Need for outcome-based education in India.

If the buzz around Hyperloop materialises, a commute between Chennai and Bengaluru can be a matter of 30 minutes. The advent of Artificial Intelligence (AI) can revolutionise homes around the world and our way of living along with it. Robotics can completely transform factory operations. Self-driven cars can make driving a thing of the past.

The world around us is changing at breath-taking speed and so are the nature of jobs that such a transformation entails. So, Indian policymakers need to ask themselves if policies are keeping pace with the changes that such rapid developments thrust upon us. More importantly, are higher education policies focusing on the right goals to achieve the skilling that industry requires?

The most important indicator of educational progress is easily the Gross Enrollment Ratio (GER). At present, at the higher education level, GER stands at a little over 24 per cent. There is also a class and gender-disparity in these figures, although the situation is improving in the latter case.

However, GER is a very narrow indicator of educational performance when seen in light of the rapidly-changing industry trends. Enrolling more students in institutes of higher education seems irrelevant if they are not being provided skills that are commensurate with the changing times.

The curriculum that is offered by institutes of higher education in India hardly keeps pace with industry demands. For instance, IT graduates are still being trained in dying programming languages like JAVA when expertise in fields like AI and robotics are the need of the hour.

Therefore, there is an urgent need to shift from input-based indicators of

educational progress like GER to an outcome-based approach. India's unrivalled youth demographics make such a shift all the more important and urgent for the country.

Sixty-five percent of the Indian population is below 35 years of age and almost half of the population is below the age of 25. This pool of population will keep expanding the Indian workforce and needs to be trained with skills that are relevant in changing times and made employable.

First, the shift towards outcomes needs to evaluate graduates based on their level of employability. The National Employability Report 2016 released by Aspiring Minds reveals a worrying state of affairs when it comes to employability of Indian graduates.

In the IT sector, which is the fastest-growing service sub-sector in the country, only 3.67 percent of graduates were found employable in IT product companies and 18 percent were employable in IT services companies. These figures clearly indicate that a narrow focus on enrollment is futile and the scope of measurement of educational performance needs to be expanded beyond inputs.

Second, the outcome measures also need to expand their scope beyond landing a job. Institutes need to be encouraged to impart a holistic understanding of skills that will be required for a life-long career. Therefore, innovative research undertaken within an institute needs to be given a higher weightage than placements. The exclusive focus on placements and packages of graduates at the cost of original research is failing to inculcate a sense of innovation among them and hence putting their skills at the risk of being irrelevant once the industry evolves.

Third, financing needs to be linked with outcome-based measures. The central government could allot additional funds to states that are performing well on certain pre-decided outcomes. Such an incentive could encourage competition among states to work upon improving the indicators that matter: Their educational outcomes.

An extreme focus on educational outcomes is seen in the practice of Outcome-Based Education (OBE) that has been adopted by many countries around the world. The US has adopted OBE since 1994 and the program has evolved over the years. Hong Kong and Malaysia have adopted a similar programme.

The system defines a set of outcomes that are to be accomplished at the end of the course and the faculty acts as a mentor to the student in achieving the defined goals.
There are multiple benefits from such a move. It creates a sense of clarity among students of what is expected of them. It gives the faculty flexibility on the method of teaching as their goal is to achieve a pre-defined set of outcomes and not just complete specific set of hours in delivering lectures. There is also much more involvement of students in the classroom as they are expected to do their own learning and gain complete understanding.

India needs a similar focus on outcome-based measures to skill its workforce for the evolving industry trends. There is an urgent need to understand the kind of jobs that the industry requires and create specific skill sets accordingly. The changing work environment across the world calls for a change in education curriculum and policies at a similar pace.

Link:https://www.business-standard.com/article/news-ians/crying-need-for-outcome-based-education-in-india-column-active-voice-117021400567_1.html

Consultations for New Education Policy

The Union minister said that the draft National Education Policy is the result of detailed consultations with all stakeholders in the last four years.

Union HRD Minister Ramesh Pokhriyal 'Nishank' on Thursday called on all states and stressed there should be more brainstorming before framing the new education policy.

While chairing the meeting of Secretaries of Higher and Technical Education of states and union territories to discuss the draft New

Education Policy (NEP) here, the minister said research is the foundation for the development of any country and India will again become a world leader by giving boost to research in the country.

He stressed states have a very important role in the new education policy and called on all the states saying there should be more brainstorming before framing the new education policy.
He added that the education policy is for the whole country and everyone's participation in the country's policy should be ensured.

The Union minister said that the draft National Education Policy is the result of detailed consultations with all stakeholders in the last four years.
The aim of the National Education Policy is to bring reforms in the Indian education system so that India can play a major role in the global knowledge system. He added that there are many provisions in this draft which will give a new direction to education sector of the country.

In the draft NEP, provisions like the restructuring of higher education, promotion of research by the National Research Foundation, promotion of Indian languages, bringing more financial resources in this area and promoting more autonomy in the higher education system have been made for the holistic development of education, he said.
Pokhriyal said higher education today needs to be more employable, research oriented, innovative, technology-oriented and accountable, so that the youth can get the right direction.

Link:https://www.news18.com/news/india/hrd-minister-ramesh-pokhriyal-nishank-calls-for-consultations-for-new-education-policy-2263941.html

Journal of Engineering Education Transformations

The world faces challenges which can be only addressed by high quality engineering talent around the world. Improving the access of high quality engineering education to large numbers of engineering students around the world is extremely critical. Educating engineering students in the traditional way is no longer effective in ensuring that they learn to become productive engineers. This is due to cultural and technological changes. Fortunately engineering educators around the world have been innovating and transforming engineering education to address this challenge.

Journal of Engineering Education Transformations (JEET) is a forum to facilitate conversations among engineering educators who would like to showcase their transformational work as publications reviewed by expert educators from across the world.

Indo US Collaboration for Engineering Education (IUCEE) is publishing this Journal in partnership with Rajarambapu Institute of Technology. "Journal of Engineering Education Transformations" is a transformed version of "The Journal of Engineering Education", which was being published by a pioneer of engineering education, Prof. Ratnalikar, since 1985.

Link:http://www.journaleet.org/

Karnataka launches E-Step to empower student start-ups

The Department of IT, BT and S&T in Karnataka, through Karnataka Innovation and Technology Society (KITS), has launched the E-Step, an initiative to empower student start-ups.

E-Step focuses on boot camps, mentoring and training programmes which cover various aspects of entrepreneurship. E-Step, an initiative from Start-up Cell, is a specially crafted for students/start-ups/entrepreneurs to understand the basics of entrepreneurship from experienced trainers.

Boot Camps

In the first phase, a day-long boot camp across New Age Incubation Networks (NAIN) will be organised. Boot camps will be held at 30 colleges between August 12 and September 14 in Mandya, Chikkaballapura, Tumakuru, Hassan, Dakshina Kannada, Mangaluru, Shivamogga, Davanagere, Ballari, Dharwad, Belagavi, Bagalkot, Vijayapura, Kalaburgi and Bidar.

"The Karnataka government is keen to instil the spirit of entrepreneurship and E-Step is one such initiative where we identify and groom young talent. We have received an overwhelming response to boot camps across the State with over 400 registrations per day. Till now, 2,499 students between the age group of 18 and 26 have registered, and almost 50 per cent off them are female participants. E-Step helps in lateral and inclusive growth and further enhances our outreach to tier-II and tier-III cities. Our aim is to leverage the talent pool in the State to augment Karnataka's position as the Start-up Capital of India," said EV Ramana Reddy, Karnataka's Additional Chief Secretary.

The boot camp gives participants an overview of the current start-up system. It also acts as a platform for ideation where teams will work on various ideas based on problems, solutions, competitors and customer.

They will also work on product design and marketing. There will also be a session on product development, sales and customer engagement, business model and creation of a pitch deck. The boot camp also includes a mock pitch session and a mentor talk.

Link:https://www.thehindubusinessline.com/news/education/karnataka-launches-e-step-to-empower-student-start-ups/article29035479.ece

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