A bibliometric review on digital inclusion and inequalities at work: Scope and future perspectives

Mashala L. Yusuph[1*]
Lazaro A. Kisumbe[2]
John W. Kasubi[3]

[1]m_lameck@yahoo.com

[1,2,3]The Local Government Training Institute, Tanzania

Recommended Reference: Yusuph, M. L., Kisumbe, L. A., & Kasubi, J. W. (2026). A bibliometric review on digital inclusion and inequalities at work: Scope and future perspectives. *African Quarterly Social Science Review, 3*(2), 298–314. https://doi.org/10.51867/AQSSR.3.2.28

ABSTRACT

The fast spread of digital technologies, artificial intelligence (AI), and algorithmic management systems has redefined modern workplaces, casting important directives on digital inclusion and the new forms of inequalities in the workplace. As much as digital transformation brings efficiency, innovation, and new jobs, it is a source of increased inequalities in terms of skills, gender, access, and algorithmic bias. Although there is an increase in the scholarly focus, the intellectual framework and developmental path of this field of research are still in pieces. The proposed study is thus an attempt to identify the scope, development, and future of the field of digital inclusion and inequalities in the workplace by a systematic literature review. The research is based on the technology acceptance theory, the digital divide theory, and the sociotechnical systems theory, all of which describe the individual adoption patterns, the structural gaps in access and results, and the interplay between the technological systems and the organizational settings. The major source of data was the Scopus database. Based on the PRISMA protocol, 303 relevant documents were identified, screened and analyzed in VOSviewer software to conduct citation, co-citation and keyword co-occurrence analysis. The results reveal that there has been a marked increase in publications, especially since 2020. The field has an intellectual structure around important themes such as AI adoption, digital skills, engagement at the workplace, gender disparities, digital health, and algorithm governance. The findings also indicate the conceptualization of the individual-level technology acceptance models to the structural and institutional levels of inequality, inclusion, and workforce sustainability. The research has a contribution to theory because it combines isolated views into a harmonious intellectual map and points out new research frontiers. These results highlight the necessity of the inclusive digital policy, reskilling based on target actions, and ethical AI regulation objectives to avoid the further expansion of disparities in the workplace.

Keywords: AI Adoption, Digital Competencies, Digital Inclusion, Workplace Inequalities

I. INTRODUCTION

Due to digital transformation, the modern workplace has been radically replaced, introducing changes in the way the employees are allowed access to the opportunities and skills, as well as engage in the life of the organization. Although digital technologies are said to be efficient, flexible, and innovative, they are exerting greater influence on social and economic disparities. Initial research on technology acceptance has shown that demographic and social forces, especially gender and social influence, defined the technology adoption and usage patterns (Venkatesh & Morris, 2000). These background ideas showed that accessibility to and activities within digital systems are not only technical issues but also processes that are embedded in society. With organizations becoming more artificial intelligence (AI)-based, more digital, and more information-based, the issue of digital inclusion and digital inequality has become more pressing and difficult to address.

The new scholarship points out the disruptive but transformative connotation of advanced technologies in organizational contexts. An example is that the adoption of AI has been linked to the necessity of ongoing upskilling and reskilling, which changes the requirements in skills and may exclude those employees who are not digitally skilled (Morandini et al., 2023). Surveys of digital competencies at work also highlight the differences in the readiness of employees to cope with the technological change (Oberlander et al., 2020). Meanwhile, research on the digital divide also shows that there have been consistent disparities in access, literacy, and competence in utilizing digital resources between socioeconomic groups (Hidalgo et al., 2020; Knapp et al., 2011). These differences in the workplace scenario are manifested in the form of unequal access to training, distance working opportunities, and career advancement opportunities that support structural inequalities.

The concept of digital inclusion in the workplace is also related to well-being and occupational health. Online psychological interventions have demonstrated their potential to enhance employee well-being and performance (Carolan et al., 2017), whilst randomized controlled clinical studies about computerized cognitive behavioral therapy demonstrate the possibilities of digital technology solutions to eliminate stress-related absenteeism (Grime, 2004). Nevertheless, new stressors can also appear with digitalization. The longitudinal evidence of the COVID-19 crisis indicates that digital stressors include constant connectivity and technostress that impact employee well-being (Oksanen et al., 2021). In addition, the productivity and cognitive burden of work at digitally mediated workplaces are determined by attention patterns and rhythms of online work (Mark et al., 2014). The results indicate that digital inclusion cannot be equated to access only, but it should also take quality of use, psychosocial effects, and sustainable engagement into consideration.

Unequal treatment is also established in algorithmic and automated systems. Automated hiring technologies have social, technical, and legal issues related to the issues of discrimination and equality (Sanchez-Monedero et al., 2020). The organizational structures have gendered inequalities in the access of power and earnings that still exist (Abendroth et al., 2017), and digital systems can help reduce or increase it based on how they are designed and governed. A study of neurodiverse workers in the software engineering field highlights the significance of inclusive online environments that meet the different cognitive profiles (Morris et al., 2015). In aggregate, these studies indicate that digital inclusion in the workplace is a multidimensional phenomenon, i.e., it includes access, skills, participation, representation, and fairness.

In theory, the field is made aware of some additional complementary views. The technology acceptance model and its derivatives, firstly, highlight perceived usefulness, perceived ease of use and social influence as the determinants of technology adoption (Venkatesh & Morris, 2000). This model describes inequitable adoption of workplace technologies by demographic and social groups. Second, the conceptualization of inequalities through digital divide theory involves first-level (access), second-level (skills and usage) and third-level (outcomes) digital diversifications (Hidalgo et al., 2020; Knapp et al., 2011). In the context of employment, this view contributes to understanding that differences in digital skills and usage cause unequal career outcomes. Third, sociotechnical and critical algorithmic research emphasizes the fact that technologies are constituted in power relations and institutional practices that both create and are created by social norms and inequalities (Sanchez-Monedero et al., 2020). A combination of these conceptual perspectives helps to emphasize that the concept of digital inclusion is not an issue but a socio-organizational and political phenomenon.

Regardless of the increasing amount of research, the literature on digital inclusion and inequalities in the workplace is still scattered across fields such as information systems, organizational psychology, sociology, public health, and human-computer interaction. The conceptualizations, approach, and context of studies are diverse: some focus on health-related e-literacy (Knapp et al., 2011) and the integration of mHealth in low- and middle-income environments (Wallis et al., 2017); others are immersive virtual collaboration (Jackson & Fagan, 2000) and virtual safety training (Li et al., 2012). Even though each of the individual studies yields meaningful information, little comprehensive mapping of the intellectual framework, thematic development, and frontiers of this field exists. In the absence of a systematic bibliometric synthesis, one will hardly be able to determine the prevalent research clusters, prominent authors and institutions, collaboration networks, and under-explored themes, especially in the Global South and in the areas of precarious labor.

Based on this, this study aims to perform an extensive bibliometric survey of digital inclusion and inequalities at the workplace to map the intellectual landscape and paths of study of the topic, as well as future research perspectives. Through the use of bibliometric data like co-citation analysis, co-authorship networks, keyword co-occurrence mapping and thematic evolution analysis, this review aims to give a systematic and evidence-based review of how the field has evolved over the years. This method of measuring scholarly work and impact is not only quantitative, but it also helps to discover less obvious patterns, interdisciplinary connections, and gaps in the research.

1.1 Research Objectives

i. To examine the trends of the publications, the top journals, and the key contributors and countries that have done research on digital inclusion and inequalities in the workplace.
ii. To investigate thematic development and new areas of research interest such as AI-driven management, algorithmic bias, digital well-being, and inclusive design.
iii. To chart the intellectual structure of the domain by analyzing the co-citation to determine the fundamental theoretical assets and knowledge groups.
iv. To suggest a future research agenda that can answer conceptual ambiguities, methodological shortcomings and contextual gaps, especially with reference to developing economies and marginalized worker groups.

II. LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model and other social influence theories are used to describe the pattern of technology adoption in workplaces, derived out of perceived usefulness, ease of use, and gendered norms (Venkatesh & Morris, 2000). TAM offers a clear understanding of why specific groups are more inclined to use digital systems than others, which creates inequalities regarding use.

2.1.2 Digital Divide Theory

In this theory, inequalities are conceptualized on three levels, including access (first-level divide), skills and usage (second-level divide), and outcomes (third-level divide). It has been empirically proved that the lack of digital literacy among the disadvantaged groups limits the possibility to engage in digitally mediated systems (Knapp et al., 2011; Hidalgo et al., 2020). In an organizational setting, these rifts are expressed in unequal careers, access to training, and job security.

2.1.3 Sociotechnical and Algorithmic Justice Views

Sociotechnical and algorithmic justice focuses highlight the fact that technology is part of social organizations and can sustain systematic discrimination. Automated hiring systems such as the ones mentioned in this case also present the issue of fairness, transparency, and discrimination (Sanchez-Monedero et al., 2020). It is a point of view that emphasizes the co-construction of organizational power relations and technology and connects digital transformation to structural inequalities, including the earnings gap between genders (Abendroth et al., 2017). Collectively, these theories describe digital inclusion as a socio-technical phenomenon that is defined by the subjective points of view, the condition of structural access, and institutional relations of power.

2.2 Empirical Review

2.2.1 Digital Skills and Competency Gaps Mapping

Empirical research continues to demonstrate that the digital inequalities form the basis of the workplace disparities. In a review by Oberlander et al. (2020), the review recognizes the great difference in digital skill frameworks within industries, indicating that not all initiatives related to competency development are implemented evenly. Morandini et al. (2023) also show that the introduction of AI requires fast upskilling and reskilling, which could put the workers who are not supported by an institution in a disadvantaged position. Certain areas, like healthcare training and safety training, can be improved with the help of digital systems, but they demand high technological skills (Li et al., 2012; Ruiz Morilla et al., 2017). These results verify that the primary cause of digital exclusion in the workplace is competency gaps.

2.2.2 The Analysis of Digital Well-being and Psychosocial Results

Digital inclusion touches on employee well-being as well. Psychological interventions through the web-based have been demonstrated to take advantage of effectiveness and mental health (Carolan et al., 2017), and computerized cognitive behavioral therapy can decrease stress-induced absenteeism (Grime, 2004). But digitalization can also cause technostress and digital overload. According to Oksanen et al. (2021), the COVID-19 crisis exacerbated digital stressors in employees with longitudinal well-being effects. On the same note, a study of workplace rhythmic attention shows that there are cognitive strains that are linked to ongoing connectivity (Mark et al., 2014). These ambivalent results point to the fact that digital inclusion should consider quality of engagement rather than access.

2.2.3 Structural and Algorithmic Inequality

New literature takes a critical look at how the digital systems can carry on with structural inequalities. Ethical and legal issues of discrimination are also brought up by automated hiring technologies (Sanchez-Monedero et al., 2020). Inequalities in workplace power and salaries between men and women are here to stay (Abendroth et al., 2017), and initiatives in algorithms can be easily used to reinforce these inequalities. The studies of neurodiverse workers underscore the need to have an inclusive digital workplace that takes into account cognitive diversity (Morris et al., 2015). These research works highlight the necessity of inclusive design and governance in order to avoid digital exclusion.

2.2.4 Local and International Aspects of Inclusion

The issue of digital inclusion is of interest, especially in low- and middle-income environments. The example of integrating mHealth systems demonstrates systemic barriers that revolve around infrastructure, policy congruity and

capacity building (Wallis et al., 2017). Extended studies of digital inequalities in the context of sustainable development also indicate geographic and socioeconomic inequalities (Hidalgo et al., 2020). This evidence requires contextualized solutions to digitalization and workplace reforms that do not limit themselves to factors at the individual level.

III. METHODOLOGY

3.1 Overview

The most common methods used in bibliometric studies include co-occurrence, citation, and co-citation analysis to study patterns in the literature, as shown by Cisneros et al. (2018), Kumar et al. (2019), Priyan et al. (2023), and Nyabakora and Mohabir (2024). The bibliometric analysis performed in this research involved the use of VOSviewer, which is a tool created by Eck and Waltman (2010). The reason behind the use of the software was its flexibility and the ability to create detailed and visually informative bibliometric maps, which has benefits compared to most of the existing analytical tools (Priyan et al., 2023).

The analysis of digital inclusion and inequalities at work literature began on March 20, 2026, to offer an up-to-date overview of the sphere and name the terms that occur most frequently. The PRISMA guidelines were used to determine the inclusion criteria, and then the process of data collection was launched (Moher et al., 2009). PRISMA is an evidence-based model that helps researchers to report systematic reviews and meta-analyses, and it was initially developed to assess healthcare interventions. It also focuses on transparency and methodological rigor, as it also describes strategies to make sure that research processes are well documented and openly reported (Gough et al., 2012).

3.2 Identification of Review Sources

The Scopus database was chosen as the main source of information because it is highly appropriate in this research; it has a large potential for retrieving the relevant publications (Priyan et al., 2023). It has been shown that Scopus has a wider and deeper coverage of the literature on social sciences than that of Web of Science (Mongeon & Paul-Hus, 2016). Though it is said that the Web of Science has a higher quality of sources, as it is a more selective index, this assertion is mostly discipline-specific and needs to be empirically proved (Hallinger & Kovačević, 2019). However, the results of Archambault et al. (2009) showed that there was a high correlation regarding the number of publications and citation patterns in both databases, implying that either of the two sources can yield similar and reliable bibliometric information.

3.3 The Data Search Strategy

The below-defined search string was used to query the Scopus database, and the main data collection took place on March 20, 2026. A preliminary number of 726 documents was obtained in Scopus with the use of the PRISMA framework (Crossan & Apaydin, 2010; Pisani et al., 2017), along with the TITLE-ABS-KEY functionality. This data was then narrowed down by use of well-set inclusion and exclusion criteria. Subsequently, a four-stage screening process was conducted in a systematic manner to select the most appropriate studies that were published until March 20, 2026 (Figure 1).

Additionally, narrowing down by using subject areas, i.e., computer science, medicine, engineering, business, accounting, management, economics, social sciences, finance and econometrics, resulted in 640 records. The result was narrowed down to 348 publications by specific study, narrowing to studies that consider digital inclusion, targeting the specific keywords, and narrowing the search down to final, peer-reviewed journal articles. Specifying the document types to articles, book chapters, and conference papers reduced the number to 318. That result was followed by the elimination of 7 in-press documents, resulting in 311 documents. Out of them, 2 were eliminated because they were not published in journals or conference proceedings, leaving behind 309 records. Lastly, 6 non-English articles were filtered out and 303 documents were used to conduct the bibliometric analysis.

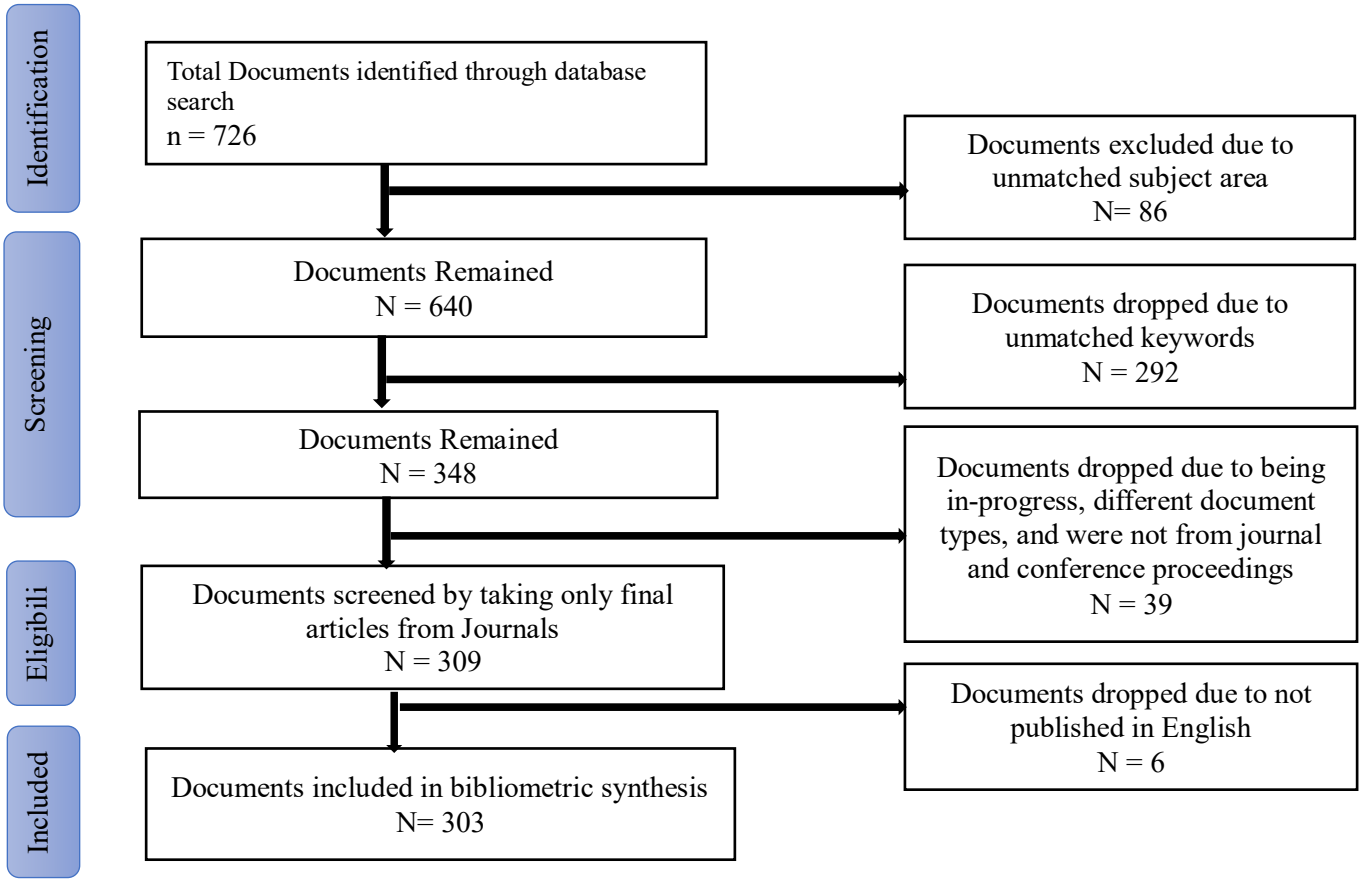

Figure 1

The PRISMA Flow Diagram Showing Steps in the Identification and Screening of Data (Moher et al., 2009)

The researcher used the PRISMA model to develop and narrow the search terms (Hallinger & Nguyen, 2020; Nyabakora, 2023; Priyan et al., 2023), including brackets to make the queries logically correct. Truncation symbols were used to extend the scope of the search or to narrow it down (e.g., the asterisk, or star, denoted by the asterisk symbol, i.e., using the asterisk to indicate the scope of a search). Moreover, common Boolean operators helped to build a coherent and unified search strategy (Pisani et al., 2017). A search engine, the Scopus database search, was then used to get the records that are relevant to the following query: TITLE-ABS-KEY ((Digit* OR Computer* OR Automat*) AND (Inclus* OR Integrat* OR Participat* OR Engagement) AND (Inequalit* OR Disparit* OR Differen* OR Imbalance* OR Marginali?a*) AND ("at work" OR "On dut*" OR "In the workplace*" OR "On the job" OR "In employment*" OR "Within the workplace*"). The 726 manuscripts were initially found; however, after passing the inclusion and exclusion criteria, 423 were eliminated to remain with (Figure 1). As a result, the end dataset consisted of 303 articles and conference papers in English published in journals and conference proceedings indexed in Scopus in the disciplines of engineering, computer science, medicine, business, economics, accounting, management, finance, econometrics, and social sciences.

IV. FINDINGS & DISCUSSIONS

The information about 726 publications, such as data on authors, titles, abstracts, keywords, and citations, was obtained and saved to be analyzed later. VOSviewer was then used to conduct bibliometric analysis with the help of Microsoft Excel and Scopus analytical tools. The studies included the analysis of author co-citation, keyword co-occurrence, citation and co-citation analysis, and visualization of similarities (Eck & Waltman, 2017; Priyan et al., 2023).

4.1 Descriptive Analysis

The results of the bibliometric analysis indicate the descriptive development and increasing trend of digital inclusion and inequalities in the work knowledge base. The academic activity in this area started gaining momentum around 2004, and a significant increase in this period led to a peak of 53 publications in 2025 (Figure 2). Nevertheless, after this high point, the number of publications started falling significantly, and this trend continues to date when this study was carried out.

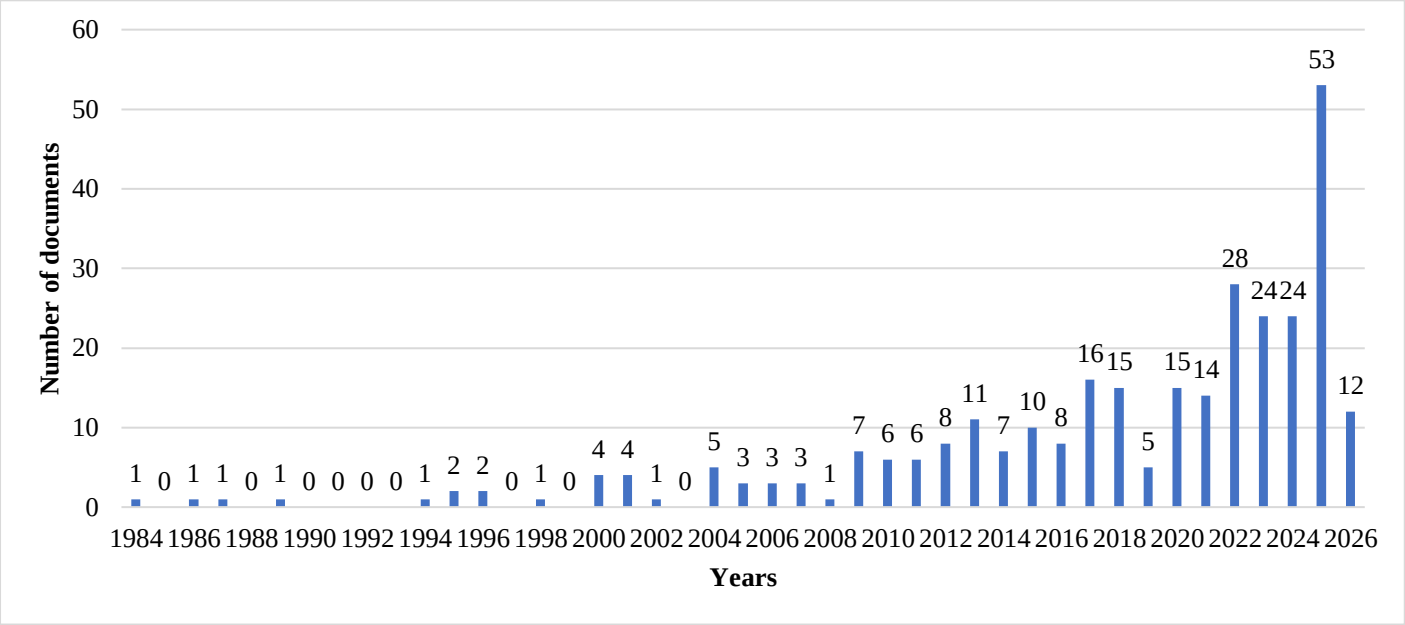

Figure 2
Evolution of Digital Inclusion and Inequalities at Work Literature, 1984–2026 (n = 726)

To answer the first research question, which was to examine the trends of the publications, the top journals, and the key contributors (authors, documents, and countries) that have done research on digital inclusion and inequalities in the workplace, additional information is provided in Figure 2 and Table 1.

4.1.1 Literature Growth

The trend in publication between 1984 and 2026 indicates a clear shift from a marginal focus to a swift growth due to the increase in academic and practical interest in digital inclusion and inequalities in the workplace. *Nascent Stage (1984-1999): The Emergence of Concepts* Publications between 1984 and 1999 were very low, with an average of two or zero publications annually. This is a phase of development during which digital technologies were not the key to the structure of the workplace. The studies at this stage were occasional and mostly theoretical in nature, as they dwelled on the adoption of computers at an early stage, professional transformation, and new information systems. The fact that there was no constant output means that digital inequality did not yet solidify into a specific field of study.

*Early Development Stage (2000-2008): Technology Adoption Address:*After 2000, the frequency of publication started growing, as there were 4 documents in 2000 and 2001, and the frequency rose gradually until the mid-2000s. This era is associated with the rampant penetration of the internet and commercial digitization. The focus of research changed to technology acceptance, e-learning, and digital competencies at work. In spite of moderately high growth, the field started to converge around adoption models and early debates of the digital divide. Its minimal variations (e.g., a drop in 2008) may indicate an immature yet not entirely institutionalized line of research. *Expansion and Consolidation (2009-2016): Digital Workplace Transformation:*Substantially improved growth after 2009 became evident, as in 2009 there were 7 publications, and 2013 and 2015 have 11 and 10 publications, respectively. Such an expansion portrays the escalated interests in social media, enterprise systems, digital skills, and psychosocial impacts of digital work. It was opened up as a more interdisciplinary field, incorporating organizational psychology, labor economics and information systems. In 2016, the number of publications almost doubled since the early 2000s, which implies that the field has consolidated into a research domain.

*Acceleration (2017-2021): Inclusion and Digital Stress:*There was a steep rise in 2017 (16 publications) and 2018 (15 publications), which signalled a shift towards a faster growth rate. In 2019, the trend showed a temporary decrease to 5, but a strong recovery of the trend in 2020 to 15 and 2021 to 14 was witnessed. This stage is associated with increased focus on algorithmic management, the use of AI, digital well-being, and remote work due to COVID-19. The pandemic greatly increased the interest in scholarly discussion on digital inequalities, remote work disparities, and technostress, which strengthened the relevance of the field. *Exponential Growth (2022-2025): Structural Inequality and AI:* The most pronounced growth is expected after 2022, with 28 in 2022, 24 in 2023 and 2024 and a catastrophic result of 53 in 2025. This influx is indicative of exponential growth, characterized by a fast-tracked integration of AI, discussion of automation, and the issue of structural inequalities in the labor market. Digital

inclusion has transformed to be more of a multidimensional problem of algorithmic bias, polarization of skills, and digital sustainability rather than an issue of access.This small decrease in 2026 to 12 publications may be due to the fact that the indexing of annual publications is not full, as opposed to a decline.

4.2 Thematic Development in Digital Inclusion and Inequalities in the Workplace

The aim of this section is to answer research objective number two, which investigates thematic development and new areas of research interest. In this case, analysis of the co-occurrence of the keywords shows a rather obvious thematic development and multi-dimensional broadening of the study of digital inclusion and inequalities in the workplace. The analysis of keywords in terms of X and Y coordinates shows that there is an organized intellectual domain with four leading paths, namely workplace well-being, technological adoption, AI-driven transformation, and structural inequality.

4.2.1 Growth Pattern of Keywords

The most common keywords, which were AI adoption (22 times), workplace (18), employee engagement (16), e-health (14), and gender differences (14), suggest that there is a shift in the general themes of workplace digitalization to more specific issues, including AI adoption and inequality. Thematic strands that prevailed, e.g., technology acceptance, gender differences, and educational technology, comprise background debates on adoption and access. Their average citation scores (i.e., gender differences = 259.64) are high, which means that the early inequality-oriented studies are still very influential. Keywords like AI adoption, automated hiring, machine learning, human-AI interaction, digital inequalities, and future of work have been growing recently and point to the transition to an algorithmic form of governance and structural employment change. The emergence of the COVID-19 pandemic and web-based training and web-based intervention is another indication of the fast-tracking of digital workplace research during and after the period of the pandemic. On the left side, the lower part of the figure features a directional interpretation (X and Y axes) (Table 1 and Figure 3).

Table 1

Thematic Development and Direction for the Domain

ID	Label	X	Y	Cluster	Occurrences	Avg. Citations
1	Ai adoption	0.101	-0.7106	3	22	20.2727
2	Workplace	-0.2165	0.7865	2	18	50.6667
3	Employee engagement	-0.4891	0.2023	4	16	32.4375
4	E-health	-0.376	0.5322	2	14	16.6429
5	Gender differences	0.6914	-0.1985	1	14	259.6429
6	Digitalization	-0.2081	0.0247	4	12	4.5
7	Mental health literacy	-0.1558	0.624	2	12	25.3333
8	Computer-based	-0.3119	-0.6467	3	11	32
9	Stress	-0.586	0.5899	2	11	45.3636
10	Technology acceptance	0.059	0.34	1	11	30.7273
11	User centered design	-0.1413	-0.5146	6	11	17
12	Educational technology	0.2077	-0.0846	1	10	8.3
13	Digital competencies	0.4474	0.4303	5	9	28
14	Information technologies	-0.0685	-0.1781	5	9	9.8889
15	Social media	0.4011	0.69	1	9	39.4444
16	Human-computer interaction	-0.6461	-0.3618	6	8	11.125
17	Industry 4.0	0.5457	0.0109	1	8	20.375
18	Internet of things	-0.9772	0.2605	2	8	86.125
19	Automated hiring	-0.2885	-0.9335	3	7	28.1429
20	Covid-19 pandemic	0.5219	0.273	1	7	35.7143
21	Digital health	-0.4281	1.0853	2	7	6.1429
22	Digital inequalities	0.8352	0.5861	1	7	4.4286
23	E-learning	0.6461	0.15	1	7	12.2857
24	Employment opportunities	0.9238	0.3188	1	7	14.5714
25	Engineering education	0.7032	-0.4343	1	7	8.1429
26	Ergonomic tool	-0.1221	-1.0439	3	7	3.8571
27	Health equity	-0.0127	0.0555	4	7	18
28	Machine learning	0.0707	-0.3882	6	7	7.4286
29	Deep learning	0.1979	-0.4721	5	6	5.5
30	Design process	0.0985	-0.9533	3	6	13.5

Horizontal Axis (X): Thematic Centrality vs. Specialization: Negative X values (left side): depict foundational and health-oriented themes that are intimately linked with the main discourse of the workplace. Examples are stress, e-health, mental health literacy, work engagement, and occupational health. These keywords create a tight, coherent group of keywords that underline psychosocial inclusion. Positive X values (right side) signify the emerging themes and inequality-oriented themes, including digital inequalities, inclusive employment, diversity, disability inclusion, and human resources management practices. This tendency is known as an expansionary structural and institutional view. Therefore, the left-to-right movement implies the change of individual-level psychological adaptation to systems-related and diversity inclusion issues.

Vertical Axis (Y): Well-being vs. Technological Restructuring: Positive Y values (top area): the focus is made on well-being, digital wellness, and interaction. The keywords of workplace, mental health literacy, digital health, online training, and web-based intervention fall in this category. This implies that there is a high co-occurrence of digital inclusion and occupational health research. Y = negative (low region): it explains the importance of automation, AI, and change in structure. The keywords that have dominated in this quadrant are AI adoption, automated hiring, job insecurity, the future of work, human-AI interaction, and ergonomic tools. The trend is an indication of increased fear of technological upheaval and job insecurity. The negative trend indicates the growing interest in the labor market rearrangement and algorithmic control.

4.2.2 Structure of Co-Occurrence and Cluster Dynamics

It can be seen (Figure 3) that there are six principal clusters: Right-Upper Quadrant Cluster 1: Inclusion, Diversity, and HRM. Incorporates digital inequalities, diversity, ICT resistance, human resources management practices and knowledge practices. These coexist with structural inclusion discourses and organizational governance. *Cluster 2 (Left-Upper Quadrant): Digital Health and Workplace Well-being:* This cluster consists of stress, depression, anxiety, e-health, web-based intervention, and online training (Figure 3). There is a high level of internal cohesiveness in this cluster that represents interdisciplinary integration between digital inclusion and occupational mental health.

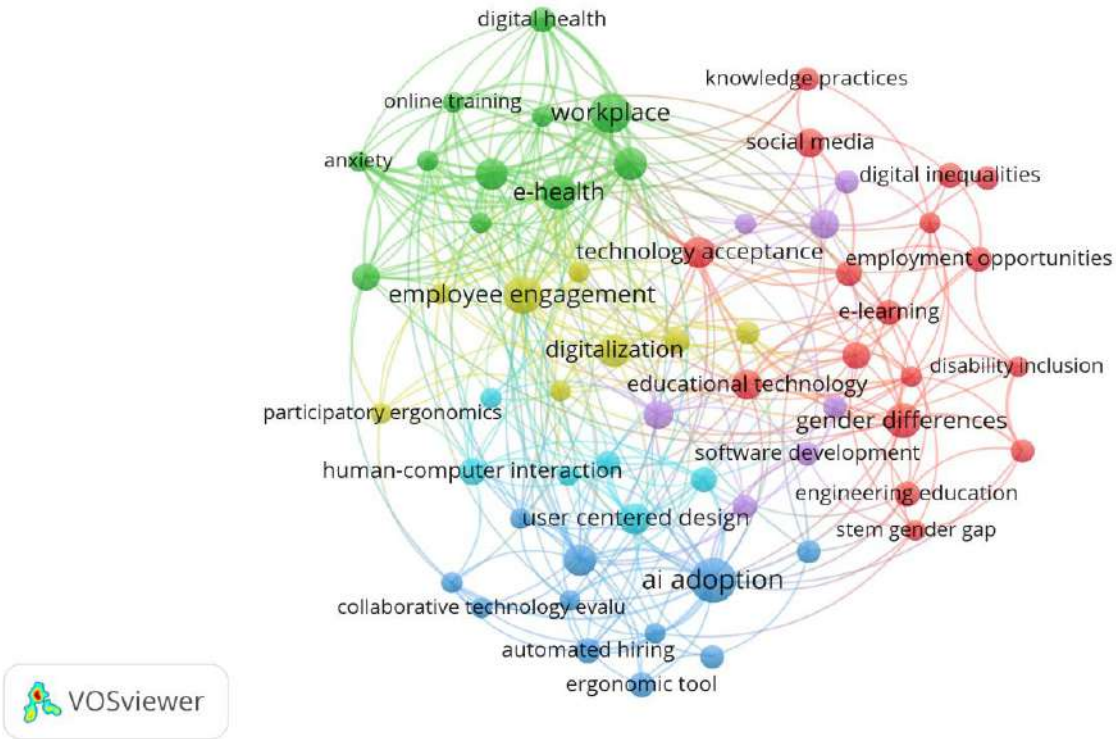

Figure 3

Keywords Co-occurrences in Digital Inclusion and Inequalities at Work (of 755, min = 5, n = 60)

Cluster 3 (Lower Region): Automation, Job Insecurity and AI: Covered adoptiveness of AI, automated recruitment, job insecurity, the future of work, and human-AI interaction. These terms are co-located in reference to technological restructuring and the danger of inequality. *Cluster 4 (Central Region): Engagement and Organizational Outcomes:* It consists of employee engagement, digital innovation, and occupational health and serves as an interface between health and technological clusters. *Cluster 5 (Upper-Right Midfield): Competencies and Emerging*

*Technologies:*Comprised of digital competencies, software development, cognitive function and digital technologies, which shows skills-oriented direction of growth. *Cluster 6 (Lower-left Midfield): Design and Interaction:* It involves human-computer interaction, user-centered design, and collaborative technology assessment, which are the methodological and design-based approaches.

4.2.3 Prolific Documents in Digital Inclusion and Inequalities at Work

Venkatesh and Morris (2000) became the most cited due to their extension of the Technology Acceptance Model by integrating gender and social influence into technology adoption research. Their empirical evidence demonstrated how social norms shape usage behavior differently across groups, offering a robust explanatory framework widely applicable to workplace digitalization, inclusion, and inequality studies across sectors and contexts. Morandini et al. (2023) gained substantial citations by addressing the timely impact of artificial intelligence on workers' skills, particularly upskilling and reskilling imperatives. The study's relevance to Industry 4.0 and digital transformation debates positioned it at the intersection of workforce development and technological change, providing empirical and conceptual clarity on skill inequalities emerging from AI adoption. Carolan et al. (2017) are highly cited for offering a rigorous systematic review and meta-analysis of web-based psychological workplace interventions. Their quantitative synthesis provided strong evidence of effectiveness in improving employee well-being and performance, making the study foundational for research linking digital technologies, occupational health, and inclusive support systems in organizations.

Oberländer et al. (2020) contributed a comprehensive review of digital competencies in workplace contexts, clarifying conceptual definitions and identifying application gaps. Their synthesis became influential because it addressed competency disparities central to digital inclusion debates, offering structured frameworks that inform organizational training strategies and policy discussions on equitable digital skill development. Knapp et al. (2011) achieved high citation impact by empirically examining internet use and eHealth literacy among low-income parents, highlighting socioeconomic disparities in digital access and skills. Although situated in healthcare, the study's methodological rigor and focus on vulnerable populations provided transferable insights into digital divide theory and inequality mechanisms relevant to workplace digital inclusion research. Other documents with their credentials can be seen in Table 2

Table 2

Prolific Documents with their Credentials

SN	Authors	Title	Source title	Country	Cited by
1	Venkatesh V. and Morris M.G. (2000)	Why don't men ever stop to ask for directions? Gender, social influence, and their role in technology acceptance and usage behavior	MIS Quarterly: Management Information Systems	US	3317
2	Morandini S. et al., (2023)	The impact of artificial intelligence on workers' skills: upskilling and reskilling in organisations	Informing Science	Italy	304
3	Carolan S. et al., (2017)	Improving employee well-being and effectiveness: Systematic review and meta-analysis of web-based psychological interventions delivered in the workplace	Journal of Medical Internet Research	UK	298
4	Oberländer M. et al., (2020)	Digital competencies: A review of the literature and applications in the workplace	Computers and Education	Germany	248
5	Knapp C. et al., (2011)	Internet use and eHealth Literacy of low-income parents whose children have special health care needs	Journal of Medical Internet Research	US	169
6	Strazdins L. and Bammer G. (2004)	Women, work and musculoskeletal health	Social Science and Medicine	Australia	159
7	Sánchez-Monedero J. et al., (2020)	What does it mean to 'solve' the problem of discrimination in hiring? Social, technical and legal perspectives from the UK on automated hiring systems	FAT* 2020 - Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency	UK	147
8	Hidalgo A. et al., (2020)	The digital divide in light of sustainable development: An approach through advanced machine learning techniques	Technological Forecasting and Social Change	Spain	140
9	Van Eekelen I.M. et al., (2005)	Self-regulation in higher education teacher learning	Higher Education	Netherlands	129

10	Li H. et al., (2012)	Multiuser virtual safety training system for tower crane dismantlement	Journal of Computing in Civil Engineering	Hong Kong	129
11	Jarrahi M.H. and Sawyer S. (2013)	Social Technologies, Informal Knowledge Practices, and the Enterprise	Journal of Organizational Computing and Electronic Commerce	US	126
12	Wallis L. et al., (2017)	Integrating mHealth at point of care in low- and middle-income settings: The system perspective	Global Health Action	South Africa	118
13	Mark G. et al., (2014)	Bored Mondays and focused afternoons: The rhythm of attention and online activity in the workplace	Conference on Human Factors in Computing Systems - Proceedings	US	109
14	Oksanen A. et al., (2021)	COVID-19 crisis and digital stressors at work: A longitudinal study on the Finnish working population	Computers in Human Behavior	Finland	107
15	Longstreth Jr. W.T. et al., (1998)	Risk of amyotrophic lateral sclerosis and history of physical activity: A population-based case-control study	Archives of Neurology	US	102

4.2.4 Prolific Authors by Citations

The twenty most prolific writers indicate the intellectual architecture and chronological development of the digital inclusion and workplace inequality studies. Morris and Venkatesh (3,317 citations each; avg. year 2000) dominate the field of theory-building with the Technology Acceptance Model and UTAUT (Venkatesh et al., 2003). Their writing organized early research on individual adoption behaviour and perceived usefulness, as well as organizational technology uptake, which represented the conceptual focal point of the field (Table 3).

Table 3

Prolific Authors by Citations

ID	Label	X	Y	Documents	Citations	Avg. Pub. Year
1	Morris, Michael G.	-0.781	0.4246	1	3317	2000
2	Venkatesh, Viswanath	-0.0655	-0.6518	1	3317	2000
3	Carolan, Stephany	0.8954	-0.0965	3	427	2017.333
4	Cavanagh, Kate	-0.8572	-0.2711	2	343	2017
5	Harris, Peter R.	0.8537	0.2654	2	343	2017
6	Fraboni, Federico	0.4446	-0.5241	1	304	2023
7	Giusino, Davide	0.3375	0.2741	1	304	2023
8	Morandini, Sofia	0.0563	-0.3509	1	304	2023
9	Pietrantoni, Luca	-0.5598	0.6925	1	304	2023
10	Puzzo, Gabriele	0.1372	0.0003	1	304	2023
11	Beinicke, Andrea	0.7026	-0.003	1	248	2020
12	Bipp, Tanja	-0.6902	-0.5765	1	248	2020
13	Oberländer, Maren	0.8947	0.0955	1	248	2020
14	Czerwinski, Mary	-0.5609	-0.6919	2	174	2014

The second group of researchers, including Carolan et al. (2017); 343-427 citations), redirected their focus on digital mental health, online interventions, and behavioral engagement. Their works added inclusion arguments to the psychosocial and well-being levels, and they connected the access inequality and digitalization of the workplace with the health outcomes. The 2023 generation is an indication of a new structural twist. They anticipate the future of algorithmic management, work mediated by AI, and technostress, where the current worries of algorithmic fairness and sociotechnical resilience are present.

4.2.5 Most Contributing Sources by Citations and Documents Published

The theoretical essence of digitization inclusion and inequalities in the workplace research is firmly grounded in high-impact journals (Table 4) that are interdisciplinary. MIS Quarterly: Management Information Systems is the most cited by far (3,317 citations) as it presents the basic theoretical input in the field of technology adoption and organizational information system (e.g., Venkatesh et al., 2003). The fact that it was published on average early (2000)

suggests that it had a contribution to the conceptualization of the field, specifically in the form of Technology Acceptance Theory and digital transformation scholarship.

Table 4

Prolific Sources by Citations with their Number of Documents Published

ID	Label	X	Y	Documents	Citations	Avg. Pub. Year
1	Mis quarterly: management information systems	0.1528	0.5831	1	3317	2000
2	Journal of medical internet research	-0.0724	0.3638	7	481	2020.714
3	Informing science	-0.4162	-0.4309	1	304	2023
4	Computers and education	0.0965	-0.8458	2	276	2015
5	Social science and medicine	0.008	0.9355	2	240	2013
6	Conference on human factors in computing systems - proceedings	-0.3185	0.0248	4	174	2015
7	Technological forecasting and social change	0.5832	-0.6352	2	162	2022.5
8	Fat 2020 - proceedings of the 2020 conference on fairness, accountability, and transparency	0.8701	-0.0638	1	147	2020
9	Higher education	-0.4671	0.4099	1	129	2005
10	Journal of computing in civil engineering	0.6439	0.3366	1	129	2012
11	Journal of organizational computing and electronic commerce	-0.3065	-0.5219	1	126	2013
12	Global health action	0.9252	0.1195	1	118	2017
13	Computers in human behavior	0.2072	-0.3023	1	107	2021
14	Archives of neurology	-0.6153	-0.0956	1	102	1998
15	Assets 2015 - proceedings of the 17th international ACM sig access conference on computers and accessibility	-0.4684	0.2654	1	101	2015

The Journal of Medical Internet Research (JMIR) (7 documents; 481 citations; avg. year 2020.71) is a health-related cluster of digital inclusion with e-health, mental health literacy, and telework inequalities, reflecting the growth of digital health research in the workplace after the pandemic. Likewise, digital inequality has been incorporated into the social science and medicine (240 citations) discourse, which institutionalizes digital inequality within the realms of public health and equity, which supports structural explanations that follow Digital Divide Theory. Outlets that are technologically inclined, like Computers and Education (276 citations; avg. The human-computer intersection is organized into 138 references per paper, and the conference on human factors in Computing Systems (CHI) Proceedings (174 references) spreads the research on digital competencies, accessibility and user-centered design. These places focus on sociotechnical integration and development of inclusive systems.

Recent views on policy and foresight can be found in Technological Forecasting and Social Change (162 citations; average pub. year 2022.5) and focus on AI-driven changes in the labor market and argument of the future of work. The institutionalization of ethical and algorithmic governance issues is represented in FAT 2020 Fairness, Accountability, and Transparency Proceedings (147 citations), which indicates a structural change towards an algorithmic justice approach and equity in the workplace. Higher Education (129 citations) and the Journal of Computing in Civil Engineering (129 citations) concentrate on education and labor relations aspects, with their applications of the principles of digital inclusion specific to the sector. n general, the best sources demonstrate a multidisciplinary design of the integration of information systems, public health, human-computer interaction, and labor studies. Future trends suggest that more attention will be paid to AI ethics and digital health equity, as well as inclusive organizational governance, and the discourse about rapid innovation is increasingly being influenced by conference proceedings.

4.2.6 Top Ten Countries: Scope, Structure, and Future Direction

The US ranks first in publications (78) and also in citations (5,048), showing its leading role in the formation of the intellectual base of the research on workplace digital inclusion. Its average publication year is high (2014.91), which is indicative of long-term contributions that cut across foundational technology adoption models to the present AI and inequality debate, indicating a wide interdisciplinary interest (Table 5). The next level is occupied by the United Kingdom (24 docs, 904 citations) and Germany (39 docs, 891 citations), which have made a great contribution to literature on structural analyses of digital competencies, psychosocial work impacts, and European-policy oriented knowledge. The comparatively recent average year of publication (2017.13) in the UK suggests that enthusiasm has

been growing toward post-pandemic work challenges in the digital realm, whereas the later average in Germany (2018.05) is associated with the greater focus on the effects of AI integration and automation.

Also, in the top lists are Australia (22 docs, 633 citations) and Italy (13 docs, 413 citations), where Australia creates potent work on occupational health, e-health and engagement. The subsequent average year (2020.62) in Italy shows that there are some new yet rapidly increasing contributions to the country, especially in workforce digitalization, as the society transitions out of COVID-19. A European core that deals with social sciences and the theory of the digital divide has countries like the Netherlands (13 docs, 328 citations) and Spain (14 docs, 328 citations). Their location implies the structural emphasis on the inclusive policy frameworks and digital literacy as the drivers of equitable work.

Table 5

Prolific Countries by Citations and their Documents Published

ID	Label	X	Y	Documents	Citations	Avg. Pub. Year
1	United States	0.7173	-0.1086	78	5048	2014.91
2	United Kingdom	-0.1017	-0.1441	24	904	2017.125
3	Germany	0.2411	-0.8697	39	891	2018.051
4	Australia	-0.3978	0.0528	22	633	2015.591
5	Italy	-0.342	0.6134	13	413	2020.615
6	Netherlands	-0.786	0.4387	13	328	2017.231
7	Spain	-0.2372	0.8712	14	328	2019.357
8	France	-0.6601	-0.2809	6	204	2018.5
9	Hong Kong	0.8044	0.4027	4	204	2011
10	South Korea	-0.2943	-0.6693	5	202	2016.4
11	China	0.1715	-0.0138	21	178	2023.095
12	Belgium	-0.8567	0.2817	5	152	2018
13	Switzerland	0.5825	0.4036	6	152	2015.167
14	Finland	-0.6864	0.5969	7	131	2019.286
15	India	-0.5607	0.4538	22	126	2022.5

Specialized contributions are found in France (6 docs, 204 citations) and Hong Kong (4 docs, 204 citations), with the average in the latter (2011) indicating previous interest in the field of e-health and adoption of digital technologies in an organizational context. Taking the last position on the list of the top ten is South Korea (5 docs, 202 citations), which focuses on technology use and human-technology relations in workplaces with significant levels of digitization.

4.3 Intellectual Structure of Digital Inclusion and Inequalities at Work

The third research objective covered in this section is to examine the intellectual organization of the literature on digital inclusion and inequalities at work. By looking at the intellectual architecture of a discipline, researchers can both pinpoint the prevailing themes and some of the under-represented areas in the field of digital inclusion and inequalities at work research (Morris et al., 2015). In this paper, VOSviewer was used to create a network map of the conceptual representation of the digital inclusion and inequalities at work knowledge base in the form of co-citation analysis. The co-citation analysis is based on the premise that when two or more authors are often cited simultaneously, they are likely to be of similar intellectual views (Hallinger & Kovačević, 2019; Priyan et al., 2023). This analysis helps to visualize the links between the cited authors, demonstrating the tendencies of scholarly orientation (Eck & Waltman, 2017). The co-citation analysis reveals a highly concentrated intellectual structure, where only 79 out of 9,517 authors (minimum threshold = 5 citations) form the core knowledge base of digital inclusion and inequalities at work. The network is structured into multiple clusters (1–21), with the most cited and centrally positioned authors (Figure 4) largely concentrated on the left side of the map (negative X values), as shown in Table 3, indicating strong theoretical cohesion and interconnection among foundational scholars.

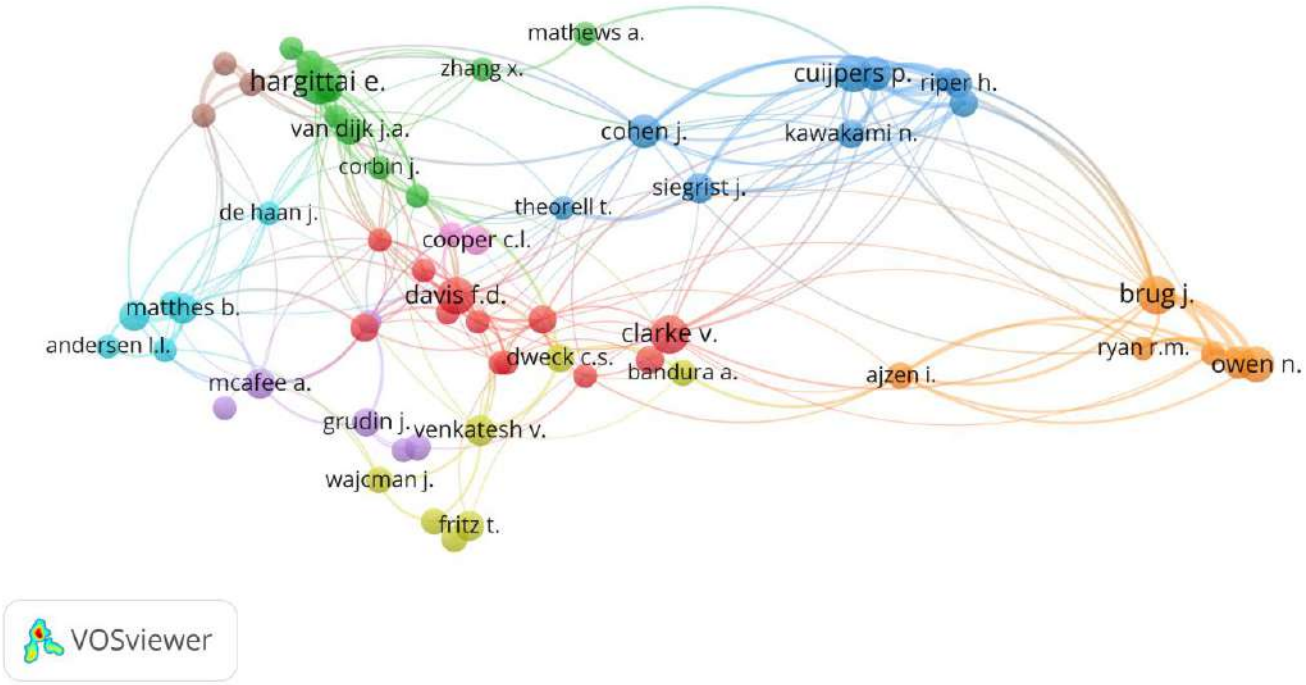

Figure 4
Intellectual Structure of Digital Inclusion and Inequalities at the Workplace

4.3.1 Core Theoretical and Digital Divide Cluster (Cluster 3)

Authors such as Hargittai (19 citations), Van Dijk (8 citations; 5 citations are variants), Warschauer, Bourdieu, Castells, and Selwyn are positioned around X ≈ –0.32 to –0.37 and Y values near zero. Their proximity and negative X coordinates indicate a tightly interconnected intellectual base grounded in digital divide theory, social capital, and structural inequality. The slightly negative Y values suggest conceptual anchoring rather than thematic dispersion. This cluster provides the sociological and structural foundation of the field, emphasizing access, skills, and capital-based inequalities.

4.3.2 Technology Acceptance and Innovation Diffusion Cluster (Cluster 2)

Highly influential figures such as Venkatesh (8 citations), Davis (12 citations), Bandura, Ajzen, Rogers, and Wajcman are concentrated around X ≈ –0.42 to –0.50 and Y ≈ 0. Their strong negative X positioning indicates deep theoretical embeddedness within the intellectual core. The near-zero Y values reflect conceptual centrality rather than specialization in peripheral subthemes. This cluster defines the behavioral and psychological explanations of digital adoption, forming the explanatory backbone for workplace technology inclusion studies.

4.3.3 Occupational Health and Digital Well-being Cluster (Clusters 1 and 4)

Authors such as Cuijpers (12 citations), Andrews, Cohen, Cavanagh, Kawakami, and Theorell cluster around X ≈ –0.29 to –0.36 with positive Y values (0.12–0.16). The positive Y direction signals thematic orientation toward psychosocial outcomes, digital mental health, and workplace stress. Meanwhile, Cluster 1 (e.g., Schaufeli, Demerouti, Orlikowski, Oksanen) appears slightly below the horizontal axis, linking job demands–resources theory and digital stress literature. These clusters bridge technological inclusion with well-being and organizational psychology.

4.3.4 Automation, Skills, and Labor Market Inequality Cluster (Cluster 6)

Authors such as Zierahn, Osborne, Murnane, Andersen, and de Haan lie around X ≈ –0.41 to –0.43 and Y ≈ –0.13 to –0.15. The negative Y direction indicates orientation toward labor market risks, automation, and economic restructuring. Their spatial separation downward from the core adoption cluster suggests a structural-economic extension of the field, focusing on how digitalization reshapes employment inequalities and skill polarization.

4.3.5 Peripheral and Emerging Specialized Clusters (Positive X Values)

A small number of authors (e.g., al-Tarawneh, al-Badawi, Gresshoff, Bodine, and Tomaskovic-Devey) appear on the right side (positive X values between 0.9 and 2.4). Positive X positioning indicates thematic specialization and relative isolation from the core theoretical foundation. High Y dispersion (both strongly positive and negative) suggests emerging or niche subdomains, including algorithmic fairness, sector-specific digital applications, or demographic inequality studies. These clusters are less densely connected but represent expanding frontiers of research.

4.3.6 Directional Interpretation of X and Y Axes

The X-axis (horizontal) reflects intellectual centrality versus thematic specialization. Negative X: foundational, theoretically cohesive core literature. Positive X: emerging, specialized, or context-specific strands. Y-axis (vertical) reflects thematic orientation. Positive Y: Health, behavioral engagement, and psychosocial inclusion. Negative Y: Structural labor market risks, automation, and inequality reproduction.

4.4 Discussion

This bibliometric review demonstrates that digital inclusion and inequalities in the workplace have been examined as developing out of the initial issues of technology adoption to include multidimensional issues of digital skills, psychosocial well-being, and algorithmic governance alongside structural change of the labor market. The intellectual organization shows a compact theoretical center, which is rooted in the theory of technology acceptance and digital divide, and has an expansive thematic periphery to the adoption of AI, occupational health, and diversity-based inclusion.

4.4.1 Theoretical Foundations in the Findings

The presence of the term 'technology acceptance' and the high co-citation of the scholars who laid the foundation of the model are consistent with the Technology Acceptance Model (TAM), which focuses on perceived usefulness, ease of use, and social influence in influencing the adoption of technology (Venkatesh & Morris, 2000). The results indicate that TAM still serves as a source of behavioral basis in interpreting the difference in adoption patterns in organizations. Nevertheless, the proliferation of such terms as digital inequalities, inclusion employment, and 'gender differences' suggests that adoption is not a sufficient factor to provide explanations to disparities. Such a change is consistent with the digital divide theory that draws attention to disparities in access, capabilities, and success (Hidalgo et al., 2020; Knapp et al., 2011). The fact that these themes clustered together shows a tendency to transition behavioral models to the structural and socio-economic levels. Moreover, the appearance of the keywords, including automated hiring, human-AI interaction, and job insecurity, promotes the sociotechnical and algorithmic justice views. These models hold to the assertion that technologies are institutionalised into institutional power relations and can reinforce systemic inequalities (Sanchez-Monedero et al., 2020). The negative stacking of the keywords concerning AI on the thematic map shows increasing academic interest in the issues of labor displacement, algorithmic bias, and governmental issues.

4.4.2 Empirical Integration: Skills, Well-being, and Structural Inequality

According to the bibliometric results, there is a high level of interconnection between workforce transformation and digital competencies. The rise in the popularity of digital competencies and AI adoption is evidence of the fact that empirical studies in this field imply that AI implementation requires continuous upskilling and reskilling (Morandini et al., 2023; Oberlander et al., 2020). This complements the point that polarization of skills is one of the important ways by which digital inequality is reflected in the workplaces. At the same time, the concentration of such terms as 'stress', 'mental health literacy', 'e-health' and 'work engagement indicate long-term academic focus on the psychosocial results. It has been proven by the empirical research that the use of digital mental health interventions can be effective in enhancing employee well-being (Carolan et al., 2017; Grime, 2004). Nevertheless, the rise of so-called job insecurity and pandemic-related literature indicates that digitalization is also connected with the emergence of technostress and emotional stress, especially when it comes to fast changes to working at home (Oksanen et al., 2021). In that way, the idea of digital inclusion should not be reduced only to the idea of access to the tools but rather to the concept of sustainable and health-promoting involvement in the digital environments.

The structural inequality is one of the burning dimensions. The amplified use of the term "gender differences" and theme appeals to the research findings of the ongoing gender disparity in power and income (Abendroth et al., 2017). The bibliometric framework shows that there is growing overlap between gender inequality studies and AI-based employment studies, which indicates the possibility that algorithmic systems will either prevent or increase existing disparities.

4.4.3 Contributions and Theoretical Implications

The theoretical contribution of the findings is that the use of digital inclusion research is shifting to integrative paradigms of behavioral, structural, and institutional perspectives. The intersection of TAM, the theory of digital divide, and social-technical approaches is an indicator of the maturity of the discipline into an all-encompassing explanatory field. The intellectual center is still intact, but thematic diversification is responsive to the new technological realities.

4.4.4 Implications on Practice and Policy

In practice, the results highlight the necessity of organizations to combine the development of digital skills with inclusion in HRM and algorithmic transparency. Investments in upskilling should be accompanied by the protection against the bias within automated systems. In addition, work-related health systems must be implemented into the digital transformation plans to reduce technostress and promote sustainable interaction.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

The aim of this bibliometric review was to map the intellectual and thematic development of the field of research on digital inclusion and inequalities at work together with the future directions. Based on an extensive dataset and detailed bibliometric methods, the research addressed the developing academic and policy interest in the impact of the digital transformation, artificial intelligence (AI), and algorithmic tools on the presence of opportunities and inequalities in the modern workplace. The review was developed using both performance analysis and science mapping methodologies to identify the publications that have an impact, the presence of which is defined by predominant theoretical bases, the presence or absence of thematic clusters, and the emergent fronts of research that characterize the current scope and direction of the field. Conceptually, the review validates that the discipline is grounded on three mutually supportive views, and they are technology acceptance theory, digital divide theory, and sociotechnical or algorithmic governance frameworks. The intellectual framework, however, suggests that there is a gradual movement of individual-level adoption models to more systemic and institutionalized explanations of inequality. This development indicates the acknowledgement of the fact that access and use cannot be relied on to ensure the equity of the results. Rather, patterns of inclusion and exclusion become more determined by power relations, organizational policies, regulatory frameworks and algorithmic design. The overlapping of these theoretical prismatic lenses gives reason to believe that the field will grow into a multidimensional research area that can account not only for micro-level differences in behavior but also macro-level differences in structure.

The review identifies empirically three primary streams, namely digital competencies and reskilling, psychosocial and well-being outcomes, and structural inequities based on gender, socioeconomic status, and algorithmic management. All of these streams add to the importance of the fact that digital inclusion should be viewed not only as access to technology but also as significant, sustainable, and equitable engagement in digitally mediated workplaces. The results also show that AI adoption is both a potential source of productivity increase and a threat to the stability of inequality in case of inadequate governance and ethical protection. This paper has a number of contributions to the body of literature. First, it provides an intellectual map which is consolidated and explains the development of the field and the most influential factors. Second, it reveals the new themes, especially AI governance, algorithmic fairness, and intersectional inequality, that will probably provide the future direction of the research. Third, it connects the divided academic discussions through the combination of information systems, organizational behavior, labor studies and public policy. Nonetheless, there are limitations of the study that are caused by bibliometric research. The search is based on indexed databases, which does not reflect the studies of the developing world and non-English literature. The use of citation-based metrics can also favor the old publications at the expense of new but valuable ones.

5.2 Recommendations

Future research might broaden the systematization of systematic reviews and comparative regional analyses in order to deepen the knowledge of the global digital inequalities. Thus, this bibliometric review proves that digital inclusion and inequalities in the workplace are fast-growing and theoretically developing fields of research. With the digital technologies further transforming labor markets and organizational practices, long-term interdisciplinary investigation will be crucial to make sure that digital transformation promotes inclusion and not further enriches inequalities.

REFERENCES

Abendroth, A.-K., Melzer, S., Kalev, A., & Tomaskovic-Devey, D. (2017). Women at work: Women's access to power and the gender earnings gap. *Industrial and Labor Relations Review, 70*(1), 190–222.

Archambault, É., Campbell, D., Gingras, Y., & Larivière, V. (2009). Comparing bibliometric statistics obtained from the web of science and Scopus. *Journal of the American Society for Information Science and Technology*, *60*(7), 1320–1326. https://doi.org/10.1002/asi.21062

Carolan, S., Harris, P. R., & Cavanagh, K. (2017). Improving employee well-being and effectiveness: Systematic review and meta-analysis of web-based psychological interventions delivered in the workplace. *Journal of Medical Internet Research, 19*(7), e271. https://doi.org/10.2196/jmir.7583

Cisneros, L., Ibanescu, M., Keen, C., Lobato-Calleros, O., & Niebla-Zatarain, J. (2018). Bibliometric study of family business succession between 1939 and 2017: mapping and analyzing authors' networks. In *Scientometrics* (Vol. 117, Issue 2). Springer International Publishing. https://doi.org/10.1007/s11192-018-2889-1

Crossan, M. M., & Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of Management Studies*, *47*(6), 1154–1191. https://doi.org/10.1111/j.1467-6486.2009.00880.x

Eck, N. J. Van, & Waltman, L. (2017). Citation-based clustering of publications using CitNetExplorer and VOSviewer. *Scientometrics*, *111*(2), 1053–1070. https://doi.org/10.1007/s11192-017-2300-7

Gough, D., Oliver, S., & Thomas, J. (2012). An introduction to Systematic Reviews. In *SAGE Publications Ltd*. SAGE Publications Ltd. https://b-ok.asia/book/2718381/a08a63

Grime, P. R. (2004). Computerized cognitive behavioural therapy at work: A randomized controlled trial in employees with recent stress-related absenteeism. *Occupational Medicine, 54*(5), 353–359. https://doi.org/10.1093/occmed/kqh077

Hallinger, P., & Kovačević, J. (2019). A Bibliometric Review of Research on Educational Administration: Science Mapping the Literature, 1960 to 2018. *Review of Educational Research*, *89*(3), 335–369. https://doi.org/10.3102/0034654319830380

Hallinger, P., & Nguyen, V. T. (2020). Mapping the landscape and structure of research on education for sustainable development: A bibliometric review. *Sustainability (Switzerland)*, *12*(5), 1–16. https://doi.org/10.3390/su12051947

Hidalgo, A., Gabaly, S., Morales-Alonso, G., & Urueña, A. (2020). The digital divide in light of sustainable development: An approach through advanced machine learning techniques. *Technological Forecasting and Social Change, 150*, 119754. https://doi.org/10.1016/j.techfore.2019.119754

Jackson, R. L., & Fagan, E. (2000). Collaboration and learning within immersive virtual reality. In *Proceedings of the Third International Conference on Collaborative Virtual Environments (CVE 2000)* (pp. 83–92). ACM.

Knapp, C., Madden, V., Wang, H., Sloyer, P., & Shenkman, E. (2011). Internet use and eHealth literacy of low-income parents whose children have special health care needs. *Journal of Medical Internet Research, 13*(3), e75. https://doi.org/10.2196/jmir.1697

Kumar, S., Sureka, R., & Colombage, S. (2019). Capital structure of SMEs: a systematic literature review and bibliometric analysis. In *Management Review Quarterly* (Vol. 70, Issue 4). Springer International Publishing. https://doi.org/10.1007/s11301-019-00175-4

Li, H., Chan, G., & Skitmore, M. (2012). Multiuser virtual safety training system for tower crane dismantlement. *Journal of Computing in Civil Engineering, 26*(5), 638–647. https://doi.org/10.1061/(ASCE)CP.1943-5487.0000170

Mark, G., Iqbal, S. T., Czerwinski, M., & Johns, P. (2014). Bored Mondays and focused afternoons: The rhythm of attention and online activity in the workplace. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI 2014)* (pp. 3025–3034). ACM. https://doi.org/10.1145/2556288.2557204

Moher, D., Liberati, A., & Tetzlaff, J. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *The BMJ*, *2535*(July), 1–8. https://doi.org/10.1136/bmj.b2535

Mongeon, P., & Paul-Hus, A. (2016). The journal coverage of Web of Science, and Scopus: A comparative analysis. *Scientometrics*, *126*(6), 5113–5142. https://doi.org/10.1007/s11192-021-03948-5

Morandini, S., Fraboni, F., De Angelis, M., Puzzo, G., Giusino, D., & Pietrantoni, L. (2023). The impact of artificial intelligence on workers' skills: Upskilling and reskilling in organisations. *Informing Science: The International Journal of an Emerging Transdiscipline, 26*, 39–68.

Morris, M. G., & Venkatesh, V. (2000). Why don't men ever stop to ask for directions? Gender, social influence, and their role in technology acceptance and usage behavior. *MIS Quarterly, 24*(1), 115–139. https://doi.org/10.2307/3250981

Morris, M. R., Begel, A., & Wiedermann, B. (2015). Understanding the challenges faced by neurodiverse software engineering employees: Towards a more inclusive and productive technical workforce. In *Proceedings of the 17th International ACM SIGACCESS Conference on Computers & Accessibility (ASSETS 2015)* (pp. 173–184). ACM. https://doi.org/10.1145/2700648.2809841

Nyabakora, W. I. (2023). Virtual Environments' Knowledge Base: A Bibliometric Analysis. *Scientific Visualization*, *15*(4), 140–158. https://doi.org/10.26583/sv.15.4.11

Nyabakora, W. I., & Mohabir, S. E. (2024). Corporate social responsibility knowledge base: A bibliometric analysis. *Modern Finance*, *2*(1), 101–120. https://doi.org/https://doi.org/10.61351/mf.v2i1.123

Oberländer, M., Beinicke, A., & Bipp, T. (2020). Digital competencies: A review of the literature and applications in the workplace. *Computers & Education, 146*, 103752. https://doi.org/10.1016/j.compedu.2019.103752

Oksanen, A., Oksa, R., Savela, N., Mantere, E., Savolainen, I., & Kaakinen, M. (2021). COVID-19 crisis and digital stressors at work: A longitudinal study on the Finnish working population. *Computers in Human Behavior, 122*, 106853. https://doi.org/10.1016/j.chb.2021.106853

Pisani, N., Kourula, A., Kolk, A., & Meijer, R. (2017). How global is international CSR research? Insights and recommendations from a systematic review. *Journal of World Business*, *52*(5), 591–614. https://doi.org/10.1016/j.jwb.2017.05.003

Priyan, P. K., Nyabakora, W. I., & Rwezimula, G. (2023). A Bibliometric Review of the Knowledge Base on Financial Inclusion. *SN Business and Economics*, *3*(58), 1–21. https://doi.org/10.1177/09722629221140190

Ruiz Morilla, M. D., Sans, M., Casasa, A., & Giménez, N. (2017). Implementing technology in healthcare: Insights from physicians. *BMC Medical Informatics and Decision Making, 17*(1), 92. https://doi.org/10.1186/s12911-017-0489-2

Sánchez-Monedero, J., Dencik, L., & Edwards, L. (2020). What does it mean to "solve" the problem of discrimination in hiring? Social, technical and legal perspectives from the UK on automated hiring systems. In *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency (FAT* '20)* (pp. 458–468). ACM. https://doi.org/10.1145/3351095.3372849

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425–478. https://doi.org/10.2307/30036540

Venkatesh, V., & Morris, M. G. (2000). Why don't men ever stop to ask for directions? Gender, social influence, and their role in technology acceptance and usage behavior. *MIS Quarterly, 24*(1), 115–139. https://doi.org/10.2307/3250981

Wallis, L., Blessing, P., Dalwai, M., & Shin, S. D. (2017). Integrating mHealth at point of care in low-and middle-income settings: the system perspective. *Global health action, 10*(sup3), 1327686.