

# Role of AI in Re-Skilling and Up-Skilling of the Workforce in India

Ibra Raheem<sup>1</sup>, Dr Bharat Siddharth<sup>2</sup>

<sup>1</sup>(Department of Commerce, CSJM University, Kanpur  
[Ibraraheem25@gmail.com](mailto:Ibraraheem25@gmail.com))

<sup>2</sup>(Department of Commerce, VSSD College, Kanpur  
[Bharatkibm@gmail.com](mailto:Bharatkibm@gmail.com))

## Abstract

In the today's world modern labour market has gone through rapid changes with the help of artificial intelligence it therefore makes the organizations and individuals consider the skill demands and career ways. The given research is conducted based on the idea of explaining how AI can contribute to reskilling and upskilling among the Indian population, since the rates of technological adoption are gaining momentum. The article discusses the degree of labor shift, the nature of new skills requirements, and the preparedness of the employees and employers to act based on secondary data obtained in the form of international reports, industry studies, and institutional surveys. Results have shown that despite the fact that over 16 million workers in India are estimated to be impacted by AI, the technology, on the other hand, creates new technology-driven jobs, especially those in the field of data analytics, automation, and application development. The findings also reflect on the continuation of an ever-growing skills gap despite the high tendency among employees in the acquisition of AI-related skills. Therefore, the need in soft skills, namely, adaptability, problem-solving, and communication, is as relevant as technical competence. Government, industry and educational institution coordinated efforts to create available, lifelong learning ecosystems have therefore been highlighted; only in these ways can India develop a dynamic skilling infrastructure and hence move to a flexible, future ready workforce that is capable of participating actively in an AI-driven economy.

**Keywords-** India, Artificial Intelligence, Future of HR, Economic & Business Policy

## I. Introduction

### A. Definitions

#### 1. AI (artificial intelligence)

The capability of a machine to perform cognitive functions commonly connected with human intellect, such as perception, reasoning, learning, problem-solving, and even creativity, is known as artificial intelligence (AI). The voice-controlled assistants like Siri and Alexa, as well as automated customer support chatbots that help customers navigate websites, are examples of how AI is becoming more and more incorporated into commonplace technology. Businesses will be significantly impacted by applied AI, which focuses on applying artificial intelligence to solve real-world problems. Businesses may boost profitability and improve operational efficiency by utilizing AI. But the real value of AI is found in how companies use these systems to enhance human capabilities rather than in the technology itself. Building trust also depends on companies

being able to honestly and transparently explain these procedures to the public and shareholders. In a Dartmouth workshop in 1950s computer scientist John McCarthy first used the term "artificial intelligence." But basic concepts in AI have already been investigated, most famously by Alan Turing in his 1950s paper that created the "imitation game," now known as the Turing test. This test evaluates a machine's ability to act intelligently in the same way as a human. Turing suggested focusing AI research on tasks requiring minimal activity or sensory input, like as games and language translation. Research fields that have been around for a few decades include natural language processing, computer vision, and neural networks. (2024) McKinsey & Company. It is possible for systems to execute assignments with greater autonomy and efficiency due to advancements in machine-driven capabilities in conjunction with Artificial Intelligence (AI). This cutting-edge technology facilitates the processing of more operational workflows by allowing

machines to perform repetitive tasks. The collaboration of human employees and enterprise technology is a seamless harmony made possible by AI in the development of future workplaces. AI enhances productivity by performing mundane tasks and supplementing human work instead of replacing it. This allows for greater complexity and effort to be placed on more tactical tasks and is a driver for change in multiple sectors. More efficient resource utilization and effective operational processes is the by-product of this (HCLTech, 2023).

## **2. Workforce Re- skilling and Up- skilling with AI**

AI based training solutions which identify skill gaps in companies and put out tailored learning plans for staff. We see in this data informed approach that companies which close the skill gap in their teams also better position themselves for success. At present developing what we may call 'worker agility' has become a key priority as business aims and skill needs transform. Worker agility is the ability of a company to see out, adapt to, and benefit from change. By which we mean to say that which which companies do which is to see off potential issues and which they which they do which is to change with the wind very quickly thus helping the company to hit it's marks. Upgrading skills is the key to closing the workforce preparation gap and creating a team that is adaptive and flexible enough to handle future work place changes. In order to close the workforce readiness gap and develop a flexible, adaptable workforce that can react to future workplace shifts. Whereas, stated that 39% of workers worldwide question their employers' capacity to adapt to changing circumstances, it is obvious that businesses must fund training initiatives that address these issues. When combined with more common approaches to learning including project work, feedback and practical experience, employers can prepare their employees to perform better in future. The holistic solution is likely to make workers successful in the company and in their career on a larger scale. Artificial Intelligence is already a mainstream process as it is a driver for economic development. It is been integrated into numerous work processes in the office, the productivity, nature of work and, category of skills that people would require. These changes are occurring at a higher rate in India as

compared to other emerging market due to the growing digital economy and huge number of people in their workforce. It is estimated by industry research that AI is going to change the work in job structure of about 36- 71 millions Indians and this makes the country most urgently in need of updating its skills to make growth occur. However, it is not just a matter of skill gaps. With the transforming traditional rules, workers are being requested to acquire new knowledge and skills, either thinking or behavioural, in order to fit into the world of high technology that is uncertain. National and international programme have started to close the skill gap still the question arises on how successful these programme will be.

## **B. Background of the study**

AI and automation are structurally changing the nature of work, creating new opportunities while destroying old job categories. Global surveys, such as the World Economic Forum's Future of Jobs Report of 2020, estimate that by 2025, nearly half of the global workforce will have to be reskilled. For India, an emerging economy with increasing internet usage, a growing youth population, and a vibrant labor market, this conundrum becomes significant against the rapid pace at which technologies are evolving. In India, the adoption of AI is expected to impact over 16.2 million workers, hence large-scale reskilling and upskilling initiatives to equip the workforce for emerging tasks related to data analytics, cloud computing, application development, and generative AI become necessary. Simultaneously, AI is expected to create approximately 4.7 million new technology-related jobs, which creates a double challenge of job loss as well as job creation. Studies show that manufacturing, agriculture, retail, and transport industries would bear the maximum brunt and therefore require skill transformation both in traditional and modern businesses. Other than technical skills, other skills that are recognized as critical to modern-day professional success are adaptability, leadership, problem-solving, and communication skills. According to the studies of Empirical studies (Jha, 2024; Sanders and Wood, 2023) it states that despite the ability of artificial intelligence to make a routine and repetitive activity, uniquely human qualities, including creative insight, collaborative ability, and adaptive flexibility, they are required to

promote innovation, facilitate cooperation, and guarantee long-term employability. In the existing dynamic labour market, those employees who are skilled in AI as well as interpersonal competencies are more prone to a rise in wages, career growth, and employment security. The academic sources also indicate that the skills gap continues to widen: although over 95 percent of Indian workers state that they want to develop skills related to AI, employers are still facing difficulties with finding the right individuals to fill the newly appeared job positions. This fact shows why concerted measures are urgent involving governments, companies, and schools and providing systematic, scaled, and comprehensive training programmes that will help bridge the skills gap. The topicality of multi-stakeholder, collaborative practices is demonstrated by the examples of AWS, its AI Ready, the Reskilling Revolution of the World Economic Forum, and the collaboration between the world technology enterprises and universities in India. With the shift of India towards the AI-based economy, reskilling and upskilling are now not only an economic priority but a strategic requirement. The digital era will bring opportunities for the future that will enhance the workforce productivity and creativity. This, in turn, translates to a strong academic justification of exploring the meaning, practices, and issues related to reskilling and upskilling the Indian workforce in the changing environment of artificial intelligence.

### **C. Objectives**

1. This research has been conducted to gain knowledge about the artificial intelligence (ai) in everyday life its growth and opportunities.
2. Need of re-skilling the workforce.
3. Re-skilling and up- skilling of the workforce with the help of ai.
4. Preparing the Indian workforce for future economy.

### **D. Research Gap**

As there is lot of studies and reports on the effect of artificial intelligence on employment across the world and nations yet the literature available for this study shows the major gaps of the Indian workforce to an AI- driven economy. The provided literature highlights the scale of technological disruption and offers scant empirical analysis of the

effectiveness of the current reskilling and upskilling programs in the Indian context. There is limited empirical evidence of the results, long-term employability, and productivity improvement. The studies also focus mostly on technical skills, including data analytics or machine learning, and relatively little emphasis is paid to the incorporation of behavioural and human-centric skills, including adaptability, problem-solving, and communication, into the training models. As a result, the interdependence of the technical and soft-skill development is under-researched. The majority of researches embrace a macro-level approach and do not examine sector-specific skills demands that arise because of the use of AI in key sectors of the economy, including manufacturing, agriculture, and transportation, which, in turn, use a significant portion of the national labor force. As there are significant gaps about obstacles to fair entry, including regional inequalities, financial limitations, and organizational capabilities, that determine the participation of workers in AI-related training programmes. This paper aims at filling these gaps by generalising the available evidence and highlighting the need to adopt multi-stakeholder, inclusive reskilling policies that would respond to the dynamics of the Indian labour market.

## **II. Literature Review**

The fast penetration of the artificial intelligence (AI) into the organisational sphere has spawned significant changes in the global and national labour market. Academic literature highlights the dualistic nature of such an effect: not only will advanced technologies make a range of routine activities automatic, but they will also create a demand on new skills, new work occupations and new approaches to the workforce. In this respect, the intersection of a large demographic base and a growing digital economy is enhanced in the context of India. This claim is supported by numerous large scale industry analyses. The estimation made by ServiceNow shows that about 16.2M Indian employees will need retraining as AI-enabled systems transform the conventional working process, and adoption of AI is expected to result in the creation of close to 4.7M new jobs, especially in cloud architecture, data analytics, application development and AI implementation. This displacement and opportunity coincidence is

reiterated. The contextualisation of this trend in the World Economic Forum, with the Future of Jobs Report (2020), estimates that by 2025, approximately one-half of the workforce in the world will require reskilling. Most importantly, demand goes beyond the technical capabilities to include human-focused or soft skills like leadership, communication, empathy, and flexibility. Shankar (2023) confirms that modern training systems should have a balance of digital skills and behavioural capabilities to address the new workplace demands. Despite the great desire of the Indian workers to gain AI skills, chronic skills gaps still exist. A survey of AWS Digital Skills (2024) found that although 95 per cent of Indian workers reported that they would be willing to attend AI training, about 79 per cent of employers still reported that they were experiencing problems recruiting employees who had the appropriate capability, suggesting structural constraints in the Indian skilling ecosystem. These are the lack of consistency in quality, the barriers to access, and an unequal penetration of digital education by regions. The contributions of scholars go beyond that of explaining these trends.

According to Morandini et al. (2023), once AI gains deep penetration in the organization, the latter needs to rethink workflow designs, which raises the requirements of talent management and both technical and domain-specific reskilling investments. As they postulate, the organizational resilience depends not only on the technological upgrade cycles but also on the ability of the employees to interpret, authenticate and contextualize AI outputs. On the same managerial note, Sanders and Wood (2023) emphasize that interpersonal competencies, especially, emotional control, good communication, conflict management are going to be all the more important as humans are going to work with AI systems, but not to replace them. The economic effects of the skill development through AI are thoroughly documented. AWS (2024) notes that Indian workers with high AI skills can earn high salaries, which can rise by up to 54 per cent on average, and more in IT and R&D work. UKG (2023) also notes that the majority of Indian workers are aware of the economic potential of AI skills, they believe that the importance of AI skills will become more significant than formal work experience in the near

future. There have been national and international efforts to alleviate the skills gap that has been on the rise. The World Economic Forum Reskilling Revolution (2024), AWS Reskilling (through its program named AI Ready), and collaborations between major technology companies and Indian universities are the programmes that tend to increase access to AI-related training. Though these initiatives show an increasing level of stakeholder coordination, the literature also shows that there are still challenges in terms of inclusiveness, affordability, and institutional willingness to engage in a constant learning process. Altogether, the reviewed literature represents AI as a disruptor and enabler. The general agreement of the research is that the ability of India to embrace AI-enabled change will be determined by the strength of its reskilling systems, incorporation of human-centred skills, and the creation of fair, large-scale skilling systems. Although current literature recognizes the disruptive potential of AI, researchers state that the rate and course of its influence vary among demographics, industries, and geographic locations. Other sources also focus on the psychological aspect of technological change in that the perception among workers, including fear of losing their jobs, reluctance to use digital tools, and low confidence in learning new technologies, are the factors that make upskilling programmes effective. Therefore, technically elaborately developed training interventions can be ineffective when they do not consider important behavioural factors. Also, researchers expect that the uncontrolled spread of AI can lead to the polarisation of jobs, creating more high-skill and low-skill jobs at the cost of mid-skill ones, which is especially important in the context of India where a large portion of the population has low-skill or semi-skilled jobs. All these findings are indicative of a pressing necessity to reskill context-, psychologically-informed, and socioeconomically-accessible models.

#### **E. Need of Re-skilling and Up-skilling of workforce in India**

The requirement of reskilling and upskilling of the workforce in India is for the fact that artificial intelligence is radically changing the labour-market setup, work duties, and skills requirements. It has been estimated that AI will touch on the

professional life of over 16.2 million workers, especially those who work in labour intensive jobs in the manufacturing, retail, agriculture, transportation and construction sectors. With the technology taking over repetitive duties, employees are increasingly being demanded to demonstrate digital dexterity and analytical skill to perform complementary higher-order duties. At the same time, AI creates new opportunities in cloud computing, data analytics, software development, cybersecurity and AI implementation. This will create the need thousands of new skilled professionals in India by 2027. This gap between the supply of talent and the demands in the industry consequently highlights the importance of upskilling programs. Whereas, the character of the future job will require the technical skills, but also the human-oriented skills. It is necessary to teach workers to understand the output of AI, verify automated decisions, and use non-automatable contextual judgement skills. As a result, upskilling has become a key practice that is essential to increase the flexibility of workers in the changing conditions. Economic pressures also cause this imperative. Employers are increasingly complaining of the inability to find talent with AI-related skills, and employees can see that AI skills are associated with higher wages, increased career mobility, and overall long-term employability. Reskilling in this kind of environment is not a choice or an addition but a mandatory condition to developing a workforce that can succeed in an economy that is highly technological. India is becoming a part of global value chain and this further enhances the need of reskilling as competitiveness is more about the ability to adopt new advanced technologies. Countries with more flexible labour markets are more likely to have investment in high-technology industries than countries with a low skill base and risk losing out on the benefits of more flexible economies. Indian labour market is more complex with its diverse and fragmented market, which includes formal, informal, and gig-based employment. Informal employees, especially, often do not have institutional training support and, as a result, become especially vulnerable in an AI-based world. Such as a context creates the urgency of reskilling the system nationwide in order to understand the communities and go beyond the corporate environment.

## **F. Significance of Re-skilling and Up-skilling of Workforce in India**

A country like India goes through a lot of technological and economical changes that are made through artificial intelligence which brings the need of reskilling and upskilling of the workforce. It is estimated that artificial intelligence will impact the work of millions of employees in various fields, and organizations will need to re-imagine the nature of job design and develop ways of developing talent. Here, reskilling is an important requirement, not only to prevent displacement but also to prepare workforce to new high-value jobs. It has more than just job preservation as consequences. The development of a stronger skill base in India has a direct impact of improving the national competitiveness in the global environment where industries are aggressively seeking digitally proficient talent. With AI becoming part of organizational systems, the capacity of employees to use automated tools, comprehend AI-generated knowledge, and utilise domain expertise is a strategic point of difference. Whereas, reskilling and upskilling play a crucial social role, named as enabling economic mobility, inclusive growth, and reducing the risk of increasing income inequality between digitally skilled and unskilled employees. In order, the acquisition of technical and soft skills will enable employees to adjust more assertively to the changing work conditions, thus enhancing job satisfaction, productivity, and retention. Given the twofold benefits of Indian youth in terms of a young pool of labour and a fast-growing digital economy, the importance of developing skills in a timely manner is heightened. India is among the top countries that use artificial intelligence to transform the economy whereas the countries that do not take reskilling programmes systematically will cause the expansion of the skill gaps.

Indeed, the UKG report finds that CEOs at organizations already using AI estimate 70 percent of their total workforce will use AI to automate or enhance some of their job responsibilities by 2028. Leaders of organizations not currently using AI estimate that 20 percent of their employees would leverage AI to automate or enhance some of their job responsibilities over the next five years (UKG, 2023). AI allows for the creation of a next-generation workplace based on seamlessly

connected enterprise systems and people. In effect, as human resources rise, rising technology does not make them obsolete but enhances their efforts. In fact, AI can enable companies to free up resources for higher-level activities in business (HCL Tech, 2023). The rapid change in workplaces has placed employees in an era of continuous skilling whereby workers have to swiftly acquire and enhance their capabilities to keep pace with the changing technologies and render themselves obsolete. Importantly, most of these capabilities that will be required in the near term are soft skills unrelated to any industry or sector. This will raise questions about the traditional model of higher education and career development, which was based on industry-specific hard-skill degrees to ensure economic and professional mobility (Jha, 2024). AI is an essential force of accelerated change in the modern workplace; at the same time, it can also be used to solve significant systemic issues. As an example, AI may be used to determine the possibilities of gaining new skills, create individual training plans to be utilized by specific employees, and provide workforce data and insights. It is important to note the potential hidden in the individuals in an organization in order to create an environment which is conducive to learning, development and encouragement. However, this cultivation is not achieved naturally.

The Empirical studies indicate that successful organizations take an aggressive stance and easily embrace changes in learning modalities. The switch to the one-size-fits-all training paradigm, which is a painful task, is necessary; otherwise, without this investment, organisations often cannot meet the needs of employees and do not provide leaders with the knowledge that would enable them to develop flexible development programmes. Reskilling is also crucial to the foundation of organisational transformation. With enterprises using AI-based tools to predict, analyse customers, optimise the supply-chain, and make decisions related to human resources, they are increasingly in need of a workforce, which can interpret the insights of algorithms and guarantee the responsible and ethical use of technology. As well, employees who are AI literate are more equipped to recognize biases, authenticate automated output, and give contextual knowledge, which cannot be fully automated. Thus, this investment increases the

organizational governance and accountability and protect jobs.

### **III. Research Methodology**

The current research design uses a secondary research design of qualitative research to examine the implication of artificial intelligence on reskilling and upskilling of the workforce in the Indian context. The choice of a secondary research method is based on its ability to combine heterogeneous evidence based on reports in the world, academic literature, industry reports and policy reports and documents to provide an in-depth insight into the emergent trends in AI-driven skill transformation.

#### **G. Data Sources**

The data used in this research was only gathered using valid and peer reviewed secondary information sources, such as:

1. International reports (World Economic Forum, ILO, AWS).
2. ServiceNow, UKG, HCLTech, and McKinsey industry analyses (ServiceNow, UKG, HCLTech, McKinsey).
3. National datasets (NSSO, CMIE)
4. Journal articles (peer-reviewed, found in Google Scholar, Elsevier, JSTOR).
5. Institutional and reputable publications (India today, Business standard, ORF)

Sources published between 2020 and 2024 were given preference for this research.

#### **H. Method of Analysis**

For the analysis of data a thematic content analysis was utilized in the synthesis of the information provided by the literature selected. The steps of the analytic procedure included:

1. Keywords were used to search through the databases with the following keywords: India, Artificial Intelligence, Future of HR, Economic & Business Policy..
2. The sources were filtered and chosen based on relevance and methodological rigor.
3. The material was coded into emergent themes, such as workforce disruption, skill shortages, sectoral shifts, and training initiatives.

4. Global and Indian evidence has been compared to put the skilling issues in India into perspective.  
5. Triangulation of findings was done on institutional reports, academic literature, and industry analysis to increase interpretive validity. Such an approach allows having a combined picture of the degree to which AI transforms labour-market relations and labour-skill requirements.

### **I. Reliability and Credibility**

In order to achieve reliability of data, the following measures were implemented:

The institutional publications that used transparent methodologies were given preference.

1. Results were cross-checking with various independent sources.
2. Preference was given to peer-reviewed literature as opposed to non-scholarly commentary.
3. Sources that reported explicit data and had credible methods of estimations were only included.

These processes reduce chances of bias that would be caused by the dependency on single-source information.

### **J. Limitations**

The secondary research methodology has some limitations despite its benefits; these include:

1. The research is based on the accessibility of published information that might not be as comprehensive as the fast-changing nature of AI advancements.
2. The inconsistencies in definitions of skills associated with AI in different institutions could create interpretive differences.

Sectoral information on some sectors, especially informal labour markets is still sparse.

3. Primary data was not collected and therefore the findings cannot be generalized statistically.

However, secondary analysis is a solid basis of capturing national and global trends of AI-skilling, as well as to guide subsequent empirical investigation.

### **IV. Findings of the study**

As per the literature reviewed it shows that the India's labour market goes through major changes by automation and artificial intelligence. It is projected that 16 million employees will undergo a

change in job functions or processes, with the majority of them operating in the manufacturing, agricultural, transportation, retail, and construction industries. As such a case comes with risks, it also promises tremendous opportunities; therefore, AI is expected to create approximately 4.7 million new jobs related to technologies, which is a process that involves both substitution and creation of jobs. Some other major conclusion is on the widening skills gap. The number of Indian workers who are willing to train in AI is quite high; however, employers often note that there is a shortage of properly qualified talent with the necessary digital and analytical skills. This imbalance is the illustration of the unequal access to training facilities and the overall lack of definite developmental opportunities in several sectors of the industry. The role of human-centred competencies remains relevant, as evidence also shows. The employees that integrate AI-related abilities with the additional abilities like communication, leadership, and critical thinking are in better positions to experience desirable career growth and enjoy the fruits of increased pay. This combination of skills is becoming a strong promotion by employers who understand that AI does not replace human judgment. As the results indicate a strong flow in favor of national and international reskilling efforts. The course programs like the AI Ready program by AWS and the Reskilling Revolution program by the World Economic Forum are indicators of the increased cooperation between industry, government, and academia. Whereas, the big challenge is with the employees in non-urban and low-income in ensuring inclusivity.

### **V. Discussions**

This research paper presents the rapid transformation of the Indian labour market through the diffusion of artificial intelligence. Although the problem of workforce disruption has long been emphasized in antecedent reports, the current results argue that the most significant problem is not the pace of AI adoptions in itself, but the growing gap between the current ability to perform tasks in the workforce and the changing skills required by the industry sectors. The empirical data supports the claim that reskilling and upskilling should be viewed as strategic investments, as opposed to insignificant reaction to automation,

and that these investments will make countries competitive in the long term. One of the insights gained during the analysis is that despite the strong desire of the Indian workforce to develop AI-related skills, structural challenges, such as unequal access to training, geographic inequalities, and institutional restrictions, continue to hamper the progress. Such discrepancy between ambition and availability is one of the reasons why employers still complain about not being able to hire AI-skilled talent, even though many workers are interested. The issue is based on institutional and not personal level. The review also takes a retrospective of the growing significance of human-centred capabilities. As the technicians who are expert in AI, data analytics, and automation is important, the literature continues to highlight that employees who combine digital and soft skills (critical thinking, communication, and adaptability) with one another achieve a higher degree of career mobility. So, the incorporation of the behavioural and technological competencies should be done with proper reskilling strategies and balanced orientation.

The significance has been placed on the discussion of organisational practices. The information above shows that those companies that effectively use AI are also those who redefine job roles, invest in employee learning pathways, and incorporate AI tools into their daily operations. Conversely, organisations that have solely been applying technology upgrades without corresponding human resource strategies have not been that successful in meeting their productivity objectives. This fact supports the idea that the technological change and the development of the working force should go hand in hand. The results also place a particular emphasis on the fact that continuous learning ecosystems become one of the hallmarks of the AI era. Compared to the past waves of technological change that gave workers a limited window of adjustment, AI changes at a faster rate, and requires repetitive learning processes. Machine learning and adaptive algorithm platforms are potential solutions as they facilitate the diagnosis of personal skill shortcomings and personalisation of learning. Whereas, the achievement through such platforms is gained more by the willingness of workers to participate in self-directed learning and through accessibility and supportive policy frameworks.

The engagement of the government, industry, and educational institutions may bring AI-driven economy with multi-stakeholder strategies. Based on this, reskilling and upskilling should be viewed as national capabilities as opposed to programmes employer-specific. With enough backing, the demographic strength of India and the strong technological base will see the nation utilize AI to achieve sustainable and inclusive economic development. The other dimension that has resulted due to the findings is the impact of organisational culture on the success of reskilling initiatives. Organizations that have an open communication culture, a psychological safety culture, and an experimental culture can have an easier time in technological change transition. Workers in these settings are better equipped to embrace AI tools, train, and change their habits. On the other hand, where the adoption of technology is discussed in small groups or top-down, employees might view AI as a danger instead of an empowered, highlighting the need to incorporate change-management strategies into reskilling programmes. At the last the paper argues that the future workforce planning must focus on lifelong learning, rather than on one-time training programs. With the ever-growing pace of AI as a still unmatched phenomenon, employees will need to constantly have access to new learning channels, mentorship frameworks, and in-the-field skill training. So without the long-term support and the advanced technologies even the trained workers may face difficulties in being relevant in the long go.

## **VI. Conclusion**

This paper presents the transformation of the Indian labour market with the artificial intelligence as it creates the need to respond strategically in terms of workforce development. Despite the fact that the magnitude of technological disruption is quite high, there are also parallel opportunities to a workforce with both technical and behavioural skills. The academic literature suggests that despite the ability of AI to automate mundane activities, human qualities of situational thinking, originality and communication with other people are not replicable by AI, hence these skills continue to be the key to future employability. The analysis also brings to the fore another salient problem, namely, despite the high level of interest among workers in

obtaining AI-related skills, there is still a skills gap, which is mainly explained by structural barriers related to access to training and institutional capacity. These issues cannot be overcome without a multi-sectoral strategy, involving government, industry and education system. Simply put, to prepare the Indian workforce to work in the future with AI, viable, inclusive and consistent learning ecosystems are necessary. Whereas, if the reskilling and upskilling programmes are implemented properly India will be able to secure its position in the global digital economy with demographic dividend and innovation.

## References

1. Amazon. (2024, March 19). AI skills could boost salaries of workers in India by more than 54% and accelerate career growth as AI adoption ramps up. Retrieved from <https://press.aboutamazon.in/news-releases/news-release-details/ai-skills-could-boost-salaries-workers-india-more-54-and/>
2. Business Standard. (2023, November 1). About 16.2 mn Indian workers need to be upskilled, reskilled in AI. Retrieved from [https://www.business-standard.com/industry/news/about-16-2mn-indian-workers-need-to-be-upskilled-reskilled-in-ai-report-123110101019\\_1.html](https://www.business-standard.com/industry/news/about-16-2mn-indian-workers-need-to-be-upskilled-reskilled-in-ai-report-123110101019_1.html)
3. HCLTech. (2023). What are the advantages of artificial intelligence? Retrieved from <https://www.hcltech.com/knowledge-library/what-are-advantages-of-artificial-intelligence>
4. India Today. (2024, August 12). Empowering employees: How AI is transforming workplace upskilling. Retrieved from <https://www.indiatoday.in/educationtoday/feature/story/how-ai-is-transforming-employee-training-and-development-2575132-2024-08-08>
5. Jha, A. (2024). Preparing India's workforce for an AI future. Observer Research Foundation. Retrieved from <https://www.orfonline.org/expert-speak/preparing-indias-workforce-for-an-ai-future>
6. McKinsey & Company. (2024). What is AI (artificial intelligence)? Retrieved from <https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-ai>
7. Morandini, S., Farboni, F., De Angelis, M., & Puzzu, G. (2023). The impact of artificial intelligence on workers' skills: Upskilling and reskilling in organisations. *Informing Science: The International Journal of an Emerging Transdiscipline*, 26, 39–68. doi:10.28945/5078
8. Sanders, N. R., & Wood, J. D. (2023). The skills your employees need to work effectively with AI. *Harvard Business Review*. Retrieved from <https://hbr.org/2023/11/the-skills-your-employees-need-to-work-effectively-with-ai>
9. Shankar, K. (2023, January 23). Reskilling, upskilling, continuous learning: Three mantras imperative for employers and employees. *Business Today*. Retrieved from <https://www.businesstoday.in/opinion/columns/story/reskilling-upskilling-continuous-learning-three-mantras-imperative-for-both-employers-and-employees-367145-2023-01-23>
10. Shinde, S. (2024). Future of AI in upskilling workforce. *India AI*. Retrieved from <https://indiaai.gov.in/article/future-of-ai-in-upskilling-workforce>
11. UKG. (2023, November 23). 95% of Indian employees believe that AI in the workplace can improve their quality of life. Retrieved from <https://www.ukg.in/about-us/newsroom/95-indian-employees-believe-ai-workplace-can-improve-their-quality-life-survey>
12. World Economic Forum. (2020). The future of jobs report 2020. Retrieved from <https://www.weforum.org/reports/the-future-of-jobs-report-2020/>
13. World Economic Forum. (2024, January 17). Reskilling revolution: Preparing 1 billion people for tomorrow's economy. Retrieved from <https://www.weforum.org/impact/reskilling-revolution-reaching-600-million-people-by-2030/>