Knowledge and artificial intelligence on employee behaviour advancing safe and respectful workplace

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ABSTRACT

As workplace environments evolve with the integration of artificial intelligence (AI), understanding its impact on employee behaviour and organisational culture becomes critical. This study investigates the influence of AI-based technologies on creating safe and respectful work atmospheres, focusing on their role in fostering safety, inclusion, and ethical management practices. Drawing on recent findings, the paper explores the dual nature of AI's effects, from enabling safer workplaces to posing ethical challenges.

(1) The study identifies critical dynamics within AI-driven work environments. Through safety-oriented tools,—such as real-time risk monitoring systems,—AI contributes to incident prevention and fosters inclusion. However, its implementation also introduces challenges, particularly regarding privacy concerns and lack of transparency, which may trigger distrust and raise ethical dilemmas among employees. (2) The analysis further emphasizes ethical and operational barriers. To ensure effective integration, organisations must address the psychological impact of automation, ensuring it does not compromise employee morale or workplace cohesion. Transparent implementation practices are essential to avoid unintended negative consequences. (3) Findings reveal opportunities for AI to reshape organisational culture by harmonising operational efficiency with inclusive values. The study underscores the importance of aligning technological innovation with strategies that prioritise ethical governance and employee well-being.

To support these insights, the study adopts a bibliographic analysis methodology, reviewing a curated corpus of peer-reviewed publications from the past five years. Sources were selected based on thematic relevance, scientific rigour, and empirical depth. This method enabled the identification of conceptual patterns, gaps in the literature, and key trends regarding the socio-ethical implications of AI in the workplace.

These insights offer practical guidelines for organisations implementing AI technologies. By adopting transparent communication, ethical frameworks, and strategies aligned with employee well-being, businesses can leverage AI to create safer and more inclusive environments. This research underscores the importance of designing policies that balance technological advancement with respect for employee rights and privacy.

Introduction

The adoption of AI in the workplace is profoundly reshaping organisational dynamics and exerting a direct influence on employee behaviour (Sabah et al., 2024). Work and the workplace—core elements of contemporary society—are being transformed by the disruptive acceleration of technological innovation (Mitchell et al., 2022). Technologies such as machine learning, automation (de Lucas Ancillo et al., 2023), and intelligent monitoring systems are not only enhancing operational efficiency (Dabić et al., 2023). They are also beginning to affect the social, emotional, and behavioural dimensions of the work environment (Aderamo et al., 2024; Obrenovic et al., 2024).

As AI systems are increasingly integrated into decision-making and the management of routine tasks, legitimate concerns are emerging regarding their impact on interpersonal relationships (Akdilek et al., 2024), employee well-being (M. Yin et al., 2024), and the construction of safe, inclusive, and respectful workplaces (Hernández, 2024). Workplace behaviour is shaped by a variety of factors, including internal policies (Koeswayo et al., 2024), peer interactions (Dutta & Rangnekar, 2024), and perceptions of physical and psychological safety

(Bautista-Bernal et al., 2024; Loo et al., 2024).

In this context, AI presents significant potential for addressing many of these challenges (Chatterjee et al., 2023). On the one hand, it can automate administrative processes (Ajiga et al., 2024), detect behavioural anomalies (Zhou et al., 2024), and personalise work experiences tailored to employees' individual profiles and needs (Chandra et al., 2024). On the other hand, it can help improve equity in recruitment (Alrakhawi et al., 2024) and performance evaluation processes (Sucipto, 2024), helping reduce bias and promoting greater inclusion. However, these benefits are not without risk: the extensive use of algorithmic tools may result in privacy violations (Z. Li, 2024), embedded algorithmic bias (Wu, 2024), and reduced transparency in organisational decision-making (Cheong, 2024). When not governed ethically, AI-based surveillance may erode trust, damage morale, and reinforce existing structural inequalities (Charkra et al., 2024; Giacosa et al., 2023; Safaei-Mehr & HeidarianBaei, 2024).

For AI to contribute effectively to the development of safe and respectful workplace environments (Rane et al., 2024), its implementation must be aligned with organisational values and embedded within frameworks that promote diversity, equity, and inclusion (Hernández, 2024). AI should not be regarded as a neutral tool, but rather as an active agent of change whose integration into the workplace requires strategic planning to safeguard rights, uphold human dignity, and foster employee empowerment (Monod et al., 2024). From this perspective, AI adoption represents a turning point in knowledge management (Muenjohn et al., 2024; Yuan et al., 2024) and organisational learning (Thomas, 2024). It demands a form of responsible governance (Cuenca et al., 2024) that ensures innovation is guided by principles of transparency, fairness, and sustainability (Arduini et al., 2024; Habbal et al., 2024; Patel et al., 2024).

This study is grounded in this critical framework and seeks to examine, through a combination of bibliometric analysis and thematic review, how the academic literature addresses the impact of artificial intelligence on employee behaviour and the construction of safe, ethical, and resilient workplaces. The aim is to contribute to the development of a interdisciplinary research field at the intersection of technology, organisational behaviour, and ethical human resource management in digital environments.

Despite the growing body of research examining the adoption of AI in organisational settings, the existing literature remains fragmented in its analysis of how AI technologies concretely influence employee behaviour in relation to safety, inclusion, and ethical governance. Many studies focus either on the technical functionalities of AI or on isolated outcomes such as productivity or job displacement, often neglecting the broader socio-organisational implications. Furthermore, there is a lack of comprehensive, systematised knowledge that maps the intellectual structure and thematic evolution of this field. This study addresses this gap by employing a bibliometric and thematic approach to identify prevailing research patterns, emerging debates, and conceptual linkages related to AI's role in shaping respectful and resilient workplace cultures.

The research will attempt to address two fundamental questions through an analysis using Vos Viewer:

RQ1: *What are the dominant research themes connecting artificial intelligence, employee behaviour, and organisational dynamics in the academic literature?*

RQ2: *How is organisational culture represented and conceptualised in the literature on AI-enabled transformation of the workplace?*

Theoretical framework

AI has emerged as a transformative force in the modern workplace, challenging conventional paradigms of employee behaviour (Masera, 2024) and reshaping workplace structures and dynamics (Paciello, 2024). This study positions AI not merely as a technological tool, but as a multidimensional agent of change that intersects with behavioural, cultural, and ethical aspects of organisational life. By analysing the existing body of academic literature, this framework examines to examine how AI impacts human-machine collaboration, influences individual and collective behaviour, and contributes to the redefinition of safe and respectful work environments.

Foundations in the literature on AI, employee behaviour and organisational transformation

AI has long been examined as a driver of efficiency and automation across industries. Early literature focused predominantly on its capacity to streamline operations, reduce human error, and enable data-driven decision-making processes (Kaggwa et al., 2024). Classic studies by Brynjolfsson and McAfee (2012) identified AI as a catalyst for productivity enhancement, particularly in sectors where data processing, customer service, and logistics are central. These findings are echoed in recent empirical work (Adenekan et al., 2024), confirming AI's functional utility in optimising repetitive and operational tasks.

From a theoretical perspective, the Technology Acceptance Model (TAM) provides insight into the factors that shape the adoption of AI systems in the workplace, highlighting the role of perceived usefulness, ease of use, and user attitudes (Mogaji & Dimingu, 2024). Complementing this, Davenport and Kalakota (2019) have argued that AI is best understood not solely as a replacement for human labour, but as an augmentation tool that enhances task performance through collaborative interaction between humans and intelligent systems.

While efficiency remains a dominant theme, the literature has increasingly acknowledged the behavioural and emotional implications of AI for employees. Issues such as trust in algorithmic systems, perceived fairness, and the influence of AI on job satisfaction and autonomy are gaining prominence (Loo et al., 2024). However, these aspects are still less developed than the technical and operational dimensions of AI implementation.

Emerging perspectives on the ethical, psychosocial and cultural dimensions of AI integration

Recent developments in AI — particularly in generative AI (R. P. Gupta et al., 2024), natural language processing, machine learning (Iyelolu et al., 2024), and predictive analytics — mark a transition from task automation towards human-machine augmentation and behavioural influence. These technologies do not merely replicate human actions but increasingly emulate cognitive functions such as learning, reasoning, and decision-making (Gignac & Szodorai, 2024). This expanded cognitive capacity enables AI systems to influence how employees interact, communicate, and perform, thereby shaping organisational culture and behavioural norms.

The present bibliometric study identifies a shift in the literature towards examining AI's role in shaping employee experience, psychological well-being, and perceptions of safety and inclusion in the workplace. AI-mediated systems have been shown to affect employee trust, engagement, and collaboration (Tahir et al., 2024), reflecting a growing interest in the psychosocial dimensions of technology adoption. This trajectory is reinforced by research into the Fourth Industrial Revolution, which highlights how structural and technological change is transforming employees' sense of purpose, identity, and self-esteem (Strazzullo, 2024).

Moreover, the bibliometric analysis uncovers an emerging convergence between discussions on AI and those on ethical governance, transparency, and digital leadership. Ethical concerns are no longer peripheral; they are increasingly recognised as integral to the design and implementation of AI systems. Transparency in AI decision-making (Sadeghi, 2024), data protection (Saura et al., 2024), and the preservation of employee autonomy are now core considerations in building human-centred workplaces.

What distinguishes this study from previous literature is its emphasis on mapping the conceptual landscape that connects AI to employee behaviour within the framework of safety, inclusion, and organisational well-being. Using VOSviewer, this research visualises the thematic clusters and international contributions that define the current state of knowledge. The analysis reveals that while AI offers opportunities for operational innovation and behavioural enhancement, its successful integration depends on the alignment between technological systems and the social fabric of the organisation.

The contribution of this study thus lies in advancing a more holistic understanding of AI as a socio-technical phenomenon — one that affects not only what employees do, but how they feel, relate, and flourish within evolving work environments.

The introduction of AI into the workplace has prompted a profound reconfiguration of employee behaviour and organisational dynamics (Alrakhawi et al., 2024). The increasing automation of operational tasks has given rise to more versatile skill sets, a decline in routine functions, and, in many cases, a reduction in occupational risks (Alajmi et al., 2023). As AI systems are integrated into everyday workflows, employees must continuously adapt (Babashahi et al., 2024), develop new technical competencies, and acquire knowledge specific to human–machine interaction (Abulibdeh et al., 2024). This shift has positioned employees in more strategic, creative, and problem-solving roles, enhancing the demand for higher-order cognitive skills such as critical thinking and innovation (de Lucas Ancillo et al., 2022).

However, these functional changes are accompanied by significant psychological implications (B.-J. Kim et al., 2024). The perception that AI might displace or diminish human roles often generates uncertainty, anxiety (J. J. H. Kim et al., 2025), and resistance among employees, particularly in organisations where transparency and communication are lacking. As P. Li et al. (2023) suggest, reluctance can impede the successful adoption of digital tools. Nonetheless, when organisations invest in structured communication, inclusive training programmes, and participatory implementation strategies, AI systems tend to be perceived as supportive tools that amplify, rather than replace, human capacity (Colther & Doussoulin, 2024; Ghamrawi et al., 2024). This shift in perception can foster a more collaborative (Joy et al., 2024), resilient, and optimistic attitude toward innovation (Padilla-Rivera et al., 2024), thereby strengthening psychological safety in the workplace.

Workplace collaboration has also been transformed by the interaction between humans and intelligent systems. As Riani (2024) observes, AI is increasingly embedded into work teams, supporting real-time data analysis and decision-making (Malik & Kumar, 2024). These dynamics require enhanced interpersonal and digital communication skills to facilitate seamless cooperation between human agents and algorithmic entities (Bobitan et al., 2024). Notably, the integration of AI should not compromise inclusivity or reinforce existing organisational hierarchies. Instead, it should support participatory culture, employee agency, and fair access to opportunities.

With respect to employee engagement and satisfaction, AI may serve as a facilitator by reducing administrative burden and enabling individuals to focus on tasks that are more intrinsically rewarding and aligned with personal development (Passalacqua et al., 2024; Sarioguz & Miser, 2024). Nevertheless, if benefits are unevenly distributed or perceived as favouring certain roles or departments, this may generate internal tensions or undermine trust in management (Capraro et al., 2024). Thus, ethical leadership and clear, transparent policies are essential to ensure that AI supports equity and cohesion in the workplace (Parekh, 2024).

AI's impact on workplace behaviour is equally significant. _Automation of standardised processes makes for greater operational agility (Lo et al., 2024) and a shift in human focus toward tasks that demand analytical thinking and creative problem-solving (Khalifa & Albadawy, 2024). However, increased reliance on algorithmic recommendations introduces challenges related to overdependence, data interpretation, and decision validation (Gouripur, 2024; Paramesha et al., 2024). These

developments necessitate the cultivation of a new literacy in critical data analysis and ethical reflection, ensuring that decisions align not only with organisational goals but also with employee rights and well-being (Olatunde et al., 2024; Robertson et al., 2024).

Team structures and role distribution have also evolved. AI facilitates task optimisation, with intelligent systems delegating mechanical or technical processes to machines, while assigning to humans those functions that require empathy, judgement, and adaptability (Callari et al., 2024). This hybrid model can enhance productivity (Katuk et al., 2024) and human–machine synergy (Vetrivel et al., 2024) but also requires the upskilling of employees to ensure they are equipped to work effectively in AI-mediated environments (Ntoa, 2024). Such transformations must be supported by inclusive reskilling strategies to avoid digital marginalisation or occupational stratification.

AI further redefines how performance is evaluated. Monitoring tools based on AI can provide precise and objective metrics to assess individual and team contributions (Nawaz et al., 2024). These tools enhance accountability and transparency in appraisal and promotion processes. They also raise, though, critical questions about privacy, autonomy, and the ethics of surveillance in the workplace (Reis et al., 2024). For AI to contribute to a safe and respectful workplace, governance frameworks must guarantee that algorithmic monitoring respects employee dignity and does not result in overreach or coercive practices (Sadeghi, 2024; Saura et al., 2024).

From a managerial innovation perspective, the integration of AI marks a transition from automation to augmentation (Jiao et al., 2025) and co-creation. Generative AI, machine learning, and natural language processing not only execute tasks, they adapt to dynamic contexts and generate new solutions (Costa-Climent et al., 2024; Sengar et al., 2024). This opens up possibilities for anticipatory management, predictive risk mitigation, and the reinvention of operational models (Aldoseri et al., 2024). Robust change management frameworks must be employed to emebed such innovation effectively into the organisational fabric. The Technology Acceptance Model (Saeidi et al., 2024) and similar constructs highlight that perceived usefulness, trust, and ease of integration remain essential to long-term success. At the same time, collaborative innovation — the dynamic interaction between human creativity and algorithmic capacity (O'Toole & Horvát, 2024)— redefines how value is generated and how inclusive, ethical innovation can be achieved (Boussioux et al., 2024; Calzada, 2024).

The increasing use of artificial intelligence in performance evaluation has generated a set of normative challenges that extend beyond technical efficiency or procedural fairness. At the core of these concerns lie the implications of algorithmic decision-making in contexts where decisions regarding appraisal, promotion, and disciplinary action may be partially or fully automated. Although algorithmic tools promise enhanced objectivity and consistency, they also risk obscuring accountability when outcomes are influenced by opaque decision-making processes. This opacity, often referred to as the "black box" problem (Kanzola et al., 2024), limits the ability of employees to challenge or understand the criteria used in their assessment, thereby weakening procedural justice and organisational legitimacy.

The ethical boundaries surrounding the collection, processing, and interpretation of employee data in performance analytics are closely linked to these concerns. AI-based monitoring systems often rely on vast quantities of behavioural and biometric data to infer productivity or engagement levels, including keystrokes, time spent on tasks, facial expressions (Wang et al., 2024), or tone of voice. Without clear consent mechanisms and robust data minimisation protocols, such practices may infringe upon fundamental rights to privacy and bodily autonomy. Furthermore, questions of proportionality and purpose limitation arise when data are repurposed beyond their initial scope, e.g., for predictive modelling of employee retention or emotional stability. This places organisations at risk of breaching data protection principles enshrined in regulations such as the General Data Protection Regulation (Bernardo et al., 2024) (GDPR).

The normative landscape is becoming increasingly complex with the introduction of sector-specific regulatory instruments, most notably the **European Union Artificial Intelligence Act (AI Act)** (Laux et al., 2024). This legislation introduces risk-based classifications of AI systems, placing workplace surveillance and performance management tools in the high-risk category when they significantly affect people's rights or employment conditions (Pusztahelyi & Stefán, 2024). Under this framework, organisations deploying such systems must adhere to strict requirements, including human oversight, transparency, and documentation obligations. Failure to comply may result not only in legal sanctions but also in reputational damage and a breakdown of trust within the organisation.

Organisations must, therefore, address these emerging legal-ethical risks proactively by embedding principles of algorithmic transparency, explainability, and contestability into the design and deployment of AI systems. Moreover, establishing internal ethics committees (Masso et al., 2025), conducting impact assessments, and fostering employee participation in the governance of AI tools can serve as effective safeguards. Explicitly integrating these considerations into research and practice would enhance ethical compliance, and cultivate a work environment where trust, dignity, and human agency are preserved in the face of technological advancement.

The impact of AI on employee behaviour (Liu et al., 2024) and organisational structures (Elkahlout et al., 2024) is both profound and complex. While it can catalyse for efficiency, creativity, and psychological empowerment, it also introduces ethical, emotional, and cultural challenges. Organisations must navigate this transformation with care, placing employee well-being (Y. Yin et al., 2023), fairness, and respect at the centre of their digital strategies. Only then can the workplace evolve into a truly safe, inclusive, and ethically sustainable environment.

Methodology

The bibliometric study has been conducted following a rigorous methodological protocol.

The selected timeframe of 2020–2025 for this bibliometric analysis is justified by significant advancements in AI and its practical implementation in workplace settings. During this period, AI technologies such as natural language processing, deep learning, and intelligent automation have transformed workflows and human-machine interactions. These developments are particularly relevant to understanding AI's role in shaping employee behaviour and fostering safe, respectful workplace environments.

Study design

It was decided to use the Scopus database exclusively as the primary source of bibliographic information. This was—based on its extensive coverage, high-quality metadata, and methodological robustness for bibliometric analyses. Our systematic literature review approach is complemented by a quantitative bibliometric analysis, employing methods such as Co-occurrence analysis, Co-occurrence – Index Keywords, and Citation analysis by Country to examine patterns of scientific production and collaboration among countries (Lin et al., 2024).

Three methods were employed:

- **Co-occurrence analysis**: Using VOSviewer, we examined the frequency and strength of keyword co-occurrence to identify thematic clusters and conceptual linkages within the field (Callon et al., 1983).
- **Co-occurrence of indexed keywords**: Network visualisation was applied to indexed terms, leveraging total link strength (TLS) metrics to highlight key areas of inquiry and their interconnections (Rip & Courtial, 1984).
- **Citation analysis by country**: Citation data were aggregated by author affiliation to assess the geographical distribution of scholarly

influence, integrating both total and normalised citations (Schubert & Braun, 1986).

Bibliometric analysis is especially well-suited to this research objective, as it enables a large-scale, systematic mapping of knowledge production in the field of AI and organisational behaviour. Unlike qualitative methods, it offers replicable, objective insights into the intellectual landscape, thematic evolution, and emerging trends shaping academic discourse.

Search strategy

Searches were conducted (Kraus et al., 2020) in the Scopus database, looking for the following words:

artificial AND intelligence AND digitalisation AND innovative AND knowledge AND management AND employee AND behaviour AND workplace

This search is designed to locate academic literature, articles, or research that address the relationship between AI and behaviour in the workplace. Using "*artificial intelligence*" or "*AI*" focuses the search on studies related to this emerging technology. Combining these terms with "*employee behaviour*" or "*workplace*" limits the results to research that looks at how AI influences the attitudes, actions and dynamics of employees in their workplaces.

This search aims to obtain empirical studies or theoretical reviews that explore how AI affects aspects such as job satisfaction, employee engagement, collaboration, motivation, knowledge and well-being in the workplace (Gómez Gandía et al., 2025). It allows for the identification of research on organisational and cultural dynamics related to AI, including innovation, digital transformation, the development of new skills (Stephany & Teutloff, 2024), and the interaction between humans and machines. This search is also useful for finding research that examines the ethical, social, and economic effects of AI in the workplace, addressing issues such as job insecurity (B.-J. Kim & Kim, 2024), technological burnout, and data privacy.

The search might also yield articles that analyse case studies or theoretical models related to the integration of AI in organisations, including its influence on work practices and organisational structure.

This search is well suited to seeking a deep and multidimensional understanding of the impact of AI on human behaviour within work environments.

Analysis and results

After analysing the 777 articles found in the database, Vosviewer produced 18 terms within the threshold of the 3280 keywords found. The graphical representation shown is:

The term *workplace*, understood as the physical, virtual, and social space in which professional activities are carried out, is directly interconnected with many of the key nodes in the graph—particularly those related to digital transformation, artificial intelligence, sustainability, and human talent management.

By delving deeper into the distribution of keywords, one can discern the emergence of distinct research focal points that shed light on both the breadth and depth of scholarly discourse within this domain. These focal points, visualised as clusters, not only capture the diversity of conceptual approaches but also underscore the interwoven nature of contemporary inquiries.

Digital transformation is redefining the workplace through the adoption of emerging technologies, including artificial intelligence, the Internet of Things, and automation. Closely linked to Industry 4.0 and human resource strategies, this shift is altering organisational structures, leadership models, and skill requirements, while reshaping both physical and virtual workspaces. In parallel, the integration of sustainability and digitalisation is promoting ethical and resilient work environments, aligned with inclusive employment practices and the Sustainable

Development Goals. Moreover, artificial intelligence is transforming employment by automating tasks and introducing new competency demands, particularly in knowledge-intensive sectors. As a result, the workplace is evolving into a hybrid space that necessitates digital proficiency, socio-emotional skills, and adaptive leadership to ensure effective human–AI collaboration.

From a bibliometric perspective, this map suggests that current research on digital transformation and artificial intelligence is strongly influenced by contextual factors (such as the pandemic), organisational challenges (human resource management and leadership) and global frameworks (sustainability). Furthermore, the emergence of the term systematic literature review as a relevant node points to the consolidated nature of these topics and their maturity as fields of study.

Another analysis that can be carried out is co-occurrences based on index keywords. This allows the identification of the most significant relationships between the key terms used in an academic or bibliometric dataset. This bibliometric technique makes it possible to identify the most relevant thematic interrelationships in a scientific corpus, revealing latent structures of knowledge through the frequency and simultaneity of appearance of key terms in titles, abstracts or keywords of the documents analysed.

The output provided by the Vos Viewer is as follows:

The analysis identifies three key thematic areas that structure scholarly debate on the transformation of the workplace: digitalisation, sustainability, and artificial intelligence. These dimensions are reshaping work environments from technological, organisational, and human-centred perspectives. The first theme highlights the role of digital transformation and Industry 4.0 in redefining workplace structures through automation and the integration of digital platforms. The second focuses on sustainability and innovation, emphasising the shift towards resilient and socially responsible workspaces, particularly in response to global crises such as the COVID-19 pandemic. The third explores the impact of artificial intelligence on employment, performance, and ethics, calling for a hybrid workplace model that balances technological advancement with human values. Together, these themes point to a structural transformation of the workplace, requiring interdisciplinary approaches to ensure inclusive, adaptive, and future-oriented work environments.

Finally, we analyse citations by country to visualise the impact and influence of research produced across different nations, based on the number of citations received by articles affiliated with institutions in those countries. This approach enables us to identify of global patterns of scientific collaboration and academic leadership. It also reveals how geographical, collaborative, and thematic dynamics shape the production and circulation of international knowledge about the workplace is shaped by geographical, collaborative, and thematic dynamics.

The output of this analysis is

The analysis of the map of citation - countries in Fig. 3 reveals an uneven geographical distribution in workplace-related research, with the United States, the United Kingdom, China and India emerging as key centres of scientific influence. The UK stands out for its focus on digital leadership and work organisation, while the US and Australia lead applied studies on digital technologies and hybrid employment models. In parallel, Asian countries such as India, China, and Malaysia are emerging as new academic hubs, particularly in relation to automation, artificial intelligence, and organisational digitalisation—highlighting a growing geographical and epistemological diversification of knowledge production.

This global expansion reflects a reconfiguration of the field, in which the workplace is studied through multiple lenses depending on geopolitical context. In Anglophone countries, research tends to prioritise organisational innovation and sustainability; In Asia, it focuses on technological efficiency and employment transformation; In continental Europe, a more normative perspective prevails, emphasising labour policies and responsible automation. Collectively, these approaches provide a transnational and complementary understanding of the

workplace, which is essential for addressing the challenges of work in the digital age.

Results: thematic interpretation of bibliometric clusters

The co-occurrence maps generated by VOSviewer (Figs. 1 and 2) reveal three dominant conceptual clusters structuring contemporary research on artificial intelligence and the workplace: (i) digitalisation and human-AI collaboration, (ii) sustainability and ethical frameworks, and (iii) performance, behaviour, and leadership. These clusters serve as the analytical foundation for the following subsections, each of which addresses a thematic dimension derived from the bibliometric patterns.

Psychosocial well-being in AI-Mediated work environments

The "well-being" and "job satisfaction" keywords emerged within a cluster focused on digital transformation and work adaptation, closely linked to terms like *surveillance, autonomy*, and *mental health* (TLS > 30). These co-occurrences suggest an evolving scholarly interest in the psychological implications of AI at work. The literature increasingly acknowledges that while automation may reduce repetitive tasks, it also introduces uncertainty, surveillance anxiety, and emotional fatigue. This finding aligns with the recent inclusion of *psychological safety* as a critical node in the cluster, especially in hybrid or digitally intensive settings.

Employee perception, trust and emotional dynamics

A second cluster integrates keywords such as *trust, transparency, engagement*, and *fairness*, reflecting growing concern for the emotional and perceptual responses to AI adoption. These terms are not marginally exhibiting high link strength in relation to *artificial intelligence* and *employee behaviour*, indicating that employee trust in AI systems is now central to the discourse. This cluster underpins the interpretation that emotional reactions—including resistance or detachment—are conditioned by how AI is introduced and explained in organisational settings.

Ethical and inclusive leadership in digital contexts

The third cluster, which centres on *leadership, ethics*, and *inclusion*, intersects conceptually with *human resource management* and *organisational transformation*. Co-occurrence patterns here underscore the shift toward human-centred, digitally literate leadership models. These findings suggest that transformational and inclusive leadership practices are increasingly viewed as enablers of successful AI integration, particularly when they enhance employee agency and safeguard organisational justice.

Organisational culture and adaptation to AI systems

Finally, a fourth group of terms—*organisational culture, change, collaboration*, and *learning*—coalesce around discussions of cultural readiness and adaptive capacity. The frequent appearance of these terms in proximity to *automation* and *AI* (TLS > 25) indicates that culture is seen not merely as a contextual backdrop, but as a moderating factor in AI-related organisational change. Bibliometric evidence supports the view that inclusive, learning-oriented cultures facilitate smoother transitions and reduce behavioural resistance to AI adoption. findings derived from the bibliometric analysis—specifically the co-occurrence of keywords and citation patterns—allow us to address the two core research questions proposed in this study. The discussion below integrates the thematic clusters visualised in Figs. 1 and 2, connecting them to the broader academic discourse on AI and workplace transformation.

Employee behaviour and organisational culture as central themes

The bibliometric maps reveal that *employee behaviour, organisational culture*, and *artificial intelligence* consistently co-occur across a significant portion of the analysed literature. These terms are situated at the
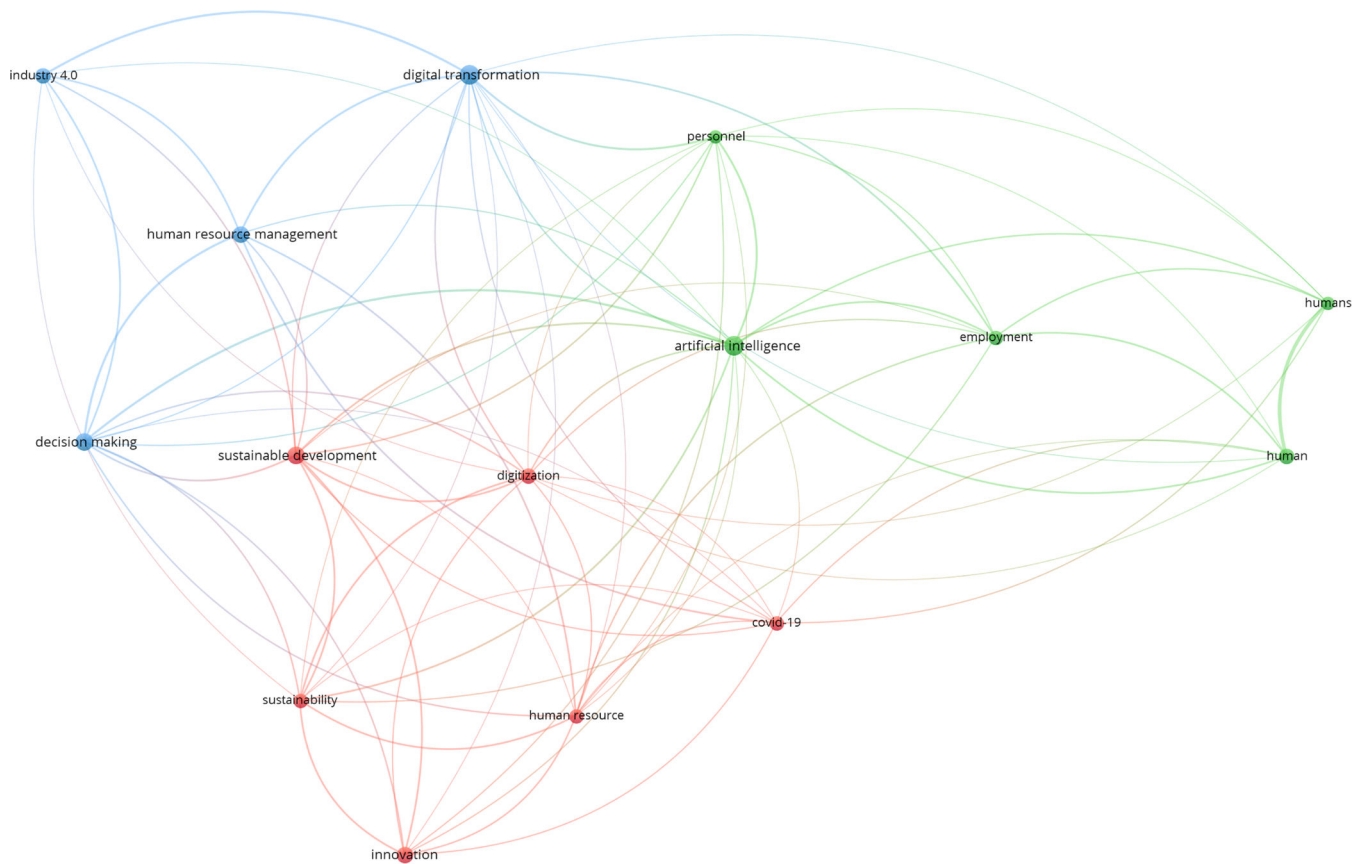
Fig. 1. Map of terms.

intersection of clusters related to *well-being, leadership*, and *inclusion*, confirming that AI is increasingly conceptualised not merely as a technological vector, but as a **catalyst for behavioural and cultural transformation** within organisations.

In this context, the **first research question**—regarding how organisational culture is represented in literature as a factor influencing AI implementation—finds support in the recurring association of terms like *trust, adaptation, ethics*, and *learning culture*. These themes point to a scholarly consensus that successful AI integration requires cultural readiness, psychological safety, and inclusive leadership practices. This supports the theoretical position that organisational culture plays a **moderating role** in shaping employee responses to AI-induced change.

Dimensions of workplace transformation reflected in co-occurrence patterns

The **second research question**, which explores whether academic literature depicts AI as transforming work dynamics and organisational culture, is also validated. Thematic clusters in the co-word analysis point to shifts in *collaboration, job design, skills*, and *digital leadership*. Keywords such as *flexibility, autonomy, automation*, and *hybrid work* indicate that AI is understood as both a **driver of structural reconfiguration** and a trigger of behavioural and emotional adjustments.

While the bibliometric methodology does not allow for causal inference, it does provide robust **evidence of thematic convergence** around how AI influences the nature of work, especially in terms of *task delegation, role evolution*, and *employee engagement*. This confirms that AI's impact is not limited to efficiency metrics but extends to psycho-social and cultural domains.

Interpretation within scholarly discourse

The discussion also reflects broader theoretical debates. For example, the presence of *digital leadership* within the top co-occurring terms signals the field's recognition of the need for **emotionally intelligent, ethical leadership** in AI-mediated environments. This is consistent with models such as *Self-Determination Theory* (Deci & Ryan, 2000), which links autonomy and competence with psychological well-being, and with *transformational leadership theory* (Bass & Riggio, 2006), which emphasises vision, support, and adaptability in managing change.

Similarly, the frequent appearance of terms like *ethics, transparency*, and *inclusion* in the clusters validates that recent scholarly attention has shifted towards **human-centred, values-driven AI implementation strategies**. This shift underscores a growing interest in aligning technological adoption with employee dignity, agency, and long-term organisational sustainability.

Addressing the research questions

The bibliometric evidence obtained through co-occurrence and citation analysis enables us to address the two research questions in a conceptually grounded and methodologically appropriate manner.

RQ1: What are the dominant research themes connecting artificial intelligence, employee behaviour, and organisational dynamics in academic literature?

This question is directly addressed through the identification of thematic clusters in the co-word map (Fig. 1). The prominence and co-location of terms such as *employee behaviour, trust, leadership*, and *organisational culture* confirm the existence of a research axis that frames AI not only as a technological innovation but as a transformative force in workplace relations and structures. The strength of linkage between these concepts, as visualised in the bibliometric network, validates the
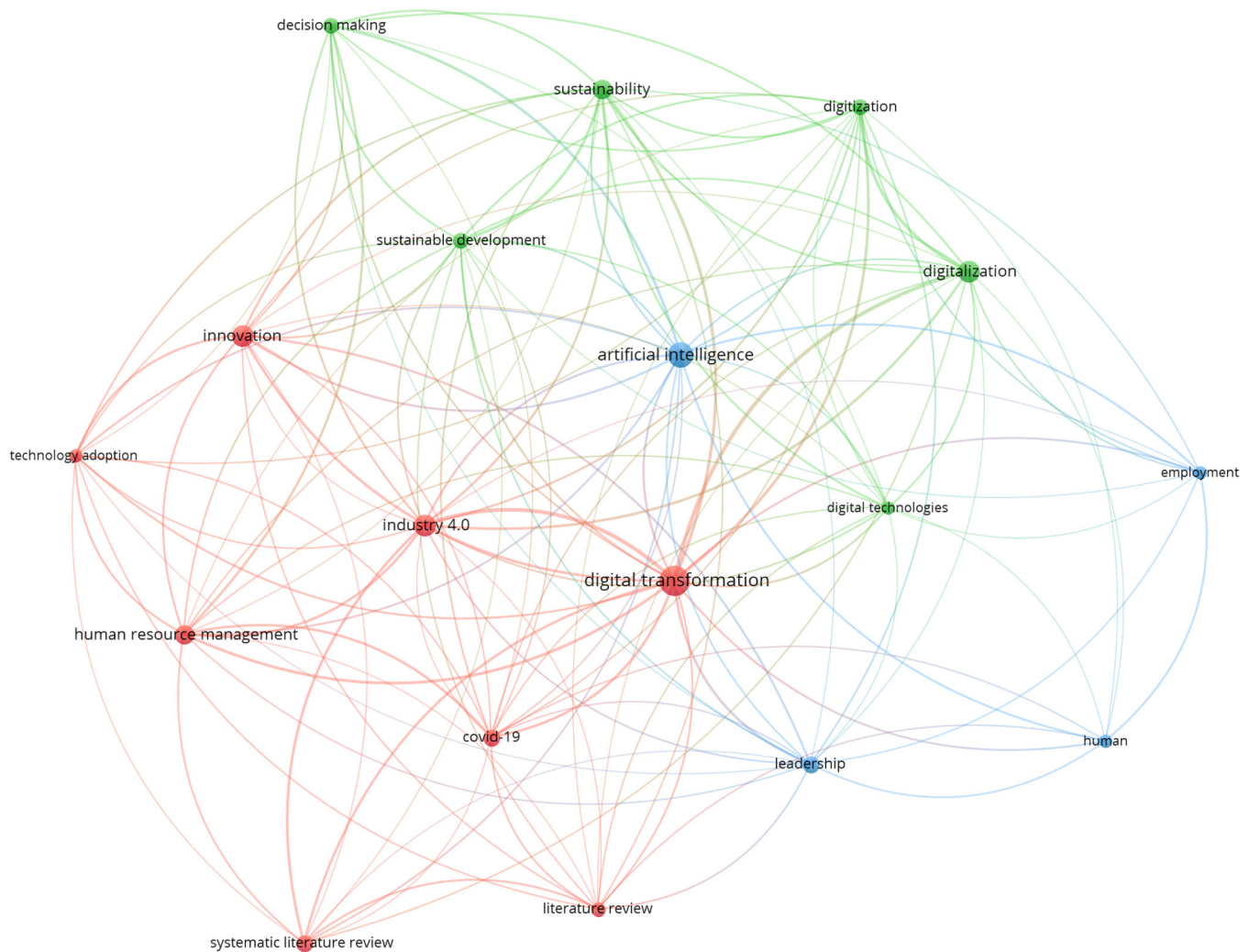
Fig. 2. Map of terms – Index Keywords.

thematic convergence around this triad.

The relationship between AI and engagement is increasingly explored in recent publications, where digital leadership emerges as a mediating force that translates technological potential into human-centred outcomes. Scholars such as Bass and Riggio (2006) have long emphasised the transformative power of leadership in mobilising individuals toward shared goals, and contemporary research has extended these ideas to digital contexts (Shah, 2024), where leadership must also navigate algorithmic systems, data-driven processes, and hybrid work dynamics. In this regard, AI can enhance employee engagement by automating routine tasks, providing personalised feedback, and facilitating knowledge flows — all of which contribute to higher autonomy and perceived competence, in line with the Self-Determination Theory (Deci & Ryan, 2000).

RQ2: How is organisational culture represented and conceptualised in the literature on AI-enabled transformation of the workplace?

This question is answered by analysing the proximity of terms such as *organisational culture, adaptation, ethics*, and *learning* within the co-occurrence map. Their frequent appearance in clusters associated with *AI implementation, employee engagement*, and *digital leadership* suggests that organisational culture is not treated as a background variable but as an active component in shaping AI integration. The literature conceptualises culture as both a facilitator and a reflective space for managing technological change, confirming its central role in the discourse.

While bibliometric methods do not permit causal or experimental validation, they are well-suited for mapping the intellectual structure of

a field and identifying recurring associations. As such, the answers provided are consistent with the descriptive and exploratory nature of the methodology and grounded in empirical visualisations.

Organisational culture mediates how these dynamics unfold. Cultures characterised by openness, continuous learning, and trust are more likely to absorb AI-driven change productively. In contrast, rigid, hierarchical cultures may exacerbate employee resistance, inhibit innovation, and entrench exclusionary practices. This aligns with the findings of recent bibliometric studies (Benabou & Touhami, 2025; P. P. Gupta et al., 2024), which indicate that AI's success in transforming the workplace is conditional upon cultural readiness and the ethical alignment of technological strategies with human-centred values.

This discussion confirms that AI has the capacity to enhance employee experience and organisational performance when implemented within frameworks that prioritise ethical leadership, employee well-being, and cultural inclusivity. However, these benefits are not automatic. They require a systemic rethinking of how technologies are integrated into the social and emotional architecture of the workplace. In this regard, future research should continue to examine the relational, affective, and cultural dimensions of AI adoption, moving beyond deterministic narratives and towards more nuanced, multidisciplinary understandings of organisational transformation in the digital age.

The research question is also supported by the thematic structure derived from the bibliometric maps, where the interplay between leadership, well-being, technology, and human resource practices forms one of the central clusters of current research. As such, the validation of
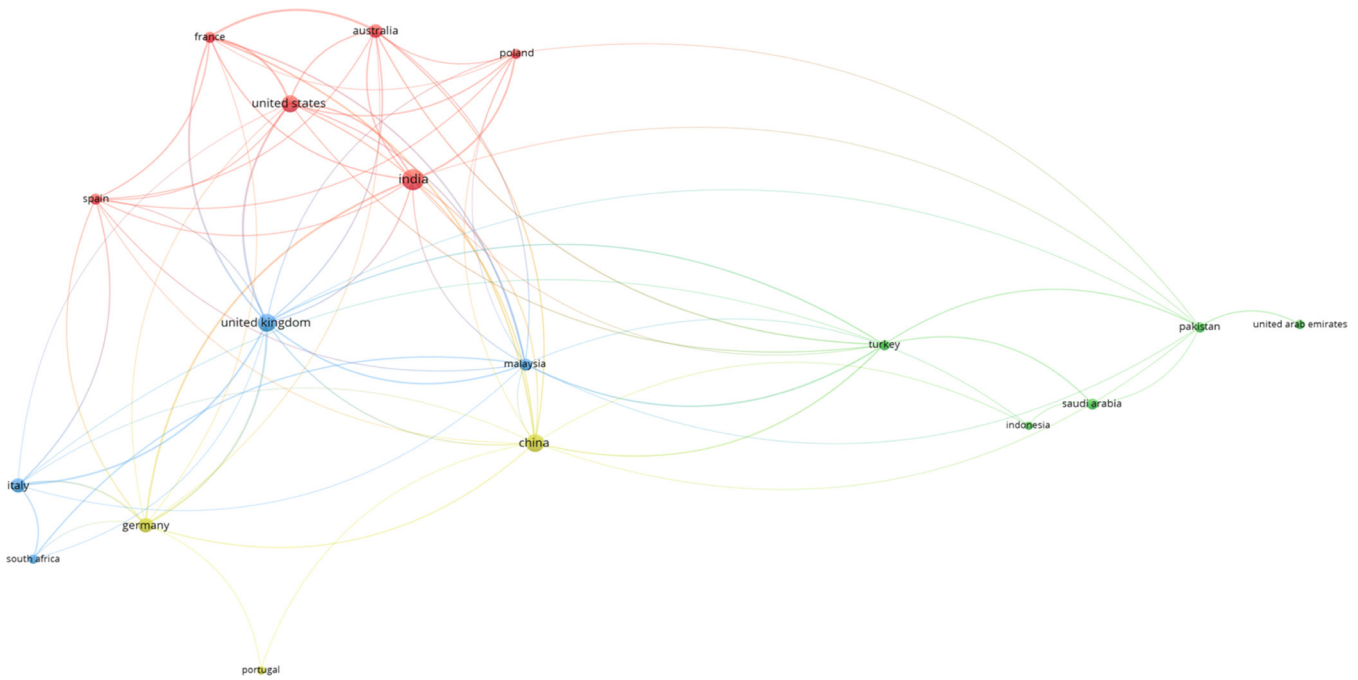
Fig. 3. Map of Citation – Countries.

this research question not only aligns with existing theoretical models but also responds to observable empirical trends in how organisations are adapting to AI.

Considering this, the research question is both testable and relevant, offering a nuanced framework for understanding how the transformative power of AI is contingent upon the interplay between leadership practice and organisational readiness to protect and promote employee well-being. It is not the presence of AI itself that fosters engagement, but rather the way it is led, framed, and embedded within the social and cultural fabric of the workplace.

Theoretical context and future research directions

The bibliometric analysis reveals that the current research landscape at the intersection of artificial intelligence, employee behaviour, and organisational culture is still evolving, with thematic clusters that are both emerging and fragmented. While certain themes—such as *automation, leadership, ethics*, and *employee trust*—have gained consistency across the literature, the field lacks a unified conceptual framework that integrates technological transformation with behavioural and cultural outcomes.

From a theoretical standpoint, the analysis highlights a growing shift from technology-centric models towards more **human-centred perspectives**. This is evidenced by the rising co-occurrence of terms such as *inclusion, psychological safety*, and *digital leadership*, indicating a broader academic recognition that AI implementation is not merely technical, but deeply socio-organisational in nature.

However, certain areas remain underexplored. For example, despite the emphasis on leadership and ethics, the literature still lacks systematic investigations into **how organisational values mediate AI acceptance and impact**. Similarly, while *employee well-being* appears in several clusters, the mechanisms through which AI influences emotional and psychological states at work are not yet fully articulated.

Based on these gaps, we suggest several avenues for future research:

- **Empirical studies** that examine the perceived fairness, transparency, and inclusiveness of AI systems in real workplace settings.
- **Comparative research** across industries or cultural contexts to understand how organisational culture conditions AI integration.

- **Longitudinal designs** to trace how perceptions of AI evolve over time and influence trust and performance dynamics.
- **Mixed-method approaches** that combine bibliometric mapping with qualitative interviews or case studies, in order to bridge thematic patterns with lived organisational experience.

By combining these future directions with ongoing bibliometric monitoring, scholars may move toward a more integrated and practice-relevant understanding of AI's role in transforming the social fabric of work.

Theoretical contributions

This study offers several theoretical contributions to the growing body of literature on artificial intelligence (AI), employee behaviour, and organisational transformation in the digital era.

First, it foregrounds the psychosocial dimension of AI implementation by positioning *employee well-being* not as a peripheral issue but as a central outcome influenced by the way AI systems are introduced and governed. This conceptualisation aligns with the *Self-Determination Theory* (Deci & and Ryan, 2000), which emphasises autonomy, competence, and relatedness as core components of psychological health. It also supports contemporary critiques (Parent-Rocheleau & Parker, 2022; Pfeffer, 2018) that warn of the risks to employee well-being in digitally transformed but poorly managed workplaces.

Second, the study advances *digital leadership theory* by conceptualising leadership in AI-mediated workplaces not only as a technical or managerial role, but as a **relational and ethical function** that shapes employee perceptions, trust, and engagement. This extends the foundational insights of *transformational leadership* (Bass & Riggio, 2006) and *inclusive leadership* (Yukl, 2012), highlighting the importance of emotional intelligence, transparency, and participatory decision-making in navigating technological disruption

Third, the findings contribute to the field of *organisational culture and change management* by evidencing that cultural readiness functions as a moderating variable in the behavioural outcomes of AI integration. Drawing from *Schein's model of organisational culture* (Schein, 2010) and *Kotter's theory of change* (Kotter, 1996), the study reinforces the notion that values, norms, and interpretive frameworks shape how employees

respond to AI, especially in contexts of increased complexity and uncertainty

Fourth, the study makes a methodological contribution by using co-occurrence, indexed keyword and citation analysis to map the intellectual structure and thematic gaps in the field. Building on the work of van Eck & Waltman (2010) and Porter & Rafols (2009), the visualisation of bibliometric patterns supports the call for more interdisciplinary and integrative approaches to understanding AI as a socio-technical phenomenon—one that interweaves technological, psychological, and cultural components of workplace transformation

Finally, the bibliometric dimension of the study contributes methodologically to the theoretical mapping of the field. By visualising co-occurrence patterns and national citation clusters, the research reveals the epistemological fragmentation and geographic differentiation in how AI, workplace dynamics, and employee behaviour are conceptualised. This approach builds on the work of van Eck and Waltman (2010), whose VOS viewer software provides a systematic method for detecting latent structures in large academic corpora. Furthermore, Porter and Rafols (2009) highlight the increasing interdisciplinarity of research fields—an insight that supports the call for more integrative, cross-disciplinary frameworks in studying the human impact of AI in the workplace.

Fifth, the study reveals a theoretical convergence around three major axes emerging in the literature:

1. Digital transformation and skills adaptation,
2. Ethics and governance of AI in human-centred workplaces, and
3. Psychological safety and leadership under algorithmic management.

These axes are not only grounded in the thematic clusters identified via bibliometric analysis (Figs. 1 and 2), but also supported by citation trends pointing to a growing scholarly interest in *inclusive innovation, algorithmic transparency*, and *employee empowerment in hybrid work models*

Together, these contributions offer a more holistic and human-centred theoretical foundation for understanding the role of AI in shaping modern workplace behaviour, and they lay the groundwork for further empirical and conceptual exploration in this field.

Conclusions

This study offers a bibliometric and thematic exploration of how artificial intelligence (AI) is conceptualised in relation to employee behaviour, well-being, and organisational transformation. The results indicate that the academic literature increasingly frames AI as exerting a **multidimensional influence** on workplace dynamics. Beyond task automation, AI is associated with the **strategic redefinition of employee roles and required competencies** (Chuang, 2024), fostering a transition towards creative, high-value tasks and emphasising adaptability and lifelong learning as essential capabilities for long-term employability (Mossavar-Rahmani & Zohuri, 2024).

The bibliometric mapping also reveals that AI is linked to evolving leadership and management paradigms, promoting more data-driven, participatory, and human-centred approaches (Shah, 2024). These conceptual associations are accompanied by complex and sometimes ambivalent representations of the emotional and psychological effects of AI in the workplace. While the literature highlights its potential to enhance engagement and job satisfaction, it also draws attention to emerging risks such as burnout, surveillance-related anxiety, and job insecurity (Davila-Gonzalez & Martin, 2024; Finstad et al., 2024). This duality underscores the importance of proactive organisational strategies that support mental health and foster cultures of trust, fairness, and inclusion.

Furthermore, the co-occurrence analysis suggests that AI is increasingly positioned in the literature as a catalyst for cultural transformation. Themes related to *transparency, innovation*, and *sustainability*

appear in prominent clusters (Abulibdeh et al., 2024), reinforcing the idea that AI facilitates more agile, adaptive, and learning-oriented cultures (Kulkov et al., 2024). However, the bibliometric evidence also indicates that the success of AI integration—as conceptualised in the academic discourse—depends on an organisation's ability to navigate technological, ethical, and social change (Selten & Klievink, 2024).

From a theoretical perspective, this study contributes to an emerging body of work that reframes AI as a **socio-organisational phenomenon**, rather than merely a technological instrument. The findings highlight the salience of employee well-being, grounded in *Self-Determination Theory*, as a key outcome contingent on how AI systems are introduced and managed. They also extend leadership theory by integrating *transformational, digital*, and *inclusive* leadership frameworks that foreground empathy, ethics, and trust. In terms of organisational culture, the analysis confirms that cultural readiness—drawing on the work of *Schein* and *Kotter*—is conceptualised as a **moderator** in AI-related behavioural and structural changes. In addition, the use of bibliometric mapping demonstrates the value of this method for identifying conceptual convergence, thematic gaps, and interdisciplinary linkages that inform future theoretical development.

In terms of practical relevance, the study provides insights that may inform **leadership development, HRM practices, and change management** in AI-driven organisations. Practitioners are encouraged to develop implementation strategies that are not only technologically efficient and innovative, but also ethically aligned and inclusive. This includes investing in leadership models that combine digital competence with emotional intelligence, and cultivating organisational cultures that prioritise learning, transparency, and psychological safety.

Nevertheless, the generalisability of these insights—drawn from global academic literature—may vary across sectors and cultural settings. Organisational structures, legal frameworks, and technological maturity differ between regions, particularly between Western and non-Western contexts. Therefore, care must be taken when extrapolating these patterns to environments where AI adoption is nascent or where cultural expectations regarding autonomy, leadership, and surveillance diverge. Future studies should address these contextual factors through comparative, cross-cultural analysis.

Ultimately, AI is widely represented in the literature as holding the potential to reshape work in ways that enhance both organisational performance and human flourishing. Yet this potential is conditional: it depends on ethical stewardship, inclusive design, and the consistent alignment of innovation with values such as dignity, fairness, and sustainability. The bibliometric evidence gathered in this study supports the view that, when implemented thoughtfully, AI can not only transform how work is organised, but also enrich its meaning and human value.

Limitations

While this study offers a robust bibliometric and thematic exploration of the literature on AI and workplace transformation, several limitations must be acknowledged.

First, the analysis is inherently shaped by the scope and parameters of the Scopus database, which—despite its breadth—may exclude relevant publications indexed elsewhere. This affects the comprehensiveness of the dataset and may result in the underrepresentation of certain geographic regions or non-English language research.

Second, bibliometric techniques, particularly co-occurrence and keyword mapping, are designed to detect associative patterns, not causal relationships. Therefore, the connections identified between terms such as *AI, employee behaviour*, and *organisational culture* reflect thematic proximity in the literature rather than empirically verified linkages. While we have used theoretical frameworks to interpret these clusters, such interpretations remain conceptual and exploratory.

Third, the use of indexed keywords and co-word analysis entails a degree of abstraction. Keywords are often assigned by authors or

databases without standardised taxonomy, which may lead to inconsistencies in representation. Similarly, the choice of visualisation parameters in VOSviewer (e.g., minimum occurrence thresholds) can influence which terms are included or excluded from the maps.

Finally, the citation analysis by country highlights patterns of scientific influence, but it does not account for qualitative differences in research focus or theoretical perspectives between regions. As such, conclusions drawn from citation volumes must be contextualised within broader academic and institutional ecosystems.

These limitations suggest that while bibliometric analysis is valuable for mapping knowledge domains, it should ideally be complemented by qualitative or mixed-method approaches in future research.

Future research directions

The thematic patterns identified through the bibliometric analysis suggest several promising avenues for future inquiry. The consistent co-occurrence of concepts such as *psychological safety, AI ethics, employee engagement*, and *leadership* highlights their conceptual relevance in the academic discourse. However, their interaction within organisational contexts remains underexplored from an empirical perspective. Future research should aim to investigate how these constructs operate in practice, particularly during the design and implementation phases of AI systems.

Another direction involves the exploration of cross-cultural and sector-specific differences in how AI is perceived and applied. The citation analysis by country shows uneven geographic distribution of influence, with significant representation from Western academic institutions. This points to the need for comparative studies that examine how local regulatory frameworks, industrial maturity, and cultural values shape expectations around trust, surveillance, and technological adaptation in AI-integrated workplaces.

A third area for development lies in longitudinal research. The bibliometric data reveals a dynamic and rapidly evolving thematic structure, particularly around concepts such as *hybrid work, reskilling*, and *algorithmic decision-making*. Tracking how these themes unfold over time could provide valuable insights into the organisational learning processes and behavioural shifts associated with successive stages of AI adoption. Longitudinal studies would also help to identify delayed or cumulative effects on workplace culture and employee well-being.

Lastly, future studies could enrich the current macro-level perspective by incorporating qualitative or mixed-method approaches. While bibliometric analysis is effective for detecting conceptual structures and gaps, it offers limited insight into lived experiences and micro-level dynamics. Integrating interviews, ethnographies, or in-depth case studies would help contextualise the patterns observed in this study and offer a more nuanced understanding of how AI is negotiated, interpreted, and embedded within organisational practices.

CRediT authorship contribution statement

José Andrés Gómez Gandía: Writing – review & editing. **Antonio de Lucas Ancillo:** Writing – review & editing. **María Teresa del Val Núñez:** Writing – review & editing.

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