RESEARCH PAPER

Future Of Indian Workforce- Labour Law And Artificial Intelligence

[1*]Siddhi Shaji, [2]Dr. Pratima Jeggumantri, [3]Mr. R. Manicka Vinayagam, [4] Dr. B. Sivaprasad, [5]Mr. S. Ashok Kumar, [6]Dr. P. Shunmugapriya

[1*]Research Scholar - Gitam University, siddhishaji@gmail.com
[2]Associate Professor - Gitam University, pjegguma@gitam.edu
[3]Assistant Professor Senior Scale Government law college, Coimbatore, manickvin82@gmail.com
[4]Assistant Professor Senior Scale, Government Law College, Pudupakkam, Chennai, sivaprasad1707@gmail.com
[5]Assistant professor Senior Scale Government law college, Pudupakkam, ashoklawprofessor@gmail.com
[6]Principal (FAC) Government law College, Theni, sai.pspriya@gmail.com

ABSTRACT
In the modern digitalized world, Artificial Intelligence (AI) is basically shaping each sector of the economy. The adoption of AI is transforming the workforce, assuring creation of new opportunities while also posing significant challenges. Since AI has potential to introduce new ways to work, streamline operation and automate tasks, it is basically revolutionizing the conventional labour structures and legislative structure that regulate them. The interplay of AI and labour law has become an important area of investigation, as employees, businesses and governments grapple with how to adjust the legal setup to an AI-enabled economy. This article delves into the transformative impact of AI on the future workforce, dealing with the employee's protection, implication for labour legislation and a wider economic and social landscape. AI's adoption into the Indian labour sector presents both risks and opportunities. While AI has capabilities to establish new industries, enhance productivity, and create job opportunities in the areas such as AI ethics, robotics, and data science analyst. But it also poses notable challenges, specifically with respect to jobs displacements in the sectors like customer service, transportation, retail and manufacturing. The automation of cognitive, manual and routine tasks had led to reduction in employment options. It also has exacerbated inequality among genders with respect to access to income and work. Consequently, labour law shall be evolved to address the challenges and opportunities, so as to ensure parity among gender at workplace. The most important issue associated with the future of AI at workplace is that "how labour framework can adapt to the growing influence of AT in the workforce." Traditional employment legislations, which were framed for a human-oriented market, are not always appropriate to govern the complexities caused due to AI-driven workplaces. The major problems include how AI could be utilized in decision-making, performance assessment and recruitment, as well as it effects on employee's job security and privacy. For instance, AI application monitoring productivity or employee ascertain pay based on parity and even taking hire and fire decision raises concerned relating to algorithmic bias, transparency and fairness. Labour laws shall assure that these systems are adopted ethically and employees are safeguarded from unjust or biased decision or discrimination on the basis of AI-assisted processes. In this essay, the researcher will analyse the intersection of AI and labour law. The future of work depends on the interaction between these two elements. It examines the positive and negative aspect of AI in the matters concerning employment. A holistic approach about future of work as controlled by AI and labour law in India as well as international context will be described in this essay.

Keywords: Artificial Intelligence (AI), Labour Law, Future of work
How to cite this article: Shaji S, Jeggumantri P, Vinayagam RM, Sivaprasad B, Ashok Kumar S, Shunmugapriya P. Future of Indian Workforce - Labour Law and Artificial Intelligence. Int J Drug Deliv Technol. 2026;16(18s): 410-416. DOI: 10.25258/ijddt.16.18s.43.

INTRODUCTION

India has the largest workforces across the globe, with more than 500 million people proactively indulged in economic endeavours. The nation's labour sector is known for its youth with more than 65% of people aging less than 35 years. The India's future workforce is witnessing a significant transformation, empowered by dramatic advancement in AI technologies. Inda, with its dynamic and youthful workforce, is positioned to ensure technological and economic alterations. The existing labour laws in Indian context has conventionally been safeguarding the employee's rights in manufacturing and industrial sector, is becoming insufficient in dealing the modern-day AI technologies at Workplace. At the heart of this change lies the tussle between worker's protection and technology. The traditional labour legislations were adopted during industrialization and post-independence era, with a view to protect employees in factory-based, manual works. But in a world where labour market is increasingly shifting towards knowledge-based and digital roles, these laws have become insufficient. The essay will address this intersection between AI and labour law with special emphasis on future of workforce in Indian context.

CONCEPTUAL BACKGROUND

- **Artificial Intelligence (AI)**

AI encompasses the capability of machine, software or systems to execute tasks which typically require human intellect like decision-making, pattern recognition and

*Author for Correspondence: sai.pspriya@gmail.com

problem-solving ability[1]. AI involves wide variety of technologies such as-

(i) Machine learning (ML): They are algorithms which enables computer systems to learn from datasets and enhance with the course of time without being expressly programmed[2].

(ii) Automation: It involves use of AI for performing routine, repetitive works, often decreases the demand for human labour in areas life customer services, administrative works and manufacturing.

(iii) Robotics: These are machines having capability to perform work autonomously, often substituting employees in service, logistics and manufacturing industries.

(iv) Natural learning Processing: It empowers the machines to comprehend and process human language and facilitation of application like voice assistant and chatbots[3].

- **Labour legislations in India**

Labour laws are the branch of legal regulation formulated to safeguard the rights of employees, govern the relationship between employee and employers and assuring fair working surrounding and condition at workplace. These enactments aim to protect the employee's entitlement, assure safety at working premises and address issues like job security, working hours and wages. Some of the major labour laws brought by Indian Parliament are "Industrial Disputes Act 1947, Minimum Wages Act 1948, Factories Act 1948" and so forth.

TRANSFORMATION BROUGHT BY AI IN EMPLOYMENT CONDITIONS

Evaluating the effect of AI on the future of employment requires the analysis on transforming employment conditions as well. This is especially relevant in Indian context where most of the employees don't have access to formal social security or employment contract. The adoption of AI seems to bring following changes in employment conditions in India-

(i) Alterations in Wage Condition

Organized Sector: As AI tool ensure optimization of operations and enhances productivity, high-skilled employees, especially those operating in tech-related sectors like robotics and AI development are more likely to witness high wages. For low skilled, routine jobs which AI-driven software can automate (like customer service, and data entry), there might be decreasing projection of wages. Employees in these roles might see wage stagnation because of AI automation[4].

As per the report of NASSCOM (2020), the BPM and IT sector hire around 4.1 million workers and the demand for job roles like AI specialist will enhance by 60% over the upcoming years. This requirement will probably enhance the renumeration for highly skilled professional in data analytics and AI[5].

Further, LinkedIn Workforce Report of 2021 reveals that the annual earning of AI engineers is around 8-12 lakhs, which is substantially more than the average wages of employees in conventional industries like agriculture or manufacturing, where the wage is considerably lower[6].

Unorganized Sector: The unorganized industry in India, which includes major portion of the workforce in the areas like domestic works, agriculture, retail and construction, is more exposed to AI-assisted disruption. However, informal and small-scale industries might face an improvement in productivity by AI adoption for customer services, sales prediction and inventory management. This will result into higher wages for employees in these micro-enterprises.

(ii) Shifting Pattern in Working Hours

AI-enabled application like smart assistants, predictive scheduling and task automation will diminish the requirement for long working hours. Workers might avail advantages from more flexible work schedule, especially in the sectors like finance, IT and media. AI can ensure flexible working hours, leading to enhanced work-life balance, especially in industries like customer support, education, telecommunication and IT. With AI-driven systems streamlining the works, employees in the organized sector can complete more task in less time, leading to decrease in working hours. As per the studies conducted by ILO, AI-powered application can enhance the productivity by up to 60% in some sectors, which can cause decrease in working hours. Further, McKinsey submitted a report which shows that employees in certain sectors can witness working hours reduction by 20% over the upcoming 10 years[7].

In labour-intensive fields like agriculture or construction, AI might not decrease the working hours with immediate effect. While AI in agriculture may reduce few manual tasks, employees will still be expected to work for long duration. But where AI is adopted in mechanized works (like drones and tractors), it might decrease the physical strain.

---

[1] Arun Singh, 'The Concept of Artificial Intelligence' (2019) 6(3) JETIR 566.

[2] Ibid.

[3] C. Lexcellent, *Artificial Intelligence*, (Springer Briefs in Applied Sciences and Technology, 2019).

[4] K Sriya Manasa 'Impact of AI and Technology on Indian Labour Laws' (2023) 8(11) IJNRD 805-812.

[5] NASSCOM Report (2020) <https://community.nasscom.in/communities/emerging-tech/ai/implications-of-ai-on-the-indian-economy.html>

[6] Workforce Report (*LinkedIn* 2 December 2021) <https://economicgraph.linkedin.com/resources/linkedin-workforce-report-december-2021> accessed 19 February 2025.

[7] 'Superagency in the workplace: Empowering people to unlock AI's full potential' (*McKinsey Digital,* 28 January 2025) <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/superagency-in-the-workplace-empowering-people-to-unlock-ais-full-potential-at-work> accessed 20 February 2025.

(iii) Scenario in Health Condition of workers

AI has capability to improve the employee's health safety by automating hazardous works and avoiding human mistakes, specifically in sectors like manufacturing, construction and mining. AI-powered health supervision system can monitor the worker's well-being and combat any kind of exposure to dangerous environment or overexertion. AI can also assist employer or organizations to introduce personalized health programs for workers by identification of potential health hazards and promoting preventive care. In unorganized sectors like waste management and construction, wherein AI is slower to be embedded, employees may still continuously face health issues because of physical labour, lack of safety and health regulations and exposure to environmental hazards. However, in agriculture, the AI-driven sensors and drones might decrease the exposure to dangerous pesticides and assists in monitoring soil condition, which eventually improves safety and health of farmers.

(iv) Changing physical workplace and Work environment

AI is also revolutinzing the physical workplace by bringing improvement in office ergonomics and design of office spaces, especially in the context of automated officer management mechanism and smart building. AI-enabled smart offices might assist in optimizing the ventilation, heating and lighting premised on real-time occupancy data, thereby enhancing the energy efficiency and comfort. Deloitte report on AI (2022) shows that 30% of the Indian businesses are putting investment in AI-powered smart office solution which can improve the working premises by optimizing temperature, controlling lighting and preventing noise, resulting unto comfortable working surrounding[8].

(v) Welfare Provisions for Workers

AI can assist in providing more personalized welfare provisions for the employees. For instance, AI could be utilized to tailor pension planning, insurance benefit and healthcare alternatives on the basis of employee's data. It can assist in automating the claim processing, rendering it more transparent and quicker. The businesses and government can adopt AI for managing the employees benefits in efficient manner, assuring that they receive appropriate and timely welfare provisions like paid sick leave, maternity leave, etc.

The unorganized labour industry will face difficulty in evaluating the welfare schemes because of the informal nature of work. However, AI can be very helpful in bridging this gap by developing mobile-based inclusive applications for monitoring right and entitlement of employees.

(vi) Reduction in Overwork and Burnout

AI seems to assist in preventing burnouts through automation of time-consuming works and ensuring better work distribution. This enables the employees to stress more towards strategic work and improves the overall morale and job satisfaction. Gallup Report (2020) found that about 70% of the workers who are having access to AI-assisted workload management system report higher levels of job satisfaction and lower levels of stress as compared to others who doesn't have access to the same[9].

(vii) Enhancing Dispute Resolution

AI adoption in labour sector will enhance the dispute resolution mechanism by automation of HR processes and utilizing predictive analytics for addressing the potential difference before they escalate. AI applications will also help in tracking workplace conditions, decreasing human biases in dispute settlement and assuring adherence to the labour laws. AI mechanisms can facilitate negotiation and mediation by assessing the prior cases and proposing suggestions for settlement. Chatbots and virtual assistant can render legal opinion and thereby help in resolving the minor conflicts. Whereas employees engaged in unorganized sector might have limited access to these advanced tools for settling disputes. This poses difficulty in resolving disputes, particularly concerning unfair working conditions or wages.

(viii) Rise of Remote Work and Gig Economy Including Freelancing

AI integration in likely to enhance the development of Indian gig economy, wherein employees will be engaged in flexible and short-term jobs instead of full time and permanent employment. AI platforms such as Freelancer, Zomato and Uber will increasingly enable gig and freelancing work, permitting the individual to execute tasks remotely or when required. AI-driven application offering Gig works provides the workers with more autonomy and flexibility in opting their projects and working hours. However, there is no guarantee of job security (steady wages, retirement benefits and healthcare) in gig works, which enhance the economic marginalization of future employees[10]. The McKinsey Report (2020) depicted that around 24% of the Indian workforce is involved in the gig economy. AI tools in gig work already provides flexibility in working and with the development of AI algorithms, employees can have better control over their schedules[11].

[8] Deloitte Report (2022), 'State of AI in India' <https://www2.deloitte.com/in/en/pages/about-deloitte/articles/State-of-AI-in-India.html> accessed 21 February 2025.

[9] Gallup Report (2020) 'State of the Global Workplace' <https://www.gallup.com/workplace/349484/state-of-the-global-workplace.aspx> accessed 22 February 2025.

[10] Baishali Pal, 'Rising Popularity in Gig Economy: A Case Study from India' 3(2) IJRCS 204.

[11] McKinsey Report (2020) <https://www.mckinsey.com/~/media/mckinsey/featured%20insights/india/indias%20turning%20point%20an%20economic%20agenda%20to%20spur%20growth%20and%20jobs/mgi-indias-turning-point-report-august-2020-vfinal.pdf>

(ix) Introduction of New Competencies and Skill Shifts

Upskilling and Reskilling

With the integration of AI and automation reshaping the labour sector, upskilling and reskilling will play a vital part. Indian employees will be required to update their skills to remain useful in am AI-powered sector. This involves conducting upskilling programs and vocational trainings. Government schemes such as Skill India and collaboration among private sector will assist the employees transition into new role by assuring digital and technical education. The dramatic rise in online learning application offering teaching on data science, AI and machine learning will be important. AI will lead to the requirement of emerging form of vocational training in areas like AI system management, automation maintenance and robotics.

Development of Soft Skills

Apart from technical knowledge and skills, soft skills like communication, emotional intelligence, problem-solving and creativity will also become more important. AI-driven technologies cannot substitute the human empathy or creativity, particularly in areas like-

- **Education:** Mentoring and teaching roles will require human understanding and connection and capability to adjust to diverse learning mode.
- **Healthcare:** Patient care, particularly in the cases of chronic diseases and mental health, will still need human touch and empathy.
- **Customer Service:** Although AI are more effective in handling simple works, complex tasks and issues will still need human intervention in customer service sector.

(x) Revolutionizing the Nature of Work: AI-Human Collaboration

Due to AI, the future of work will entail a combination of AI-powered automation and human labour. AI-assisted tools will help the employees in accomplishing the jobs more effectively and faster, thereby improving productivity. In few industries, workers will serve as guides or supervisors for AI system. Medical practitioners may utilize AI application for diagnosis of diseases but human precision and decision will still be relevant for patient interaction and treatment plans. In Creative fields like design, media and marketing, AI will act as a medium to enable the professional to stress more on innovative works and augment creativity[12].

POSITIVE AND NEGATIVE EFFECT OF AI ON FUTURE WORKFORCE ACROSS DIFFERENT SECTORS

AI is dramatically revolutinzing the labour landscape across different sectors in India. While AI-driven tools bring crucial benefits in terms of economic growth, job creation and efficiency, it also causes issues pertaining to job displacement, social inequalities and skill gaps.

(i) IT Sector

Positive Aspects

- **Job Creation in Data Science and AI:** The increasing demand for AI tools in Indian labour sector will lead to creation of new job roles in cybersecurity, data science, machine learning and AI development. Zinnov in its report found that AI will generate millions of high-skilled jobs in IT-tech sector[13].
- **Enhanced Efficiency and Productivity:** AI automating routine tasks will enhance the productivity and permit the employees to stress more on higher-value works. For instance, AI is being utilized in software testing and automated coding.

Negative Aspects

- **Displacing routine jobs:** Regular system maintenance and coding task are more prone of getting automated, which will cause job losses in lower-skilled IT posts.
- **Skill Gap:** Although AI creates new jobs, it also leads to major skills gap in machine learning and AI, several employees in IT industry might require to upskill or reskill to remain demandable. As per NASSCOM report 2021, more than 60% of present IT employees in India lack the requisite AI-related skills, causing reskilling and training issues[14].

(ii) Healthcare Sector

Positive Aspects

- **Enhanced patient care and diagnostics:** AI tools in health industry like personalized medicine, medical imaging and predictive diagnostics will improve the efficiency and outcomes in healthcare sector. The healthcare industry of Indian is expected to attain the mark of $10 billion by the years 2026 because of AI-assisted diagnostic applications and telemedicine services[15].
- **Generation of New Healthcare Jobs:** AI adoption seems to generate job opportunities in healthcare sector for the roles such as AI-powered health data analysis, and telemedicine, leading to an AI-based model for healthcare.

Negative Aspects

- **Job Displacement and loss:** The regular administrative works in hospitals like data entry, billing and patient scheduling could be automated by AI-driven application, resulting into reduction in requirement for administrative staffs. AI will also substitute the low-skilled employees of support staffs and technician by new job roles like automated diagnostics and robotic surgery.

[12] Purvi Pokhriyal, Amit K. Kashyap and Arun B. Prasad, *Artificial Intelligence: Law and Policy Implication* (1st edn, Eastern Book Company 2020) 128.

[13] Zinnov Report (2025) <https://zinnov.com/news-media/ai-will-dominate-2025/>

[14] NASSCOM Report (2021) <https://nasscom.in/knowledge-center/publications/state-data-science-ai-skills-india-data-and-art-smart-intelligence>

[15] Zinnov Report

- **Ethical Issues:** There are issues concerning algorithm biases and data privacy in AI healthcare software, which might impact the marginalised groups or may render improper treatment suggestions[16].

(iii) Agriculture Sector

Positive Aspects

- **Improved Productivity:** AI tools like precision farming (with the assistance of AI algorithms, drones and sensors) are enhancing the crop output by optimizing fertilization, pest control and irrigation. NITI Aayog report depicts that agri-tech market in India will attain $24 billion till 2026, with AI becoming the major player for this development[17].
- **Job Creation in Agri-Tech:** AI will generate new job roles in precision farming, robotics and agri-tech development.

Negative Aspects

- **Displacement of workers:** AI applications like robotics harvesters, drone-based crop monitoring and autonomous tractors might diminish the requirement for conventional farm labourers.
- **Skill Gap in Village Regions:** There is a scarcity of technical skills and digital literacy among rural agriculturists, which makes it problematic for them to acquire advantages from AI-assisted farming. NITI Aayog report highlights that around 40% of agriculturist lack digital literacy and skills in India which is essential to adopt AI technologies[18].

(iv) Manufacturing Sector

Positive Aspects

- **Increased efficiency and automation:** AI-assisted automation in manufacturing industry will improve the operational effectiveness, increase production rates and reduce errors. According to International Federation of Robotic- IFR (2023), the Indian robotics sector is evolving at 15-20% CAGR with AI-assisted application playing crucial part in revolutionizing the manufacturing unit[19].
- **Generating High-Skilled Jobs:** AI integration will lead to increased demand for roles related to AI system integration, machine learning and robotics engineering.

Negative Aspects

- **Job displacement in Routine works:** AI is automating manual, repetitive works on production chain like quality and assembly control. This will result into job loss for lower-skilled employees.
- **Up-skilling Costs and Investment:** The SMEs might witness financial issues in incorporating AI systems, resulting into slower adoption of AI in manufacturing sector.

(v) Banking and Finance Sector

Positive Aspects

- **Improved Services and effectiveness:** AI is causing a shift in banking and finance industries by automation of tasks like risk management, credit scoring, customer service and fraud detection. NASSCOM Report 2022 reveals that India's FinTech sector is expected to evolve to $150 billion by 2026 because of AI playing a major role in improving financial services[20].
- **Job Creation in Fin-Tech Sector:** AI will lead to creation of new jobs like AI-based fraud detector, financial data analytics, etc in the finance industry.

Negative Aspects

- **Cybersecurity Concerns:** Since AI is becoming more embedded into finance industry, banking institution become more vulnerable to cyberthreats and AI-assisted cheating, leading to issues over data privacy and security.
- **Job Losses in Conventional Banking:** AI-powered mechanism like robo-advisors and automated loan approval system can substitute jobs in conventional banking jobs like tellers, customer support agents and loan officers.

(vi) E-Commerce and Retail Sector

Positive Aspects

- **Personalized Shopping Experiences:** AI will enhance retail industry by rendering personalized shopping experiences through customer behaviour analysis and recommendation engines. As per Statistica Report 2023, "e-commerce sector in India is expected to enhance from $84 billion in 2023 to $200 billion till the year 2026"[21].
- **New Job Roles in Supply chain and logistics:** AI will optimize demand forecasting, inventory management and logistics in e-commerce applications like Flipkart and Amazon, leading to job creation in logistics, warehouse management and AI operations.

Negative Aspects

- **Automating Customer Services:** AI-driven customer service platforms namely, chatbots can diminish the requirement for human workers in customer-dealing jobs.
- **Job Loss:** The rise in AI-assisted retail and e-commerce will result into closure of physical retail outlets, ultimately leading job substitution by AI or job loss for retail workers[22].

(vii) Education Sector

Positive Aspects

- **Personalized Education:** AI will transform the education sector by assuring adaptive learning

[16] Ayisha Tabassum, Pradeep Chintale and G. Madhavi Najana, 'The Impact of AI on Future Employment Patterns' (2024) IJGIS 4.

[17] NITI Aayog Report (2024-25).

[18] Ibid.

[19] IFR Report (2023) <https://ifr.org/ifr-press-releases/news/world-robotics-2023-report-asia-ahead-of-europe-and-the-americas>

[20] NASSCOM Report (2022) <https://community.nasscom.in/communities/analytics/data-science-and-economics-game-changer-indias-future>

[21] Statistica Report (2023).

[22] Dr. Anil Kumar, Ity Sahu and Dr. Ajay Kumar, 'AI and Its Applications in E-Commerce: A Review Analysis and Research Agenda' (2022) 100(24) JTAIT 7348.

application, which will ensure customization of education material on the basis of student preferences and performances. As per the report of NASSCOM 2023, India's EdTech industry seems to reach $10 billion till 2026, assisted by AI platforms in personalized assessment and learning[23].

- **Job Creation:** AI will open job opportunities in virtual teaching assistants, learning platform design and educational content development. AI educators and automated grading mechanism is likely to be embedded as the element of education sector.

Negative Aspects

- **Data Privacy Issues:** With the rise of AI in education sector, issues concerning surveillance and data privacy are increasing, especially concerning the student performance metrics and data.
- **Job Displacement:** AI application can eliminate the requirement for classroom teachers and traditional teaching tutors in concerned subjects, specifically at primary and secondary levels.

AI ADOPTION AND LABOUR MARKET INEQUALITIES

The inculcation of AI has brought substantial transformation into labour market by impacting the employment condition structure. But this change comes with both opportunities and difficulties. AI has promising capability to bring profound implication on workforce inequalities in the nation.

Increase in High-Skill Job Opportunities vs. Job Losses for Low-Skilled Employees: Skill Polarization

AI will lead to exacerbation of labour sector inequalities majorly through skill polarization. The rampant use of AI tool will increase the demand for higher skills in several fields while eliminating or automating routine & repetitive jobs requiring lower skill levels[24].

- **Enhanced requirement for highly skilled employees**

The demand for skilled employees like machine learning specialists, AI engineers and data scientists will enhance drastically, particularly in tech-driven sectors like healthcare, banking, e-commerce and IT. These skilled employees will witness better job and higher income opportunities. As per NASSCOM Report 2021, the tech industry will experience an improvement of 60% for AI experts by 2026. This will ultimately lead to substantial growth in wages for these high-skilled employees having renumerations ranging from 10-40 lakhs annually[25].

- **Wage Stagnation and job displacement for Low-skilled Employees**

AI-powered system will impact sectors which depend on routine manual labour like construction, transportation, manufacturing and agriculture. For employees in these industries, AI-enabled automation will lead to wage stagnation or jobs losses because of diminishing requirement for their jobs[26].

McKinsey Report 2020 reveals that around 47% of job is ready to be substituted by Automation till 2030, specifically in sectors like manufacturing, transportation and retail[27]. These jobs usually ensure lower pay scale, resulting into more inequality in the labour sector as AI unevenly impacts the lower-wage employees.

Disparities at Regional Level: Rural vs Urban employment

AI integration is likely to cause regional disparities, particularly between rural and urban region in India.

- **Urban-Centric Automation and AI development**

AI is likely to thrive in urban areas wherein there is greater portion of technology-based corporation, education facilities and startups which can render training to the employees for high skilled-posts. This will bring more exacerbation in urban-rural divide. According to NASSCOM 2021, Bengaluru, Pune, Delhi and Hyderabad will become the hub for AI-empowered development, generating high-paying jobs and attracting high-skilled employees[28].

- **Restrictive Access of AI in Rural Region**

In rural areas, most of the people are engaged in traditional and agricultural sector. They find difficulties in adopting AI-assisted tools due to lack of skills training, digital literacy and infrastructure. Consequently, the employees in these places may experience lesser job creation, enhanced level of unemployment and broadening economic disparity. According to NASSCOM Report, less than 10% of employees in rural areas presently has access to AI-driven training or technologies, leading to widening the prevailing rural-urban divide[29].

Gender Inequality: Impact of AI

---

[23] NASSCOM Report (2023) <https://community.nasscom.in/communities/nasscom-insights/technology-sector-india-strategic-review-2025> accessed 27 February 2025.

[24] Ibrahim Khan Jabarkhail, *Artificial Intelligence and Inequality* (Linnaeus University Sweden, 2024) 34.

[25] NASSCOM Report (2021) <https://nasscom.in/knowledge-center/publications/state-data-science-ai-skills-india-data-and-art-smart-intelligence> accessed 23 February 2025.

[26] Krish Agrawal, 'A Study on Impact of AI on Employment Trends' (2024) 9(3) IJNRD 697-698.

[27] McKinsey Report (2020) <https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages> accessed 23 February 2025.

[28] NASSCOM Report (2021) <https://nasscom.in/ai/> accessed 23 February 2025.

[29] NASSCOM Report (2022) 'Unlocking Value from Data and AI- The Indian Opportunity' <https://nasscom.in/knowledge-center/publications/unlocking-value-data-and-ai-india-opportunity> accessed 23 February 2025.

The impact of AI on gender equality in Indian employment sector can be an area of concern.

- **Gender Inequalities in High-Skill Employments**

The requirement for AI professional is expected to unreasonably favour male in the areas like data science, computer science and engineering, wherein females are still underrepresented. Consequently, women might have lesser opportunities to benefit from the AI-related jobs providing higher-wages. NASSCOM Report 2021 highlights that merely 30% of the AI talents in India are females, despite the enhancing demand for such professionals. This kind of gender inequality with respect to accessing AI jobs may worsen with the increased adoption of AI in the nation[30].

- **Females in Gig and Low-skill Work**

In low-skilled industries, where several women are hired in the roles of manual labour, retail and domestic works, AI could result into job displacement even without having appropriate opportunities for reskilling and upskilling. This might lead to wage inequality and unemployment of women. McKinsey Report 2021 observed that women in the nation are 22% less likely than males to have proper access to AI skilling programs, which will hamper their right to participate in the developing job markets[31].

Labour Sector Disparity and Policy Reponses

While responding to the existing disparities in Indian labour sector and its increased exacerbation by AI, the government has adopted schemes aiming to bridge the skills gap and promote AI Adoption. These include "Pradhan Mantri Gramin Digital Saksharta Abhiyan, Skill India Program and National AI Strategy 2018.[32]" For minimizing threat of labour sector inequalities, the government has attempted to constitute an ethical framework for AI implementation, which prioritize equity and inclusivity. For instance, AI for All Scheme introduced by India's think tank- NITI Aayog seeks to democratize AI education by ensuring the availability of resources to citizens, with particular focus on low-income employees, rural population and women[33].

RECOMMENDATION OR REFORMS FOR ADDRESSING ISSUES: WAY FORWARD

To tackle the issues caused by AI in shaping the future of Indian labour sector and labour laws, following recommendations and reforms are proposed by the researcher-

(i) Reshaping Labour Law to deal AI's Relevance

The present Indian legal framework concerning labour sector is rigid and outdated. It has been framed as per the conventional work and industries setting. The emergence of AI needs more flexible provisions to provide safeguards to the employees in new kind of employment.

Proposed Reforms

- **Digitally accommodated Labour legislations:** There is a need to reshape the prevailing labour framework to cover the new work dynamics introduced by AI. This will involve inclusion of provisions concerning freelancer, AI-driven roles and gig economy employees.
- **Wide Coverage of Benefits:** The social security provisions (PF and ESI) should be widened to include employees engaged in AI-powered Jobs. Welfare provisions shall be inserted for the employees, immaterial of their employment type (AI-based or traditional jobs).
- **Safeguards against Unjust termination:** Employees displaced because of AI adoption shall be entitled to safeguards against arbitrary layoff. A job transition assistance or severance package along with alternative job options shall be provided to the terminating employees.

(ii) Establishment of AI and Labour Oversight Authority at National level

Presently, India lacks a robust authority to address the adoption of AI into labour sector including its effect on workforce. It is proposed that "National AI and Labour Commission (NALC)" shall be constituted which will assess the effect of AI on different sectors and thereby recommend the required changes to the Central government. The body can suggest the ways to prevent disproportionate harm to the low-skilled employees.

(iii) AI-Ethics and Regulatory framework

For addressing the ethical issues pertaining to transparency of AI tools, bias or discrimination in algorithm and data privacy, ethical standards for AI adoption in workforce shall be formulated.

CONCLUSION

The future of labour sector in India is inextricably associated with the dramatic rise of AI and growing landscape of labour laws. Since AI continues to revolutionize sectors from manufacturing to agriculture to healthcare, its effect at workplace will be profound. AI holds the promise to bring innovation, enhance productivity and ensure economic growth. However, it also present substantial issues- majorly the job displacement, exacerbation of disparities and widening the skill gaps. For navigating this transformation efficiently, Indian government shall modernize its legal framework concerning labour legislations to address the present realties of economy aided by modern technologies like AI.

[30] NASSCOM Report (2021).

[31] McKinsey Report (2021) <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/women-in-the-workplace>

[32] 'Artificial Intelligence (AI) Policies in India' (*Niti Aayog,* August 2020) <https://www.tec.gov.in/pdf/Studypaper/AI%20Policies%20in%20India%20A%20status%20Paper%20final.pdf>

[33] NITI Aayog, National Strategy for AI.