

Preparing for the Mission “Industry Demand 2030”. The Work of Future and The Skills for Future Workforce: Challenges & Opportunities

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Abstract

Global Alert! The world of work is going to face a global workforce crisis by 2030. Reason is big cultural shift in the industry functioning The work, work- style and the Skills required for those jobs are going to transform completely by 2030. We can say that our future will be substantively different from the past for that matters is our present preparations and readiness to face the technological challenges because next decade is going to be technology and talent driven. Those who want to avoid being replaced by smart machines and thrive need to double down their efforts to future-proof their careers.

The fast changing trends like higher acceptance of hybrid working model in the industry, Increased adoption of digital tools and Automation of numerous employments are clearly showing a 306 degree move in future employments. Two years ago when pandemic suddenly appeared it accelerated the process of digitalisation and automation in every industry. Resulting Business world became familiar with a new model of industry functioning “The hybrid model” A big cultural shift in the world of work. Now a days this might be speculative vision of course hybrid model of work is likely to exist in its fullest form in just 10 years of time. Presently it’s the right time to assess the prompt and longer-term impact of pandemic triggered trends and the degree to which they will impact our work in near future. In 2030 it’s highly likely that people will be working in a job that doesn’t even exist today. Which means we have to start preparing now for the future technological challenges it’s the race against the time. We have to act boldly at all levels to facilitate our youth & Present Workforce to upgrade the competencies and skills they will require in future. This paper is an endeavor to examine the fast changing circumstance in business world; the new trends and emerging technologies in the industry and their impact on future jobs and skill set required for those jobs and nurture workforce according to the industry demand 2030.

Keywords:-Hybrid work model- split workforce, **Hybrid skills-**combination of both technical and soft skills. **Power skills** - the behaviors that enable people to succeed. **STEM Education-** stands for Science Technology Engineering Mathematics

The Mission “Industry Demand 2030”

Industrial revolution 4.0, which was in its infancy slowly gaining the momentum; two years ago pandemic’s sudden appearance accelerated the process in every industry. Industries those were reluctant in adopting technology pre-Covid Virus sent a underwater current forcing to rapidly shed away outdated regulations and practices in order to survive in a precarious scenario. As a result, the business world got familiar with cutting-edge technologies and a new industrial operating model called "The hybrid model". A big cultural shift in the world of work. Nowadays this might be speculative vision of course hybrid model of work is likely to exist in its fullest form in just 10 years of time. Technologies like Artificial Intelligence, machine learning Cloud computing, algorithms, automation, and analytical reasoning are set all to replace humans from uncreative and boring jobs by 2030. The smart machines equip with Artificial Intelligence are not going to spare anyone as it is going to affect every aspect of business, society and our lives. Which means we have to prepare our workforce industriously for future challenges because today's good enough isn't going to be good enough in near future. The world of work is changing with every passing day and the shelf life of job skills is shrinking in a similar way. The fast changing trends in the

industry are clearly indicating 306-degree shift in future. Though at present It's tough to predict future changes in economic world but that doesn't means we do not do anything and just wait and watch for the events to unfold.

The ongoing situation has given impetus to the need for Skilling, re-skilling and upskilling for the workforce. It's estimated that 85% of all jobs in 2030 are yet not discovered. Students graduating by 2030 will make career in the fields that we are at this moment clueless. Employment sector in this new era will seek critical thinkers, problem solvers, and people who can interact across the globe. There will be more jobs in industry but it would be a biggest challenge for employer's to find a candidate with right skills matching their requirements. The problem in future will not be jobs but skill mismatch. It's the right time for business world , higher education institutes and government to analysis the future demands of industry and work in the direction of creating curricula according to new age innovations and train our youth accordingly to avoid future skill mismatch. To face these challenges ahead we need to have full proof solution that is nothing short of making skill development a mission 2030.

The message is clear for every fraction of society individuals, institutions, organizations, government and policy makers to develop a mechanism, which is agile and enables people to live a good life and contribute at the workplace. It is the time when every stake holder should play their role honestly in accomplishing this mission on time.

To Achieve

- The cultural shift in the industry functioning to what extent will affect our work in future?
- What work models will be most successful in future and why?
- To what extent Artificial Intelligence and Automation will impact work, work style and the skills set required for future jobs ?
- How can we best train our workforce for the future?
- Identifying the key stakeholders and what they do to prepare a workforce for the future.
- Identifying the current Challenges and upcoming opportunities is the last step.

A New Paradigm of Industry Functioning is Taking Shape:

The virtual revolution had begun long ago but the pandemic dramatically triggered it and changed all the rules of the game Nine to Five work schedule was replaced by hybrid model. And since then every industry is going through major policy shift; adoption of hybrid model, acceleration of technology and automation at work place, Surge in virtual collaboration are clearly indicating that all these changes are reshaping our work culture.

Now after two years fighting with the virus we are in the position to say that health crises has a potential to drive world economy and can propel industries for policy shift .The

reason is if we compare some major global crises of past like The Great Depression 1939 The Global Financial Crisis 2008 and their impact on the world with The Pandemic of 2020 would be considered as a turning point in the history of economic world and severity of crisis is indicated by multiple waves and the extreme uncertainty as when it's going to end.

A Big Cultural Shift!

Switching from traditional way of working to hybrid working model, Increased adoption of digital tools & technologies in every industries are clearly indicating a major shift for future .

So one thing is for sure the world of work will never be the same; we need to redefine our work, work culture policies. In future work will neither be fully remote nor fully form the office it's going to be Flexible. It will be about what we do not necessary from where we do it. The effects can be seen now only one in eight job openings today is hybridized. Many companies that adopted hybrid model of working temporarily at the time of crises are permanently switching to hybrid model. In fact, now even if any organization want to return to a traditional mode there is a big risk of losing good employees. The reason is working in hybrid environment since two years has completely transformed behaviour and experience of an Employer and Employee. Now employees prefer flexibility at work they want to work for the employers who offer a great work culture, a management that trust them and whom they can trust.

Many Multi-National Companies have started giving employees a freedom to choose their workplace. Can we ever think this before pandemic? Now only it's possible. Yes, pandemic has completely changed the perception about work and work place. Adopting hybrid model has a dual benefit as it allows organisations to better recruit talent and achieve innovation on the other side it gives employees freedom to work from any ware as per their convenience. No daily commute less stress and quality time with family employees feel more productive. Now more advance version of work "The four-day workweek" is also capturing the attention of employers and employees. A shorter workweek might sound like a fantasy for employees at present but in some of the countries; companies had started experimenting with this idea. One thing we can say for sure that our future jobs will be substantively different from the past for that matters our present preparations and readiness to face the future technological challenges.

Changing Skills Demand in the Industry (Future Prospective)

Even in pre-Covid time, mere a degree was not sufficient for getting a good job. And in New Normal pandemic has changed the pattern of recruitment now Companies are looking for the employees who are good at problem solving, excellent communicator, creative, confident, with strong technical skills, good academic record and above all who can think in and outside of the box. Presently to deal with split workforce we see a sudden surge in the demand of these technical and soft skills, Hence those who want to avoid being joblessness or replaced by smart machines need to work on learning these skills to get better opportunities in future.

☒☒ **Artificial Intelligence/ Machine Learning**

Artificial intelligence/ Machine Learning is going to change the world more than anything in the history of mankind. It is impacting the future of every industry and every human being. AI has acted as the main driver of emerging technologies like big data, robotics and IoT, These technologies are going to transform the way businesses function in future.

☒☒ **Coding and Programming**

In future, it's going to be get more difficult. If you don't know coding or you don't know programming, People need to learn about programming like they learn a new language. Coding has quickly become one of the most sought after skills people can learn. At this point, coding has become so dominant across industries that experts argue the coding might become soon a life skill.

☒☒ **Cloud Computing**

Developing cloud computing alongside valuable project management skills can help secure your career in organizing and managing company processes. It's time to sharpen up your cloud computing skills

☒☒ **Cyber Security & Networking**

The demand for cybersecurity jobs has certainly increased in the past few year, while breaking into the field can be challenging but the future is incredibly rewarding.

☒☒ **UX Design**

Having UX design skills shows employers that you are invested in ensuring users have a good experience. Companies value this skill and mindset, as it proves to be applicable across the board.

☒☒ **Data Analytics**

It's evidently one of the areas that have contributed to the rise in hybrid jobs. It's a field that's relevant to so many other areas of business, and more job roles require an understanding of it.

Other Skills

☒ Technical / Business writing

☒ Project Management

☒ Presentation skills.

☒ Collaboration Skills

☒☒ Ability to pick up new skills quickly, Opportunities for experimentation, risk-taking ability and someone who can think in and outside the box

Those with expertise in these areas will find many opportunities in future.

Digital Intelligence, Emotional Intelligence and Soft Skills; in one package is going to be the requisite for future:-

Digital intelligence is concerned with how people interact with technology, much as emotional intelligence is with how people interact with one another. Soft skills are character traits that make it possible to engage with others in a positive and productive way. Our ability to adapt will be essential for survival in the future. The three skills that will be most valued in the coming decade are digital, emotional and soft skills.

📌 **Digital Intelligence:**

The ability to learn and use new information and skills linked to digital technologies, such as coding, big data, artificial intelligence, block chains, and cloud computing, in addition to more conventional business skills, is known as digital intelligence. The development of these abilities in our workforce is necessary since digital intelligence is quickly becoming a crucial competency for both individuals and organisations, so these skills must be cultivated in our workforce.

📌 **Emotional Intelligence:**

Emotional Intelligence is the critical skill organization need to develop in its workforce in order to survive—and thrive—in the continuing technology revolution. EI is the ability to recognize, understand, utilize, and regulate emotions effectively in everyday life. The skills like self-Awareness, motivation and empathy at work place are going to become differentiator capabilities over the next decade.

📌 **Soft Skills:**

There is a growing demand for the people who not only have specific qualification to transform an organisation digitally but can also demonstrate a combination of other attributes like interpersonal skills with a sharp analytical mind because today decisions are made so quickly that organizations no longer can rely on time consuming, top-down decision-making process. He/ She needs to be comfortable with being uncomfortable working in a constant flux is now acceptable and expectable. In fast changing business world skills like Communication Skills, Leadership skills, critical thinking Accepting Criticism and feedback, Stress Management ,Conflict resolution, Negotiation Skills have become a vital factor in personal and professional success.

The Skills like Digital intelligence, Emotional Intelligence and Soft Skills in one person is going to be the requisite because organizations in future would be looking for the employees who might not only be digitally savvy, multi-tasking but also be mentally & physically fit, who could be moved around the organization as per their requirement so their talent lands where they are most needed. So, the secret of success is to focus on learning digital, emotional and Soft skills.

Preparing A future Ready workforce?

In another five we are going see totally changed face of the Industry where machines will work freely, communicate and coordinate with people in making a customer-oriented items. This will bring extensive changes to the world of work all these changes will have a direct impact on jobs and Skills requires for those jobs the requirement for highly skilled professionals with strong domain knowledge, technical skills and management skills will be increasing in all the industries. Thus, emerges the need for STEM Education an acronym for four disciplines, specifically-Science, Innovation, Designing and Science. The best feature of the STEM education is that it transforms the students into professionals who can adapt to a

changing workplace 75% of the entire employments in future will require workforce specialized in STEM subjects. STEM graduate would always have an edge over the thousands of work candidates abroad. Here are some ideas for preparing our workforce for The Industry Demand-2030:

- ☒☒ To be prepared for the future, individuals have to learn to think and act in a more integrated way, taking into account the interconnections and inter-relations between contradictory or incompatible ideas, logics and positions, from both short and long-term perspectives. In other words, they have to learn to be systems thinkers.
- ☒☒ Extending the digital curriculum to enhance digital literacy and soft skills that cannot be replaced by artificial intelligence is a crucial step in assisting young people in succeeding in their profession.
- ☒☒ Designing Effective training programmes or creating a varied and versatile learning experience as Project based / work integrated learning.
- ☒☒ Develop comprehensive computer curricula / technical materials. This will help students become digitally fluent in mastering computers across different platforms.
- ☒☒ To optimize business operations and efficiencies a wide range of digitally coupled academic programs like Fin tech (Finance + Tech), Edu tech (Education + Tech), Med tech (Medical + Tech) or Legal tech (Legal + Tech) in response to the rapid changes in the industry should be developed.
- ☒ The way the world recognises learning is changing as a result of digital credentials.
- ☒☒ The workforce has to transition away from accepting paper diplomas and certificates and toward verified, secure digital credentials. These programmes aid in up-skilling and re-skilling for workers who wish to advance and remain competitive.
- ☒☒ Making learning a nonstop handle, patterns such as globalization and mechanization is quickly changing the requests of the work showcase and the aptitudes set to succeed individual have to be depend more on their capacity to “learn to learn” all through their life.
- ☒☒ Keeping sharp eye on the fast changing trends in the industry and Identifying, the future demands and accordingly create a learning strategy.
- ☒☒ Prepare with global prospective in mind Businesses operate are becoming more global and more culturally diverse than ever before, and chances are that your co-workers, clients and stakeholders work throughout the world. The more experience you can get of working with them, the more confident you will be. This will make you more attractive to employers of the futures

Key layers in Preparing a Future-Ready Workforce:

Skill development is the shared responsibility of Colleges / Universities, Corporates, and Government agencies. As more and more jobs becoming automated and hybridised people form the corporate world, Educators and leaders should come together and make a full proof plan or where ever required do necessary changes to ensure that youth is equipped with the skills to meet industry demands in future.

Higher Education Institutes and Corporates:

To prepare youth for the jobs in 2030, colleges and universities need to embrace digital transformation and reform the education system from knowledge-based learning to career-relevant learning by offering more digital elements and soft skill development. At the same time, structuring programs in collaboration with corporates and academia will lead to a win-

win understanding of which skills are required for the corporates and developing the talent accordingly. A meaningful partnership between higher education institutes and corporates can better manage blended and hybrid workforce. This will help youth have the necessary preparation not only for future skills but for healthy, active life in a digitized and hyper connected world.

Human Resources Professionals and Community

HR leaders can help bridging the gap between the present and future for the workforce as well as the organisation. To prepare a future-ready workforce, HR leaders must reimagine the work and workforce, nurture skills and capabilities, embed learning in the flow of work, complement it with technology and build a talent ready for action.

Workforce Partners & Staffing Agencies

These organizations provide talent on contract to their clients and have a critical role to play in solving employment challenge. Workforce management and staffing agencies need to go beyond traditional manpower solutions and think about how they offer longevity in careers and skill building for the professionals.

Government and Policymakers

To help people, governments will need to find the right balance between policies fostering flexibility, labour mobility and job stability. There is also a need for government bodies and policymakers to develop guidelines.

Current Challenges:

- ☒☒ Some individuals are still in a dissent mode to acknowledge the truth that our world of work has changed forever and it will proceed changing. Many organisations have Presently begun to return to ancient ways of working which isn't great sign for future planning
- ☒☒ Universities/ Colleges having a big responsibility of preparing youth for future after adopting online teaching and learning for more than two and a half years have taken a reverse gear, started returning to traditional teaching learning model whereas Education sector would have adopted blended learning to keep students familiar with technology.
- ☒☒ The challenge is to develop a mind-set for life-long learning, re-skilling / upskilling. Because after acquiring a degree people feel they are ready for the job and stop investing in learning.
- ☒☒ Our education system just emphasises on stuffing brain with bookish knowledge it lacks Digital curriculum. Cognitive skills, Social skills, Emotional skills and Technological skills are the most important skills needed for the 21st century but unfortunately still graded secondary and missing from standard curricula.
- ☒☒ The skills needed by the industry and the skills imparted by the educational and training institutes has a huge gap. The skill sets provided by the educational and training institutes do not end up suiting the employers' requirements.
- ☒☒ There are not many trained and highly skilled trainers available who can teach courses in the new areas.
- ☒☒ To make technical / professional education accessible and affordable for all is a big challenge in our country .
- ☒☒ Individuals themselves have to prepare industriously for the future challenges, or experience joblessness because next decade will be technology and talent driven only. So

using unfair means and scoring good marks in exam in future will be of no use.

- ☒☒ Lastly The biggest challenge is to change the system and convince people. People in our country do not want to adopt the changing circumstances easily and want continue with old policies and practices. Mind you that this mind-set should be changed as soon as possible

Upcoming Opportunities:

Remember that the future is just as likely to bring opportunities' and positive developments, as it is likely to come with disruption and uncertainty too. By taking right steps today to future proof our career, we can look to the horizon with optimism and excitement!

- ☒☒ By 2030, more than half of the jobs in the world will be STEM based; right action on a right time by all the stakeholders might bear the fruit in future.
- ☒☒ By identifying the jobs of tomorrow, we will be in a better position to deal with technological challenges. And have a bright future for all.
- ☒☒ Today Employees and organizations have a fair opportunity to identify the skill of future , the skill gaps and work in the direction of filling those to avoid future skill mismatch.
- ☒ We have an opportunity to Design a broad range of courses that can help in opening the door for working in a new industry.
- ☒☒ If you work in a highly technological profession, to stay up to date, Learn cutting edge technology
- ☒☒ Cultivate your ability to deal with disappointment and turbulence. The future is uncertain and we will most likely encounter some setbacks due to technological changes no matter how much you prepare and plan. Develop the quality of Resilience from today.
- ☒☒ Start working your emotional intelligence/ mental Health because in future The Need of Emotionally Intelligence people will increased At Workplace.

Conclusion:

Regardless of what the future may contain; the pace of change over the next five to ten years will be very fast and unforgiving as a result of globalisation, firms will be able to hire people from all over the world without having to see them in person. In future Work will become more de-centralised competition will be tough. Employees will need to continuously learn new skills in order to stay competitive, which calls for flexibility and a commitment to lifelong learning. Education should put a strong emphasis on teaching "fusion skills" a blend of creative, entrepreneurial, and technical talents to students so they may quickly transition into new careers as they arise.

Work Cited:

Internet Source:

- [1] Management Training and Leadership Training – Online. (2022, Mar. 10). Retrieved from <https://www.mindtools.com>
- [2] India Foundation. (2022). Retrieved from <https://indiafoundation.in>
- [3] Forbes. Retrieved from <https://www.forbes.com/?sh=276f1c5a2254>
- [4] Alternatives, D. (2022). Development Alternatives DA, the world's first social enterprise dedicated to sustainable development, is a research and action organisation striving to deliver socially equitable, environmentally sound and economically scalable development outcomes. DA's green technology innovations for habitat, water, energy and waste management, which deliver basic needs and

generate sustainable livelihoods, have reduced poverty and rejuvenated natural ecosystems in the most backward regions of India, creating some one million livelihoods and empowering over 6 million people. Retrieved from <https://www.devalt.org>

- [5] Global Business Education Network | AACSB. (2022). Retrieved from <https://.aacsb.edu>
- [6] OECD.org - OECD. (2022). Retrieved from <https://www.oecd.org>
- [7] Jammu Kashmir Latest News | Tourism | Breaking News J&K. (2022). Retrieved from <https://.dailyexcelsior.com>
- [8] Course Hero. (2022). Retrieved from <https://www.coursehero.com>
- [9] Srivastava, Sarika & Tiwari, Ajay. (2019). Preparing Young Minds for Industry 4.0: Challenges and Changes. 4. pp. 14-20. Retrieved from <https://ijrdo.org>
- [10] Tiwari, A. and Srivastava, S. (2020). The process of artificial intelligence and automation has increased the need of emotional intelligence at workplace. *International Journal of Mechanical and Production Engineering Research and Development*, 10(3), pp.7723-7730. Retrieved from <http://dspace.jgu.edu.in:8080/jspui>
- [11] Saraçyakupoğlu, Tamer. "Abrasive Water Jet (AWJ) Applications in the Aviation Industry." *International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)* (2019).
- [12] KASSENOV, MURATBEK R., and ERKE M. KASSENOV. "Current status and trends of mineral fertilizers world market development." *International Journal of Agricultural Science and Research (IJASR)* 3.2 (2013): 37-41.
- [13] Nallusamy, S., et al. "Implementation of total productive maintenance to enhance the overall equipment effectiveness in medium scale industries." *International Journal of Mechanical and Production Engineering Research and Development* 8.1 (2018): 1027- 1038.
- [14] RKJ, De Silva, and Thashika Rupasinghe. "Characterization of new product development (NPD) models applicable to enhance the overall performance of the apparel industry." *International Journal of Textile and Fashion Technology (IJTFT) ISSN (P)* (2016): 2250-2378.
- [15] Mohan, N. A. N. J. A. N. G. U. D., Sathyashankara Sharma, and Ritesh Bhat. "A comprehensive study of glass fibre reinforced Polymer (gfrp) drilling." *International Journal of Mechanical and Production Engineering Research and Development* 9.1 (2019): 1-10.
- [16] Pramod, M., and R. U. Menon. "Vendor evaluation and retention model: the need of the hour for Indian agro-based industries." *International Journal of Sales & Marketing Management Research and Development* 5.4 (2015): 25-34.

Student Paper:

- [17] Indiana State University. (2022). Retrieved from <https://www.indstate.edu>
- [18] Saint Joseph's College (2022). Retrieved from <https://www.sjcme.edu>
- [19] Granite State College. (2022). Retrieved from <https://catalog.granite.edu/archives>