

## Education 4.0: A Transition from Education to Employability – Significance and Way-Forward

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### Abstract

India has observed rapid growth in recent years, propelled by the new age industries. Technical advancements are continuously re-shaping the market and technology ecosystem. As a result, the new job market is experiencing a profound makeover and a break from the past. The present competitive market demands a skilled workforce. Last two years of pandemic has changed the way we do business, way of learning and the drastic change/ adoption or usage of technology. The technology disruption in all the segments/ field/ sectors, including education and economy, has positively impacted the lives of people. With the increase in internet absorption, internet has become a necessity for every business and organisations. These tendencies suggest that a highly skilled future workforce is needed to perform any work soon. This study aims to emphasize the significance, challenges, and solutions for making the school-to-workforce transition easy for the children & youth.

**Keywords:** *Education 4.0, Employability, Future Skills, Future Workforce, Knowledge Economy*

### Introduction

India has a vibrant education technology environment, though it faces few challenges. As a country we also have made significant achievement in solving some of the problems faced in education – as a country we have increased the enrolment ratio (at the pre-primary & primary level) and have ensured that there is a significant reduction in the number of schools drop-outs, also, increased the teacher vs. student's ratio and trained the teachers on the quality of training & delivery. Students' learning outcome was not encouraging, as per the National Achievement Survey 2021 – average learning level for 8<sup>th</sup> grade was 42% and 10<sup>th</sup> grade was 36%. Also, wide disparities in education were seen among the Government and Private schools (both aided/ un-aided) and rural school students vs. urban school students. These problems and disparities further widened with pandemic and education as the sector was badly affected. Closure of schools and educational institutions during pandemic has affected nearly 286 million students between the age of 3 to 18 years of age (as per the UNICEF report). And this would have an economical impact in the future on this generation of students with a loss of 14% of today's global GDP in their entire lifetime earnings (as per World Bank report). The problem doesn't end here, unequal access to and use of technology is the main challenge to increasing digital learning and boosting its potential. Technology enabled learning tools usage by students at urban areas (68%) was more compared to rural areas (47%). Digital gap was also seen in the accessibility and affordability of technology infrastructure such as internet,

electricity, and electronic devices (computers, tablets, mobiles). The divide is also observed across geographies, genders, and communities. Therefore, there was an urgent need to fix the challenges, reduce the disparities, divides and other factors affecting the creation of skilled/ talented pool who will be the future work force. Immediate action point is to recognize the huge potential of technology for enhancing learning, also, reduce the negative social perceptions associated with the use of technology for learning. A country's economy develops to be more productive/ dynamic/ valuable as the number of educated workers grows. Country with high-educated population will see swifter economic growth than the countries with less-educated population. Quality education, skilled work force is an investment in human capital leading to faster economic growth of the country. Also, one of the factors to determine the developed economy is how well the country's training and education of work force will perform leading to country's progress and development. Lastly, a successful and healthy economy has a workforce capable of managing various industries/ sectors/ segments and fields at a stage where it carries competitive advantage (knowledge economy) over the other economies of the other countries.

### Literature Review

**(Education 4.0, a report by World Economic Forum, 2022)** Post Covid-19, pandemic has increased the gaps of learning outcomes/ results among the school going children/ adolescents in India. To address these challenges/ problems through digital teaching and learning. World Economic Forum collaborated with United National Children's Fund (UNICEF) to design and launch an Education 4.0 an India initiative.

Report talks about challenges faced in education, digital infrastructure, accessibility and the programs and initiatives planned for the Technology disruption and internet absorption. Also, it talks about the future skills which are required for our trainers and to the students, so that they are competent enough to acquire the jobs/ vacancies. Collaboration of various stake holders to implement the proposed initiatives, methodologies, and program execution. The report also talks about transition from school to employability. Proper education with required tools/ technology to be provided at the adolescents will make the employable job ready for the future skills.

**(UNICEF – Technical Note, 2019)** Couple of years before the pandemic, one-fifth of the students and adolescents were dropping out from schools (early education). Another major problem was students who were at the high school (8<sup>th</sup> grade), 6 out of 10 students did not have the minimum proficiency level in reading skills or mathematics. With lower learning outcomes, students tend to drop-out from school education – the inequity in education systems is the reason for lower enrolment ratio to the higher education and college level. With such a output of students there is a rise in skill gaps and skills mismatch leading to a very huge number of unemployed youth worldwide.

**(Ankita Rai, 2019)** Review says, only 33% of the students applying for various jobs/ roles are fit for the job with required/ appropriate skills. There are enough vacancies out there in the market, but students don't possess the industry relevant skillsets to acquire those jobs. There is a huge skill gap, though we have sufficient manpower, but they lack the skills, traits, and abilities. Skill gap is widening day-by-day due to the fast-growing industry and economy, students need to understand the skills, upgrade themselves through various skill development and vocational training apart from their regular academics.

**(Inderpal Singh, 2022)** Various research, experts from industry, and consulting organization have been demanding upon urgent need to upgrade the students with right skills tailored with their regular curriculum. Academics and Industry to join hands with each other to address this pressing issue. Iron is many graduates out there in the market seeking jobs and industry has plenty of job vacancies but are not able find right candidate with right skills sets.

**(Brent Radcliffe, 2022)** Author is of the opinion that with skilled/ trained resources – futuristic jobs/ vacancies can be fulfilled. With skilled workforce, efficiency and effectiveness of the industries would drastically improve and help directly in the economic growth there by increasing the GDP of the country. Skilled resources would also require absorbing the vacancies which require critical thinking and technological skills. Upskilling on the job would also help the workforce for career progression with higher responsibility and higher salary. As a result, the country's economy is more competitive and productive with the skilled workforce.

**(Biswabhusan Behera, Mamta Gaur, 2022)** Researchers have made a review on students passing out from the college themselves realize that they are not industry fit. The present workforce is under constant pressure in the fast-growing VUCA world of work. Urgent need, through skill development bridge the skill gap and make the present generation students' future job ready. Critical issues need to be fixed with identifying the skills, training the students with these skills (skill development). Our country can also capitalize the young youth, train them in modern and future ready skills. The advancement of skills to the students/ youth will lead to economic development of our country, transform into knowledge economy and thereby meeting the global skills.

**(Deepa Gupta, Sugandha Agarwal, 2018)** In this study author stresses upon, leveraging India's demographics to its advantage. It focuses on initiatives taken by Government of India and other stake holders, academic, public & private partnership in various ways to increase the employability skills of the youth, also challenges faced by the stake holders in implementation & execution of the program/ initiatives. The paper also highlighted the program, age group, sector specific programs and scope of the skill development program.

**(Gawade Santosh Bhiwa)** India is making significant economic growth, today we are a just above three-trillion economy. As per the various economic research and experts, India would reach double digit in next 10-15 years. But the challenge is with such a leap in the growth of our economy, as a country are we ready to leverage and reap the benefits, will we be more sustainable and more inclusive. The author focusses on three pressing elements which are our backbone for the economy, a) knowledge, b) skills and c) technology to the young youth of our nation. The existing education system is insufficient to produce the effective/ efficient future work force. Policy should be made to address these problems through skill development programs and create a massive awareness campaign on the vocational courses which would reach the needy and the programs will be successful.

### **Study Objectives**

To study the following factors/ issues affecting the quality education at the basic/ primary level and its impact on the future workforce in-turn the influence on the country's economy.

- 1) To study the barriers of the adolescents accessing and developing future skills for work and making the transition to proper work
- 2) To study the gap analysis of future skills to the adolescents/ students making them future workforce ready for 21<sup>st</sup> century job market/ global market.
- 3) To study the role of technology in the education sector and impact on the country's economic growth/ GDP.

### **Methodology**

The study is basically secondary data, which involves already existing data. This research also included analysis of published academic papers, books, review articles and scrutiny of various other authors/ publications in the field of Education Technology/ Skill Development. Also, both the authors representing

Academics/ Industry have explored/ identified various gaps/ skills mismatch for the present generation through various rounds of discussions and series of interactions.

### **Analysis & Discussion**

According to SAP report, "by 2030, companies and communities throughout the world need to be ready to sustainably integrate 2 billion young people seeking employment into the workforce". To meet this challenge, students should be trained adequately to fit successfully into the swiftly growing employment opportunities and highly challenging job market. The only available way is to raise the younger generation to a work-force ready status, so that they enter the future ready skills (21<sup>st</sup> century skills). Industry has been confronted by interruption in technology and changing work prospects/ expectations and has been mostly affected by a change in demographics. There is an urgent need to make sure that there is a close industry-academia sync/ collaboration for education to remain pertinent to the requirements of the fast-growing industry/ job market.

### **Conclusion**

Making education more accessible and inclusive, lowering dropout rates, increasing learning outcomes by using more adaptive learning systems and community engagement. Need to stress vocational studies, professional education, technology use and digital education. It is appropriate time for relevant stakeholders (private sector, government, non-profits, and academia) to come to-gather to adopt significant model/ framework which enables adolescents/ youth access and opportunity and enable transition from **education to employability** and then to building meaningful career path. A country's economy becomes more productive as the percentage of educated workers increases since skilled workers can more effectively carry out tasks that require literacy/ knowledge/ mastery and critical/ essential thinking. A booming economy has a workforce efficient of operating various industries/ sectors/ segments and fields at a point where it carries competitive advantage (knowledge economy) over the other economies of the other countries.

### **Scope for Further Study**

**Skills Mismatch:** There is a gap between education/ skills imparted at educational institutions and actual skills which are required in the industry. Industry is looking for the right candidate with the right skills. Students who have completed their graduation are the right candidate but lack the industry relevant/ required skills, as a result they do not find the right job and once found will not be able to sustain for a longer period.

**Inadequate capacity:** The current infrastructure, competence of faculties is not up to the industry mark, considering the huge demand for trained/ proficient candidates, but there are not enough trained teachers/ trainers to enable/ equip the future workforce for the future skills. Faculties/ trainers need to be trained, skilled and motivated to take up the responsibilities.

**Scalability:** Industry and Academics should collaboratively identify and create the workforce readiness projects/ programs. Aiming to universalise future skills & technology education, prepare the students/ youth/ adolescents with respect to workforce ready and most importantly assist them in deciding the correct career pathways to decide upon. Such collaboration/ interaction can provide scalable educational / skilling programs, thereby increasing/ creating sufficient talent pool for future ready industry.

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