

## Role Of Education In Shaping The Skills Landscape In The Disrupted Economy Of COVID-19

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### Abstract

COVID-19 has deeply affected our existence. The commotion amongst people and their livelihoods has been shocking. The economic corrosion has thrown many industries into survival mode. As we struggle to revitalize economies and jobs, it will be essential to understand the impact of the crisis on the skills landscape. At the crest of the pandemic, UNESCO reported that 1.6 billion learners were affected by school closures, and more than 200 million in higher education. To extenuate the impact, educational institutions transitioned to crisis remote teaching overnight, administer evaluation, and even hold online graduation ceremonies. Few months down the line, they have, in some form, adapted to virtual learning despite being largely unprepared for such an abrupt shift. It is observed that the fastest rising occupations will require higher level cognitive skills in areas such as problem solving, critical thinking, and creativity, and nearly 40 percent of jobs will require explicit social-emotional skills. The pandemic has further uncovered many inequalities with respect to education and employability. The unemployment crisis caused by COVID-19 pandemic has disproportionately battered low-skilled workers. The International Labour Organization has estimated a loss of 435 million jobs in the first half of 2020. The economic progress in a post-COVID world would rely on equipping individuals with employment relevant skills. The onus is on educational institutions to prioritize skills development training, enabling diversity into the workforce and energizing their economies. Although this call for action is clear, educational leaders are still struggling to identify which skills are important and the pandemic has further heightened the need to understand which skills shall command the future jobs. The findings of this research are meant to help higher education institutions, businesses, and individuals understand how the pandemic has impacted the skills landscape and how best they should upgrade, update and move forward.

**Key words** - *education, social-emotional skills, problem solving, critical thinking, creativity, unemployment.*

### Introduction

It has been painful to watch the pandemic disrupt education. Universities are not the only ones adapting to the crisis even companies are facing expedited digital transformation and are conceiving the idea of work with a distributed workforce and virtual collaboration. Out of the 200 million students in higher education whose studies have been disrupted by COVID-19 pandemic, 80% of them are located in countries with emerging or lagging skills. School closures have effected higher education for millions of students in countries that are already in need of more accessible learning. It is observed that almost eighty percent of students enrolled in tertiary education are located in countries that are in the lower bottom half of the world rankings for proficiency in business, technology, and data science skills. The prevailing employability trends are already creating imbalances in the job market. A larger number of employers in the developed economies indicate that they are unable to find an adequate number of qualified candidates to fill their job openings for high skilled positions. In a recent survey, 40 percent of employers expressed that the major causes of entry-level vacancies are gaps in required skills, including work ethics, leadership - responsibility, problem solving efficiency, teamwork and creativity.

It is viewed that the current student community will enter a workforce in which 10 percent of jobs are projected to be in an altogether new job categories. It is estimated that in the U.S. alone, over 12 million new roles would be presented. Technology will drive the creation of these new jobs as well as redefine the job functions of almost all other positions. The pre preparation for this new-sprung world of employment, will require that the graduates of 2030 take up exclusive courses in higher education that don't exist today or develop those skills which were considered less important. This combination of existing imbalances against an evolving job

landscape essentially concentrates on how primary and secondary education systems around the world need to help students strengthen their social-emotional skills and deepen their cognitive skills. Beyond the needs of the manpower, society as a whole will also demand increased social-emotional skills and higher cognitive abilities from its citizens. Even as technology continues to be persistent, people will need the human capabilities to contribute towards creating engaged and informed citizens, to form relationships, to think critically and analytically, and to build the next generation of society

### **Objectives of the research is to**

1. Study the awareness of the new skill set among students and teachers.
2. Study the preparedness of Institutes in imparting the new skill sets.

An empirical study was conducted to gain an insight as the pandemic situation created limitation for field visits and limited data in this area of research was available.

**Methodology** - The study spearheaded on the need for sharpening the focus on social-emotional skills. These skills provide the learner with an orientation and liveness necessary to function at an optimal level when faced with stress, uncertain and abrupt changes in the environment, and other work and life challenges. This is a critical concern, because change and uncertainty are going to be increasingly importunate for the graduates of 2030. Employment trends indicate that these graduates will change jobs more repeatedly than any previous generation, across all sectors. The impact of technology and other situational changes is shortening the shelf life of the employees' existing skill sets. Research indicates that there will be a high demand for social skills such as persuasion, emotional intelligence, and teaching across all sectors as compared to the slim technical skills, such as equipment operation, software programming and managing. Ideally, technical skills will need to be supplemented with strong social and collaborative skills. These referred social competency based hiring criteria are extremely familiar in large technology based companies, where appointing for the ability to collaborate effectively or earn trust have long been part of both recruiting culture and criteria for career advancement.

1. Our research highlighted differences of how students and teachers prioritize social-emotional skills and how well-equipped teachers feel to teach these skills. This variation was reflected in the experiences described by both groups. Their understanding of social emotional skills as part of the learning program was also analyzed.

### **Observations**

- a. Acceptance - The teachers that we surveyed recognized and accepted that a distinct and integrated approaches where social-emotional skills are rooted into the learning program are very essential and critical to the overall development of the learners.
- b. Implementation - proved very challenging. Almost 40 percent of teachers expressed that they do not teach social-emotional skills through any such structured approaches due to a lack of time and management support as well as inflexible, unvarying curriculum among other challenges.

### **Solutions**

Personalized learning, supported and balanced by new technology, will play a critical role in shifting the focus from an education model driven by inflexible, unvarying curriculum and programmes to a student-centered model which is customized to individual needs with a greater emphasis on *social-emotional skills*. The supporting tools for personalized learning will elevate the important role of the teacher. Therefore teaching, as a profession is anticipated to grow in the range of 3 to 9 percent in the next decade. But the teaching practice will shift to a coaching model. The recent technology advancements will help teachers save their working time on routine tasks and give them new direction to understand and network with their students.

Teachers have confirmed the need for this shift, with 68 percent of those that we surveyed agreeing that learning must be personalized. However, it was observed that 30 percent of teachers who expressed that they are "highly motivated" to personalize their lessons feel they are falling short of time, a suitable curriculum and assessment tools, and flexibility to do so. It is estimated that technology can help teachers reallocate 25 to 35 percent of their working hours and focus more on student-centric activities such as improving individual lesson plans, edifice deeper one-on-one relationships, provide real-time and personalized feedback to students.

Varied reality creates indulging learning experiences for students that promote increased cognitive and social-emotional growth. By providing a larger segment of students with enhanced learning experiences could cause considerable social and economic gains. If strong social-emotional skill development and personalized learning are adopted by the large number of teachers who are motivated to do so, then by 2040 we could have 1,000,000 more college graduates per year and an incremental annual GDP growth.

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2. While the need for social-emotional skills cleared in the progressing research, we further studied the differences of how student and teachers perceive social-emotional skills and **prioritize** them and how well-equipped teachers feel to teach these skills. This variation was reflected in the expressions of both groups as they described their experiences of social emotional skills as part of the learning program.

- a. 50% of students rank social and emotional skills in their top 5 priorities. Problem solving 1%, Responsible decision-making 1%, Civic literacy 1%, organization 2%, Self-management 2%, Ethical understanding 2%, Intercultural understanding 4%, Relationship skills 5%, Creativity 13%, Digital skills 19%
- b. But only 30% teachers rank rank social and emotional skills in their top 5 priorities Literacy 15%, Critical thinking 12%, Numeracy 7%, Social awareness 5%, Communication 4%, Self-awareness 2%, Collaboration 1%.
- c. 60% of teachers expressed that they provide feedback to students on social and emotional skills but only 30–40% of students expressed that they receive feedback on social and emotional skills.
- d. Among the teachers that were surveyed, 65 percent said they deliberately incorporated social-emotional skill-building into their lessons and other learning practices while the remaining 35 percent taught it opportunistically, if they did it at all.
- e. While 63 percent of teachers accepted social-emotional learning is very encouraging, but the growing mismatch between job requirements and available talent suggests that more efforts need to be taken on this front.

### Solution

Using principles of learning science, institutions can design programs and curriculum to deliberately teach and measure social-emotional learning. Programs that apply best practices such as series of related activities, application of strategies for progressive learning, allocating specific time for skill development, have statistically proved a positive significant effect. If adopted these strategies would give teachers greater flexibility in selecting their curriculum and more time for direct interactions with students.

3. Role of Motivation to personalize learning vs. Practice - While there is a marked difference between personalized instruction and personalized learning, the survey found strong conviction across all segments in the efficacy of personalization.

- a. In the survey, 67 percent of teachers agreed that learning needs to be personalized. However, only 30 percent of teachers expressed that they are “highly motivated” to personalize their lessons but unfortunately cannot implement it, because they do not they have the required time, curriculum and assessment techniques, or even flexibility to do so.

### Motivation vs. Practice Model

Motivation (belief that instruction should be personalized)

Practice (Rating of personalization across teaching and learning activities)

		High	
Low	High motivation Low practice <i>(Segment has greatest opportunity for change)</i>	High motivation High practice	High
	Low motivation Low practice	Low motivation High practice	
		Low	

4. The critical role of technology - From the research, it was revealed that technology could deepen the learning process by enabling teachers save on their time, providing student-specific approach, motivating inclusivity, and providing enthralling learning experiences. The World Economic Forum has stated, “Technology can personalize learning, engage the disengaged, complement what happens in the classroom, extend education

outside the classroom, and provide access to learning to students who otherwise might not have sufficient educational opportunities.”

Three technologies that would transform learning for future generations are collaboration platforms, artificial intelligence, and immersive mixed reality. Their relevance in modern learning have illustrated the growing incidence of both the physical and digital scenarios. It further helps understand how technology can be harnessed to solve teaching-learning problems in the classroom as well in professional lives.

- a. Research has proved that **collaborative activities** encourage better learning outcomes, because collaborative interactions connect to larger parts of the brain. Collaboration platforms like software and online services permit people in various geographic locations to work together in real time scenario which create opportunities for students, both inside and outside of the classroom to interact with each other. In such inclusive environments students will get an opportunity to progressively collaborate across time zones and multilingual contexts on group projects, quick public sourcing topics and impending content, create plans, establish timelines, and swiftly endorse approaches. Collaboration platforms will also help teachers regulate their work and reallocate their time to organize content necessary for preparing learning material and assignments.
- b. With multiple progress in natural language processing and machine learning, educational content can now be modified instantly at a low cost, allowing for a extremely personalized and target curated academic contents to suit individual student needs. Experts call this idea the “Netflix of curriculum”— which help teachers to find on-demand content that matches the prescribed standards and is relevant to individual students.

Measures for educators and governing bodies :

- The teaching fraternity, institutional heads, and the governing education systems look eager to make changes, but not many know where to start. Teachers could collaborate with other educators to create pilot programs that explicitly address social-emotional skills. Additionally, teachers can play an important role in creating and leveraging “teachable and learning moments” for creating and reinforcing social-emotional skills. For instance, collaborative learning platforms enable students to work together solemnly and negotiate as they co-create learning. Challenges arising for fair access, shared contributions-efforts, and conflict resolution are ideal real-life contexts which will help to develop self and social awareness. Educators can make use of digital environments to provide students a safe space for rehearsal and learn to be accountable for their decisions.
- Introducing and encouraging teaching faculty to engage with online communities is an ideal way of building an understanding of the available platforms, their purpose, and more importantly the social framework within which learning occurs. With the sponsorship and involvement of institutional leaders, faculty will develop greater confidence with both the tools and the socially rooted nature of online collaboration. Institutional leaders can also augment teachers’ professional development by providing them personalized learning approach that allow them to individualize the entry points, pace of adoption, acknowledge learning, and evaluate their training, including flipped and blended learning.
- Bodies governing Education system, will need to prioritize the social-emotional skills and personalized learning approaches on their agendas, elucidate the standards and expectations, and determine how to quantify their benefits. The projection of these approaches for structuring social capital and supporting the needs of a dynamic workforce are very critical to the function of learning.

### **Review of Global Skills Index 2020**

There was a loud outcry made by the Fourth Industrial Revolution for a new set of significant skills across all business, technology, and data science domains to compete in an increasingly competitive digital world. Governments, companies, and campuses have fully assured to prioritize training of these essential skills amidst the pandemic.

The study reveals:

- Those industries engaging highly skilled talent, especially in technology skills, has seen higher stock returns and less disruption from COVID-19. This is because skills shortages invite huge expenses for organizations across all industries. Digital skills have proved to help companies respond to the short term crisis and manoeuvre long term transformation. With the sudden compulsion for a switch to remote work,

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it was observed that digital skills became means of critical resource for short term business operations right from managing this change and pushing online services for automating processes that could no longer be done by individuals. For instance data from US reveals the correlation between an industry's skill proficiency and its ROI in the past year which is 43% across all skill domains. The correlation between an industry's skill proficiency and its ROI was 40% which explains that, those companies with higher skill proficiency have experienced their appraisal disrupted less by COVID-19.

- Higher skills proficiency is linked to economic progress - The COVID-19 pandemic has exposed the world to many inequalities with respect to tertiary education, access of the internet, and employment opportunities. The study indicates that those countries with more equality, across multiple dimensions (e.g., digital, economic, education, and labor force participation), are also those with higher skill proficiency. It has been observed that countries with higher skill proficiency have greater GDP returns in the long term. Data also indicates that there is a very significant, positive correlation (65%) between a country's skill proficiency across all domains and the percentage of its population using the internet. For example Netherlands, has an average skill proficiency of 85%, and 94% of its population has ready access to the internet. Whereas, Indonesia has an average skill proficiency of 29%, and only 40% of its population has access to the internet.
- Developed and developing countries, excelling in critical skills have seen lower income inequality. With labor markets thrown into disorder by the pandemic and technology putting large populations at the risk of losing their jobs, countries need to consider the impact of their employee skills on income inequality. Data reveals a negative correlation between a country's average skill proficiency across domains and the share of income held by the top 10% in a country. A research report from U.S., states that the share of income held by the top 10% of the population is 31%, while its average skill proficiency is 58%. In contrast to this, the share of income held by the top 10% of the population in Canada is 25%, and its average skill proficiency is 71%.
- Countries with higher labor force participation are also those with higher skill proficiency. Skills are essential for quality and sustainable employment. The corresponding, data reveals that a country's skill proficiency across all domains is positively correlated with the fraction of its employable age population active in its labor force. This trend is predominantly obvious in Switzerland and Greece. Switzerland has an average skill proficiency of 98% with a labor force participation rate of 84%, while Greece has an average skill proficiency of 56% with a labor force participation rate of 68%.

### Determining the Skill Sets of India as per the GSI (Global Skill Index ) Skills Taxonomy

A study of 60 countries against 10 major industries was conducted by Coursera and ranked against each other. For each group, percentile rankings were made. Further it was classified into four categories based on quartiles:

Lagging Economy	25 <sup>th</sup> percentile or below
Emerging Economy	26 <sup>th</sup> to 50 <sup>th</sup> percentile
Competitive Economy	51 <sup>st</sup> to 75 <sup>th</sup> percentile
Cutting Edge Economy	76 <sup>th</sup> percentile or above

These clusters will help recognize where a particular country or industry ranks within the pertinent population. The 10 major industries are Automotive, Professional Services, Consumer Goods, Finance, Healthcare, Insurance, Manufacturing, Media, & Entertainment, Technology, Telecommunications. We have studied the three major sectors that fetches a global space for India.

- a. In Commerce and Business - The Global Trending Skills are: Microsoft Excel, Project Management, Digital Marketing, Blockchain, Business Analytics, People Management, Writing Skills, Human Resources, Product, Placement, Supply Chain

Status of India - Emerging Economy at the 34<sup>th</sup> position and 44% skill proficiency

- b. In Technology - The Global Trending Skills are: Artificial Intelligenc, JavaScript, Web Development, User Experience, Design, Cyber security, Convolutional Neural Network, Cloud Computing, Internet of Things, Application Programming Interface

Status of India - Emerging Economy at the 40<sup>th</sup> position and 34% skill proficiency

- c. In Data Science - The Trending Skills are: Python, Data Storytelling,SQL, R,Deep Learning, TensorFlow, Cloud API's, Multi-Task Learning, Linear Algebra, NLP

Status of India - Lagging Economy at the 51<sup>st</sup> position and 15% skill proficiency

In Asia Pacific region, it is observed that there is a callous disparity in skill performance between developing and developed economies. But countries like New Zealand, Australia, and Singapore have supplementary resources per capita for investing in education and upskilling. Developing economies—including Bangladesh, Pakistan, and the Philippines—are among the lowest skilled economies in ranking. It is observed that these countries spend less on education and have higher proportions of low-skilled workers. As the nature of work is undergoing mammoth transformations and there is an increase in the pool of digital consumers due to the pandemic, these countries which are settled on the threshold to accomplish something are investing heavily in education and continued training.

It is predicted that the growth of Asian economies will outgrow rest of the world economy put together. But unfortunately, Asian countries are not visible in the list of top 20 most skilled nations. Research indicates that the Asian region's overall technical and data science skills are lagging far behind, with major skills deficits in mathematics, statistical programming, and software engineering. The lack of technical and data science skills across this segment can be attributed partly to poor-quality STEM education systems in many of the countries, who are making efforts to equip their students with essential skills needed for employment. The need for stronger STEM programs has become sensitive due to the Asian region's brain drain, reducing the supply of skilled workers locally. **STEM** is a curriculum based on the thought of educating students in four specific disciplines -science, technology, engineering and mathematics, in an interdisciplinary and functional approach.

If there is no substantial investment in upskilling the workforce, many of the Asian workers will be shattered by the Fourth Industrial Revolution and the persistent blow of the pandemic. For example in the list of Asian countries, Thailand, consistently appears in the lower half across all the three skill domains. This country has one of the world's highest fractions of jobs (55%) that could be automated by adapting to the current technology. Similarly, majority of physical work processes in countries like India, Japan and China is at risk of getting obsolete. Governments in these region must promote projects of public-private partnerships to identify the labor market's unmet needs, develop supportive set of courses and set national standards. There is also a need to design and implement cost-sharing mechanisms. As the Asian region's economy continues to boom, the skill level of its workforce will directly affect the region's individual curve and the global economy as a whole.

The study also revealed interesting facts of INDIA bypassing CHINA in Business and Technical Skills. These two countries represent the largest economies in Asia, and exhibit similar figures in terms of mastery over skills. But India, scores higher in business (44%) and technology (34%), while China outperforms India in data science (42%). India's technology and business skills are essential for its well established IT industry which generated more than \$137 billion in exports in 2019, due to which business leaders across the globe have established their own IT or R&D centers in India to take advantage of the software ecosystem. Unfortunately, automation has posed a major threat to many of the technical jobs, such as data collection and processing, that had initially attracted global companies to India.

Realizing the importance of training and upskilling in the global competition, the Indian government has introduced various programs under its Skill India initiative to nurture highly skilled and employable Indian youth. The Indian workforce has incrementally increased by 30% and projected to traverse 600 million by 2022, therefore the opportunity for India to become the global talent hub for emerging technologies cannot be undermined. At the same time China's competitive edge over India in data science is not a shock altogether. China has made up its mind to rise as the global leader in artificial intelligence and the Chinese government is believed to be investing a great deal in the development of facial recognition software, including facial recognition eyewear for police officers and smart classrooms that monitor student's facial expressions to track class room engagement. To plug its place as the global AI leader, China will require to train its work force in business and tech skills to support its rapid advancements in data science.

### **Education Trends post Covid -19**

Individuals and businesses are keen to keep pace with the changes occurring in the Fourth Industrial Revolution, but the new technological extremity demands new skills sets. Soon after the economic holdup caused by COVID-19 settles, the students community, governments, and businesses will persistingly look at universities as a decisive engine for acquiring the demanded skill sets. To further ensure that the students are trained in skills

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needed to successfully enter the workforce on graduation, university education system must make an attempt to get more closely connected to the swiftly-changing labor market. Universities and educational institutions will need to ensure their set of courses provide students with the essential skills for sustainable, future-proof careers.

The World Economic Forum has identified seven key professional clusters essential for the future of work: data and AI, care economy, green economy, engineering and cloud computing, people and culture, product development, sales, marketing, and content. Collectively, these professions are projected to yield 6.1 million new job opportunities in the coming three years.

Business, technology, and data science skills will give students a competitive edge in the global workforce. It is recommended that skills across all three domains should be incorporated into higher education in interdisciplinary ways to improve connectivity between curriculum and the labor market. Research data has revealed that students who major in Physical Sciences, Mathematics & Statistics currently possess the strongest skill set across all three domains. This is because these programs of study tend to put emphasis on mathematical thinking, using data for decision-making, and measuring uncertainty, with the help of most up-to-date software tools that are designed to ensure students have the ability to navigate the ever changing technological landscape. Students from these domain can easily acquire new skills because they will have already mastered the foundations of future innovations.

On the other end, students majoring in Health Professions (e.g., nursing, clinical science, pharmacy studies) have been observed to perform inadequately across all three domains. As the healthcare industry is still grappling with COVID-19 and stands on the precipice of major disruption, business, technology, and data science skills will be essential for quick recovery and prospective growth. As data, artificial intelligence, and open secure platforms become the new normal in healthcare, the technology skills in particular, will put Health Professions graduates spaced out in a competitive field.

### **Bridging national curriculum with career paths :**

As the dynamic fast developing technology continues capturing important business, and shaping the workforce, technology and data science skills can indicate the difference between a successful career growth or stagnancy after graduation in an already uncertain post Covid-19 labor market.

The New Education Policy (NEP 2020) which was released by the Government of India (GOI) in July 2020 was a step in the right direction and will act as a catalyst for the transformational change in the Indian higher education system. If the policy is implemented flawlessly, the NEP can guide educational institutions to formulate a forward-looking strategy that will promise long-term resilience and contribute towards the ideal model of self-reliance. For instance, by equipping the future workforce with appropriate skills and reducing the talent demand-supply gap, academic institutions can build a self-reliant nation that will derive high dividends from its human capital.

Based on the research the following four strategies can help leaders build an education system resilient to future disruptions:

1. Deflate the long-held prevailing attitude in the traditional academic model.
2. Build a digital ready institution
3. Reinvent student experience
4. Develop a thriving multi stake holder ecosystem.

Learning just for acquiring a graduate/post graduate degree with a single discipline specialization and a fixed curriculum is embedded in the minds of natives. These are the deeply held orthodox beliefs and myths about how things should be practiced which are often unspecified and unquestioned. This is turn carry on preventing the Indian HEIs to re-imagine higher education. To flip these orthodox beliefs and establish a system that favors flexibility in learning and encourages holistic student development, they can consider moving away from:

1. A single to a multidisciplinary approach – for very long, HEIs have compartmentalized the learning process in which students mostly get specialized in a single discipline or domain. However, research suggests that a multidisciplinary or interdisciplinary learning model will allow students to acquire varied perspectives and develop crucial skills such as critical thinking, teamwork, and creativity. The NEP extensively pushes the cover on multidisciplinary learning. It proposes a three /four-year undergraduate program with multiple

exit options to allow students to gather experience across institutions. The policy adds that academic credits earned from different institutions can be stored in an Academic Bank of Credit (ABC) and can be redeemed in the form of a degree after earning adequate credits. Some universities are working in this direction already. For instance, a very recently established Mahindra University aims to facilitate interdisciplinary learning and promote innovative set of courses. The university has planned to integrate liberal arts with science and technology to provide a new and varied experience to new-age learners.

2. The pandemic has left the teaching fraternity scamper to keep pace with the extraordinary shift to online learning. The current situation has cleared the fact that technology-enabled education delivery needs retraining of staff and faculty members. Since technology in education delivery becomes even more critical than before, faculty up skilling and re skilling efforts should be institutionalized to ensure a seamless learning experience. Simply developing technological skills will not be enough because instructors would also need to develop digital pedagogical skills and assess when and how to use digital tools in the learning process. They have to adapt to a multimodal experience (in-person, online, or blended) using appropriate digital tools.
3. Since not all faculty members are comfortable using digital tools, institutions will need to adopt inventive methods to retrain instructors. For instance, the Campus Design Online at Muhlenberg College in the United States is an intensive peer-supported learning community which help bring courses online. This platform supports faculty members in learning how to build their courses and engage with their peers to share their approach and experiences.

**Conclusions** - The job market demands will change in fundamental ways, however most of the professions will require strong cognitive abilities in numeracy, literacy, problem solving, critical thinking, and creativity. The complexity and the nature of tasks will also demand increasing and deeper interactions between workers, and elevating the need for social emotional skills. Some the recommended remedies are as under :

- a. **Create a digitally enabled education ecosystem** – By merely achieving little quantum of success in discrete digital initiatives will only take HEIs to a short distance. To become a complete digital-ready institution, and creating a digitally enabled ecosystem will be a very critical experience. Institutions can create a digital learning network that offers students a host of choices to drive and supplement their learning. Also by shifting critical student support services such as coaching and counseling to virtual platforms, a cohesive education infrastructure can help transform student experience, especially for those who exclusively prefer remote learning over classroom training.
- b. **Prioritize focus on inclusion and student well-being** - The growing digital divide that has been triggered by the pandemic has revealed that institutions have to catch up to ensure an equitable education system. And this is true in advanced economies too, where students of color have struggled to access digital resources. Developing short-term solutions to fight the propelled impact of the pandemic will yield less and, therefore, there is a need to design a road map for inclusion and equity in the future. In India the NEP has outlined an ambitious plan for the inclusion of socio-economically disadvantaged groups (SEDGs) and recommends HEIs to encourage participation from SEDGs while developing institutional development plans and building a more inclusive curriculum and admission process. The pandemic has also influenced the mental health and well-being of students and to address this challenge, the Government of India has launched Manodarpan, an initiative that provides psychological advisory and support to students. However, individual institutions need to plan specific programs to improve students' mental well-being, including virtual counseling and advising sessions, and proactively tracking student well-being.
- c. **Develop a thriving multi stakeholder ecosystem** - Academic institutions can drive economic growth in collaboration with the industry, government, and community organizations. The pandemic has accentuated the role of an ecosystem that leverages connections between universities, industry, and the government to address crucial gaps in resources. Such an ecosystem approach could yield multiple benefits such as providing a thrust to the reskilling/upskilling efforts, facilitating research and development, and fostering collaborative synergies. A renewed boost to multi stakeholder partnerships will also help drive progress in achieving the nation's self-reliance objective.

- d. Reinforce partnerships for skills development – Since the employment market is getting tougher due to COVID-19, it has become imperative to prepare students with market-ready skills and improve their employability quotient. Although the current employment scenario could be short-term, students will need to continue honing their skills to stay relevant in the job market.

Based on the analysis of labor demand, the occupations are likely to see the largest growth by 2030 are those that are not easily automated and those linked to macroeconomic trends such as aging populations, rising incomes, and higher spending on technology. The role of the educator will continue to rise in importance, as education is predicted to be one of the occupations to grow across the next decade. The changes that are outlined are necessary because current day students will need new strengths and unprecedented adaptability to navigate the world of 2030 and beyond. Technology can help teachers and schools prepare the class of 2030 for successful personal and professional lives. The imperative for change is clear. And the time to start is now.

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