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Sugandha Chhibber✉, **S.R. Rajkumar**✉, **and Sandun Dassanayake**✉

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Research Article

Will Artificial Intelligence Reshape the Global Workforce by 2030? A Cross-Sectoral Analysis of Job Displacement and Transformation

Sugandha Chhibber*, S.R. Rajkumar, and Sandun Dassanayake

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Abstract

The rapid advancement of artificial intelligence (AI) is transforming the global labor market, presenting both opportunities and challenges. This study investigates the extent of AI-driven job displacement and task transformation across industries, highlighting sector-specific vulnerabilities and workforce perceptions. Using secondary data from Statista's global surveys (2022–2023), involving 22,816 employees, 1,684 business leaders, and 803 corporations, the study employs descriptive statistical analysis to identify patterns of job disruption and skill adaptation. The findings reveal that AI primarily reshapes job functions rather than eliminating entire occupations, with 57% of respondents reporting task augmentation and 36% expressing concern about job loss. Routine-based sectors, such as manufacturing and customer service, face higher displacement risks, while knowledge-based professions, including healthcare, education, and creative industries, experience AI as a complementary tool. Additionally, disparities in AI adoption are evident between large corporations and small-to-medium enterprises (SMEs), often due to resource limitations and varying digital readiness. The study concludes that successful AI integration hinges on proactive strategies, including continuous workforce reskilling, adaptive education systems, and ethical AI deployment. Policymakers, industry leaders, and educational institutions must collaborate to ensure an inclusive transition, prioritizing digital literacy and skills development. Future research should explore regional variations, firm-level case studies, and the long-term socio-economic impacts of AI adoption. Ultimately, this study underscores the importance of balancing technological advancement with workforce resilience to foster sustainable economic growth in an AI-driven era.

Keywords: Artificial Intelligence; Job Displacement; Workforce Transformation; Task Augmentation; Skill Adaptation; Inclusive Transition.

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INTRODUCTION

Artificial Intelligence (AI) has rapidly evolved over the past decade, significantly altering various industries and redefining traditional job roles. AI-powered automation has increased efficiency, reduced operational costs, and enabled data-driven decision-making in sectors ranging from healthcare and finance to manufacturing and customer service. However, along with its numerous benefits, AI has also raised concerns about widespread job displacement, particularly in roles that involve repetitive, predictable tasks. Studies indicate that automation threatens to replace numerous jobs in the coming years, yet its actual impact varies based on industry, job function, and level of AI integration within the workforce [1], [2], [3]. The discussion on AI-induced job displacement is not new. Earlier research has focused on the impact of automation on employment in different economic sectors. Filippi et al. [4] conducted a pioneering study that estimated that nearly 47% of U.S. jobs could be automated within two decades. Their model, which analyzed occupations based on susceptibility to computerization, provided a foundational perspective on the long-term risks of AI-driven job loss. However, subsequent research suggested that AI does not merely replace jobs but also transforms them. Hussain [5] argued that AI will augment rather than eliminate jobs, emphasizing that workforce reskilling and adaptation play crucial roles in mitigating automation's negative impact. Similarly, Morandini et al. [6] highlighted that AI complements human capabilities, particularly in roles requiring creativity, emotional intelligence, and problem-solving.

Despite these studies, recent trends indicate a growing concern regarding AI's role in replacing human labor at an unprecedented scale. The increasing use of generative AI in content creation, customer service, and data analysis suggests that job automation is extending beyond blue-collar tasks to white-collar professions. A recent survey by the World Economic Forum [7] found that nearly 85 million jobs may be displaced by AI and automation by 2025, while 97 million new roles may emerge, requiring a shift in workforce skills. This paradox underscores the necessity of investigating AI's impact with a nuanced approach that considers both its disruptive and constructive dimensions. Unlike previous studies that primarily focused on either the macroeconomic consequences of automation or case studies within specific industries, this research takes a broader, data-driven approach by analyzing AI's impact across multiple sectors using global employment datasets. The novelty of this study lies in its empirical assessment based on large-scale surveys conducted by Statista, which provide real-time insights into workers' and employers' perceptions of AI-driven job displacement. The use of diverse data sources enhances the generalizability of the findings, making this study more comprehensive compared to previous analyses that often relied on theoretical models or region-specific case studies.

Moreover, this study explores AI's impact not only from a technological standpoint but also from a socio-economic and psychological perspective. While most literature has examined automation in terms of job losses, limited attention has been given to how employees perceive AI's role in reshaping their careers. Public perception plays a crucial role in determining workforce adaptation, regulatory interventions, and corporate AI adoption strategies. Therefore, this study aims to bridge the gap between technical feasibility and human adaptability by incorporating public sentiment analysis, sector-wise job displacement risks, and corporate preparedness for AI integration. By leveraging Statista's comprehensive global surveys, this study provides a holistic perspective on AI's role in employment transformation. The findings contribute to existing literature by not only reaffirming the risk of automation in various sectors but also highlighting the importance of policy interventions, workforce reskilling, and corporate responsibility in ensuring

an equitable transition. Unlike previous research that primarily focused on automation risks, this study aims to offer a balanced perspective by identifying both the threats and opportunities associated with AI in the workforce. Given the rapid pace of AI advancements, policymakers, business leaders, and employees must adopt proactive strategies to navigate this transition. While AI undoubtedly challenges traditional job structures, it also fosters innovation and creates new job opportunities. Understanding the extent of AI-induced transformation across industries will be essential in shaping future employment policies and educational curricula. This study provides timely insights into these issues by presenting empirical evidence on global workforce trends, thereby serving as a crucial resource for stakeholders looking to align their strategies with the evolving AI landscape.

METHODS

Data Collection

This study utilizes a quantitative approach based on secondary data retrieved from global surveys conducted by Statista between 2022 and 2023. The data sources selected for this research include large-scale international surveys that provide insights into AI's impact on job displacement, industry transformations, and workforce perceptions. The datasets include:

1. Expected job changes due to AI – A survey conducted in May–June 2023, involving 22,816 respondents, assessing workforce expectations regarding AI-driven transformations.
2. AI's impact on employee numbers by business function – A survey conducted in April 2023, with 1,684 respondents, analyzing AI adoption across different business sectors.
3. Public perception of AI's impact on life aspects, including employment – Data collected in May–June 2023 from 22,816 respondents, capturing public sentiment regarding AI's broader societal implications.
4. Corporate perspective on AI and Big Data Analytics – A survey of 803 global companies conducted from November 2022 to February 2023, examining corporate assessments of AI's job market influence.
5. Concerns about AI replacing jobs in media and entertainment – A study from April 2023, surveying 2,201 respondents, focusing on job displacement risks in creative industries.

These datasets were chosen due to their wide geographic coverage, industry representation, and methodological rigor, ensuring comprehensive insights into AI's evolving role in employment across various domains.

Data Analysis

The study employed descriptive statistical methods to analyze key trends in AI-driven job displacement, focusing on workforce perceptions, sectoral variations, and corporate assessments. Percentage distribution analysis was used to evaluate whether AI is perceived as a threat or opportunity across different demographic and professional groups. Comparative analysis identified sectors most vulnerable to automation, such as service operations, supply chain management, and finance, while highlighting industries where AI enhances rather than replaces jobs. Correlation analysis explored the relationship between AI adoption and job transformation, assessing whether higher AI penetration correlates with increased displacement or task augmentation. Longitudinal analysis further examined how concerns about AI-induced job losses have evolved over time. Sentiment analysis provided insights into workforce attitudes, revealing varying levels of optimism and apprehension regarding AI's career impact. Findings were compared with existing literature to

validate observed patterns, offering a comprehensive understanding of AI's transformative role in the labor market, including both risks and opportunities.

Sampling Strategy

The sampling strategy employed in this study was based on the pre-determined frameworks of the secondary datasets obtained from Statista. These datasets encompassed diverse respondent groups, including employees from various industries, business leaders, and the general public. The surveys were designed using stratified sampling techniques to ensure a balanced representation of different workforce levels, industry sectors, and geographic regions. This approach allowed the study to capture perspectives from both developed and developing economies, as well as from small enterprises to large corporations. The stratification process ensured that respondents from sectors most likely to be affected by AI, such as manufacturing, service operations, and media, were adequately represented. Additionally, the inclusion of business leaders and policymakers provided valuable insights into corporate strategies for AI adoption and workforce transformation. The demographic diversity within the datasets further strengthened the validity and generalizability of the findings, allowing the study to present a comprehensive view of AI's impact on employment across different economic and cultural contexts.

Comparative Approach

This study employs a comparative approach to examine how AI-driven automation impacts various industries and job types. It highlights that sectors with routine, repetitive tasks, such as manufacturing, logistics, and customer service, face higher displacement risks due to process automation. In contrast, fields requiring creativity, interpersonal skills, and complex decision-making, like education, healthcare, and research, experience AI as a complementary tool rather than a replacement. The analysis reveals that service operations and supply chain management show significant job displacement due to AI-driven robotics, while roles in product development and corporate strategy remain less affected, as they rely on human ingenuity. Furthermore, the study explores skill-based disparities, showing that low-skilled, routine jobs are more vulnerable to automation, while high-skilled, cognitive roles are more likely to undergo transformation rather than elimination. These findings emphasize the need for workforce reskilling and adaptation strategies, ensuring that AI adoption fosters innovation without widening economic disparities.

Validity and Reliability

To ensure the validity and reliability of findings, this study employed several methodological safeguards. Data were sourced from Statista, a globally recognized platform known for large-scale, methodologically sound surveys. This comprehensive dataset, covering diverse industries, regions, and workforce segments, enhances external validity and supports generalizability across contexts. Cross-validation was performed by comparing results with previous studies on AI and workforce automation, ensuring consistency with established findings while analyzing any discrepancies. Triangulation further strengthened reliability by analyzing multiple datasets in parallel, identifying consistent trends, and minimizing bias. Standardized descriptive statistical methods ensured result reproducibility. While the use of secondary data limits control over the data collection process, the inclusion of multiple reputable sources mitigated potential biases. Despite some limitations, such as potential respondent bias and the inability to capture real-time changes in AI adoption, the

rigorous analytical approach and alignment with existing literature ensure the study's findings are both valid and reliable.

Study Limitations and Future Research Directions

While this study offers valuable insights, several limitations should be noted. The reliance on secondary data, though robust, lacks real-time industry case studies and on-the-ground observations of AI deployment. Future research should incorporate firm-level interviews and case studies to provide a deeper understanding of how AI affects specific industries and job functions. Additionally, while the datasets cover a global sample, they do not capture regional variations, limiting insights into how AI adoption differs between developed and developing economies. The study also primarily focuses on quantitative indicators of job displacement, without fully exploring the psychological and social impacts of AI-induced job insecurity, such as stress, job dissatisfaction, and resistance to technological change. Ethical concerns, including algorithmic bias and the equitable distribution of AI benefits, remain underexplored. Future research should adopt a mixed-methods approach, combining quantitative data with qualitative insights from workers, employers, and policymakers. Longitudinal studies tracking workforce changes over time, along with analyses of how education systems, corporate training programs, and government policies can support AI-driven transitions, would further enrich understanding and promote inclusive technological progress.

RESULT AND DISCUSSIONS

The findings of this study provide a nuanced understanding of how artificial intelligence (AI) is transforming the global labor market. By analyzing comprehensive datasets from Statista, this section delves into the extent of AI-driven job displacement, the transformation of job functions, sector-specific implications, and workforce perceptions. The results underscore AI's dual role as both a disruptor and an enabler, depending on industry, job type, and the extent of AI adoption.

AI's Impact on Job Displacement and Transformation

The findings from the global Statista survey conducted between May and June 2023, involving 22,816 respondents, reveal that AI is expected to significantly reshape job roles within the next five years. A substantial portion of respondents (57%) believe AI will transform how they perform their current tasks, while 36% express concern about complete job displacement (see Figure 1). These findings align with previous studies by Wong [1], who argued that AI-driven automation primarily restructures job tasks rather than eliminating entire occupations. Similarly, Babashahi et al. [2] highlighted that AI complements human labor, enhancing productivity rather than replacing workers entirely. This phenomenon is consistent with the task-based model proposed by Ekuma [3], emphasizing that automation tends to target routine, repetitive tasks while leaving complex, creative, and interpersonal activities largely unaffected. Furthermore, Filippi et al. [4] found that technological advancements often lead to task reallocation rather than absolute job loss, with new roles emerging alongside automation. The current study reinforces this perspective, showing that AI adoption results in job transformation rather than widespread unemployment. However, the extent of displacement varies by sector, with routine-intensive industries such as manufacturing, customer service, and administrative roles facing higher risks. This pattern echoes the conclusions of Hussain [5], who estimated that middle-skilled jobs, particularly those involving structured tasks,

are more susceptible to automation. Despite these risks, the study also highlights the potential for AI to enhance job quality by automating mundane tasks, allowing workers to focus on higher-value activities. Thus, while concerns about AI-induced unemployment persist, historical and contemporary evidence suggests that the future of work will likely be characterized by transformation rather than outright displacement, contingent on proactive workforce reskilling and adaptive policies.

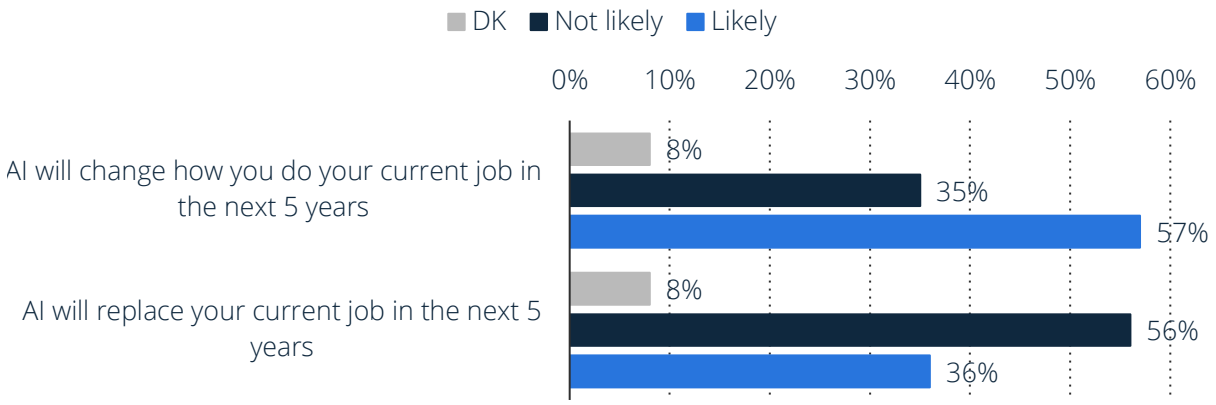

Figure 1. Perceptions of AI's Impact on Job Roles [8]

Sectoral Implications of AI Adoption

The sectoral impact of AI adoption varies significantly across industries, reflecting the degree of task automation and the complexity of job functions. According to the April 2023 Statista survey involving 1,684 respondents, the sectors most affected by AI-driven transformation include service operations, supply chain management, and manufacturing. AI-driven automation is revolutionizing operational workflows, enhancing efficiency through robotic process automation (RPA), predictive analytics, and intelligent decision-making systems. The supply chain management sector shows the highest projected workforce reduction, with 54% of respondents anticipating a decrease in employee numbers as AI streamlines inventory management, logistics, and order fulfillment (see Figure 2).

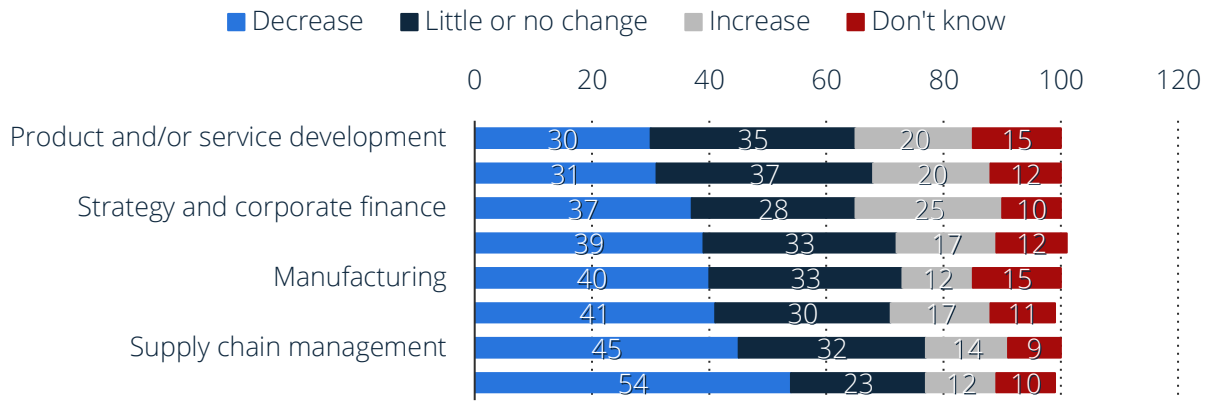

Figure 2. Sectoral Impact of AI on Workforce Reduction [9]

In human resources (HR), 41% of respondents predict job reductions as AI automates recruitment, onboarding, and performance evaluation processes. Manufacturing follows closely,

with 40% expecting decreased workforce requirements due to the adoption of AI-driven production systems and quality control mechanisms. Similarly, 39% of respondents in marketing and sales foresee job reductions as AI enhances customer segmentation, campaign optimization, and sales forecasting. These findings align with previous studies emphasizing sector-specific vulnerability to automation. Li [10] indicated that occupations involving routine, repetitive tasks prevalent in manufacturing, logistics, and administrative functions face higher automation risks. Steen et al. [11] further argued that AI disproportionately impacts middle-skilled jobs characterized by structured workflows, while high-skilled, knowledge-intensive roles remain resilient. Filippucci et al. [12] reinforced this perspective, highlighting that AI primarily transforms tasks rather than eliminating entire occupations, suggesting a shift toward job augmentation rather than outright displacement. Despite the operational benefits, challenges remain, particularly for small and medium enterprises (SMEs) lacking the technological infrastructure to implement AI solutions effectively. As AI adoption accelerates, collaborative efforts among governments, industries, and educational institutions are crucial to bridge skill gaps and promote a balanced transition. These sectoral variations underscore the need for tailored workforce strategies to mitigate disruption while leveraging AI's transformative potential across industries.

Public Perception of AI's Workforce Impact

The public perception of AI's impact on employment remains complex and multifaceted, reflecting both optimism and apprehension. A global survey conducted by Statista between May and June 2023, involving 22,816 respondents, revealed that while a significant portion of participants believes AI will enhance their professional and personal lives, concerns regarding job security persist. The survey highlights that 54% of respondents believe AI will reduce the time required to complete tasks, while 52% anticipate improvements in entertainment options, such as personalized content recommendations (see Figure 3). However, when it comes to job security, 36% of respondents fear that AI will worsen the job market, while only 32% believe AI will positively transform employment opportunities. This disparity reflects the polarization of AI's impact, where high-skilled, tech-savvy professionals view AI as an enabler, while low-skilled workers, particularly in administrative and manual sectors, perceive it as a threat. These findings align with the predictions made by Willcocks [13], who estimated that nearly 47% of U.S. jobs are susceptible to automation, particularly in roles involving repetitive tasks. Interestingly, perceptions also vary across life aspects. While 39% of respondents believe AI will improve their job quality, 16% fear it will worsen working conditions. This aligns with the argument presented by Johnson et al. [14], who emphasized that AI tends to augment human capabilities rather than replace them entirely. Zirar et al. [15] further support this perspective, suggesting that AI is more likely to reshape job functions rather than eliminate entire roles. Thus, while AI presents opportunities for enhanced productivity, the concerns surrounding job displacement highlight the need for reskilling initiatives and adaptive workforce strategies to ensure an inclusive transition into AI-driven economies.

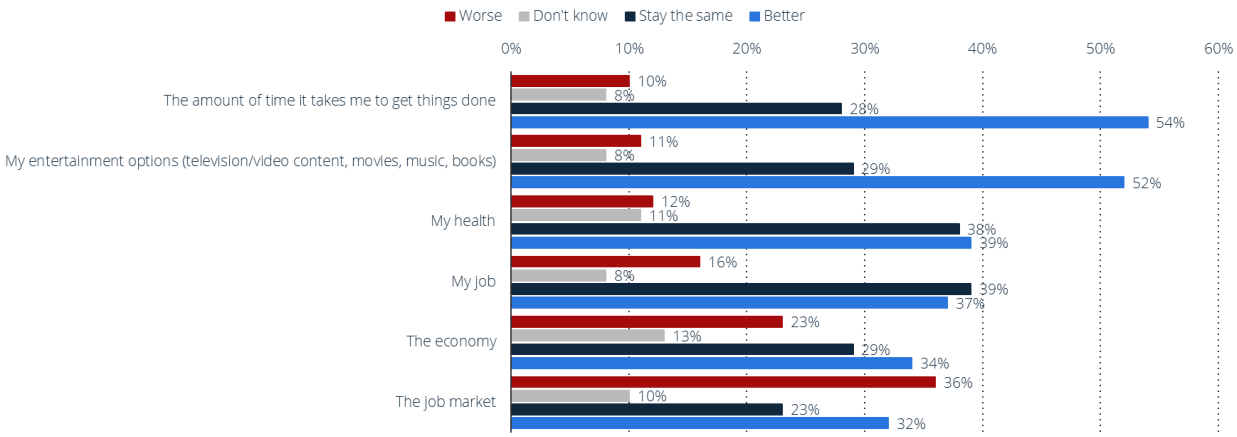

Figure 3. Public Perception of AI's Impact on Employment [16]

While 54% of respondents believe AI will enhance their productivity by streamlining workflows and improving task efficiency, 36% express concern that AI will negatively affect job prospects. Notably, younger respondents and those employed in technology-driven industries exhibit a more optimistic outlook, while manual laborers and administrative workers report higher levels of anxiety regarding job displacement. This disparity reflects the skill-biased nature of technological advancement, where low-skilled, repetitive jobs face greater automation risks, while high-skilled, knowledge-intensive roles benefit from AI augmentation. This finding aligns with Das and Hilgenshock [17] "polarization hypothesis," which posits that technological change reduces middle-skill employment while expanding opportunities at both the low and high ends of the skill spectrum.

Corporate Perspectives on AI and Workforce Dynamics

The corporate landscape is undergoing significant transformation as artificial intelligence (AI) reshapes workforce structures and operational frameworks. Insights from a global survey conducted between November 2022 and February 2023, involving 803 companies, reveal diverse perspectives on AI's impact across industries. Approximately 65% of organizations perceive big data analytics as having a positive impact, enabling more informed decision-making, operational efficiency, and workforce optimization, while only 7% view it negatively (see Figure 4).

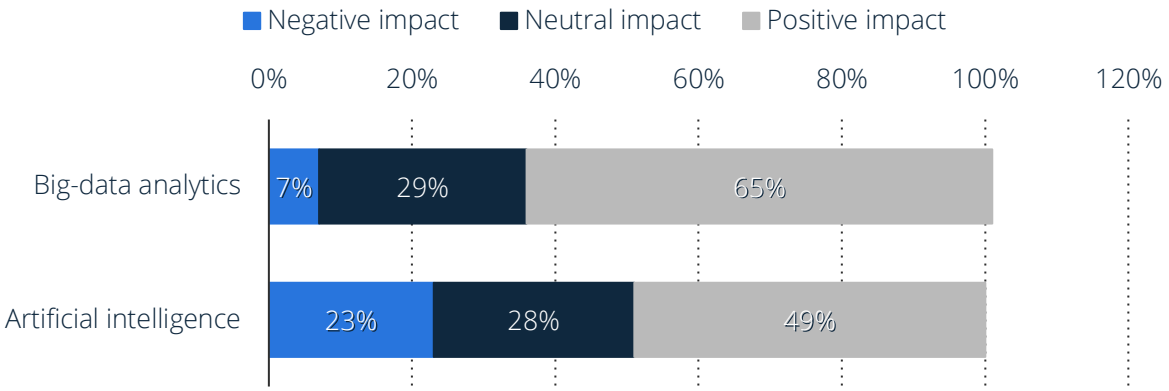

Figure 4. Corporate Perspectives on AI Adoption [18]

However, when it comes to AI adoption itself, the outlook appears more polarized, with 49% of companies acknowledging a positive impact, 28% perceiving it as neutral, and 23% identifying negative consequences, particularly for task-based roles in manufacturing, logistics, and customer service. This trend aligns with previous studies by Wang and Lu [19], who argued that while AI enhances productivity, it simultaneously displaces routine-oriented jobs, leading to labor market polarization. Similarly, Li [10] found that AI adoption correlates with increased firm productivity but often results in workforce restructuring, necessitating substantial upskilling initiatives. As highlighted by Peretz-Andersson et al. [20], corporate leaders emphasize that AI implementation is not solely motivated by cost reduction but also by the pursuit of innovation and competitive advantage. Companies leveraging AI for predictive analytics, customer insights, and process automation report higher productivity and employee satisfaction.

However, small and medium enterprises (SMEs), particularly those with limited technological infrastructure, express greater concern about workforce disruptions and skill gaps. This concern echoes Kolade and Owaseni [21] argument that technological advancement disproportionately affects organizations with fewer resources to facilitate workforce adaptation. Therefore, successful AI integration requires robust workforce transition strategies, including continuous professional development, cross-functional training, and ethical AI deployment practices. By adopting such approaches, companies can harness AI's potential while ensuring an inclusive and resilient labor force.

AI and the Creative Industries: Rising Concerns in Media and Entertainment

The integration of artificial intelligence (AI) into creative industries has sparked considerable concern among professionals in media, entertainment, and publishing. A survey conducted in the United States in April 2023, involving 2,201 respondents, highlights significant anxiety regarding AI-driven job displacement within these sectors. As shown in Figure 5, 22% of news reporters, 21% of book authors, and 20% of TV and movie writers reported being "very concerned" about AI replacing their roles, while 19% of TV and movie animators expressed similar fears. When combined with those who are "somewhat concerned," the anxiety level rises to approximately 46% to 49% across all creative professions. These findings align with Grewal et al. [22] assertion that while AI augments creative work, it simultaneously threatens job security in content-driven industries. The increasing sophistication of generative AI platforms, such as OpenAI's ChatGPT, DALL·E, and MidJourney, has amplified concerns by enabling rapid production of written, visual, and audio content [23], [24]. However, Ali et al. [25] argued that while AI enhances production efficiency, it lacks the contextual understanding, originality, and cultural nuance inherent to human creativity. Thus, AI primarily automates repetitive aspects of creative work, such as drafting, editing, and formatting, allowing professionals to focus on higher-order creative processes. Furthermore, Díaz-Rodríguez et al. [26] emphasized that AI-generated content often relies on existing datasets, limiting its ability to produce truly innovative works without human oversight. This suggests that AI should be viewed as a collaborative tool rather than a substitute for human creativity. Nevertheless, the ethical implications surrounding intellectual property rights, content authenticity, and job security remain unresolved, necessitating further dialogue among industry stakeholders, policymakers, and creative communities. As AI continues to evolve, balancing technological advancement with workforce protection will be critical to ensuring that creative professionals remain central to content production ecosystems.

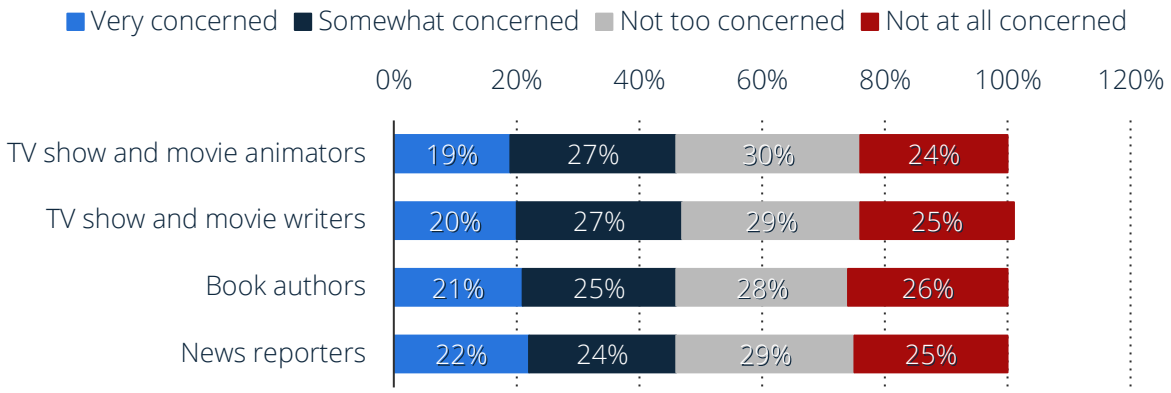

Figure 5. AI-Driven Job Displacement Concerns in Creative Industries [27]

Workforce Adaptation and Skill Transformation

The integration of artificial intelligence (AI) into the workforce necessitates significant adaptation and skill transformation, as traditional job roles evolve to accommodate technological advancements. As AI increasingly automates routine tasks, the demand for human competencies is shifting toward higher-order cognitive skills, such as critical thinking, complex problem-solving, creativity, and emotional intelligence. According to the World Economic Forum, nearly 50% of all employees will require reskilling by 2025 to remain relevant in the changing job landscape [10]. This transformation reflects the skill-biased technological change (SBTC) theory, where technological advancements disproportionately favor highly skilled workers, while low-skilled roles face higher displacement risks [28], [29], [30]. Empirical studies by Yaseen et al. [31] further support this notion, emphasizing that while AI eliminates certain tasks, it simultaneously creates new roles requiring advanced digital literacy and adaptive learning. Moreover, Wang and Lu [19] highlight that AI augments rather than replaces human labor, necessitating continuous skill enhancement to complement technology-driven workflows. However, access to reskilling opportunities remains uneven across regions and industries, with technologically advanced sectors investing more in workforce development compared to labor-intensive industries [32]. This gap underscores the need for inclusive educational frameworks and public-private partnerships to facilitate lifelong learning and ensure equitable access to skill-building initiatives. Additionally, psychological resilience and adaptability are becoming as critical as technical proficiency, as workers navigate uncertainty associated with technological disruptions [33], [34], [35]. Thus, while AI undoubtedly transforms workforce dynamics, the extent to which individuals benefit from this transformation depends on their ability to acquire, refine, and adapt relevant skills in an ever-evolving labor market. Addressing this challenge requires coordinated efforts from governments, educational institutions, and industries to create robust skill development ecosystems that empower workers to thrive in an AI-driven economy.

Balancing Risks and Opportunities

The findings of this study highlight the dual nature of AI's impact on the workforce, presenting both significant opportunities and inherent risks. While AI enhances efficiency, accuracy, and decision-making, it also disrupts traditional job structures, particularly for roles involving repetitive tasks and manual labor. However, the dominant trend observed in this study aligns with the

conclusions of Ozkiziltan and Hassel [36], indicating that AI primarily transforms tasks rather than eliminates entire occupations. This transformation allows workers to focus on higher-value activities while AI handles routine operations. Egana-delSol et al. [37] previously estimated that nearly 47% of U.S. jobs were at risk of automation, but subsequent research, including Hotte et al. work [38], suggests that while automation may displace certain tasks, it also creates new roles, particularly in technology-driven industries. This study further confirms that sectors embracing AI not only experience job redefinition but also observe increased productivity and operational resilience. However, disparities in AI adoption across industries and skill levels raise concerns about labor market polarization, where low-skilled workers face higher displacement risks, as noted by Zarifhonarvar [39]. Moreover, the psychological impact of job insecurity associated with AI adoption, as highlighted by Zhao et al. [40], underscores the need for proactive workforce adaptation strategies. Effective reskilling programs can mitigate these risks by equipping workers with competencies aligned with evolving job demands [41]. The findings emphasize that while AI-driven transformation is inevitable, it can be navigated successfully if stakeholders prioritize inclusive innovation, continuous learning, and ethical AI deployment. Therefore, balancing technological advancement with robust workforce strategies remains crucial for ensuring equitable economic growth in the AI era.

Comparative Analysis with Previous Studies

The findings of this study align with earlier projections by Egana-delSol et al. [37], who estimated that nearly 47% of U.S. jobs were at risk of automation due to advancements in artificial intelligence. However, while their model primarily focused on the technical feasibility of job automation, this study offers a more nuanced perspective by emphasizing that task augmentation, rather than complete job replacement, is the prevailing trend. This observation resonates with Dahlin [42], who argued that the actual risk of job displacement is significantly lower when task composition within occupations is considered, suggesting that AI often complements human labor rather than fully substituting it. Furthermore, Beerli et al. [43] introduced the concept of "labor market polarization," which describes how technological progress reduces middle-skill jobs while expanding opportunities at both the high- and low-skilled ends of the employment spectrum. The current study supports this hypothesis, demonstrating that AI-driven automation predominantly affects routine, repetitive tasks while enhancing productivity in knowledge-based roles. In addition to task-based analyses, this study extends the understanding of AI's impact by incorporating public and corporate perceptions, which were not extensively explored in prior works. Golgeci et al. [44] emphasized that AI adoption often leads to job transformation rather than elimination, particularly when businesses integrate AI as a collaborative tool rather than a replacement for human labor. This finding is corroborated by the current study, where the majority of respondents perceived AI as an enabler of efficiency rather than a threat to job security. Moreover, Trabelsi [45] argued that AI's economic impact depends heavily on how technology is adopted within organizations, with firms that invest in workforce upskilling experiencing productivity gains without significant job losses. The results of this study reflect a similar trend, showing that industries prioritizing reskilling initiatives report lower displacement rates and higher employee adaptability. Compared to previous studies that primarily relied on macroeconomic modeling, the present research employs a sector-specific analysis, revealing that AI's impact is highly contextual, varying across industries such as manufacturing, healthcare, education, and creative sectors. While previous works, projected

widespread disruption, the current study highlights that job displacement is not uniformly distributed but is contingent upon task structure, skill requirements, and organizational readiness for technological integration [46]. This nuanced understanding advances the discourse on AI and employment by demonstrating that the future of work will likely be characterized by hybrid human-AI collaboration rather than widespread unemployment, provided that stakeholders invest in adaptive workforce strategies and inclusive technological frameworks.

Implications for Policy and Practice

The findings of this study underscore the urgent need for proactive policy interventions and strategic workforce initiatives to effectively navigate AI-driven workforce transformations. As AI continues to reshape the labor market, policymakers, businesses, and educational institutions must collaborate to ensure that technological advancements do not exacerbate existing inequalities. One of the primary implications is the necessity of promoting lifelong learning and continuous skills development. Buhgin et al. [47] projects that nearly half of all employees will require reskilling by 2025 as AI redefines job functions and automates routine tasks. Therefore, governments and corporations must prioritize investment in digital literacy, critical thinking, and adaptive skills to prepare workers for AI-integrated work environments. Moreover, workforce transition programs should be implemented to facilitate career mobility and mitigate the socioeconomic disruptions caused by automation. Public employment services can play a pivotal role in providing career counseling, skills assessments, and job placement support for displaced workers. This approach aligns with the recommendations of Mellacher et al. [48], who emphasized that technological progress tends to polarize the labor market, expanding opportunities for high-skilled jobs while diminishing middle-skill employment. Without adequate policy interventions, this polarization may widen socioeconomic disparities, disproportionately affecting vulnerable populations. Ethical considerations surrounding AI deployment further highlight the need for robust regulatory frameworks. As AI systems increasingly influence hiring, promotion, and workforce management, policymakers must ensure that algorithms are transparent, bias-free, and accountable. Reghavan et al. [49] argued that algorithmic decision-making often reflects underlying biases in training data, potentially perpetuating discrimination in hiring practices. Regulatory bodies should therefore establish guidelines for ethical AI adoption, ensuring fair treatment of workers while promoting innovation. Additionally, strengthening social safety nets, such as unemployment benefits and universal basic income (UBI) trials, can provide financial security for those displaced by technological disruption, as proposed by Thompson [50]. Inclusive innovation ecosystems are essential for ensuring that AI benefits are equitably distributed across society. Collaborative efforts between governments, industries, and academic institutions can drive workforce resilience through tailored training programs and industry-specific certifications. Such partnerships can facilitate the development of AI-driven job opportunities while ensuring that marginalized communities are not left behind. Smids et al. [51] emphasized that while AI threatens certain occupations, it also creates new roles that require specialized skills. Hence, investment in education and vocational training should align with emerging job market demands, fostering a future-ready workforce capable of thriving alongside AI technologies. Ultimately, this study reinforces the notion that while AI-driven workforce transformation is inevitable, its impact can be managed through thoughtful, inclusive policies and adaptive strategies. As AI continues to evolve, stakeholders must adopt a balanced

approach that harnesses the benefits of technological progress while safeguarding human capital and promoting equitable economic growth.

CONCLUSION

This study reveals the dual impact of AI on the labor market, acting as both a catalyst for innovation and a driver of job displacement. While AI-driven automation streamlines operations and enhances productivity, it simultaneously challenges traditional employment structures, particularly in routine-based sectors like manufacturing, logistics, and administration. However, rather than solely eliminating jobs, AI is reshaping roles, empowering workers with advanced skills, and creating new opportunities in technology-driven industries. The findings highlight that the future of work will be defined not by job loss alone, but by how effectively industries and individuals adapt to this technological shift. To navigate this transformation, a proactive approach is essential. Continuous reskilling, adaptive education systems, and ethical AI deployment must become central to workforce strategies. Collaboration among policymakers, industry leaders, and educational institutions will be crucial to ensure an inclusive transition that leaves no worker behind. Ultimately, the true impact of AI will depend not on the technology itself, but on the choices society makes in harnessing its potential to build a more resilient, equitable, and future-ready workforce.

LIMITATIONS

This study has several limitations. It relies on secondary data, lacking real-time case studies or direct industry observations, which could provide deeper insights. While the sample is global, it does not fully account for regional differences in AI adoption between developed and developing economies. Additionally, the focus on quantitative analysis neglects the psychological and social impacts of AI, such as job insecurity. Ethical concerns, like algorithmic bias, are also underexplored. Future research should incorporate qualitative methods and explore long-term socio-economic effects, particularly on workforce resilience and education systems.

AUTHOR INFORMATION

Corresponding Author

Sugandha Chhibber – Department of Commerce, Punjabi University (India);
orcid.org/0000-0003-2733-2104

Email: sugandhachhibber@ggdsdkherigurna.ac.id

Authors

Sugandha Chhibber – Department of Commerce, Punjabi University (India);
orcid.org/0000-0003-2733-2104

S.R. Rajkumar – Head & Librarian, Rev. Fr. E.J. Thomas. SJ.Library & Information Centre, St.Joseph's College, Pilathara, Kannur University (India);
orcid.org/0009-0000-0828-6574

Sandun Dassanayake – Department of Decision Sciences, University of Moratuwa (Sri Lanka);
orcid.org/0000-0001-6809-5016

AUTHOR CONTRIBUTION

S.C., S.R.R., and S.D. contributed to this study. S.C. conceptualized the research, designed the methodology, and supervised the project. S.R.R. managed data collection, performed statistical analyses, and created visualizations. S.D. conducted the literature review, interpreted results, and drafted the discussion. All authors reviewed, edited, and approved the final manuscript, ensuring accountability for all aspects of the work.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

DECLARATION OF USE OF AI IN SCIENTIFIC WRITING

The authors used ChatGPT during the preparation of this work to design graphics and images. After utilizing the tool, the authors thoroughly reviewed and edited the content as necessary and assumed full responsibility for the publication's content.

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