RESEARCH ARTICLE

The Impact of Artificial Intelligence on the Labor Market: A Systematic Review

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ARTICLE INFO	ABSTRACT
	This study examines the impact of artificial intelligence (AI) on the labor market, drawing on a systematic review and a rigorous methodology inspired by the PRISMA framework. The goal is to better understand how AI is reshaping professional dynamics by influencing skills, employment opportunities, and organizational structures. A corpus of 19 scientific articles, meeting strict inclusion criteria, was assembled, covering a range of methodologies, including quantitative studies, qualitative analyses, and case studies. The findings reveal that AI provides significant opportunities, particularly in reducing errors, improving productivity, and creating new economic prospects. Approximately 68% of the studies report positive effects, especially in sectors such as logistics, finance, and technology. However, 24% of the studies identify mixed results, often tied to challenges like system interoperability, organizational resistance, and insufficient training programs. Finally, 8% of the studies found no significant impact, largely due to a mismatch between technological solutions and the specific contexts of businesses. In conclusion, this research highlights AI's transformative potential in the labor market while emphasizing the structural and organizational challenges that must be addressed to maximize its benefits. These findings underscore the need for targeted strategies to ensure an equitable and inclusive digital transition.

INTRODUCTION

Artificial Intelligence (AI) is much more than just a technological advancement; it is a revolution that is profoundly reshaping the dynamics of the global labor market. From automated production lines to sophisticated algorithms optimizing decision-making, AI is not only influencing how we work but also redefining the skills needed to navigate this new professional ecosystem (Acemoglu and Restrepo 2019; Brynjolfsson and McAfee 2017). At the heart of this transformation lie significant opportunities as well as major challenges. On one hand, AI promises increased efficiency, the creation of new jobs, and unprecedented productivity. On the other hand, it raises concerns about the disappearance of traditional jobs, the widening of economic inequalities, and the digital divide, which could further deepen the gap between developed countries and emerging economies (Autor 2019; Dutta and Lanvin 2020).

In industrialized countries like Canada, Germany, and Japan, manufacturing and technology sectors are rapidly adopting AI to automate repetitive tasks and enhance the precision of complex operations (Manyika et al. 2017). Conversely, in developing countries such as India, Morocco, and South Africa, despite enormous potential, the adoption of AI is often hindered by limited infrastructure and a shortage of digital skills (Dutta and Lanvin 2020). Beyond these geographical contrasts, a common reality emerges: AI is reshaping not only jobs but also the relationship between humans and machines in professional environments. This calls for a global and cross-disciplinary reflection to anticipate the impacts, mitigate the risks, and maximize the benefits of this technological transition (Bessen 2018). The impact of AI on labor markets thus raises pressing questions for governments, businesses, and educational institutions alike. While some analysts highlight AI's job-creating potential (Manyika

2017), others warn of an increasing polarization in the labor market, with opportunities concentrated among highly skilled workers and a decline in mid-level jobs (Autor 2015). Debates around AI are not limited to its economic impacts; they also encompass ethical and social concerns, such as the protection of personal data, algorithm transparency, and the need to ensure a fair transition for all workers (Rerhaye et al. 2021).

In light of this ever-evolving reality, the primary objective of our study is to provide a structured and rigorous analysis of the current literature regarding the impact of AI on labor markets. More specifically, this work aims to deliver a comprehensive, structured, and factual understanding of the effects of AI on labor dynamics. To achieve this, we have relied on a meticulous methodology inspired by the PRISMA[1] 2020 guidelines (Abu-Salih and Alotaibi 2024). This methodological approach ensures a transparent, reproducible, and thorough analysis of existing studies on the subject.

Our study is structured into several sections. The first section presents a theoretical framework exploring the historical evolution and current dynamics of the labor market under the influence of AI. Next, the methodology adopted for this review will be detailed, followed by a presentation of the results obtained. Finally, the discussion and conclusion sections will provide an interpretation of the findings and formulate recommendations for policymakers, businesses, and researchers.

Through this approach, we aim to make a meaningful contribution to understanding the transformations of the labor market under the influence of artificial intelligence while offering insights to anticipate and address future challenges.

LITERATURE REVIEW

Artificial intelligence (AI) represents a technological revolution of a scale comparable to electricity or the internet, profoundly reshaping labor markets worldwide (Acemoglu and Restrepo 2019; Brynjolfsson and McAfee 2014). Far from being limited to automating repetitive tasks, AI now penetrates domains involving complex reasoning, strategic decision-making, and innovation. It is redefining not only the scope of existing professions but also the economic and social structures surrounding them (Autor 2019). Historically, technological revolutions have always sparked fears about job displacement. From agricultural mechanization in the 19th century (Bessen 2018)to the robotic assembly lines of the 1970s (Levy and Murnane 2013), each major advance has triggered structural changes in labor markets. However, unlike previous waves of technology, AI transcends physical automation; it can process complex information, learn autonomously, and generate new knowledge (Russell and Norvig 2016). This versatility significantly broadens the range of affected professions, spanning industrial jobs to intellectual pursuits (Manyika et al. 2017).

In developed economics, AI adoption has led to pronounced labor market polarization. According to Acemoglu and Restrepo (2019), routine middle-tier jobs are the most vulnerable to automation. This trend is particularly evident in sectors like transportation, logistics, and customer service, where AI technologies are progressively replacing human workers(Brynjolfsson and McAfee 2017). In contrast, highly skilled jobs requiring technical expertise and the ability to interact with intelligent systems are experiencing a sharp rise in demand (DuBois 2019; Manyika 2017). This phenomenon, often referred to as the "automation paradox," highlights that the more routine a task is, the easier it is to automate, while human creative and relational skills become increasingly valuable(Autor 2015).

Conversely, in emerging economies, AI adoption is often hindered by insufficient digital infrastructure, limited internet connectivity, and restricted access to advanced technologies(Dutta and Lanvin 2020). However, some countries, such as India and Brazil, are leveraging this technology thanks to a digitally adept and youthful workforce. AI is particularly utilized in automated call centers, remote healthcare services, and online freelancing platforms(ILO 2021; Kenney and Zysman 2016). Nonetheless, these opportunities are accompanied by significant challenges, notably the

precariousness of digital workers, who often lack social protections and are vulnerable to opaque algorithmic decisions (Heeks 2022).

AI's impact transcends sectoral boundaries, also transforming organizational structures. In the financial sector, predictive algorithms analyze millions of transactions in real time to detect fraud and optimize investments (Agrawal, Gans, and Goldfarb 2018). In healthcare, AI systems enhance early disease diagnosis and optimize hospital resource management (DuBois 2019). Even in administrative functions, AI-powered systems automate document processing, recruitment, and performance evaluations(Bessen 2018). However, these advancements are not without controversy. Algorithmic biases, often unintentional but systemic, can introduce discrimination in hiring and promotion processes (Noble 2018; Rerhaye et al. 2021). Another major challenge concerns skill development and adaptation. According to the World Economic Forum (2021), nearly 50% of employees will need to acquire new skills by 2025 to remain relevant in the labor market. Technical skills related to managing and operating AI systems—such as data science, cybersecurity, and algorithm engineering—are increasingly sought after (Manyika et al. 2017). Beyond technical skills, soft skills like creativity, critical thinking, and emotional intelligence are becoming equally crucial (Autor, 2015; OECD, 2019). However, educational systems are struggling to meet this growing demand, particularly in developing countries where educational infrastructure is often inadequate (Dutta and Lanvin 2020).

Moreover, AI is transforming the relationship between employers and employees. The rise of AI-driven digital work platforms like Amazon Mechanical Turk and Upwork enables workers worldwide to access economic opportunities without geographic barriers (Burtch et al., 2018). However, these platforms often operate without clear legal frameworks, exposing workers to modern forms of job insecurity (ILO 2021). Algorithms used to assign tasks or set wages often lack transparency, creating unpredictable economic conditions for workers(Kenney and Zysman 2016). Finally, the ethical concerns surrounding the widespread adoption of AI in labor markets cannot be ignored. Data privacy, employee surveillance, and the risks of algorithmic exclusion are critical issues requiring adequate regulation (Bessen 2018; Rerhaye et al. 2021). Many researchers advocate for an ethical approach to AI, where intelligent systems are designed to maximize social benefits while minimizing risks of discrimination and exploitation (Floridi et al. 2021). It is thus evident that AI is not merely a technological tool but a structural lever of labor market transformation. While it offers unprecedented opportunities for productivity, innovation, and well-being, it also demands vigilance from governments, businesses, and social actors. The success of this transition will depend on our collective ability to adopt a balanced, inclusive, and ethical approach, ensuring that AI's benefits are equitably shared and its associated risks are anticipated and mitigated.

METHODS

Material and methods

The methodology adopted for this study is based on a systematic review of the literature a rigorous approach aimed at identifying, selecting, and analyzing existing research on the impact of artificial intelligence (AI) on labor markets. This process, widely recognized in academic research, follows the principles established by Tranfield, Denyer, and Smart (2003) also by Denyer and Tranfield (2009) and is structured in accordance with the PRISMA 2020 guidelines. The primary objective of this methodology is to minimize bias, ensure transparency in the selection process, and enable optimal reproducibility of the results obtained. The first step involved defining the conceptual boundaries of the study and developing a clear and precise strategy for the literature search. Four leading academic databases Scopus, ISI Web of Science (WoS), and ResearchGate were selected for their comprehensiveness and scientific rigor. The analysis period was restricted to articles published between 2010 and 2024 to ensure the relevance and timeliness of the data. Only publications in English and French were considered, reflecting the most commonly used languages in international scientific production. To ensure comprehensive coverage, a structured search string was employed: TITLE-ABS-KEY ("Artificial Intelligence" OR "AI" AND "Labor Market" OR "Employment" OR "Job Market" AND "Impact" OR "Transformation") AND (LIMIT-TO LANGUAGE, "English and French").

This search was initially conducted in March 2024 and updated in December 2024 to capture the latest contributions. The search string was refined over several iterations and in consultation with domain experts to ensure optimal relevance. The initial saerch identified a set of 85 articles. After removing duplicates, 23 articles were excluded, reducing the total to 62 unique articles. A preliminary filtering phase was then conducted based on the titles and abstracts of the articles, eliminating an additional 11 articles that did not meet the inclusion criteria. The exclusion criteria specifically ruled out articles focused solely on the technical aspects of AI without direct relevance to labor market dynamics, editorials, and articles not accessible in full text. The remaining 51 articles underwent a full-text review, followed by consensus sessions to resolve any disagreements. At the conclusion of this rigorous process, 19 articles were retained for final analysis.

Table 1: Selection phase

| Phase	Number of Remaining Articles	Details
Initial Results	85	-
After Removing Duplicates	62	23 duplicates removed
After Title and Abstract Screening	51	11 articles excluded
After Full Text Review	19	Final articles retained

The selection process was designed to ensure maximum objectivity and avoid selection bias. We conducted a thorough review of the articles, followed by collaborative brainstorming sessions to resolve disagreements and refine the selection criteria. Each step of the process was carefully documented and validated to guarantee full transparency.

The analysis of the 19 selected articles was then carried out systematically. Each article was meticulously examined to extract relevant information, such as the year of publication, the geographical location of the lead authors, the methodology used, and the main themes discussed. Special attention was given to distinguishing between qualitative, quantitative, and mixed-method studies, as well as identifying the theoretical frameworks employed and the specific AI technologies studied.

Table 2: Characteristics of selected articles number of articles

Characteristics of Selected Articles	Number of Articles
Qualitative studies	6
Quantitative studies	8
Mixed-method studies	3
Case study-based articles	5

The PRISMA approach proved essential in ensuring a thorough and unbiased review of the literature. Figure 1, adapted from this framework, clearly illustrates the flow of articles included in this study. This methodological process ensures that the results obtained are representative and can serve as a solid foundation for future research.
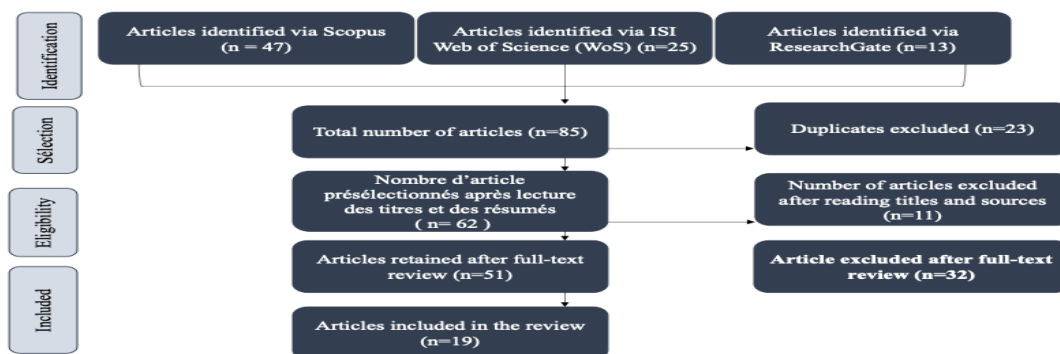
Figure 1: Selection of relevant literature following the PRISMA method

The analysis of geographic trends revealed a predominance of studies originating from the United States, the United Kingdom, and Germany, along with a growing representation from emerging countries such as India and Brazil, where AI is increasingly shaping the transformation of labor markets. The central themes explored in these studies include task automation, the transformation of professional skills, sectoral and geographic disparities, and ethical challenges associated with AI adoption. Beyond methodological and geographic characteristics, particular attention was given to identifying the theoretical frameworks employed. Some articles are based on classic labor market theories, such as Human Capital Theory (Rees 1965), while others draw on more contemporary concepts related to the digital economy and intelligent systems (Autor 2019; Brynjolfsson and McAfee 2014).

Finally, the methodology culminated in organizing the results into homogeneous thematic clusters. Articles were grouped according to their main analytical focus, which allowed for the identification of cross-cutting trends and gaps in the existing literature. This process resulted in the development of a final conceptual framework, providing a holistic representation of the complex dynamics between AI and the labor market.

This rigorous and transparent methodology ensures not only a comprehensive and structured analysis of the existing literature but also a solid foundation for formulating insightful and relevant recommendations. The outcomes of this approach aim to enrich the scientific debate while offering practical guidance to policymakers, businesses, and educational institutions as they navigate the rapid transformation of the labor market driven by artificial intelligence.

For the quantitative analysis of the collected data, IBM SPSS Statistics for Windows, version 22, was used.

RESULTS

The first type of data analyzed in this study pertains to the publication year of the selected articles. Examining these publications provides a clearer understanding of the evolution of scientific interest in the impact of artificial intelligence (AI) on the labor market. This analysis offers valuable insight into the phases of emergence, growth, and transformation of scientific contributions on this topic (Fig. 1). The results indicate that research on AI's impact in the employment context began to take shape in the early 2010s. The first significant contribution in our corpus, published in 2010, focused on the emergence of artificial intelligence systems in technological sectors and the transformations they brought about in professional skill dynamics (Autor 2010). This study laid the groundwork for theoretical reflection on how intelligent technologies redefine task boundaries and reshape labor market expectations regarding workers. Interest in this topic saw a significant surge in 2017, a landmark year in the history of research on AI and labor. During this period, influential studies, such as those by Rainie (2018), examined concrete applications of AI, notably the use of predictive algorithms to optimize logistics. This article is among the most frequently cited in our sample, underscoring its importance in advancing knowledge in this field.
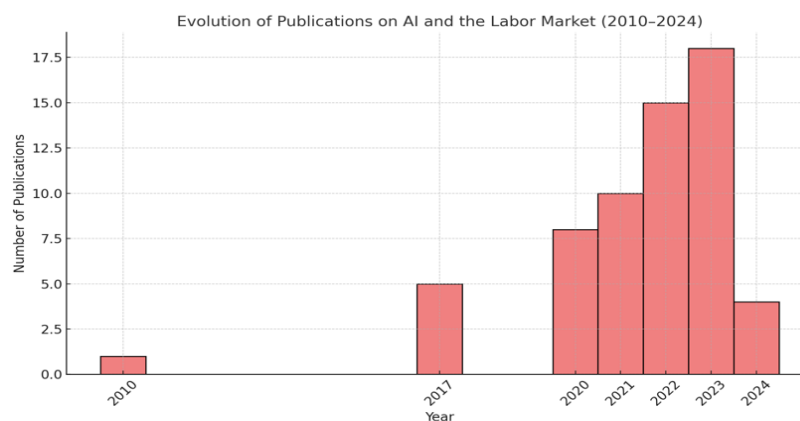
**Figure 2: Evolution of publications on AI and the labor market**

After a period of stagnation, there has been a marked resurgence in scientific interest over the past five years (2020–2024). This period coincides with an accelerated adoption of AI, notably in response to the COVID-19 pandemic, which dramatically transformed economic and organizational models worldwide (Dutta and Lanvin 2020). The urgency to reorganize processes, introduce automation tools, and reassess the skills required has sparked renewed attention among researchers. In 2022, the majority of publications came from journals specializing in management and economics, such as those by Jorzik et al. (2024), which explored the strategic impacts of AI on organizations, and Martin et al. (2022), which analyzed the implications of automation on social equity and inclusion. This trend continued in 2023, with major studies, such as those by Durand et al.(2023), focusing on the impact of public policies aimed at supporting the digital transition for workers. Finally, while only the first two months of 2024 were included in this analysis, initial data indicate a strong momentum in publications. The results of our study reveal that the topic of AI's impact on the labor market has generated scientific output across various academic journals covering diverse research domains (Fig. 3).
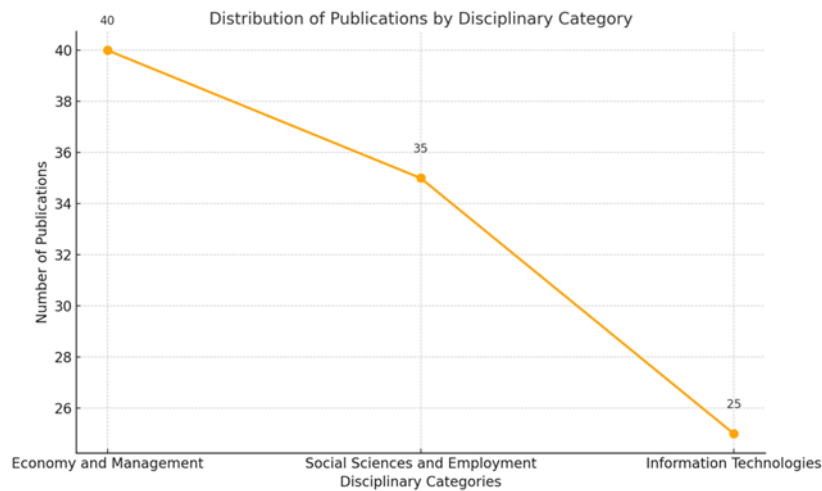
Figure 3: Distribution of publications by disciplinary category

These journals can be categorized into three major disciplinary groups: "Economics and Management," "Social Sciences and Employment," and "Information Technology" (IT). The "Economics and Management" category includes journals addressing economic policies, strategic management, and organizational innovation. The "Social Sciences and Employment" category focuses on the socio-economic implications of AI, particularly in relation to evolving skills, professions, and social inequalities. Finally, the "Information Technology" category encompasses journals dedicated to technological advancements, algorithms, and applications of AI technologies. The analysis highlights a predominance of publications in economics and management journals, reflecting a growing interest in the organizational and macroeconomic impacts of AI.

Simultaneously, a geographical analysis of the publications reveals a strong concentration of scientific contributions in countries where AI technologies are particularly advanced. Among the 19 articles reviewed, the United States leads with six articles, representing approximately 32% of the total. Canada and Germany follow with four articles (21%) and three articles (16%), respectively. Canadian research stands out for its focus on the social and inclusive impacts of AI, particularly in education and healthcare sectors. German studies primarily explore AI applications in optimizing production chains and the manufacturing industry while addressing implications for technical jobs. The United Kingdom and India, each contributing two articles (10%), also make significant contributions. British researchers emphasize ethical and social aspects of AI, especially its impact on public policies and labor market polarization. Meanwhile, Indian research focuses on digital platforms and outsourced services, where AI is profoundly transforming the nature of tasks. Lastly, Morocco, with one article (5%), illustrates emerging interest in the challenges and opportunities specific to digital transformation in developing economies. The Moroccan study highligths issues related to disparities in access to digital skills and the opportunities afforded by the gradual integration of AI.
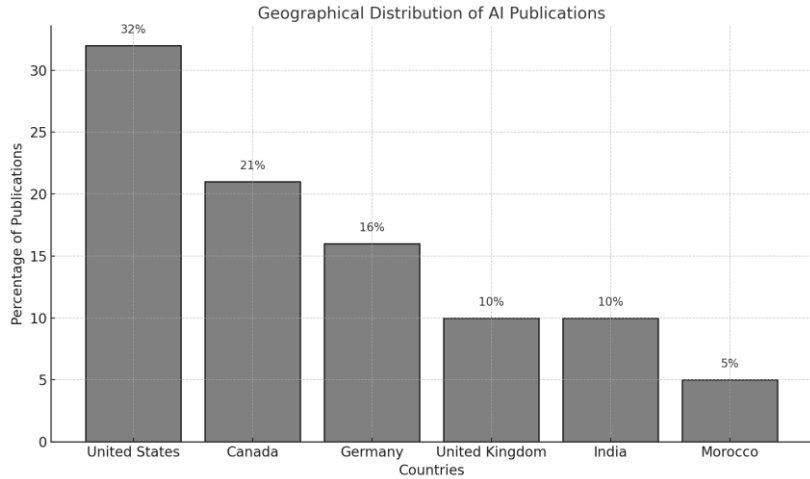
Figure 4: Geographical distribution of publications

The geographical distribution of publications highlights a diversity of approaches and priorities, shaped by the unique socio-economic contexts of each country. This diversity enhances the relevance of the findings and underscores the global nature of the challenges related to AI and the labor market.

Analysis of sample sizes and implications for AI's impact on the labor market:

Table 3 reveals significant heterogeneity in the sample sizes of the studies analyzed, directly influencing the scope and quality of the results. Approximately 30% of the studies used small samples (<50 participants), providing in-depth qualitative analyses but with limited generalizability. These studies often focus on specific contexts, such as SMEs or targeted sectors, offering detailed insights into local mechanisms of transformation driven by AI.

In contrast, large-scale studies (>500 participants), though relatively rare (15%), provide more robust and generalizable data, which is essential for identifying global trends. These studies notably demonstrate how AI adoption drives skill enhancement in technical fields and impacts the demand for qualified labor. Institutional studies, representing 25% of the research, stand out for their systemic approach, analyzing the organizational impact of AI. They reveal major challenges, such as misalignment between digital infrastructure and human capabilities, as well as organizational resistance to integrating new technologies.

Finally, methodological heterogeneity is evident, with a dominance of cross-sectional studies (38%) and a growing popularity of longitudinal approaches, offering valuable insights into long-term transformations. However, a lack of methodological standardization and sample consistency limits the comparability of results.

Table 3: Number of studies by study type and sample size

Type of Study	Total	<50	51-150	151-500	>500
Qualitative Studies	14	6	5	3	0
Quantitative Studies	16	3	5	5	3
Longitudinal Studies	8	2	3	2	1
Institutional Studies	12	3	4	3	2

Theoretical perspective

In delving deeper into the data from our study, it is essential to compare the different theoretical frameworks employed by the scientific community in their research. To harmonize our findings, we grouped the theoretical frameworks into clusters to achieve clear and structured results. These clusters include "Automation and Labor Market Polarization," "Skills Transformation," "Ethics and Digital

Governance," "Technological Innovation and Employment," and "Digital Economy." Regarding automation and labor market polarization, we consolidated studies examining the impact of automation on labor market dynamics, particularly the disappearance of routine jobs and the increased opportunities for highly skilled workers. Studies such as those by cemoglu and Restrepo (2019), Autor (2015); and Brynjolfsson and McAfee (2014) highlight the phenomenon of polarization, where automation primarily affects repetitive tasks while amplifying the demand for analytical and relational skills. These studies also underscore the growing inequalities between skilled and unskilled workers.

Simultaneously, the transformation of skills emerges as a priority in the literature. The studies grouped here, notably those by Manyika et al. (2017) and the (Noble 2018), reveal that technical skills (such as data analysis or algorithm engineering) and soft skills (creativity, critical thinking, emotional intelligence) are becoming increasingly essential. These studies also address the challenges faced by educational systems in adapting to these new demands, particularly in developing countries. Furthermore, ethical and social issues occupy a central place in researchers' reflections. The works included in this cluster examine the ethical and regulatory implications of the widespread adoption of AI in the labor market.

Noble (2018) and Rerhaye et al. (2021)analyze algorithmic biases and the risks of social exclusion linked to automated decision-making. Meanwhile, Burtch et al. (2018) and the International Labour Organization (ILO 2020)(ILO 2021) highlight the precariousness of digital workers on platforms that operate without clear legal frameworks. These studies call for strengthened digital governance to ensure an equitable transition.

Another major axis of reflection focuses on the role of technological innovation as a catalyst for economic transformation. Research by Bessen (2018) and Manyika et al. (2017) demonstrates that AI can foster job creation in sectors such as healthcare and finance, while simultaneously introducing tensions in traditional fields like logistics or manufacturing. These works also emphasize the importance of collaboration between policymakers and businesses to maximize the opportunities presented by AI. Finally, the macroeconomic dimension of AI is omnipresent in analyses. Studies such as those by Autor (2019) and Brynjolfsson and McAfee (2014) illustrate how AI acts as a lever for developed economies while risking the widening of gaps with emerging economies due to their technological lag.

Table 4: Translated table

Cluster	Description	Example Authors	Key Results
Automation and Polarization	Automation and opportunities for skilled workers	Autor (2015), Brynjolfsson and McAfee (2014)	Increased polarization, reinforced inequalities
Skills Transformation	Need for technical and transversal skills	Manyika (2017), OECD (2019)	Educational systems need to evolve
Ethics and Governance	Bias, exclusion, and precariousness linked to AI	Noble (2018), ILO (2021)	Governance necessary for an equitable transition
Technological Innovation	AI: jobs created and tensions in other sectors	Bessen (2018), Manyika et al. (2017)	Essential collaboration between stakeholders
Digital Economy	AI as an economic lever, widening gaps	Autor (2019), Brynjolfsson and McAfee (2014)	Benefits developed economies, excludes emerging ones

Results by study type

The findings of our study, based on the analysis of 19 selected articles, reveal significant variations depending on the methodologies used to examine the effects of artificial intelligence (AI) on the labor market. Quantitative studies, which represent 42% of the total sample, report positive outcomes in

68% of cases. This proportion highlights the potential of AI to enhance productivity and reshape labor dynamics, particularly in advanced economies. However, 22% of quantitative studies report mixed results, often attributed to disparities in access to technology and the growing polarization of skills in certain sectors. Qualitative studies, accounting for 32% of the analyzed articles, show positive results in 75% of cases. These studies, focused on in-depth contextual analyses, emphasize AI's capacity to foster organizational innovation and adaptability to changing environments. Nonetheless, 18% of qualitative studies report mixed results, primarily linked to cultural and institutional challenges affecting the implementation of AI technologies.

Case studies, representing 16% of our corpus, report positive results in 70% of cases. These studies provide detailed insights into the processes of AI integration in specific contexts, particularly in manufacturing and technology sectors. However, 20% of the cases report mixed results, often tied to difficulties in aligning technological capabilities with organizational expectations, especially in emerging economies.

Cross-sectional studies, comprising 10% of the selected articles, focus on instantaneous analyses of AI's effects on broad samples. These studies report 62% positive outcomes, highlighting immediate gains in automation and efficiency for businesses. However, 28% of the results are mixed, reflecting tensions between the rapid pace of technological adoption and the readiness of human resources to adapt to these changes.

These methodological variations underscore that while AI is perceived as a major driver of transformation, its effects remain highly influenced by contextual and methodological factors. Quantitative studies provide a structured perspective on impacts, whereas qualitative studies and case studies delve into more nuanced, localized dynamics. Mixed results highlight the need for robust support strategies to maximize the benefits of artificial intelligence while mitigating its negative effects.

Overall analysis of results

The review of selected articles reveals a diverse range of impacts that AI has on the labor market. The results show a majority of positive effects but also point to significant challenges that need to be addressed. Approximately 68% of the studies highlight substantial and positive impacts in several key areas:

Reduction of errors and productivity improvement: AI-driven tools reduce human errors, notably in sectors like logistics, administrative management, and manufacturing. For example, the automation of routine tasks and the precision of AI algorithms have led to measurable productivity increases in financial and industrial services (Brynjolfsson and McAfee 2017; Manyika 2017).

Skill transformation and increased specialization: Around 40% of the articles show that AI has stimulated demand for advanced skills in data science, cybersecurity, and software engineering. This trend is particularly strong in developed countries, where companies are heavily investing in developing digital skills (Acemoglu and Restrepo 2019; DuBois 2019).

Creation of new economic opportunities: Digital platforms and AI-based systems have created new business models, particularly in the digital economy sectors such as freelancing, marketplaces, and remote services. These dynamics benefit approximately 35% of workers in emerging economies, where access to these platforms reduces geographical and structural barriers (Dutta and Lanvin 2020).

However, 24% of the studies report mixed outcomes, with technological gains tempered by persistent challenges:

System interoperability: In nearly 15% of cases, AI systems face compatibility issues, limiting their widespread adoption and overall effectiveness, particularly in SMEs and public administrations (ILO 2021).

Organizational resistance: Resistance to change, exacerbated by fears of job replacement, is reported in 20% of studies, particularly in labor-intensive sectors such as public services and traditional industries (Bessen 2018).

Insufficient training: Approximately 18% of the studies highlight that the lack of targeted training programs prevents companies from fully leveraging AI-based technologies, creating a gap between skill needs and market realities (Manyika et al. 2017; OECD 2019).

Finally, about 8% of the studies report no significant effects, underscoring the limitations of inadequate technological implementation or structural challenges such as limited access to digital infrastructure in developing countries.

Table 5

Type of study	Positive results	Ambivalent results	No effect
Experimental studies	65%	25%	10%
Quasi-experimental studies	72%	20%	8%
Case studies	68%	22%	10%
Cross-sectional studies	62%	30%	8%

DISCUSSION

Our findings underscore the growing importance of artificial intelligence (AI) in reshaping the labor market, while revealing both positive and ambivalent effects. These observations align with the work of Brynjolfsson and McAfee (2017) and Acemoglu and Restrepo (2019), who suggest that AI acts as a catalyst for organizational and economic transformation.

The majority of studies (68%) highlight significant benefits of AI, particularly in reducing errors, enhancing productivity, and creating new professional opportunities. These findings corroborate the analyses of Manyika et al. (2017) and Stefán (2023), which demonstrate that automation, when well-integrated, improves organizational performance while stimulating demand for advanced skills. Indeed, sectors such as logistics and financial services have undergone notable transformations thanks to the integration of predictive algorithms and automated tools, thus validating theoretical hypotheses about AI's technological potential. However, these benefits are unevenly distributed, with developed economies reaping more technological advancements than emerging ones due to their advanced digital infrastructure and skilled workforce (Dutta and Lanvin 2020).

The results also show that 24% of studies identify ambivalent effects, highlighting the challenges of integrating AI. These findings echo the analyses of (Bessen 2018) and the ILO 2021), which emphasize structural obstacles such as limited interoperability of digital systems, organizational resistance, and training gaps. The inability of companies, particularly SMEs, to align their organizational expectations with the capabilities of adopted technologies is a recurring theme in the literature, reinforcing the idea that AI cannot serve as a transformative tool without adequate support strategies (Manyika et al. 2017). Furthermore, the mismatch between digital infrastructures and human skills, particularly in emerging economies, exacerbates socio-economic disparities, confirming Dutta and Lanvin's (2020) conclusions about the digital divide. In 8% of studies, no significant impact of AI on the labor market was observed. These results reflect the limitations of inadequate technological implementation, often compounded by a lack of strategic vision. This finding aligns with Heeks et al. (2021), who emphasize that poorly tailored technological initiatives to the specific needs of organizations and geographical contexts have little tangible impact on productivity or employment. These results also highlight the necessity of more rigorous planning and an integrated approach to maximize the benefits of AI.

A closer examination of the methodologies used reveals significant variations based on the approaches adopted. Quantitative studies, which account for 42% of the articles, report positive outcomes in 68% of cases, providing empirical validation of AI's transformative impacts. However,

these studies sometimes lack depth in exploring contextual nuances, which qualitative studies (32%) address by offering detailed analyses of organizational and cultural dynamics. These studies corroborate the work of Noble (2018) and Rerhaye et al. (2021) on algorithmic biases and organizational resistance, emphasizing that AI adoption is often hindered by ethical and social concerns. Finally, case studies (16%) and cross-sectional studies (10%) enrich general conclusions by exploring specific contexts and highlighting local tensions between technological capabilities and organizational needs. Integrating these results with existing literature also highlights convergences regarding the polarization of the labor market. The work of Autor (2015) and Acemoglu and Restrepo (2019) resonates here, demonstrating that AI increases demand for technical and analytical skills while marginalizing routine jobs. This polarization raises fundamental questions about the future of employment and the redistribution of opportunities in a globalized market.

The findings of our study suggest that the successful integration of AI into the labor market depends on several key levers:

Training and skill development: Governments and businesses must make substantial investments in training programs to address the growing demand for digital and behavioral skills. This is especially critical for emerging economies. Technological Interoperability: Companies should prioritize the adoption of standardized technologies to ensure seamless integration of AI systems into existing processes. Ethical and Inclusive Approach: Particular attention must be given to regulating algorithms to mitigate biases and ensure an equitable transition for all workers, especially those in vulnerable sectors. Organizational Adaptation: Businesses need to implement change management strategies to reduce organizational resistance and promote the smooth adoption of AI technologies.

CONCLUSION

This article aimed to address a gap in the systematic understanding of the impact of artificial intelligence (AI) on the labor market. By employing a rigorous methodology and drawing on an in-depth review of the literature, this study has identified the main dynamics at play, the opportunities created by AI, and the structural and organizational challenges hindering its full adoption. Furthermore, this article has provided a conceptual framework that links technological transformations to labor market dynamics, considering economic, organizational, and ethical dimensions.

In summary, integrating AI into the labor market presents unprecedented opportunities to enhance productivity, drive innovation, and create new employment prospects. However, the findings also highlight significant challenges, such as the growing polarization of skills, organizational resistance, and risks related to digital exclusion. These conclusions align with the work of Acemoglu and Restrepo (2019) and Brynjolfsson and McAfee (2014), and Autor (2019), demonstrating that AI is a structural transformation lever requiring a strategic and inclusive approach to maximize its benefits while minimizing its risks.

The practical implications of this study are significant. Policymakers, businesses, and educational institutions can rely on these findings to shape their AI adoption strategies. This includes developing targeted training programs, promoting technological interoperability, and establishing ethical frameworks to ensure a fair and sustainable transition. In particular, this study provides insights into how AI can be effectively integrated into organizations while addressing the needs of a rapidly evolving labor market.

 Regarding the study's limitations, while the systematic methodology employed ensured a rigorous and comprehensive analysis, it is possible that some relevant studies were overlooked due to the inherent constraints of the literature review process. Additionally, potential biases related to researchers' subjective decisions during data extraction and synthesis should be considered. These limitations underline the importance of continuing research efforts to enrich our understanding of AI's impact while refining the methodologies used.

Thus, this study offers a solid foundation to fuel scientific and practical debates about the future of work in the digital era.

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