student's understanding and application of skills, which shall include a viva voce examination. The regulations specify clearly that NExT Step 2 shall be conducted by the respective state health universities or universities themselves.

Any concerns about the regulatory and competitive nature of the exam should be addressed with a focus on practicality and student welfare. If found to be reasonable and convenient to the students (who are the most critical stakeholders in the argument) by suitably making necessary amendments to the existing regulations, universities may allow the NExT examination to be conducted.

(Nandimath is Professor of Law, National Law School of India University and Thomas is founder and patron, Association of National Board Accredited Institutions.)

DECCAN HEARLD (P-13), 27 FEBRUARY 2024

The power of a learner-driven classroom

Emphasis on learner-centred models in recommendations of various commissions often remains on paper, writes John J Kennedy

The concept of a learning-centred or learner-centred approach to teaching is not new; however, educational institutions are only now actively embracing and implementing it in their teaching methodologies. Despite ongoing debates and scholars' divided opinions on the terminology—whether learning-centred or learner-centred—it is crucial to recognise the positive impact of this method on students.

Extensive research supports the idea that the learner-centred model improves retention and prepares graduates better. The origins of this approach can be traced back to influential philosophers such as Confucius, Socrates, and the 17th-century experiential educationist John Locke. The concept evolved significantly before being formally introduced as a theory by Rousseau in the 18th century.

Despite its historical roots, teachers, especially in India, have not widely adopted the learner-centred method. In India, educational commissions have consistently emphasised the relevance of the learner-centred model in their recommendations. However, they have often remained rhetorical and confined to paper, with limited impact on classroom practices.

Understanding the model

The learner-centred model diverges fundamentally from the traditional teacher-centred approach, which focuses on the teacher's inputs, credentials, and knowledge as the primary sources of information. In contrast, the learner-centred model emphasizes outputs, focusing on students' acquired knowledge, abilities, and competencies.

In this model, faculty members relinquish their role as exclusive knowledge providers, encouraging students to take greater responsibility for their learning. Active student participation defines this approach, with teachers adopting roles as facilitators and learning partners. The collaborative and supportive nature of the learner-centred model promotes a deep understanding of subjects over merely seeking correct answers.

Students are recognised as co-creators of knowledge, contributing to decisions about what and how they learn and are assessed, fostering a sense of value and respect for their backgrounds, skills, abilities, and interests.

Teachers' perceptions

Teachers' perceptions of the learner-centred model vary based on their teaching style, comprehension of the concept, and willingness to embrace change. Many recognise its importance but remain uncertain about implementation strategies. Some may resist due to the perceived need for a creative, radical outlook, additional efforts, and nuanced thinking. A segment of teachers may be averse to experimentation and adhere to traditional beliefs that view involving students in decision-making as preposterous.

Creating a supportive environment

A conducive environment is crucial for successful implementation. Cultivating a culture of mutual respect and trust between teachers and learners is essential, necessitating small class sizes for personalized attention. Communication and assessment practices must shift from traditional exam-based approaches to enable and emphasise a deeper understanding of concepts.

Teachers and administrators need to discard traditional mindsets and embrace a forward-thinking approach. Organising training sessions and workshops for teachers on the learner-centred model, its usefulness, and relevance can help educators understand the intricacies of the model, ensuring its benefits reach students effectively.

Benefits of the learner-centered model

Students stand to gain numerous advantages through the learner-centred approach. Actively involved in discovering knowledge, students utilize various learning methods that empower them. Collaboration is fostered through team-based activities, inquiry-based exercises, problem-solving tasks, and project-based learning.

Additional approaches like choice boards and flipped classrooms enhance the learning experience. Conducive spaces for active learning, tailored to students' interests and strengths, facilitate cooperative learning through peer interaction, review, and group exercises. The learner-centred model prioritises an inductive approach over a deductive one, enriching the learning experience.

The shift towards a learner-centred approach represents a transformative change in teaching methodologies. Overcoming challenges requires a collective effort to create a supportive environment, change mindsets, and provide necessary training.

The benefits for students are substantial, fostering a collaborative, supportive, and personalized educational experience beyond traditional boundaries. As educational institutions actively integrate these principles, they contribute to shaping graduates with knowledge and a profound understanding of the subjects they study.

(The author is the professor and dean, CHRIST (Deemed to be) University, Bengaluru)

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What Byju's Teaches Us

Kiran Somvanshi

For most onlookers of Byju's debacle, there is some consolation that it is not a listed company. For parents, it is a relief that Byju's isn't a full-fledged educational institution granting degrees.

In 13 years, Byju's became market leader of the Indian edtech sector, commanding peak valuations of $22 billion two years ago. The pandemic — prompting a shift to online education — provided the wind to the edtech industry's sails. However, expensive acquisitions, questionable business practices and misgovernance soon brought trouble for the company. The latest developments have been about ED issuing a lookout circular for the company's founder and CEO, Byju Raveendran, over forex violations and a group of investors voting to oust him from CEO's position.

From being part of the Hurun India rich list in 2022 to suffering over 90% dip in the company's valuations to having travel restrictions imposed on him, Raveendran has charted a disparaging journey. In Hindu culture, it is believed that if one pursues Saraswati (the goddess of knowledge), then Lakshmi (the goddess of wealth) follows suit.

Incidentally, Byju's attempt of dispensing Saraswati to gain Lakshmi couldn't sustain for long — with allegations of mis-selling, unfair trade practices, unethical accounting practices, expensive acquisitions, mishandling of user data, forex violations, toxic work environment, financial mismanagement, loan defaults and unpaid employees.

Unveiling of Byju's not only underscores the need for governance in the unlisted startup space but also shows how this need gets accentuated when the entities are proliferating in areas that are considered as public goods or essential services, such as education, healthcare and banking.

Education, healthcare and banking services are vital public services in India. Education is seen as a critical route to achieving social and economic mobility for Indian households. Families across socioeconomic strata save money or take loans to ensure their kids get a good education.

Affordable and accessible healthcare is a critical public service in a country that does not yet have universal health coverage. Most in the country are one major health calamity away from slipping into indebtedness. Likewise, accessible banking and financial services remain essential in India, where millions are joining the formal economy every year.

Startups in consumer products, retail, entertainment or space exploration can mushroom, experiment or fail, without having any significant socioeconomic repercussions for the masses. But when new-age businesses with innovative business models engage in essential services and fail, the loss hits harder, the pain is more widely felt, and the trust deficit is graver.

India, as a developing country, cannot afford to go down the same path as that of a developed market like the US, which can continue to lead the world economy despite expensive education, unaffordable healthcare and banks with chequered track records.

Detention time

However, this does not mean India's education, healthcare and banking sectors should remain bereft of any startup-driven innovation. It needs to be encouraged with necessary guard rails so that affordability, accessibility and frugal innovation are incentivised, instead of pursuing fancy valuations and profit maximisation at all costs. Self-regulation isn't a strong guard rail, as has been made evident by Byju's debacle.

In 2022, India's edtech industry set up a self-regulatory body, the India EdTech Consortium. In July that year, GoI warned edtech companies against unfair trade practices, stating that it would formulate stringent guidelines if self-regulation did not work. But there is an inherent conflict in the idea of self-regulation — it is difficult to police one's failings. Little wonder, then, that a body manned with the who's who of the edtech industry failed to check the misgovernance happening in the sector's leading player.

It is also a wake-up call for the private equity and venture capital industry that funds and backs startups to realise what business models would create long-term value in a price-sensitive, low-paying but high-volume market like India. The business models that have worked in the US and other similar markets don't necessarily work here. Stakeholder value creation doesn't only mean rising valuations and a successful public listing, it also means happy employees, satisfied customers and a well-governed business.

Byju's, however, did end up providing education for all — its stakeholders — on how not to run down a promising business.

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HINDU (P-8), 27 FEBRUARY 2024

Drop the 'garland model' to let science in India blossom

Karishma Kaushik

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Scientific meetings, or conferences, are where researchers with similar or aligned areas of interest gather and serve as important avenues for the discussion and dissemination of science.

These meetings often include presentations or talks on contemporary research findings, along with expert interactions on topics of science and professional development. Across the international scientific ecosystem, several academic conferences or meetings are organised every year, often by scientific societies, research institutes, universities, and organisations.

The 'bouquet giving' model

The standard academic meeting model involves a core group of organisers – or a scientific society – responsible for a range of tasks, that include planning the meeting programme, inviting experts, disseminating the meeting information to researchers in the field, and raising and allocating funds for the event.

Scientists at these meetings include invited speakers, who are often those with exceptional accomplishments in an area of work, along with several other researchers and professionals who have to pay a fee to attend the meeting and share their latest research discoveries.

In recent times, scientific conferences across the world have increasingly adopted reimagined conference formats that, in addition to robust scientific discourse, support contemporary academic practices such as non-hierarchical interactions, career-stage equity, diversity, and sustainability. Every year, India hosts a multitude of such meetings and conferences across various fields of science, technology, engineering, and mathematics. These meetings are organised by communities of scientists or scientific societies and, depending on the scale, are held at institutes or universities or at larger convention centres and conclaves. While the content of scientific meetings in India conforms to the standard academic model of talks, presentations, discussions, and interactions, the conduct of meetings deviates sharply from contemporary and emerging conference formats.

The persistence of outdated frameworks in the conduct of the scientific meetings in India is affecting its scientific practice

To start with, scientific conferences in India continue to uphold bureaucratic and hierarchical frameworks that are largely outdated. Often called the "institutionalisation of meetings", this includes the mandatory presence of institute administrators on conference committees, organisers listed in order of 'senior' and 'junior' members, and the obsequiousness in the distribution of work responsibilities based on scientists' designations.

This bureaucratic footprint is also reflected in the proceedings, which often begin with prolonged talks by science administrators, with the sessions commencing only after the arrival of dignitaries, and running sequentially late. Other aspects that underscore this hierarchy are segregated seating in order of academic designation, bouquet and shawl ceremonies, and elaborate gift-giving rituals for speakers.

We also need to critically reevaluate certain meeting practices in India in the context of growing calls for secular scientific practice and the need for gender and social inclusivity and diversity in science. It is not uncommon to find scientific programmes in India starting with 'inauguration' ceremonies, that include 'lamp lighting' and devotional songs, and conference materials replete with religious symbolism.

In addition, the lack of gender and diversity awareness is well documented in meeting programmes, that include all-male speakers or panellists (also known as manels) and sessions such as 'women in science' that completely fail to account for larger diversity issues in science, such as historically marginalised groups and LGBTQIA+ scientists.

As a contrast

In spite of this, there are examples of scientific meetings in India with frameworks that support informal and non-hierarchical engagement and interactions. The annual meeting series, 'No Garland Neuroscience' (NGN), uses a simple, sustainable, and low-in-cost approach, while keeping the focus on the scientific content and discussions.

The long-term Young Investigators' Meeting (YIM) series from IndiaBioscience (the organisation that this writer is affiliated with) is another example. Initiated in 2009, the YIM series has focused on scientific networking and mentorship among life scientists in India, and has continued to do so with 'no-garland' features' such as speaker lists in alphabetical order, round table seating, equal gender representation, open interactions among scientists who are in every stage of their careers, and the absence of religious symbolism, formal inaugural ceremonies, prefixes and salutations for speakers, and souvenir and bouquet distributions.

A revamp will send a clear message

These examples indicate that communities of scientists in India recognise the need to revamp the conduct of scientific meetings in the country.

The persistence of outdated frameworks in the conduct of the majority of scientific meetings in India has immediate implications related to the nature and the culture of scientific practice in the country. Bureaucratic scientific engagements continue to fuel long-standing academic challenges such as hierarchical and career-stage inequities. Non-secular and non-inclusive meeting practices overlook pressing challenges and persistent advocacy related to gender representation, intersectionality and non-denominational science in the country. On the other hand, re-imagining the structure and conduct of scientific meetings could make planning and budgetary room for improved practices such as hybrid and multi-hub conference formats, a conference code of ethics, a conscious inclusion of diversity, and caregiver support and childcare grants for attendees.

Importantly, the revamp of scientific conferences in India could also have long-term implications related to India's aspirations to be a serious player in the international science and technology research ecosystem. The larger message will be that science in India supports contemporary conversations on egalitarianism, diversity, inclusivity, accessibility, and sustainability, and is ready to adopt them in the practice and the dissemination of science.

INDIAN EXPRESS (P-10), 27 FEBRUARY 2024

Fast food education

Byju's fall is a cautionary tale, opportunity to question quick-fix and technocratic attitudes towards education

SANJAY SRIVASTAVA

THERE IS AN episode in Kashinath Singh's fictionalised Hindi language memoir, *Kashi Ka Assi* (2004), that goes something like this. It is 1953 and the author has recently arrived in Kashi, having left his village. The young Kashinath has high hopes that the city will be a site of enlightenment and deliverance from the debilitations of rural existence, marked by the dead hand of custom and the economic and cultural dead ends that smother aspirations. Kashinath is staying with an elder brother, another supplicant for the city's imagined capacities for improving blighted lives.

The brother suggests that the first step to secure an alternative future lies in acquiring expertise in the English language and offers an immediate lesson. The teacher leads the pupil to the banks of the Ganges and, facing a peepal tree, orders attentiveness. Standing a little distance away — "to attention" — the brother addresses the tree: "What is your name?" Then, moving closer to the tree, he responds: "Sir, my name is Ramji Singh". He then moves even further away and asks the tree: "What is your father's name?" and, then, moving closer to it, answers, "Sir, my father's name is Sri Nagar Singh". The self-appointed mentor repeats his actions till he is exhausted and drenched in sweat. He orders young Kashinath to repeat the exercise. "The truth to tell", the perplexed narrator of the tale notes, "I didn't learn any English but understood that there is some connection between knowledge and perspiration".

There is a sad seriousness to the novel's comedy that is a commentary on the futile attempts at social mobility that — rather than providing an avenue for it — bind many to the sterile hopes of rote learning. What Kashinath Singh means to point to is that in milieus of desperation, imagined techniques of salvation only condemn supplicants to never-ending cycles of hopelessness. The younger brother comprehends the pointlessness of the exercise the befuddled elder one carries out with mechanistic reverence. An uneven and poorly designed education system, he realises, cannot simply be overcome by occultic conversations with a tree, notwithstanding its sacred status.

The capacity for thinking broadly derives from learning to engage with human complexity. One of the hallmarks of fast-food education is the withdrawal of students from normal schooling — an indispensable period of learning the skills of social interaction — and their insertion into the abnormal milieu of the coaching institute. This produces both under-socialised young people and dysfunctional adults. And, yet, we hear almost nothing about what the 'edtech' model means for human capacities and creativity.

This pithy episode from *Kashi Ka Assi* could serve as a cautionary tale regarding the ongoing controversy over the edtech firm, Byju's. The company, as we know, has gone from being (as one media report put it) "India's hottest tech startup" to its most troubled. Over the past six to eight months, it has been raided by the Enforcement Directorate (ED) over suspicions of foreign exchange violations; accused of financial mismanagement; faced attempts by major investors to oust its founder and allegations of breaching corporate ethics; and had its market worth slashed to a fraction of its earlier value. The Byju's case is, however, mainly discussed as an instance of poor corporate strategy rather than — as Kashinath Singh's warning-offered-as-bemusement might suggest — an instance where education has been converted to a five-minute noodle dish. In this process, education — that process of making us genuinely human — has been converted to a machine for profit-making without much proof that it produces any public good.

The pervasiveness of rote learning as an educational strategy is, not, of course, new and has a relatively long and, by now, well-established modern history. It is serviced by urban dystopias — consisting of coaching institutes, accommodation and allied industries — that have taken deep root. Here, failure and success are measured primarily through success in examinations that privilege rote learning. These are, as might be expected, also landscapes of bereavement. The calculus of success and failure pioneered by this system produces grim statistics of youth suicides at its epicentre. Through narrowing the capacity for human thought as well as the possibility of adjusting to changes in economy and society — when, for example, the nature of jobs changes because of dramatic technological interventions — this model severely handicaps those who have been entangled in its net.

And yet, public commentary on the Byju's phenomenon continues to be in the languages of good and bad corporate management, imagining education as a packet of chips that has proved unpopular because the promoters forgot to add the right kind of masala mix. The salve for anxieties regarding uncertain futures cannot, however, be found in decrepit, quick-fix and technocratic attitudes towards education.

First, there is a vast arena of livelihood choices that can also produce happiness, which has not only been marginalised by the fast-food model of education but also effectively stigmatised. This means that young people with an interest in, say, urban design, filmmaking or journalism, face familial and social pressure to pursue careers for which they might not be suited. Failures at examinations that require capacity for rote learning are, subsequently, experienced as failing one's family as well as marks of personal inadequacy. Second, there is a difference between acquiring a technical qualification and being subject to a technocratic one. An engineer with broad learning not only builds good bridges but is also equipped with skills of switching tracks should bridge-building go out of fashion. Technocratic education, with its incredibly narrow methods and processes, leads to an incapacity for thinking on one's feet.

Finally, the capacity for thinking broadly derives from learning to engage with human complexity. One of the hallmarks of fast-food education is the withdrawal of students from normal schooling — an indispensable period of learning the skills of social interaction — and their insertion into the abnormal milieu of the coaching institute. This produces both under-socialised young people and dysfunctional adults.

And, yet, we hear almost nothing about what the "edtech" model means for human capacities and creativity. We hear little about the fact of the great human wastage that multiple years of perspiration and formulaic learning lead to for so many of its hapless subjects.

IE|10

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INDIAN EXPRESS (P-11), 27 FEBRUARY 2024

Single window challenges

Key to CUET's success is collaborative approach, alignment with diverse curricula

SHILPI BANERJEE

THE DILEMMA BETWEEN exit and entry exams is a perennial issue in the Indian education system. It leads to multiple problems including teaching to the test, perpetuating inequality, and causing undue stress and anxiety. This dilemma is further exacerbated when students are compelled to prepare and appear for multiple entrance examinations while exploring admission opportunities in various universities across the country. The introduction of the Common University Entrance Test (CUET), then, is seen as a silver bullet to resolve this issue. The CUET 2024 is scheduled from May 15-31 and aims to establish a common entrance examination for undergraduate and postgraduate admissions in all central universities and affiliated colleges.

By replacing multiple entrance exams with a single-window CUET, students can now concentrate their energy and attention on one exam, thus reducing mental stress and enabling them to perform better. Furthermore, the CUET intends to provide equal opportunities to students from diverse backgrounds, including rural and urban areas, as well as students from national, international, and state boards by providing better access to higher educational institutes. This ensures standardisation and fairness in the selection process for higher education.

However,the CUET also poses a potential threat to the higher education system. It may add to the already rampant coaching class culture and dummy schools in the country. Students from privileged and urban backgrounds who have access to coaching centres and dummy schools may have an advantage in terms of exam preparation and familiarity with the exam format, resulting in higher success rates. On the other hand, students from marginalised backgrounds who cannot afford coaching may be at a disadvantage. Similar to other entrance exams like the IIT-JEE and NEET, CUET too will face the challenge of inclusivity due to an uneven social structure and the digital divide in India.

Additionally, since the CUET is a multiple-choice question (MCQ) exam, it may have limitations in terms of the types of competencies that can be assessed. This may influence the teaching-learning process, with teachers prioritising what will be tested in the exam over focusing on the core material of subjects. In such a scenario, the educational focus may shift from being holistic and well-rounded to solely preparing students for an objective exam, which inherently has a limited scope for creativity and expression.

Most importantly, in a country as diverse as India, each state possesses unique social, cultural, and political characteristics that also influence the learning process. Different state boards consider this when designing curricula, textbooks, and examination systems. But given the diversity of state board curricula, students from such boards may find themselves at a disadvantage. It may be unfair to evaluate their learning using a single benchmark like CUET, which is based on a national-level curriculum. So far in India, central universities have had autonomy in matters related to their administration, academic decision-making, curriculum design, admissions, faculty appointments, and overall functioning. Since every state university offers specialisation in a variety of courses, these universities were earlier given absolute autonomy in designing selection tests for their courses by taking into account the desired prerequisite knowledge, skills and dispositions for each of the courses. Thus, the move towards a centralised single-window entrance to the higher education world undermines the crucial role of ensuring equity in the process of designing selection tests.

CUET has been introduced to address grave issues within the education system, and it can only be successful if certain larger principles and quality considerations are kept in mind. Key stakeholders, including teachers across the country, practitioners working in the area of education and policymakers, should be involved in the design and review of the examination. This collaborative approach will ensure a more comprehensive and well-informed assessment that will accommodate the diversity of state board curricula. Also, each of these stakeholders should be well-informed about subject-specific competencies. The classroom pedagogy and assessment need to be well-aligned with subject-specific competencies, equipping students to critically apply their subject knowledge as required, irrespective of the examination format — and without requiring additional coaching to perform well in the CUET entrance examination. In conclusion, the implementation of the CUET must be carefully navigated to mitigate potential challenges by engaging all stakeholders in the design and review process, prioritising subject-specific competencies, and ensuring alignment with diverse state board curricula.

IE/h

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PIONEER (P-7), 27 FEBRUARY 2024

Kerala's education system in a disarray

KUMAR **CHELLAPPAN**

The recent senate meeting at Kerala University offered a stark portrayal of the tumultuous state of affairs within the CPI(M)-led Govt's education sector

One step forward and four steps backward seem to be the driving force of the CPI(M)-led Government if what happened during Friday's senate meeting of the Kerala University is any indication. The meeting was convened by Mohanan Kunnummel, the temporary vice-chancellor of the university to elect a representative for the search committee formed to find out the new vice-chancellor for Kerala University.

Interestingly, all universities in the State have been functioning without full-time vice-chancellors for last year following the Supreme Court verdict that all the appointments of vice-chancellors made by the CPI(M)-led Government violated the laws of the land and the norms prescribed by the University Grants Commission.

The senate meeting of Friday was convened by the vice-chancellor and he was expected to preside over the session. But R Bindu, the minister for higher education, rushed to the stage and usurped the chair meant for Mohanan Kunnummel. When the latter reached the Senate Hall for the meeting, he found himself to be without a chair while the minister claimed that she, as pro-chancellor, would preside over the meeting. Though the vice chancellor showed t her the rule book that stated that the pro-chancellor had no role in the meeting as the Chancellor was very much present in the State, the minister (spouse of CPI-M polit bureau member A Vijayaraghavan) did not budge even an inch leaving Mohanan high and dry.

"Minister Bindu turned out to be a right buffoon the party commissars were looking for in their bid to subvert the meeting. They did not want the meeting to take place and this lady played her role well. This will go down in history as the best comic interlude by a minister of higher education whose role is to elevate the standard of higher education to new heights," said R S Sasikumar, president, of Save University Forum, an apolitical outfit working to restore the quality of the State's higher education.

The subversion of Friday's senate meeting would lead to a delay in selecting the ideal candidate for the post of vice-chancellor. This comes at a time when universities outside the State are busy switching over to four-year bachelor's degree courses in tune with the National Education Policy. The delay has cost the State dear as most intelligent and efficient students are leaving Kerala for higher studies and they are unlikely to return.

K N Balagopalan, the State Finance Minister, in his budget speech 2024-2025 presented early this month proposed revolutionary changes in Kerala's higher education sector. On the anvil were red carpets for private universities and off-shore campuses of reputed foreign universities.

MILITANT TRADE UNIONS HAVE ALWAYS PLAYED HAVOC WITH THE PROGRESSIVE MEASURES ADOPTED BY THE CPI(M)-HEADED GOVERNMENTS IN THE PAST

The CPI(M) leaders declared that the day would not be far off when Oxford, Cambridge, Harvard and even the London School of Economics opened their branches in Kerala so that the students would benefit from world-class education here. But the minister and the party bosses made a U-Turn within two days and declared that they would not open the doors for private as well as foreign universities. "It was only a proposal and not a decision. If the stakeholders are not happy, we will drop the idea itself," Balagopalan told the media following outbursts by the leaders of the SFI, the students wing of the CPI(M).

In Kerala, the SFI leaders, who would not have passed the Plus Two examinations had they been born anywhere outside the State, decide the persons who should be appointed as vice chancellors of universities and as faculty members. This is not an exaggerated statement. Where else on earth you would come across student leaders who demand only persons of their choice be appointed as VCs and teaching faculty?

The manifesto of the SFI has promised the students that they would insist that all university examinations should be held only after 1 PM and there won't be any examinations during the pre-lunch hours. The charter that has been submitted to the university has one more interesting demand: the staff council should have a student representative and the college authorities should not interact with the parents/guardians of students! The day is not far off when they will ask for the right to prepare question papers for the semester examination.

Militant trade unions have always played havoc with whatever progressive measures adopted by the CPI(M)-headed Governments in the past. Those days are over as it is nouveau riche like Elamaram Kareem who leads the trade union wing of the party. The children of trade union leaders are enrolled in high-end public schools in Ootti and Kodaikanal while offsprings of party workers continue toiling in Government schools.

Leaders of SFI are entangled in cases ranging from murder, attempted murder, sexual offences and above all mass copying and fake degree certificates. There were many instances of students who had failed in their bachelor's degree examinations passing out of postgraduate courses from colleges in the State. Did you hear the pangs of Goddess Saraswati?

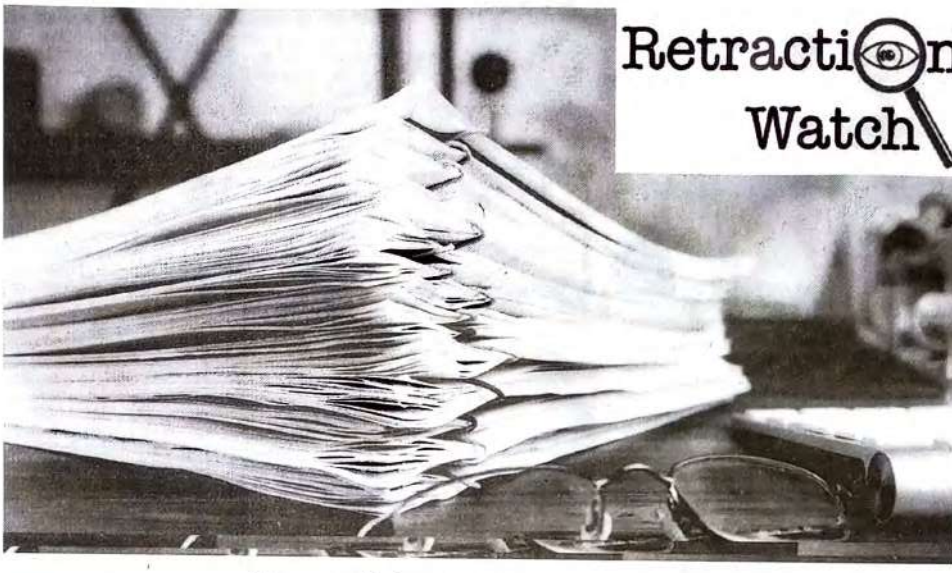
(The writer is a special correspondent with the Pioneer, views are personal)

Pie/7

STATESMAN (P-6), 27 FEBRUARY 2024

Retracted research ~ I

The influence or impact of fake research lingers on due to a long time lag — 9.5 month being the median of retraction. By the time the retraction decision is taken, the studie might have been extensively cited, used as the premise of many other genuine researc studies or guided technology and public policy



The study published in *Nature*, a leading international journal, has taken the academic world by storm. Richard Van Noorden's analysis based on the database of Retraction Watch, one media organisation, and other journals reveals record retraction of scientific papers from research journals – more than 10,000 papers in 2023, a 2.5 fold spike from the preceding year.

Ironically or fortunately, 8,000 of those papers had exclusively been from journals owned by Hindawi, a subsidiary of Wiley. The analysis also evinces that the retraction rate has trebled in the last decade.

In India, the incidence and number of retractions have increased manifold since 2010 – from 595 papers between 2017-19 to 1550 during 2020-22, or a 2.5 fold jump. India holds the 3rd rank in the world. Specifically from older IITs, many scientific papers had been retracted, for reasons like plagiarism of text and article and duplication of papers. Two IIT (School of Mines) scientists have had 50 papers retracted.

India has the dubious distinction of publishing the highest number of predatory journals – Madhya Pradesh tops the states – and resultant research papers. Predatory journals, otherwise a cottage industry, are a different genre without an editorial board and peer review system and publish almost anything for a hefty publication fee. Moreover, shadow agencies, commonly known as paper mills or manuscript mills, are doing thriving business in India.

Retraction is the outcome of the process where editors or external experts raise critical questions about the underlying idea, dataset, experiment and findings of research papers, for which the published papers cannot be relied upon. Being the last resort, retraction is invoked when the integrity and veracity of the paper come under the hammer.

Retraction Watch enlists 109 reasons for retraction, like errors in data collection or classification, fabrication or manipulation of data, oversight of research protocol, plagiarism, simultaneous publication, fake peer review and ethical or other misconduct. Though the boundary between acceptable human error and intentional misconduct is rather tenuous, it is unequivocal that deliberate fudging is responsible for more than three-fourths of retractions.

The whopping numbers and alarming increase in retraction rates are pushing scientific academia to an epochal juncture. The phenomenon points to the overwhelming sweep and hold of sham science all around, belittles public trust in scientific research and shrouds and misleads the trajectory of knowledge and even public policy.

The fake research papers are stretching the credibility of research to a screeching, if not crushing point. Bogus publications are vindicating an international publishing scandal. The ominous and appalling eventuality points to overpowering problems for the future trajectory of science per se. What is exposed now is, ironically, the tip of the malpractice iceberg.

AMAL MANDAL

The writer is former Associate Professor of Political Science, Tufanganj College, Cooch Behar, West Bengal

The retraction figures habitually exclude conference papers, books, and above all, social science papers; otherwise, the aggregate would have swelled. Flagging is relatively easy for scientific papers, as these are based on a specific or verifiable dataset, experiment or laboratory test.

However, the detection process seems messy for social science papers, where replication is almost impossible. Papers dealing with survey data and critical or theoretical discourse can, at the most, be subject to plagiarism and multiple submission tests. The phenomenon of deception and misconduct is obviously much more extensive and multifaceted.

With the publication of fraudulent papers, the damage is already done and not much could be done to undo their fallouts, particularly in action-oriented research, except naming and sharing the authors and publishers.

The influence or impact of fake research lingers on due to a long time lag – 9.5 months being the median of retraction. By the time the retraction decision is taken, the studies might have been extensively cited, used as the premise of many other genuine research studies or guided technology and public policy.

The large observational study in Lancet concluded that hydroxychloroquine was responsible for more deaths and heart related complications among Covid-19 patients.

Accordingly, the WHO stopped clinical trials of the drug. However, subsequent investigation uncovered inconsistencies in the database of "Surgisphere," the base of the study, and the paper was retracted. Similarly, laboratory studies indicated that the anti-parasite Ivermectin is the magic drug for treating Covid-19 patients. Later on, these studies were found to have committed clear evidence of fraud. Retraction does not necessarily imply that the study will disappear altogether from circulation and use. Studies found that 90 per cent of the retracted articles continued to receive citations after retraction.

For the print version of the studies, a retraction notice in a subsequent issue of the journal remains the only viable option. Yet, not everyone can keep up with such notification. The digital version of the papers may conveniently be preceded by a retraction notification. But that step is not always evinced: one-half of the retracted research papers on Covid-19 are still available in full-text without retraction notices.

From an alternative perspective, the insistence is that the increasing rate of retraction is heartening as it demonstrates the concerted efforts and improving skills of the journal editors and watchdog agencies.

Surely, more and more detections are due to the initiatives and surveillance by many stakeholders. And variegated methodologies are being employed – analysis of the manuscript content, identification of software-generated "tortured phases" designed to skirt plagiarism probes, screening of citation patterns and scrutiny of problematic papers. The newer method factors in the combination of authors that is likely to flag bought-in authorship.

Nonetheless, it is equally explicit that more and more academics are resorting to spurious means. Estimates attest that the retraction rates are outstripping the number of research papers or that the rates are inversely proportionate to the increase in publications. The journal publishers tend to be in a quandary as to how to detect pseudo research papers or how to reinforce their filtering mechanisms.

For decades, the peer review process has served as the gold standard for determining the validity or authenticity of submitted manuscripts. The review is intended to examine and assess the quality and accuracy of the method employed, the analysis and the findings of the study by the subject experts.

The review process – either concealing or disclosing the identity of the authors and reviewers – filters out the poor quality papers or ensures improvement with suggested modifications. The appraisal report of the reviewers is the basis on which journal editors make final decisions.

However, exponential retractions substantiate the deficiencies ingrained in the review system. It is more often hobbled by inconsistencies, loopholes, systemic manipulation and vulnerability. The review process is not yet organized, or infallible. As JT Torres puts it, the reviewers are professionals, but peer review is not a profession as yet.

The review process is susceptible to compromise or scheming. Occasionally it may be a namesake; otherwise, Computational and Mathematical Methods in Medicine would not have published the article "Contemporary Value Assessment of Marxist Ideology under the Context of Deep Learning."

The special issues of journals, owned by the Hindawi Group, were manipulated by way of selective guest editors and reviewers which eventually led to the retraction of 8,000 research papers in 2023.

(To Be Concluded)

DECCAN HEARLD (P-8), 28 FEBRUARY 2024

Fancy facades vs vital lifeskills

Are we sacrificing practical knowledge and competencies for superficial glamour in education?

P U ANTONY

Recently, I travelled from Ernakulam to Bengaluru on the intercity express train. A well-dressed young girl seated opposite me got off at Coimbatore, leaving an empty water bottle, an energy drink can, paper plates, and plastic covers on the foldable table in front of her. By the time I realised that she had alighted and I had failed to point out the issue, another three ladies and a small girl occupied the seats around the same table. They, too, added to the waste. When I reached Hosur, the table was fairly loaded, and they folded it like a coffin and chattered while sitting around it. The scene remained the same when I got off at Carmelaram station.

A couple of weeks ago, I took a team of 23 International Baccalaureate (IB) school students and their two teachers from a popular institution in Bengaluru for a nature camp in Wayanad. Despite being briefed in advance about the limited facilities for stay and food during the event, many of them started complaining upon reaching the venue. They hesitated to sweep the floor, wash cups, and sleep on the floor. Though the visit was part of their service learning, none of them wanted to serve but preferred to be served. Everyone wanted luxury and comfort. They wasted a lot of food, engaged in mobile chat, and returned with minimal learning.

In light of these two incidents, I feel there is a need to reflect on a recent decision by the Karnataka government to punish a school teacher who engaged her students in the cleaning of the school premises, including the toilet. In December 2023, the Karnataka Department of Public Education issued an order banning school authorities from forcing students to clean toilets. It also warned of criminal action against offenders. The department has clarified that students can be engaged "only in academic, sports, and co-curricular activities" and not for cleaning.

When countries like South Korea, Japan, the United States, etc. involve students in cleaning activities around the campus without considering it a big deal, we consider it a punishable offense. Assigning cleaning duties to students helps them learn to care for their surroundings and develop responsibility and ownership. They develop teamwork and cooperation skills too. Cleaning and maintaining personal spaces is a valuable life skill that can be passed down to future generations. Teachers need to make sure that the manual work meets the educational objectives, respects the students' dignity, and also meets the legal and ethical requirements of education. But using cleaning as punishment or assigning the duty only to certain individuals is illegal.

With the rampant commercialization of education, many big brands are entering this vast market. It is the second-biggest after the health sector. Almost 99% of all preschools opened in India during the last few years are purely commercial ventures. Many educationists have described them as "education shops." For maximisation of profit, they concentrate more on infrastructure improvements than the quality of instruction. Palatial buildings, landscaping, and pleasing the students with colourful cultural events are some of the tactics employed to woo consumers.

The policy of luring students with comfort and keeping them content cannot foster a healthy society. Lack of civic sense and discipline become the end result. Common sense, which is the essential ability to perceive, understand, and judge things, has been the foundation for many decisions in the past. It seems to be dwindling in our present age. Few understand their values and their impact on the rest of the population.

During my teaching days, I was baffled by big seminars and discussions in air-conditioned rooms to improve classroom management. But at the end of the day, I realised interactions with students in the field during various nature walks, adventure treks, and camps were the best tools to instruct and relate to them. During such programmes, through tactile experiences, they recognised the weaknesses and strengths of each other, and that knowledge bound them all together. They learned that life does not come with silver spoons, and education is meant to aspire for it, not to be entitled to it. Education imparted on lavish campuses without exposing students to the realities of the outside world is ultimately meaningless. Let our children taste both the joys and miseries of life. Prodigality will mould them as just showpieces. Life has highly pressurised moments that leave one exposed. Education should empower one to conduct himself/herself with integrity and character in such situations.

(The writer is a Professor of Zoology and Director of Forest Watch, an initiative for conservation and outreach based in Wayanad.)

DECCAN HEARLD (P-9), 28 FEBRUARY 2024

Govt publications must give credit where due

APARAJITA LATH

India recognises the moral rights of authors under the Copyright Act, 1957. These are non-economic rights tied to an author's work. They include the right to attribution. Attribution rights ensure that authors are credited for their works. This aims at respecting intellectual contributions and fostering creativity.

This concept of moral rights applies not only to highly creative works of art or fiction but also to any original work, including original policy and academic writing, whether legal, economic, political, or any other.

In the recent past, several government bodies have borrowed from research published by individuals in newspapers in their reports and policy decisions. The digital landscape, along with traditional newspapers, has revitalised the policy-making space. It has increased contributions from individuals with specialised and expert knowledge, increased the reach of impactful policy research, and expanded access to information like never before.

While the government has benefited from individual contributions, the authors of the newspaper pieces have not been duly credited in several instances. The government reports and press releases simply refer to the article by date without mentioning the names of the authors. In some cases, references are altogether ignored.

Such practices should be nipped in the bud. All that needs to be done is for government officials to be specifically instructed to duly cite (including the names of authors) all the sources that they rely on for their reports. The people in charge of writing and releasing reports and documents should be trained. They should be made to realise that ignoring the author's contributions can lead to legal issues. To avoid disputes and bad publicity, it is advisable that the government adopt this practice across departments sooner rather than later.

Such practices will enable full disclosure of materials relied on and increase transparency. This is also a way for the government to show that they are engaging with, rather than ignoring, public sentiment. Such a practice is not new and has been followed by courts in our country for several years. Being cited by a court is often regarded as a feather in the author's hat.

Government officials should be instructed and trained to duly cite all the sources that they rely on for preparing their reports to ensure increased transparency

When it comes to the government and courts, standards should be higher. Needless to say, public recognition is much higher when articles are cited by a government body or a court. Such public recognition serves as a valuable form of reward for authors and creators. It acknowledges their efforts, motivates continued creation, and can also contribute to professional growth and reputation.

Indeed, governments and courts are overburdened and busy, but that can't be an excuse for them to ignore an individual's intellectual contributions. Attributing a source is a best practice that should be followed by the government and all its departments in their publications.

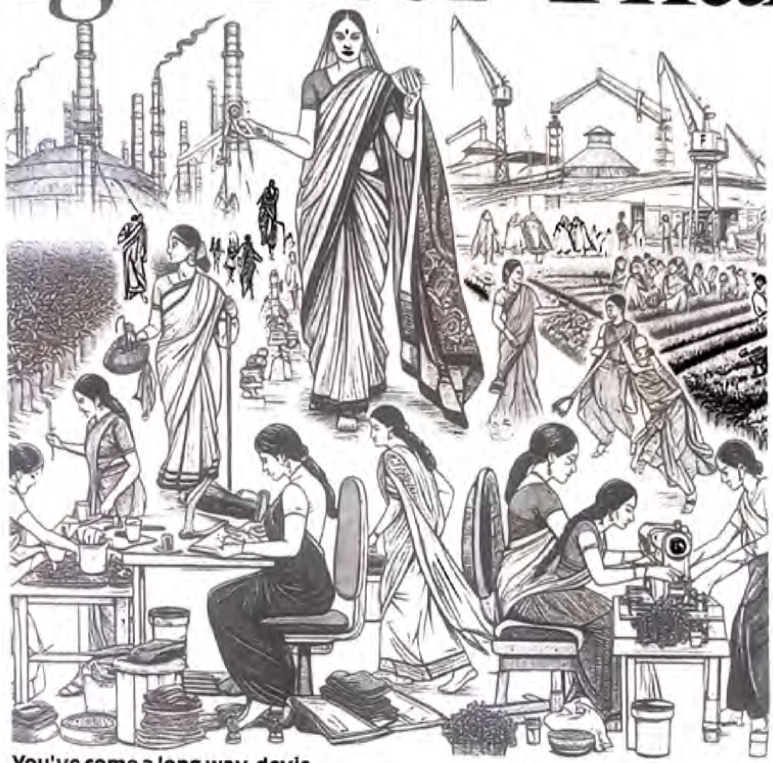
A small change in writing ethics can have a big impact. Since India is on an upward spiral, a positive feedback loop, led by the government, can compound growth. Positive actions like giving due credit to authors will lead to further positive outcomes. Since the government is pushing for increased innovation and creativity, it must practice what it preaches to set the right example for society.

(The writer is assistant professor at the National Law School of India, Bengaluru)

ECONOMICS TIMES (P-8), 28 FEBRUARY 2024

Working Better Than Ever

Swaminathan S Anklesaria Aiyar



You've come a long way, devis

Female workforce participation has risen sharply since FY17, after declining for three decades earlier. This should mean higher incomes, even if real rural wages have stagnated. Free foodgrains would have further improved real income.

But critics, including Radhicka Kapoor, Ashwini Deshpande and authors of Azim Premji University's 'State of Working India Report 2023', interpret rising female work participation rate (FWPR) as distress, not prosperity. They point out that rising FWPR has been mainly in agriculture, a low-productivity occupation. Higher rural employment (including MGNREGA) could represent distress as people who had earlier withdrawn from the workforce were obliged to return.

The bulk of higher FWPR came from a sharp increase in unpaid self-employed women. Critics say this could imply lack of jobs and disguised unemployment.

Others, such as chief economic adviser Anantha Nageswaran, have more optimistic explanations. They point to rising multidimensional indicators for women, which is not consistent with distress. For women, the proportion in agricultural work entailing heavy manual labour is down from 23.4% to 16.6%, while the proportion in skilled agricultural work rose from 48% to 59.5% between FY19 and FY23.

Underlying trends are difficult to establish in an economy repeatedly hit by external shocks. India was hit by Covid in 2020, the Ukraine war in 2022, and El Nino in 2023. These shocks have certainly caused distress. But that should be temporary. We need several more years of data to conclusively untangle the impact of shocks from deeper underlying trends.

However, a recent paper by Bishwanath Goldar and Suresh C Aggarwal of the Institute of Economic Growth presents a strong case for optimism. FWPR declined from 32% in FY94 to 20% in FY18, but then rose sharply to 28% in FY23.

The earlier decline was widely mourned as wasting India's demographic dividend. By the same token, the recent sharp rise should be called a welcome revival of the dividend. Instead, critics find distress in both the earlier decline and recent upsurge, with no sense of irony.

Between FY20 and FY22, rural men in agriculture declined by 13.3 million, and increased by 18 million in non-agricultural activities. Meanwhile women in agriculture increased by 22 million. So, the vast majority of higher female employment appears to be replacement for men who are going into higher-productivity industry and services.

Proportion of women engaged in agricultural heavy manual labour is down from 23.4% to 16.6%, while in skilled agri work rose from 48% to 59.5% between FY19 and FY23

Chandra Bhan Prasad says that in some villages, every single household has at least one male member who has migrated to a town and is sending home remittances. This is very positive. Goldar and Aggarwal say economic reforms have accelerated manufacturing employment, which grew by 4.7% in FY21 and 8.2% in FY22. This is unprecedented, they say. Employment rose a whopping 25% a year for enterprises with 10-19 workers, reflecting robust formalisation.

Khadi and Village Industries Commission (KVIC) accounts for a significant proportion of unorganised manufacturing and jobs. Employment in this sector rose 28% between 2015 and 2022. This would account for an increase in the proportion of women in manufacturing and services rising from 9.5% to 13% between FY18 and FY22.

Had distress been driving poor people to work, FWPR would have risen fastest for the poorest deciles of the rural population. In fact, rise has been slowest for the poorest decile, from 16.5% to just 19%. It has risen fastest for the top two deciles, from 19.4% and 19.9% to 32.6% and 33.5%, respectively. This is encouraging.

Goldar and Aggarwal believe conditions for women to work have improved because of better infrastructure and reduction of crime in states like Uttar Pradesh. The programme for piped water to all rural households has released women from fetching water from distant sources. One study suggests that a reduction of 100 minutes in household chores raises FWPR by a whopping 10%.

In UP, FWPR is 38% in places where over 90% of households have running water, but drops to just 15% where less than half the households have piped water. So, piped water, along with cooking gas and electric appliances, is helping raise FWPR.

Cellphones have improved information and raised employment by better matching seekers of work and hirers. Financial inclusion has improved financial security. Fintech companies, microfinance companies, self-help groups and MUDRA loans have provided more finance than ever before for rural

Conditions for women to work have improved because of better infrastructure and reduction of crime in states like UP

activity. Animal husbandry is among the fastest rising sectors in agriculture, has relatively high productivity, and is typically done by women.

Finally, reports across India speak of a serious labour shortage in agriculture despite the increase in labour supply. This is not compatible with the theory of distress.

Rural real wages may have stagnated in recent years, but urban real wages have risen appreciably. The old distinction between rural and urban areas is breaking down. With better transport and digitisation, all rural areas within 60 km of a town are developing strong urban linkages. Rural migrants to distant cities earn far more than in farm work. This enables them to send home remittances, improving rural spending power.

In sum, the case for interpreting a rising FWPR as distress is very weak. The case for optimism is far stronger. S

HINDU (P-12), 28 FEBRUARY 2024

Why science needs sustainable funding

How much do developed countries spend on research and development? Has the Ministry of Science and Technology consistently under-utilised its budget? How much does the private sector contribute to India's R&D funding?

EXPLAINER

Shambhavi Naik

The story so far:

The 2024 theme for National Science Day, which India celebrates every year on February 28, is "Science for Sustainable Development". Science and technological developments are key drivers of India's journey towards becoming a developed country by 2047. India is committed to making this progress through sustainable means, as evidenced by its commitments under the Paris Agreement, participation in global fora for sustainable development, and reinforced in this year's theme for Science Day. The role of science in driving sustainable development doesn't need emphasis, but any conversation on science is incomplete without setting one key expectation – for science to transform India, it has to be sustainably and consistently funded.

The status of R&D expenditure in India

The 2024 theme for National Science Day is "Science for Sustainable Development". However, any conversation on science is incomplete without one key aspect — for science to transform India, it has to be sustainably and consistently funded

Chart 1 : The chart shows the year-wise national expenditure on R&D in ₹ crore (left axis) and the gross domestic expenditure on R&D as a share of GDP (right axis)

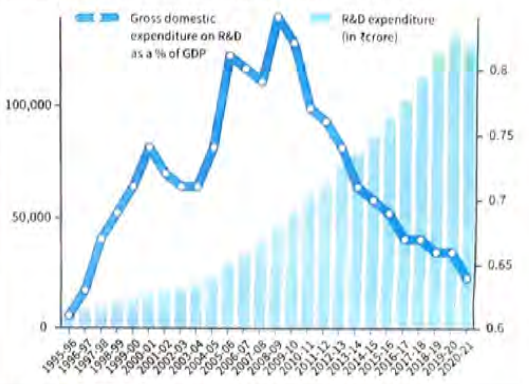
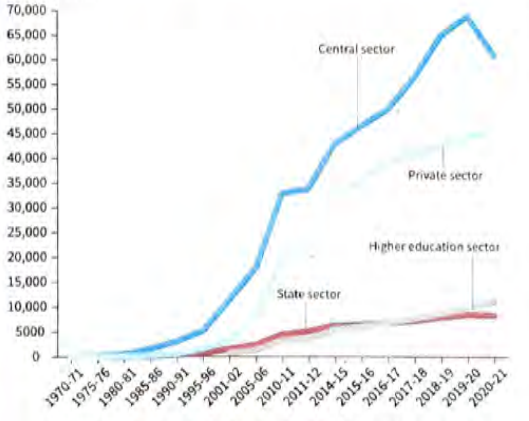


Chart 2: The chart shows the sector-wise national expenditure on R&D across years. Figures in ₹ crore



THE GIST

- Funding for fundamental research in India is amongst the world's lowest, particularly for a country with high science and technology ambitions. In the recent past, India's research and development (R&D) expenditure has dropped to the current 0.64% of GDP from 0.8% in 2008-2009 and 0.7% in 2017-2018.
- For India to reach the 'developed nation' status, it needs to spend more to scale R&D than developed countries spend to maintain that status. This is the foundation of the demand to spend at least 3% of the GDP on R&D annually until 2047.
- In the latest Budget, Finance Minister Nirmala Sitharaman provided many indications that the government would like R&D expenditure to include more contributions from the private sector.

How much is India spending on research and development?

Funding for fundamental research in India is amongst the world's lowest, particularly for a country with high science and technology ambitions. In the recent past, India's research and development (R&D) expenditure has dropped to the current 0.64% of GDP from 0.8% in 2008-2009 and 0.7% in 2017-2018. This reduced expenditure is worrying considering government agencies themselves have issued several calls to double this spending.

The 2013 Science, Technology, and Innovation Policy noted that "Increasing Gross Expenditure on R&D (GERD) to 2% GDP has been a national goal for some time". The 2017-2018 Economic Survey reiterated this in its chapter on science and technology transformation. The reasons for the reduction in R&D spending despite the government being cognisant of the need to increase it are not clear, but may stem from a lack of coordination between government agencies and a need for stronger political will to prioritise R&D expenses.

Most developed countries spend between 2% and 4% of their respective GDPs on R&D. In 2021, member-countries of the Organisation for Economic Co-operation and Development (OECD) on average spent 2.7% of their GDP on R&D. The U.S. and the U.K. have consistently spent more than 2% of their GDPs on R&D for the past decade. Many experts have called for India to spend at least 1%, but ideally 3%, of its GDP every year until 2047 on R&D for science to have a meaningful impact on development.

How can India improve its R&D spending?

Science requires consistent, large-scale investment to bear fruit. For India to reach the 'developed nation' status, it needs to spend more to scale R&D than developed countries spend to maintain that status. This is the foundation of the demand to spend at least 3% of the GDP on R&D annually until 2047.

And beyond the current spending being inadequate, its primary dependence on public money signals an immature financing system and weak domestic market. In 2020-2021, the private sector industry contributed 36.4% of the GERD whereas the Union government's share was 43.7%. State governments (6.7%), higher education (8.8%), and the public sector industry (4.4%) were the other major contributors.

In economically developed countries, a major share – 70% on average – of R&D investment comes from the private sector. The hesitancy of private-sector funding may be because of the poor capacity to evaluate R&D in India, ambiguous regulatory roadmaps that can deter investors, lack of clear exit options for investors in sectors such as biotechnology, and fears of intellectual property rights theft.

While the Anusandhan National Research Foundation was meant to solve some of the financial issues, its implementation has been delayed. The ₹2,000 crore annual budget the government earmarked for its implementation in the last budget was revised to ₹258 crore this year. Strategies for how the remaining budget of ₹7,200 crore from the private sector is to be raised have not been clarified yet. Thus, there is a perceived need to determine the overall quantum of R&D funding and its primary sources, given India's ambition to be a developed country by 2047.

How is the R&D budget utilised?

While the need for India to at least double its R&D investment has been expressed several times, the question of how effectively the allocated money is spent is explored less often. The Union Ministry of Science and Technology has consistently under-utilised its budget. So, while the calls for increased funding – through both government and private sources – are legitimate, a strengthened budget utilisation is also required to affect science outcomes.

In 2022-2023, the Department of Biotechnology (DBT) used 72% of its estimated budget allocation on centrally sponsored schemes/projects while the Department of Science and Technology (DST) used only 61%. The Department of Scientific and Industrial Research (DSIR), which receives the lowest allocation for centrally sponsored schemes, spent 69% of its allocation.

Such underutilisation is not a one-time error but has been consistently recorded over several years to varying degrees. The phenomenon is also not specific to the Science Ministry; given that India generally under-spends on R&D, there will likely be a major impact if the allocated funds are spent optimally. The reasons for under-utilisation, as with under-allocation, are unclear and may indicate tedious bureaucratic processes for approving disbursements, lack of capacity to evaluate projects or clear utilisation certificates, lack of prioritisation for science funding by the Ministry of Finance or inadequate planning or implementation strategy for the requested funds by the Ministry of Science and Technology.

The lack of capacity also reflects in delays in grant and salary disbursements. Most of these issues can be fixed by proper capacity building within different governmental agencies.

What does sustainable funding entail?

In the latest Budget, Finance Minister Nirmala Sitharaman provided many indications that the government would like R&D expenditure to include more contributions from the private sector. Against this backdrop, mitigating the under-spending and under-utilisation of funds earmarked for R&D stand out as obvious first steps. This in turn requires the political prioritisation of R&D spending and recognition of it as a core, irreplaceable element of India's growth journey. This prioritisation has to happen not only within the concerned Ministries but also at the Ministry of Finance, which disburses the funds. Incentives for private investment, including relaxation of foreign direct investments, tax rebates, and clear regulatory roadmaps for products will help build investor confidence.

Finally, India also needs the bureaucratic capacity to evaluate science projects and, after allocations, monitor utilisation. Building such capacity is a prerequisite for India becoming a science power by 2047. So this National Science Day, as we celebrate science for sustainable development, let's also remember that we need sustainable funding for science.

Shambhavi Naik is a researcher at The Takshashila Institution.

INDIAN EXPRESS (P-11), 28 FEBRUARY 2024

Our burdened children

The pressure that the Yash Pal committee had spoken of in the 1990s has been compounded by new factors and forces

KRISHNA KUMAR

C R Sasikumar

SPORADIC EXPERIMENTATION IS familiar to students of the history of education in our country. The latest to be tried out is the open-book examination. This, too, is not new, but this time it is expected to reduce the pressure that children are under. The ingredients of this pressure were the object of an inquiry by a committee that gave its report some three decades ago.

Committees come and go, but the problem persists, and some problems acquire greater virulence. A small committee chaired by the late Professor Yash Pal studied the problem of stress on school children in the early 1990s. He was a space scientist who answered — on TV or in newspapers — hundreds of questions posed to him by children. His slim report 'Learning Without Burden' was the focus of a recent workshop held at the Tata Institute of Social Sciences (TISS), Mumbai. The participants debated how the term "burden" should be defined in the present-day context. Has it diminished, increased, or has it mutated?

The Yash Pal committee was set up in response to a moving speech given by the novelist RK Narayan in the Rajya Sabha. He was a nominated member and this was his maiden speech. Its emotional appeal brought tears to the eyes of the then Deputy Speaker, Najma Heptulla. Other members were also moved by Narayan's description of children's daily ordeal.

Their heavy school bags and the long hours they spend doing homework and receiving extra tuition have ruined their childhood, Narayan said, labeling the problem as a national madness. The Yash Pal committee attributed this madness to a false conception of knowledge and poor curriculum design. It reflected a "catch up" syndrome based on the popular belief that an explosion of knowledge had occurred in the West, and India had to catch up. Poorly designed syllabus and textbooks, and unimaginative pedagogy exacerbate the "catch up" syndrome.

On top of these systemic factors, children face the stress of a competitive social ethos. Instead of mitigating it, schools contribute to it by promoting an all-round competitive mentality. Principals are under the pressure of management committees and bureaucrats to show better results. To survive in the system, teachers push children to aim at higher levels of performance. With weekly and monthly tests, a breathless routine destroys the child's search for meaning in what is taught. They take recourse to cramming — and the exam system also promotes it.

Speakers at the TISS workshop drew upon a recently published volume that examines the question: "Where are we a quarter century after the Yash Pal committee report?" It has been edited by Mythili Ramchand, Ritesh Khunyakari and Arindam Bose. The contributors have looked at the different domains of the school curriculum and the state of teacher education. A few gains made under the auspices of reforms initiated in the school curriculum and in teacher education are noted. However, the Covid years nullified some of these gains, and now the system is facing a whole new set of difficulties. Deletions from textbooks have made them shorter, but harder to comprehend. And the shortage of teachers has become chronic across the country as a recent report published by TISS ('The Right Teacher for Every Child') demonstrates on the basis of an extensive survey.

The workshop had a session on technology. Its impact on children and on teachers is largely uncharted territory. It has also witnessed a sharp polarisation among promoters and critics. Three teachers spoke at the workshop about their frustrating experience with the enforced use of technological resources. A counter view was also presented.

Undoubtedly, the burden that the Yash Pal report had discussed is now mutating into a broader subject — of pervasive anxiety among parents, teachers and children. It has to do with the new economic and work environment. With career opportunities dwindling, the pressure to compete for the two old, high-status professions — medicine and engineering — has greatly increased. Commercial coaching takes full advantage of this pressure, and it has raised it to levels hitherto unknown.

The popularity of technology and coaching has increased side by side, feeding the new testing style. It follows a "multiple choice" template. It presents roundabout ways of approaching the same topic, challenging the student, literally, to crack the code to give the right answer. Coaching institutes have cracked this system so satisfactorily that they now proudly invite students to suffer through the prolonged ordeal of dealing with MCQ-based tests shot off like a machine gun. What little scope there was for school teachers to focus on understanding and the pleasure it brings has receded.

The burden that the Yash Pal report had discussed is now mutating into a broader subject — of pervasive anxiety among parents, teachers and children. It has to do with the new economic and work environment. With career opportunities dwindling, the pressure to compete for the two old, high-status professions — medicine and engineering — has greatly increased. Commercial coaching takes full advantage of this pressure, and it has raised it to levels hitherto unknown.

Though he died only seven years ago, Yash Pal could hardly have imagined the transformative changes that children's lives would go through in this period. It started as a strategy to deal with the Covid crisis. Those who thought of using the online alternative to real classrooms developed a sense of smug pride by the time the pandemic passed.

Teachers knew that the online plan had not worked, but they didn't have much say when it was pushed in the post-pandemic new normal. Indeed, one can't think of any period when teachers had a say in our system. When they are pushed, they push children, and parents join in. So, the burden that the Yash Pal committee had spoken of has been compounded — by new factors and forces that we don't recognise anymore. We need another RK Narayan to say that some strange madness has gripped us. We all want to give a purpose to our children. By the time they pass out, they forget what it means to be interested in something — anything.

It is anybody's guess whether an open book exam will resolve this deeper problem that the Yash Pal report had pointed out. For him, the goal of good teaching was to create intrinsic motivation. Our failure to create it needs a broader remedy.

The writer is former director, National Council of Educational Research and Training

MILLENNIUM POST (P-9), 28 FEBRUARY 2024

Stimulus to originality

Educational institutions can help catalyse a future where innovation rules the roost in India, safeguarded by a strong and knowledge-based IPR framework

DEEVANSHU SHRIVASTAVA

The realm of Intellectual Property Rights (IPR) has become a cornerstone of innovation and economic progress in the 21st century. From patents and trademarks to copyrights and trade secrets, IPR safeguards the fruits of human creativity and ingenuity, encouraging individuals and businesses to invest in research and development. In India, a nation with a rich intellectual heritage and burgeoning ambitions in the knowledge-driven economy, the role of educational institutions in promoting IPR awareness and fostering a culture of respect for intellectual property cannot be overstated.

Educational institutions, from schools to universities, serve as the cradle of future innovators, entrepreneurs, and policymakers. It is within these formative environments that young minds are shaped, values are inculcated, and the foundations of professional ethics are laid. By integrating IPR education into their curricula, educational institutions can empower students with a deep understanding of the significance of intellectual property, the mechanisms available to protect it, and the consequences of infringement. This awareness is not only crucial for those pursuing careers in science, technology, or the arts, but also for anyone who will participate in a world where intangible assets are increasingly valuable.

IPR is a specialised field requiring expertise in both law and technology or the arts

One of the primary ways in which educational institutions can promote IPR is through dedicated courses and modules. These can be offered as electives or integrated into existing subjects across various disciplines. Such courses should cover the fundamentals of IPR law, including the different types of intellectual property, the processes for obtaining protection, and case studies illustrating the real-world impact of IPR. By understanding the legal frameworks that govern intellectual property, students will be better equipped to safeguard their own creations as well as respect the rights of others.

Educational institutions are vital in promoting Intellectual Property Rights (IPR) awareness

Beyond formal coursework, educational institutions can foster a culture of IPR through extracurricular activities and initiatives. This could involve organising workshops, seminars, and competitions focused on IPR-related themes. Inviting industry experts, patent attorneys, and successful innovators to share their experiences can provide students with valuable insights and inspiration. Additionally, institutions can establish incubation centres or technology transfer offices to support students and faculty in commercialising their intellectual property. These initiatives not only raise awareness but also create practical pathways for students to translate their ideas into tangible economic and societal benefits.

The promotion of IPR in educational institutions has ripple effects that extend far beyond the classroom. When students graduate and enter the workforce, they carry with them a heightened sensitivity to intellectual property issues. This translates into more ethical and responsible practices in research, business, and creative endeavours. Companies with a workforce that understands the value of IPR are more likely to invest in innovation, leading to a virtuous cycle of economic growth and competitiveness. Furthermore, a society where respect for intellectual property is ingrained becomes more attractive to foreign investment and collaboration, boosting India's standing in the global knowledge economy.

However, the task of promoting IPR in educational institutions is not without its challenges. One major obstacle is the lack of qualified faculty and resources. IPR is a specialised field requiring expertise in both law and technology or the arts. Many educational institutions, particularly those outside major cities, may not have access to such expertise. To address this, collaborations between academia and industry can prove invaluable. Industry professionals can be invited as guest lecturers or mentors, while partnerships with law firms or patent offices can provide training and support to faculty members.

Another challenge lies in overcoming the perception that IPR is primarily a legal matter and hence, not relevant to students outside of law schools. It is essential to dispel this notion and emphasise the interdisciplinary nature of IPR. Students of science, engineering, business, and the arts should all be made aware of how IPR can safeguard their innovations and contribute to their professional success. By showcasing real-world examples and success stories, educators can demonstrate the relevance of IPR across diverse fields.

The Indian government has taken significant steps in recent years to strengthen the IPR regime in the country. The National IPR Policy, along with legislative reforms and initiatives to streamline patent and trademark processes, reflects this commitment. However, these efforts need to be complemented by a strong push within the education sector. The National Education Policy 2020, with its emphasis on innovation and entrepreneurship, provides an excellent framework for integrating IPR education into mainstream curricula.

In conclusion, educational institutions play a pivotal role in shaping India's intellectual property landscape. By fostering a culture of innovation and respect for IPR, they can nurture future generations of inventors, entrepreneurs, and responsible citizens who will drive India's progress in the knowledge-driven era. It's time for educational institutions across the country to embrace this responsibility and actively promote IPR as a key pillar of a vibrant and innovative India. raising public awareness about IPR beyond the academic sphere is vital. Educational institutions can organise outreach programmes, seminars, and campaigns within communities, sensitising the public on the importance of respecting intellectual property and its contribution to progress.

By taking these steps, educational institutions can become the catalysts for a future where India thrives on innovation, protected by a robust and well-informed IPR ecosystem. As Albert Einstein aptly stated, "The important thing is not to stop questioning. Curiosity has its own reason for existing." Let us nurture curiosity and protect its fruits by fostering a culture of respect for intellectual property, then only we can achieve what is desired by the National IPR Policy 2016: Creative India; Innovative India.

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Views expressed are personal

PIONEER (P-6), 28 FEBRUARY 2024

Young dreams

Modi exhorts first-time voters to fulfil their aspirations by building a developed India

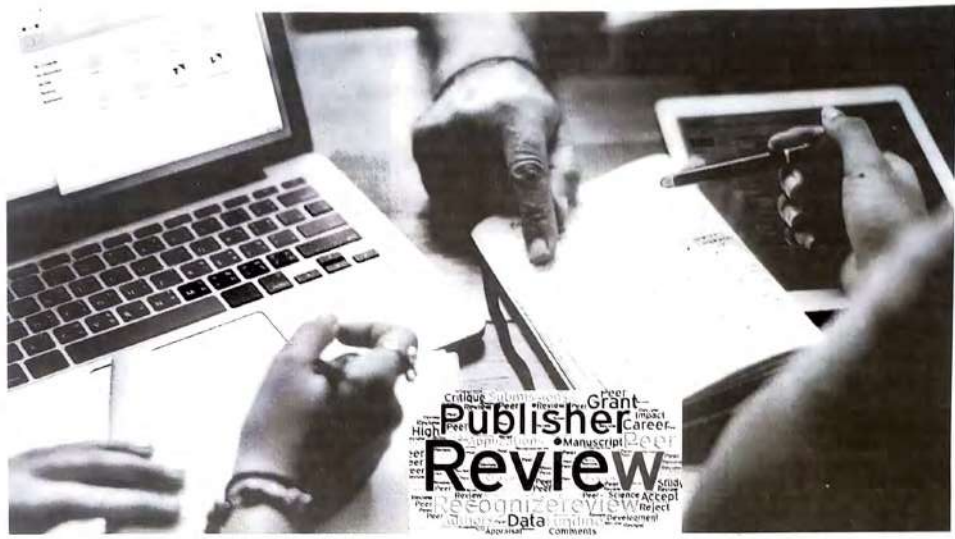
India, with one of the youngest populations in the world, boasts of a dynamic workforce brimming with energy, innovation and creativity. The demographic advantage of having a large number of citizens under 35 presents it with a golden opportunity to propel itself towards great economic, social and technological progress. Harnessing the power of its youth brigade, India can emerge as a global powerhouse, charting a path of sustainable development and prosperity. But channelling the youthful energy is most important as it cuts both ways. In this context, Prime Minister Narendra Modi's call to first-time voters is pertinent. Beyond just casting their vote, it is about understanding the nation's political dynamics and making an informed decision. Modi's assertion that the youth possess the "maximum right to shape India" resonates deeply with the aspirations and potential of millions of young Indians. With the vision of a developed India aligning with the dreams of its youth, the call carries profound significance as the nation navigates through a transformative phase. The empowerment of first-time voters symbolises the shifting dynamics of political engagement, where their voice is increasingly recognised as pivotal in shaping development policies. Modi's emphasis on the pivotal role of youth in nation-building underscores the recognition of their energy, creativity and ambition as indispensable assets for progress.

By acknowledging the aspirations and dreams of the youth, the Prime Minister not only acknowledges their power but also instils a sense of responsibility in them. Moreover, Modi is calling for action, urging the youth to actively participate in the democratic process. Also, his emphasis on youth empowerment extends beyond electoral participation to encompass skill development, entrepreneurship and innovation. Through initiatives such as Skill India, Start-up India and Digital India, the Government has endeavoured to create an enabling ecosystem that nurtures the talents and ambitions of the youth, equipping them with the tools to contribute meaningfully to the nation's progress. However, realising the vision of a developed India requires concerted efforts from all stakeholders, including the Government, civil society and the private sector. It demands inclusive policies that address the diverse needs and aspirations of the youth, irrespective of their socio-economic background or geographic location. It also necessitates investments in education, healthcare, infrastructure and employment generation. The Government, for its part, must keep the youth at the forefront while forming policies and giving maximum leverage to them. As the nation marches forward, it is imperative that the aspirations and potential of the youth are harnessed effectively, ensuring a brighter and prosperous future. 2016

STATESMAN (P-6), 28 FEBRUARY 2024

Retracted Research ~ II

A relatively minuscule pool of reviewers for many journals leads to not only overload but also obfuscation of diversity of perspectives and authors. The review work is basically voluntary or honorary, under-recognised, and less incentivized. Being one human activity, the review process is also enmeshed with individual-level limitations and biases in every conceivable sense



Many papers rejected by reviewers for whatever reasons go on to be published in some other journal. The published paper is also rejected by the same journal if and when resubmitted a few months later.

One classic case is instructive. Chuck Ross, a Los Angeles writer, submitted a typed verbatim copy of Steps, a 1969 award winning novel by Jerzy Kosinski with a different title and authorship, to 14 major publishers in 1977. The plan was to fathom the difficulties that unknown writers encounter in getting their work published.

Shockingly, all publishers, including Random House, the original publisher of Steps, rejected the manuscript. The test case vindicates the questions about the reliability and bias of the review process.

Reviewers are often engaged on the basis of their personal networks. Everyone is not trained or skilled. Moreover, the so called "hyper prolific reviewers" tend to have cornered the bulk of reviews – one of the ten such reviewers on the Publons platform reviewed a paper a day for sixteen years; another reviewed 812 papers in 2023. A 2018 survey by Publons found that four percent of reviewers are doing 25 per cent of reviews.

Journal publishing operates on goodwill, in the form of unpaid review of manuscript by expert volunteers. Over the years, many have become disinclined to accept review requests.

One managing editor of the American Sociological Association lamented that while earlier it used to take three or four tries to find a willing reviewer, now it takes around eight.

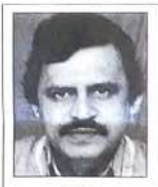
A relatively minuscule pool of reviewers for many journals leads to not only overload but also obfuscation of diversity of perspectives and authors.

The review work is basically voluntary or honorary, under-recognised, and less incentivized. Being one human activity, the review process is also enmeshed with individual-level limitations and biases in every conceivable sense.

Notwithstanding the ingrained biases and vulnerabilities, the peer review system must not be discarded; the resultant upshot would be more catastrophic. Given the deficiencies, the imperative is to organise the process robustly.

The incidence of retraction is more of an indicator, like a laboratory test report, that informs the extent of the malice and warns about the impending disaster unless and until the causes are comprehended and reparatory interventions are initiated.

The deluge of phony research publications is closely related to the policy emphasis or weightage on research and publications as measures of individual competency, academic progression, and institutional excellence. Academics across the world are now strongly incentivized to publish more and more papers for career leverage. Consequently, the demand for publishable papers has spiked exponentially.



AMAL MANDAL

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The higher education policy in India is according a premium on research and the quantity and quality of publications.

The cumulative score on publication and award is the integrated parameter right from recruitment, appraisal for promotion, sanction of research project, to institutional ranking and accreditation.

The UGC mandate that every Ph.D. student has to publish at least one paper in a peer reviewed journal before submission of the thesis has been waived only by November 2022 notification.

Academics in particular and higher education institutions in general are now swayed to have as many research grants and publications as possible to boost individual profiles and institutional rankings.

Thus, a four-fold jump in the retraction of fake papers has been observed in India since the introduction of the NIRF ranking in 2015.

The end, not the means, is thus getting undue prominence. Personal interest or self-aggrandizement is overtaking professional ethics.

The growing number of purportedly specialised and peer reviewed journals is thus catering to the consistent demand by publishing papers prepared in one way or another.

The opinion survey among the research community conducted by India Retraction Watchdog offers few insights into the cause of the inflammation. 51 per cent of academics considered the ranking parameter responsible for the outpouring of crooked publications.

35 per cent attributed it to the unethical inclination among the researchers. And 10 per cent held the absence or lack of punitive action against those already caught responsible for the misconduct.

The publication peril is strongly associated with the dynamics of demand and supply. The policy emphasis inflates the demand and triggers intense competition among academics for positions, prestige, grants etc.

Such mega demand leads to manipulation of the screening process (peer review), the use of sophisticated technology-driven tools for bypassing the investigatory eyes and intensification of the advent of new as well as alternative outlets from conventional and brand new (business) enterprises.

Accordingly, the supply line is bursting with paper mills and predatory journals, precipitating a heyday of fictitious publications. The dictum of 'publish or perish' – the phrase initially coined by Archibald Cary Coolidge – compels the academies to use any means, fair or foul, to prop up their academic portfolio. Academic ethics thus goes for a toss.

Illustratively, the phenomenon of sham scientific papers has its roots in China where paper mills began to ghostwrite supposedly scientific papers for professionals in science and technology for a hefty fee. Since then, the incidence and network of paper mills have spread all around.

Noorden's analysis suspects that about '1 per cent of all published scientific papers in 2023 appear to have been produced by paper mills.

In India, iTrilon, which used its WhatsApp platform to hawk the authorship of ready-made scientific papers with assured acceptance using its networks with journals, had to shut down its 'shop' in January, 2024 following an investigation by Retraction Watch.

As Wiley, the lead villain in the retraction saga of 2023, has confessed presciently, a storm is brewing all over and the publishing world is under siege from the paper mills.

The publication houses have little idea and capability about how to cope with or tackle the onslaught, particularly when the technology and the burgeoning tools are refining their modus operandi.

China and India are the biggest contributors to the escalating retractions and the cleaning-up measures taken therein are likely to determine the future.

The first ever nation-wide self-review initiated by the Chinese government, after considering the three-fourth proportion of Chinese co-authors among the 14,000 retraction notices issued in 2023 as a blot on the country's reputation, is expected to have ripple effects all around.

Academic institutions cannot shy away from proliferating malpractices and they should endorse provision for penalties, or at least dress down for misconduct.

When the offenders remain scot-free and even go up in the academic elevator, many others may become more enthused or carefree to jump on the unethical bandwagon.

One way of making the peer review system robust is to monetize the review process and hold the reviewers accountable for their review appraisals. Another transparent yet complex alternative may be to embrace the "pre print" review system.

When the perpetrators are academics, the sanitising course of action can come only from fellow academics.

It devolves on Indian academics to put the ethical praxis in the mainstream of intellectual exercise and embrace the role of a sleuth by shunning the habitual inertia to expose the misconduct of their brethren.

(Concluded)

ASSAM TRIBUNE (P-4), 29 FEBRUARY 2024

Measuring performance of academicians in HEIs

■ Prof Pradeep Kr Jain, Dr Samir Sarkar

"Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid." This quote is often attributed to Einstein, which may or may not be the case, but the underlying truth cannot be overlooked. It basically suggests that the same yardstick cannot be used to evaluate diverse qualities or performances of individuals from different backgrounds.

The University Grants Commission (UGC) has given specific guidelines for measuring the performance of teachers in higher educational institutions (HEIs), be it for promotion or direct recruitment. In both the UGC regulations, UGC Regulations on Minimum Qualifications for Appointment of Teachers and other Academic Staff in Universities and Colleges and Measures for the Maintenance of Standards in Higher Education, 2010 and 2018, the focus of the UGC is clearly on incentivising research and innovations. Many universities in fact go a step further and mandate that a teacher/job aspirant needs to have a specified number of research publications in indexed (Scopus or Web of Sciences) journals or in UGC CARE listed journals for having the requisite Academic Performance Indicator (API) score necessary for promotion or direct recruitment in higher educational institutions. This requirement of research publications is irrespective of academic discipline or stream of the person concerned, be it humanities or science or commerce or any other. But even the universities cannot be faulted for this as they themselves are a victim of the system. There is a race among HEIs to score high grades in accreditations by agencies like National Assessment & Accreditation Council (NAAC) or for higher national ranking in National Institutional Ranking Framework (NIRF) of Government of India or similar rankings published by other agencies. Both of these attach high weightage on research output of HEIs. Even grants given to HEIs by the government agencies like UGC are linked to grade awarded by NAAC or NIRF ranking.

On the face of it, it sounds reasonable that teachers of HEIs must involve themselves in research work. But research is just one aspect of various activities a teacher in HEI has to concentrate upon. For example, in professional or vocational programmes, perhaps greater emphasis should be on skilling the students in a particular trade and making them job-ready than on conducting research. Likewise, in the academic programmes devoted to language or literature, emphasis should be on writing articles for newspapers or popular magazines or writing books to reach out to the larger audience than publishing research papers. Teachers in streams like management or commerce prioritise providing consultancy services to corporate or government agencies to improve their functioning or conducting executive development programmes. Research is not the forte of students of humanities or commerce or management as these programmes are not mandated to produce researchers.

So, using the same yardstick for evaluating all the faculties irrespective of their domain of expertise is not plausible. Few questions beg an answer here. Do all academic disciplines provide similar opportunities for research publications or innovation or are some disciplines like science and technology better suited for conducting lab-based research? The answer to this can be inferred from the fact that research in India is mostly dominated by life sciences, engineering and medicine, as per the Elsevier report. Between 2014 and 2017, India produced around 5,64,369 publications in various subjects. About 94,249 of these (16.7 per cent) were published in the top journals in the world out of which majority were in engineering (14.4 per cent), followed by medicine (10.6 per cent) and computer science (10.3 per cent). The least quantum of research in this period was recorded in social sciences (close to a meagre 2 per cent). Even the prestigious Nature Index highlighted India's stronghold in research publications in chemistry and physical sciences. The top ten international journals where Indian scientists publish are all in chemistry and physical sciences, with 50 per cent of India's overall Nature Index output coming from chemistry alone.

Again, do we have the same number of indexed research journals compared to the number of teachers in all disciplines? There are far more number of teachers in humanities/arts in India even as the number of indexed journals in the same is very limited. This leads to long queues for publication in research journals and long waiting periods which can seriously affect the academic progression of the teachers.

The pressure on the teachers to publish for career progression within a limited period of time leads to mushrooming of bogus publications which are happy to publish one's articles for a price. Tens and thousands of sham research papers are being published in journals in an international scandal. One study by Nature revealed that in 2013, there were just over 1,000 retractions of papers. The number became fourfold in 2022 and in 2023, it rose to a whopping 10,000. The practice of publishing sham papers is rooted in China and it later spread to India, Iran, Russia and many other countries. The problem is that academicians are incentivised to publish research articles for recruitments or career progression. "If you have growing number of researchers who are being strongly incentivised to publish just for the sake of publishing, while we have a growing number of journals making money from publishing the resulting articles, you have a perfect storm," said Prof Marcus Munafo of Bristol University. That is exactly what we have now.

There is another dimension to this problem. Even for recruitment of academic administrators for HEIs under state or central governments, high emphasis is put on the research output of the prospective incumbent, which creates a bias in favour of persons from science and technology background. This fact is borne out by the fact that there are a disproportionately large number of academic administrators from science or technology domain currently holding top positions as academic administrators in the state and central universities of India.

Hence, it's high time to adopt diverse measures for evaluating the performance of academicians in different disciplines in HEIs which will truly reflect their core competencies and remove the inherent bias of the present system.

HINDUSTAN TIMES (P-16), 29 FEBRUARY 2024

Learning outside syllabus, beyond the board exams

A young student I know is writing his Class XII CBSE Board Examination. The other day I talked to him, sent my prayers, and conveyed my best wishes. Even though I believe he will do extremely well, satisfy his parents and impress his teachers, I am disturbed by some questions. Will he be able to find his *swadharma*, and live creatively and meaningfully with a life-affirming relationship with the world, even if with, say, 99% marks in the exam, he manages to get admission in a branded medical/engineering college or a top-ranking university?

It is not that I am concerned only about him. As a teacher and keen observer of the prevalent societal neurosis, I think of the fate of this entire generation, a terribly tense and anxiety-ridden one. Schools sell their success stories; coaching centres transform the toppers into brand ambassadors of their heavily commodified success manuals; and even the brigade of lucky parents seek to enhance their status in the neighbourhood through the mythologies of their children's success stories. But then, some of us must ask a series of critical questions, and rethink education.

Avijit Pathak

In this context, let me make three points.

First, I have no hesitation in saying that the kind of education we have normalised is essentially life-killing. Far from encouraging our children to remain peaceful and meditative with creative ecstasy, it causes chronic nervousness, restlessness and fear of lagging behind in the hyper-competitive rat race. We seem to have forgotten that education is not merely about the acquisition of a set of academic, technical and logical-mathematical skills but is essentially about the cultivation of a mind that is empathic, sensitive, dialogic and compassionate. Physics and Mathematics, or History and Sociology are definitely important. But then, the intelligence sharpened through the study of these disciplines need not be reduced to mere instrumental/technocratic reasoning — or, just a skill for cracking all sorts of standardised tests. Instead, science, technology, arts, literature and social sciences should equip children with theories and practices for nurturing the spirit of a humane and egalitarian world.

Possibly, some of our finest educationists — from Rabindranath Tagore to Jiddu Krishnamurti — repeatedly reminded us of these higher objectives of education. But then, think of our fall, our collective decadence. We have normalised the phenomenon called the Kota coaching factory, the tales of suicide in the IITs and other institutions no longer puzzle us, and while posh international schools in Gurugram and Noida charm the aspiring class from our gated communities, the lucrative business of psychiatrists, counsellors and motivational speakers goes on to manage our children's mental health.

Second, what frightens me further is the dark world these youngsters — even the successful ones — will eventually enter after their board exams. Possibly, they will eventually become either self-centred/non-reflexive careerists or cynics/defeatists living without any project of a better world. Think of the nature of the world (beyond the protective milieu of their families) they will enter. They will be eventually told that their 99% marks in Physics or English mean nothing if they do not manage to get appropriate jobs with lucrative salary packages. Hence, they will be advised to be practical, forget their unique traits and aptitudes, choose a place of learning (or, training?) from the supermall of medical/engineering colleges, and lead a one-dimensional life for somehow managing a lucrative job through the mechanism of the much-hyped campus placement. Time and again, they will be advised to handle the resultant nervous disorder and stand up as tough exam warriors.

Three, they will find themselves in a world in which there is no higher ideal to pursue. They will realise that whatever their school principals told them on the eve of Mahatma Gandhi's birth anniversary or Independence Day makes no sense in the real world. In fact, they will see how everything has been turned into its opposite — patriotism into the violence of hyper-nationalism; spirituality into toxic/divisive politics; democracy into electoral autocracy; ethical/moral principles into stupidity; and smartness into narcissistic aggression. Yes, they will confront a high-risk society filled with war and hunger, climate crisis and rising authoritarianism.

All these apprehensions and anxieties were making me somewhat uneasy when I offered my best wishes to the young student appearing for the board examination. Yet, amid this culture of disillusionment, I feel like recalling the wisdom of some of our finest thinkers and visionaries and urging this anxiety-ridden generation to expand their mental horizons, redefine their life pursuits, and strive for a sane society. I wish to tell them that no coaching factory will make them aware of the liberating potential of Paulo Freire's critical pedagogy — the kind of education that activates the learner's creative agency and inspires them to resist all sorts of domination and strive for a humane and egalitarian world.

I want to tell them about social psychologist Erich Fromm's reminder: The "having mode of existence" (the ceaseless craving for more money, more fame, or more property) the culture of consumerism normalises is a kind of neurosis, and to live meaningfully is to find the treasure inside, or to realise that, as Schumacher would have said, "small is beautiful". And I feel like appealing to them to see beyond the reduction of Gandhi into his spectacles and relive the spirit of non-cooperation with the culture of greed and violence. But this is outside the official syllabus of board exams.

AS A TEACHER AND KEEN OBSERVER OF THE PREVALENT SOCIETAL NEUROSIS, I THINK OF THE FATE OF THIS ENTIRE GENERATION, A TERRIBLY TENSE AND ANXIETY-RIDDEN ONE.

Avijit Pathak taught sociology at JNU for more than three decades. The views expressed are personal

TRIBUNE, (P-6), 29 FEBRUARY 2024

A cautionary tale for startups

Byju's slump underlines need for good governance and close investor-founder relationships

SUSHMA RAMACHANDRAN
SENIOR FINANCIAL JOURNALIST

IN TROUBLE: It was in the post-Covid era that Byju's fortunes began to decline. X (TWITTER)

THE Indian startup ecosystem is in a state of shock. Its poster boys are in trouble and mighty decacorns (valued at $10 billion) have hit rock bottom in valuations. In the spotlight is Byju's — the venture that was considered top of the heap for a long time, with a gigantic valuation of $22 billion. For years, it consistently topped the charts as the most successful startup in the country. Now, the former decacorn is facing multiple lawsuits along with cases filed in the National Company Law Tribunal (NCLT), while both domestic and foreign investors are clamouring for the removal of founder Byju Raveendran from the helm.

Meanwhile, the ubiquitous Paytm had to face the closure of its popular wallet facility for millions of consumers earlier this month. This followed stringent directives from the Reserve Bank of India, which declared that the closure was a consequence of repeated violations of earlier orders. Paytm founder Vijay Shekhar Sharma, widely considered to be the harbinger of the digital payment revolution in the country, has stepped down as chairman of the Paytm Payments Bank in a bid to stem the tide of criticism.

Right now, Byju's is the startup in the soup. The story of this celebrated edtech company is well known. It was originally an offline concern when it was launched in 2011. By all accounts, Raveendran is an excellent teacher who developed innovative, interactive ways of learning when it turned online in 2015. The company came into its own during the Covid-19 pandemic when there was an urgent need for online education. It offered tutoring for all classes right up to college level and had millions of students signed up during this period.

Domestic and foreign investors pumped funds into the company. Reputed venture capital names like Sequoia Capital, Prosus and Blackrock, along with Qatar Investment Authority, backed the venture. The valuation shot up to $22 billion by 2022. It then rapidly acquired several edtech firms specialising in different areas. As a result, a hugely successful offline company like Aakash, along with Great Learning and Epic, was taken over by a Byju's company, Think and Learn. In retrospect, analysts claim that there was little method in the random acquisitions but one does not recall much criticism at the time.

It was in the post-Covid era that the company's fortunes began to decline. Media reports surfaced of arm-twisting of parents by Byju's marketers to sell online tutorials. Home schooling also began to decline as physical schools resumed classes. The demand for online education fell, affecting not just Byju's but the entire edtech sector that had thrived during the pandemic.

> The drying up of venture capital funds is a global phenomenon, but in India's case, there are concerns over startup valuations that have dipped sharply.

Financial mismanagement began to be alleged as the company not only ran into losses but faced disputes over non-payment of dues to a host of companies. During the Covid era, the firm had sponsored the Indian cricket team and even hired football superstar Lionel Messi as a brand ambassador. Investors alleged that there was opacity over financial issues, which led to the resignation of auditing firm Deloitte. Investors are now seeking complete withdrawal of Raveendran and his family from the firm, while the founder is fighting a rearguard battle to stay on as CEO.

The situation reached a flashpoint last week, with shareholders led by Prosus convening an Extraordinary General Meeting seeking to remove Raveendran. A high court stay on any such decision, however, has kept these moves on hold for the time being. Meanwhile, complaints of oppression and mismanagement have prompted hearings by the NCLT, while the Corporate Affairs Ministry has launched its own investigation into the company's affairs.

In other words, the celebrity decacorn is on a sticky wicket. For the startup community in general and the edtech sector in particular, there are many lessons in this episode. First, good governance and close investor-founder relationships need to be developed in startup ventures. Second, acquisitions need to be carefully appraised by financial experts before taking large funding decisions. Third, founders who are excellent in one field, as Raveendran was in teaching, are not necessarily the best business minds. They need to be guided by experienced and trusted financial advisers.

In this case, as in that of Paytm, the need to follow guidelines laid down by the regulator must be paramount. The RBI has pointed out that the radical decision to suspend operations of the Paytm Payments Bank followed the company's failure to abide by a series of earlier directives regarding monitoring of accounts. There are reports of money laundering by customers relying on Paytm's lax enforcement of KYC (know your customer) guidelines. The brilliant success of some startups can embolden founders to think that rules can be bypassed with impunity. The crackdown on Paytm has rightly sent a clear signal that the regulator will not allow rule-breaking that can lead to financial malfeasance.

These controversies have occurred in the midst of a funding winter for startups that began in 2021. The drying up of venture capital funds is a global phenomenon, but the reasons in India's case include concerns over startup valuations that have dipped sharply in many cases. Funding received in 2023 dipped to $7 billion from $25 billion in the previous year, according to a Traxcn report.

In this backdrop, the Byju's case is a cautionary tale for all startup founders. It could lead to fears among venture capitalists about the viability of investments in this country. This is unfortunate, given that so many Indian startups have developed into efficient corporate entities. More than ever, it is now imperative for investors to provide greater support in terms of financial expertise for high achievers in the startup ecosystem. The overused Spider-Man phrase is apt in this context — with great power comes great responsibility. Both startup founders and investors have the responsibility to keep a sharp focus on financial stability.

DAINIK JAGRAN (P-12), 29 FEBRUARY 2024

पेपर लीक न होने की भी गारंटी मिले

डा. ब्रजेश कुमार तिवारी

राज्यों में भले ही सरकारें अलग-अलग दलों की हों, मगर उनमें पेपर लीक का मामला एक जैसा ही है

पिछले दिनों चार पालियों में हुई यूपी पुलिस कांस्टेबल भर्ती परीक्षा का पेपर लीक होने के चलते निरस्त कर दिया गया। फिलहाल उत्तर प्रदेश सरकार इसकी जांच करा रही है। उसने छात्रों को छह माह के अंदर दोबारा परीक्षा कराने का भरोसा दिया है। सरकारी नौकरी पाना लाखों युवाओं का सपना है, जिसे साकार करने के लिए छात्र खूब पढ़ाई करते हैं, लेकिन जब पेपर लीक हो जाता है तो उनके वर्षों के परिश्रम पर पानी फिर जाता है। माता-पिता द्वारा उन पर खर्च किया गया पैसा भी व्यर्थ चला जाता है। जो भी उम्मीदवार दूर-दराज से परीक्षा देने आते हैं, उनके आने-जाने और रहने का पूरा खर्चा बर्बाद हो जाता है। हालांकि सरकारें इसे लेकर गंभीरता दिखाती हैं। फिर भी पेपर लीक रोकने के उनके प्रयास नाकाफी साबित हो रहे हैं। बात यहां नीयत और नीति, दोनों की है, जिसका जवाब युवा वर्षों से तलाश रहे हैं। हर बार जब तक जांच होती है, तब तक पेपर लीक की दूसरी घटना घटित हो जाती है।

लखनऊ में दोबारा परीक्षा की मांग करते छात्र • फाइल

राज्यों में भले ही सरकारें अलग-अलग पार्टियों की हों, मगर उनमें पेपर लीक का सिस्टम एक जैसा ही है। पिछले सात वर्षों में ही देश के अलग-अलग राज्यों में 70 से अधिक भर्ती परीक्षाओं के पेपर लीक हुए हैं। जैसे कि उत्तर प्रदेश में यूपी पावर कारपोरेशन लिमिटेड, बीएड प्रवेश परीक्षा, यूपीटेट एवं सहायता प्राप्त स्कूल शिक्षक/प्रधानाचार्य की भर्ती के लिए हुई परीक्षाओं के पेपर लीक हुए। राजस्थान में एलडीसी, कांस्टेबल, पटवारी, लाइब्रेरियन, जूनियर इंजीनियर, सब इंस्पेक्टर एवं रीट भर्ती के पेपर लीक हुए हैं। गुजरात में टेट, मुख्य सेविका, गैर सचिवालय क्लर्क, हेडक्लर्क, सब आडिटर, वनरक्षक एवं पंचायत सर्विस सलेक्शन बोर्ड के जूनियर क्लर्क की भर्ती के पेपर लीक हुए हैं। ऐसे ही बंगाल में डीएलएड पाठ्यक्रम की वार्षिक परीक्षा, बिहार लोक सेवा आयोग द्वारा आयोजित बीपीएससी परीक्षा, हिमाचल प्रदेश कर्मचारी चयन आयोग की जेओए आइटी की भर्ती परीक्षा, मध्य प्रदेश प्राथमिक शिक्षक पात्रता परीक्षा, तमिलनाडु में दसवीं और बारहवीं की बोर्ड परीक्षा, अरुणाचल प्रदेश लोक सेवा आयोग द्वारा आयोजित सहायक अभियंता भर्ती परीक्षा तथा उत्तराखंड अधीनस्थ चयन आयोग की स्नातक स्तर के पदों के लिए परीक्षा के प्रश्नपत्र लीक होने के मामले सामने आए हैं। पंजाब और हरियाणा में तो यह एक तरह से रिवाज जैसा बन गया है। इनसे लगभग करीब डेढ़ करोड़ से ज्यादा युवाओं के करियर प्रभावित हुए हैं। क्या उन्हें पेपर न लीक होने देने की 'गारंटी' नहीं दी जा सकती?

पेपर लीक न रोक पाना संबंधित परीक्षा आयोजित करने वाली संस्थाओं और सरकारों की एक बड़ी नाकामी है। यह केवल परीक्षा व्यवस्था में खामी का मामला नहीं, बल्कि लाखों युवाओं के सपनों को चकनाचूर करने वाला एक अत्यंत जघन्य अपराध है। भारत एक युवा देश है। युवाओं के सपने भी बड़े हैं। वे परिश्रमी एवं प्रतिभाशाली हैं और तमाम कठिनाइयों एवं अभावों से संघर्ष कर इन प्रतियोगी परीक्षाओं की तैयारी करते हैं। अव्वल तो देश में भर्ती परीक्षाएं नियमित अंतराल पर होती नहीं और जब होती भी हैं तो पेपर लीक की भेंट चढ़ जाती हैं। पेपर लीक के दोषी पाए जाने वालों के खिलाफ कुछ राज्य सरकारों ने सख्त कानून भी बनाए हैं, लेकिन इन कानूनों के बावजूद पेपर लीक बदस्तूर जारी है। स्कूली बोर्ड परीक्षाओं के पेपर लीक होने की समस्या भी आम है।

हाल में केंद्र सरकार ने भी सार्वजनिक परीक्षा (अनुचित साधनों की रोकथाम) अधिनियम, 2024 बनाया है। इसमें किसी परीक्षा में कदाचार में मदद पहुंचाने वालों को तीन से दस साल की जेल और भारी जुर्माने तक के प्रविधान हैं। यह कानून केंद्र सरकार और उसकी टेस्टिंग एजेंसियों द्वारा आयोजित की जाने वाली ज्यादातर केंद्रीय परीक्षाओं पर लागू होगा। फिर भी सिर्फ कड़ी सजा के प्रविधान भर से इस समस्या का कोई प्रभावी हल नहीं निकलने वाला है। देश में ऐसी संस्थाएं बनाई जानी चाहिए, जो संघ लोक सेवा आयोग (यूपीएससी) की तरह निश्चित समय पर प्रतियोगी और भर्ती परीक्षाएं कराएं और उनके परिणाम भी तय समय में घोषित करें। इसके साथ ही भर्ती आयोगों में राजनीतिक संबंधों-संपर्कों वाली नियुक्तियां पूरी तरह बंद होनी चाहिए। परीक्षा आयोग का अपना प्रिंटिंग प्रेस होना चाहिए। एक घंटे पूर्व प्रश्नपत्र की साफ्ट कापी को कोड लाक के माध्यम से सीधे परीक्षा केंद्रों पर भेजा जाना चाहिए। परीक्षा केंद्रों में मौजूद अभ्यर्थियों को प्रश्नपत्र वहीं प्रिंट करके वितरित किया जाना चाहिए। इस विधि से प्रश्नपत्रों को छापना थोड़ा महंगा जरूर होगा, लेकिन परीक्षाएं सुरक्षित और लीकप्रूफ होंगी। इसी तरह प्रश्नपत्रों के कई सेट बनाए जाने चाहिए।

यह आवश्यक है कि पेपर लीक के मामलों को एक महीने के भीतर निपटाने के लिए फास्ट ट्रैक कोर्ट में सुनवाई सुनिश्चित की जाए। किसी कोचिंग संस्थान की संलिप्तता मिलने पर सिर्फ संबंधित आरोपितों पर ही कार्रवाई न हो, बल्कि उस कोचिंग संस्थान को भी बंद किया जाना चाहिए। पेपर तैयार होने से लेकर परीक्षा केंद्रों तक उनके वितरण तक की प्रक्रिया में सैकड़ों लोग शामिल रहते हैं। ऐसे में कोई एक कमजोर कड़ी भी दबाव या प्रलोभन में पेपर लीक जैसा गुनाह कर बैठती है। इसलिए ऊपर से नीचे तक सभी की जिम्मेदारी तय होनी चाहिए। चूंकि हर युवा को सरकारी नौकरी नहीं मिल सकती, इसीलिए आज भारत में स्टार्टअप और स्वरोजगार का चलन तेजी से बढ़ रहा है और बहुत से युवा प्राइवेट नौकरियों को तवज्जो दे रहे हैं। फिर भी जो छात्र सरकारी नौकरियों की तैयारी में जीवन खपा देते हैं, उनके साथ पेपर लीक का मजाक बंद होना चाहिए। सरकारों को इसकी गारंटी देनी चाहिए।

(लेखक जेएनयू के अटल स्कूल आफ मैनेजमेंट में प्रोफेसर हैं)

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NAV BHARAT TIMES (P-12), 29 FEBRUARY 2024

साक्षरता का मतलब सिर्फ दस्तखत करना नहीं

सरकार ने शत-प्रतिशत साक्षरता का लक्ष्य रखा है। इसके लिए 2022 में नया अभियान शुरू हुआ जो साक्षरता को पारंपरिक धारणा से आगे ले जाता है

संजय कुमार, अर्चना शर्मा अवस्थी

76 साल की उम्र में रामचंदर म्हस्कर ने जिला सामाजिक चेतना केंद्र का रुख किया, जहां दृढ़ संकल्प के साथ उन्होंने स्वतंत्र रूप से अक्षर और संख्याएं लिखीं। रामचंदर की शैक्षिक यात्रा जो गरीबी के कारण रुक गई थी, अब साक्षरता कार्यक्रम 'उल्लास' से फिर शुरू हो गई है। ऐसे अनेक उदाहरण बताते हैं कि साक्षरता एक गतिशील प्रक्रिया है, जिसकी परिणति आजीवन सीखने में होती है।

प्रधानमंत्री नरेंद्र मोदी ने कहा है कि वर्तमान दशक भारत के विकास पथ में एक महत्वपूर्ण अवधि है, विशेष रूप से 2047 तक 'विकसित भारत' बनने की आकांक्षाओं को साकार करने में। 'विकसित भारत' की एक अनिवार्यता है कि देश का हर नागरिक साक्षर हो और प्रगति में हिस्सेदार बने। इसके लिए जरूरी था निरक्षरता से निपटने के लिए हमारे दृष्टिकोण का पुनर्मूल्यांकन। यह पुनर्मूल्यांकन 'उल्लास-नव भारत साक्षरता कार्यक्रम' की शुरुआत में परिणत हुआ।

अब महज हस्ताक्षर करना ही साक्षरता नहीं होगा। 'उल्लास' केवल बुनियादी साक्षरता और संख्यात्मक ज्ञान प्रदान करने की पारंपरिक धारणा से परे है। अब तक की योजनाओं में प्रौढ़ शिक्षण देने के लिए वेतन का प्रावधान था। 'उल्लास' के मूलभूत सिद्धांतों में से एक स्वैच्छिक शिक्षण प्रदान करने का नया दृष्टिकोण है। यह भारत में साक्षरता प्राप्त करने के लिए सबसे प्रभावी साधन के रूप में सामने आया है, क्योंकि यह राष्ट्र के प्रत्येक सदस्य को इस प्रयास में संलग्न करता है। इस प्रकार हम अगली जनगणना तक 100% साक्षरता प्राप्त करने के लक्ष्य की ओर आगे बढ़ रहे है।

दूसरा नया प्रयोग है उल्लास मे डिजिटल और ऑनलाइन पठन-पाठन। 'उल्लास' नाम का एक ऐप बनाया गया है ताकि शिक्षार्थी और स्वयंसेवी अपनी सुविधा के अनुसार कहीं भी और कभी भी पढ़ और पढ़ा सकें। वॉयस ओवर, ऑडियो बुक्स जैसी विशेषताओ के साथ डिजाइन किए गए यूजर फ्रेंडली मोबाइल ऐप से शिक्षार्थी और स्वयंसेवक NCERT के

कॉमन रूम

दीक्षा पोर्टल पर ऑनलाइन उपलब्ध शिक्षण सामग्री तक आसानी से पहुंच सकते है, जो 22 भाषाओं में उपलब्ध है। इस पर अब तक 6 महीने मे देश भर में 1 करोड़ 9 लाख से अधिक शिक्षार्थियो और 32 लाख से अधिक स्वयंसेवियो ने रजिस्ट्रेशन कराया है।

शिक्षार्थियो का मूल्यांकन करने के लिए वर्ष मे दो बार परीक्षा होती है। कार्यान्वयन के एक वर्ष के बाद इस राष्ट्रव्यापी प्रयास के परिणाम मार्च 2023 मे आए, जब 11 राज्यो/केंद्र शासित प्रदेशो मे 23 लाख नए शिक्षार्थियो ने पहली बार परीक्षा दी। दूसरी मूल्यांकन परीक्षा 24 सितंबर 2023 को हुई, जिसमे राज्यो से 17 लाख नव-शिक्षार्थियो ने भाग लिया।

इसी प्रतिबद्धता का एक उदाहरण है राष्ट्रीय अध्यापक शिक्षा परिषद का अपने क्षेत्रीय कार्यालयों को दिया गया निर्देश, जिसमे कहा गया है कि सभी अध्यापक, शिक्षक के रूप मे कम से कम 8-10 शिक्षार्थियो को पढ़ाएंगे जो कि कोर्स का हिस्सा होगा। इसके अलावा UGC और AICTE ने भी सभी कॉलेजो को स्वयंसेवक शिक्षकों के लिए क्रेडिट देने का निर्देश दिया है। कौशल शिक्षा और उद्यमशीलता मंत्रालय और शिक्षा मंत्रालय ने भी निर्देश जारी किया है कि वे नव-साक्षर जिन्होंने सफलतापूर्वक मूल्यांकन परीक्षा पूरी की है, उन्हें उनके पुनः कुशल और कौशल उन्नयन के लिए व्यावसायिक कौशल विकास के साथ सहजता से जोड़ा जाएगा।

6-7 फरवरी को नैशनल बाल भवन, नई दिल्ली मे 'उल्लास मेला' आयोजित किया गया।। इस मौके पर स्वयंसेवियो तथा नवसाक्षरो ने मंच साझा करते हुए बताया कि किस प्रकार उल्लास नवभारत साक्षरता कार्यक्रम उनके जीवन मे एक बड़ा परिवर्तन लाया है। उल्लास मेले मे राज्यो के उत्कृष्ट प्रयासो, सांस्कृतिक प्रदर्शन और विकास को भी प्रदर्शित किया गया। इन विकासो से उल्लास का महत्व रेखांकित होता है जो समाज के विभिन्न क्षेत्रों मे साक्षरता को बढ़ावा देता है।

(संजय कुमार शिक्षा मंत्रालय मे सचिव है और अर्चना शर्मा अवस्थी संयुक्त सचिव)

28/1/24