
GIG ECONOMY, FREELANCING, AND CROWD WORK: A LONGITUDINAL BIBLIOMETRIC MAPPING ON EMPLOYMENT RESEARCH

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ABSTRACT

The rapid expansion of the gig economy, freelancing, and crowd work has redefined employment landscapes worldwide, raising significant academic interest in recent years. This study presents a longitudinal bibliometric analysis of 1,529 scholarly publications from Dimensions.ai (2007–2025) on gig economy, freelancing, and crowd work, focusing on their role in employment. It examines the growth and distribution of research across time, countries, and disciplines, while mapping the intellectual and collaborative structure using co-citation, co-authorship, and keyword analysis. Findings reveal significant growth in publications, diverse geographic contributions, and evolving research themes. The study highlights key knowledge clusters and collaboration patterns, offering insights into emerging trends. It concludes by emphasizing the need for future research on leveraging gig and platform work to promote sustainable and inclusive employment.

KEYWORDS: Gig economy, Platform work, Employment generation, Freelancing, Bibliometric analysis.

INTRODUCTION

The emergence of the gig economy, freelancing, and crowd work has profoundly transformed contemporary labor markets, reshaping how employment is created, accessed, and

experienced. These non-standard forms of work are increasingly facilitated by digital platforms, which connect workers with short-term, task-based, and flexible employment opportunities (De Stefano, 2016). While traditional employment models emphasize stability, benefits, and long-term employer– employee relationships, platform-mediated gig work is characterized by autonomy, flexibility, and scalability, but also by precarity and lack of social protection (Wood et al., 2019; Graham et al., 2017). Consequently, the gig and platform economy has attracted growing scholarly attention across disciplines including economics, sociology, management, and labor studies. The global rise of digital labor platforms such as Uber, Upwork, Amazon Mechanical Turk, and Fiverr has expanded the scope of employment beyond geographic boundaries, creating new forms of freelancing and crowd work (Kässi & Lehdonvirta, 2018). These platforms enable millions of individuals to engage in part-time or full-time work, often supplementing incomes or serving as a primary livelihood source. Estimates suggest that gig and platform work are poised to contribute significantly to employment creation, particularly in emerging economies such as India and China, where large labor pools are coupled with rapid digitalization (NITI Aayog, 2022). However, debates persist around whether these forms of work offer sustainable employment opportunities or exacerbate informalization and labor insecurity (Berg et al., 2018).

Scholars have examined multiple dimensions including worker motivations (Hall & Krueger, 2018), algorithmic management (Rosenblat & Stark, 2016), income security (Farrell & Greig, 2016), labor rights (Healy et al., 2017), and consumer perspectives (Li et al., 2020). However, this rapid expansion of research has resulted in dispersed knowledge, making it difficult to map the intellectual structure, thematic trends, and employment-related implications comprehensively. A systematic bibliometric study can therefore provide a much-needed overview by quantitatively analyzing publication patterns, collaboration networks, and evolving research themes (Donthu et al., 2021). Bibliometric analysis is a powerful method to assess the development of a research field by identifying influential authors, institutions, journals, and thematic clusters (Aria & Cuccurullo, 2017). Applying this approach to gig economy, freelancing, and crowd work literature offers twofold benefits. First, it reveals how academic discourse on digital labor and employment has developed across time, regions, and disciplines. Second, it highlights the intellectual linkages and thematic shifts that inform ongoing debates about employment generation, precarity, and the future of work. By doing so, this study examines the growth and distribution of research output, maps the intellectual and collaborative structures of employment-focused studies. Through this approach, the study provides a comprehensive understanding of how employment-related research on gig and

platform work has evolved, while offering insights into potential directions for future inquiry.

Research Gaps

Although scholarship on the gig economy, freelancing, and crowd work has expanded rapidly, there remains limited systematic understanding of how these forms of digital labor are framed in relation to employment opportunities across regions and disciplines. Much of the existing literature is fragmented, focusing either on regulatory challenges, worker experiences, or platform dynamics, while neglecting comparative bibliometric insights into global publication trends. Moreover, the intellectual structure of this field, including collaboration networks, influential contributors, and thematic shifts, has not been sufficiently mapped. Importantly, there is a lack of longitudinal analysis that traces how research themes around employment creation and labor market transformation in gig and platform work have evolved over time.

The bibliometric paper seeks the answer to the following research questions (RQ):

RQ1: How has the volume and distribution of publications on gig economy, freelancing, and crowd work related to employment research evolved across time, countries, and disciplines?

RQ2: What are the major collaborative patterns, intellectual linkages, and keyword co-occurrence networks shaping this research domain?

RQ3: What gaps and future directions emerge from the thematic evolution of this field, particularly in understanding employment generation and labor market restructuring?

Research Objectives

1. To examine the growth and distribution of scholarly publications on gig and platform work in relation to employment opportunities across time, countries, and disciplines.
2. To map the intellectual and collaborative structure of the field through co-citation, co-authorship, and keyword co-occurrence analysis.
3. To provide insights and future research directions in leveraging gig and platform that work for sustainable employment.

Methodology

This study adopts a bibliometric approach to analyze scholarly research on employment under the gig economy, freelancing, and crowd work. The methodological process followed five major steps:

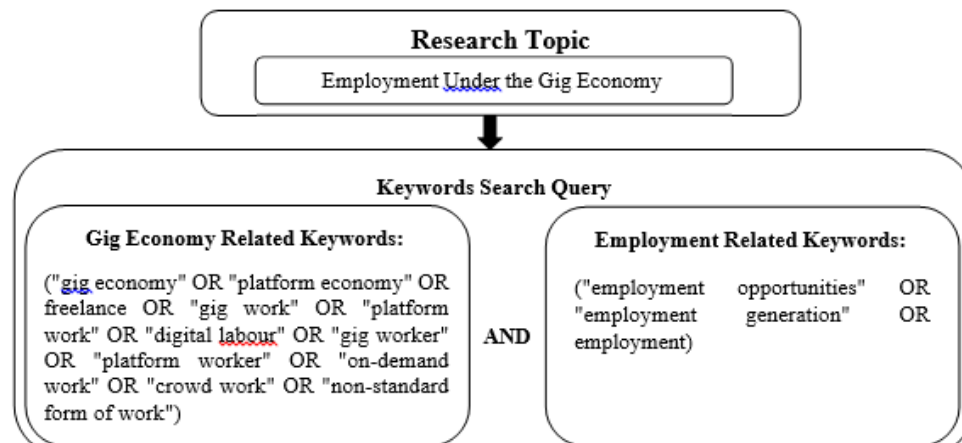


Figure 1: Research Process.

Source: Author's own compilation

1. Research Topic Identification

The central research theme was defined as Employment Under the Gig Economy. This scope includes gig economy, freelancing, platform work, crowd work, and associated forms of non-standard employment.

2. Keywords Search Query

To ensure comprehensive coverage, a set of related keywords was designed and combined using Boolean operators. The search query included terms - “gig economy” OR “platform economy” OR freelance OR “gig work” OR “platform work” OR “digital labour” OR “gig worker” OR “platform worker” OR “on-demand work” OR “crowd work” OR “non-standard form of work”.

3. Database Selection and Data Collection

The Dimensions.ai database was selected for its wide coverage of peer-reviewed journals and multidisciplinary focus. The initial search returned 1,529 records published between 2007 and August 2025, restricted to the English language. The scope of publication types was limited to Journal articles across categories such as commerce, management, law, sociology, economics, and communication & media.

4. Data Screening and Cleaning

To ensure data quality and relevance, duplicate records and non-article items (e.g., conference abstracts, book reviews, editorials) were excluded. Publications that did not explicitly address employment within the gig economy, freelancing, or crowd work were removed. The final dataset

i.e. 1510 consisted of only peer-reviewed articles directly relevant to the research scope.

5. Data Export and Preparation

The refined dataset was exported from Dimensions.ai in compatible formats (CSV and Excel) for bibliometric analysis. The dataset was then cleaned for missing values, standardized for keyword variations (e.g., “gig work” vs. “gig jobs”), and formatted for analysis using bibliometric tools.

6. Bibliometric Analysis

The analysis was conducted using Bibliometrix (R-package) and VOSviewer, applying the following techniques: a. Performance Analysis, evaluating annual publication growth, geographic distribution, and disciplinary spread. B. Co-authorship Analysis, mapping collaboration networks among authors, institutions, and countries. C. Co-citation Analysis, identifying influential authors, sources, and references shaping the field. D. Keyword Co-occurrence Analysis, detecting research hotspots and conceptual linkages.

7. Future Research Direction

Based on the results of bibliometric mapping, the study identifies gaps, emerging areas, and future research directions in employment-focused gig economy scholarship.

RESULTS AND DISCUSSION

1. Growth and Distribution of Publications Across Time, Countries, and Disciplines

The Figure 1 illustrates the growth of employment-focused gig economy publications from 2007 to 2025. For nearly a decade (2007–2016), research output remained minimal and stagnant. However, from 2017 onwards, publications began to rise steadily, with a significant surge observed after 2019. The number of studies peaked in 2024 at over 300 articles, indicating heightened scholarly interest in the gig economy’s employment dimensions. Although a slight decline is seen in 2025, the overall trend highlights a sharp and sustained increase in research activity in recent years.

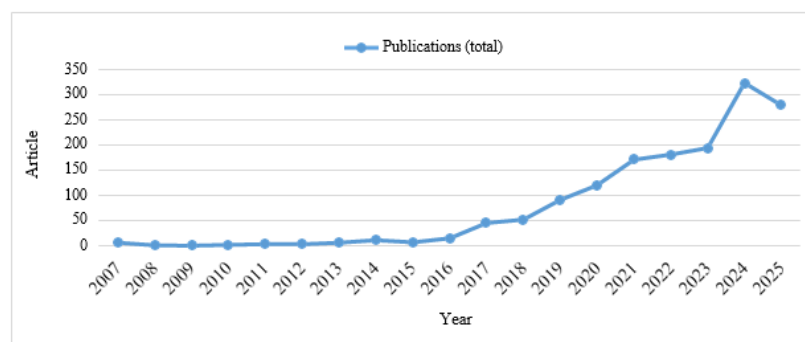


Figure 1: Growth of Publications Across Time

Source: Author’s own compilation from dimensions.ai database

The analysis of country production over time Figure 2 reveals a steady rise in scholarly output on gig economy, freelancing, and crowd work, particularly after 2015. The USA consistently leads in publications, reflecting its strong research base and mature gig economy, while China and India have shown rapid acceleration in recent years, highlighting their growing digital labor markets. Canada and Australia contribute steadily but remain behind in overall volume. A notable surge is observed after 2020, coinciding with the COVID-19 pandemic and heightened global attention on employment precarity, platform governance, and digital labor opportunities. The trend indicates that research on gig and crowd work has evolved from a niche focus into a globally significant field, with employment issues emerging as a central theme.

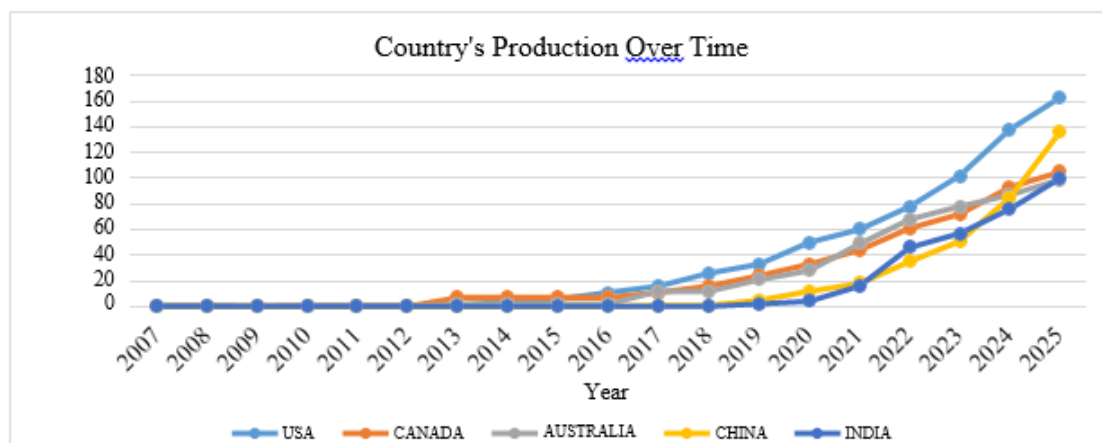


Figure 2: Country with Highest Production Over Time.

Source: Author's own compilation from dimensions.ai database

Figure 3 shows that research on the gig economy, freelancing, and crowd work is highly concentrated in Commerce, Management, Tourism and Services (683 articles), followed by Language, Communication and Culture (452) and Creative Arts and Writing (301). Other fields such as Education, Information and Computing Sciences, and Health Sciences contribute moderately, while areas like Law, Economics, Psychology, and Engineering show limited but emerging attention. This indicates that employment-related gig economy research is predominantly examined from management, communication, and cultural perspectives, with interdisciplinary contributions gradually expanding into technical, social, and legal domains.

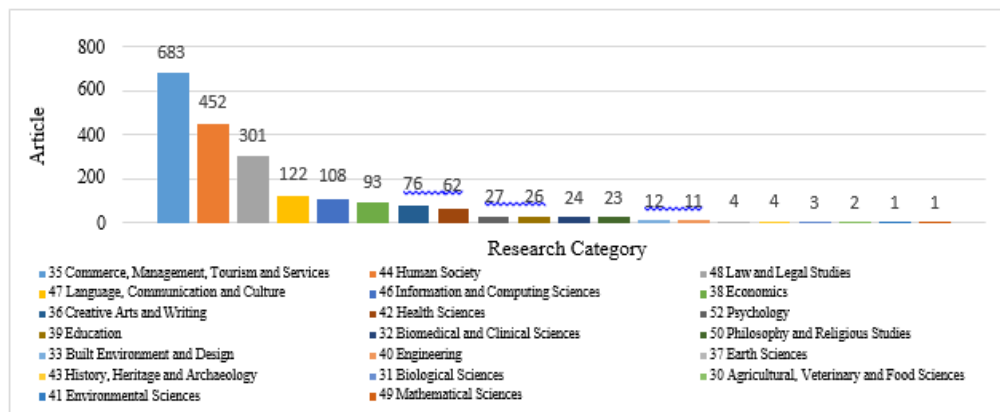


Figure 3: Production by Research Category Over Time.

Source: Author's own compilation from dimensions.ai database

2. Citation Analysis

Citation analysis measures the frequency and patterns of citations received by documents, authors, journals, or countries. It reflects scholarly impact, intellectual influence, and the dissemination of knowledge within a research field (Donthu et al., 2021; Zupic & Čater, 2015). For example, citation analysis of sources identifies the most influential journals; of authors, it highlights the most cited scholars; and of countries, it maps geographical contributions to knowledge production.

Table 1: Top 10 Sources with Highest Citations

S.No.	Source	Documents	Citations	Total Link Strength
1.	the economic and labour relations review	13	1082	85
2.	work employment and society	12	924	85
3.	human resource management journal	3	717	50
4.	management science	2	607	13
5.	sustainability	7	600	5
6.	new technology work and employment	9	570	56
7.	environment and planning a economy and space	8	492	45
8.	technological forecasting and social change	3	440	39
9.	human relations	5	399	13
10.	international journal of human resource management	8	371	46

Source: dimensions.ai database

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9.	stanford, jim	2	656	59
10.	howcroft, debra	2	646	44

Source: dimension.ai database

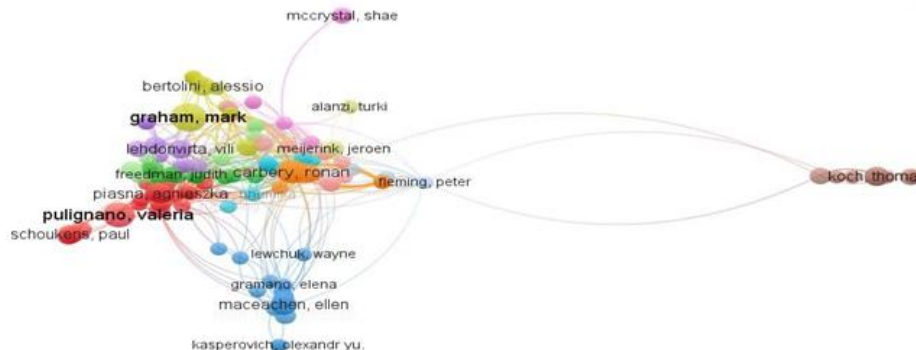


Figure 5: Authors with Highest Citations

Source: dimension.ai database

The citation analysis of authors Figure 5, reveals that Juliet B. Schor stands out as the most highly cited author with 1,239 citations, despite contributing only two documents, indicating the strong impact of her work. In contrast, Ronan Carbery and Anthony McDonnell emerge as highly influential contributors with six publications each, accumulating 818 citations and the highest total link strength (90), reflecting both productivity and collaboration. Ultan Sherman and James Duggan also show strong citation counts (817 and 763, respectively), highlighting their prominence in employment-focused gig economy research. Scholars such as Vili Lehdonvirta, Mark Graham, and Otto Kässi demonstrate substantial influence, particularly through studies on digital platforms and labor markets. Meanwhile, Jim Stanford and Debra Howcroft maintain high citation impact relative to fewer publications, suggesting that their works are widely recognized within the field.

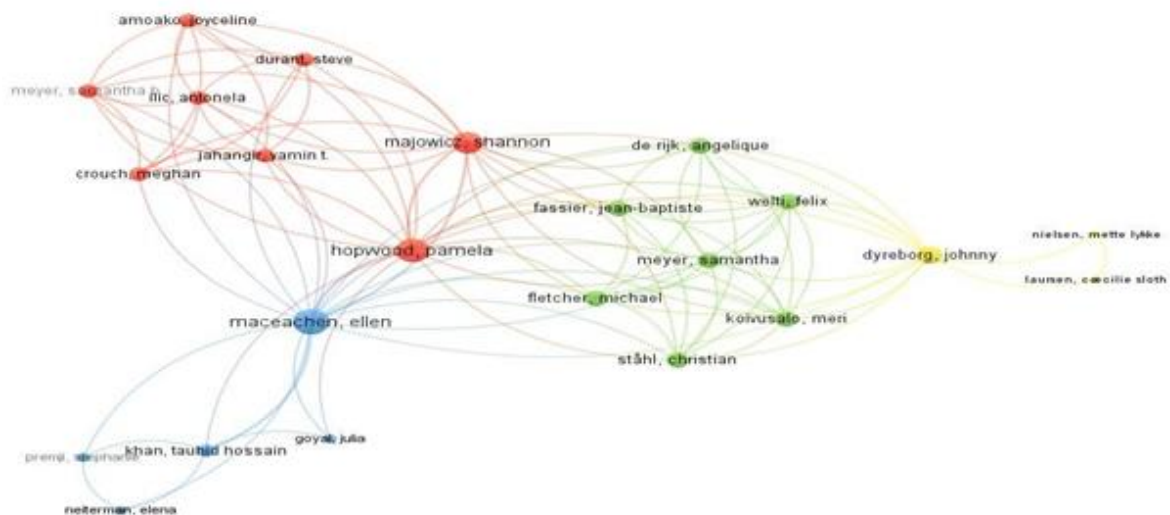
3. Author's Co-Authorship Analysis:

Co-authorship analysis examines patterns of collaboration among researchers, institutions, and nations based on joint publications. It identifies networks of cooperation, collaborative intensity, and the structure of scientific communities (van Eck & Waltman, 2014). Analyzing authors shows individual collaboration patterns, countries reveal international research ties, and organizations highlight institutional linkages in knowledge production.

Table 3: Top 10 Authors with Total Link Strength

S.No.	Author	Documents	Citations	Total Link Strength
1.	maceachen, ellen	5	49	25
2.	graham, mark	9	707	24
3.	hopwood, pamela	3	33	21
4.	carbery, ronan	6	818	19
5.	fujiwara, shin-ichiro	1	14	19
6.	fukuda, takahiro	1	14	19
7.	goto, hideki	1	14	19
8.	katayama, yuta	1	14	19
9.	kato, seiko	1	14	19
10.	kohno, akio	1	14	19

Source: dimension.ai database

**Figure 6: Authors with Highest Total Link Strength.**

Source: dimension.ai database

The co-authorship analysis Figure 6 reveals a mix of established and emerging contributors in gig economy and employment research. Among them, Mark Graham stands out with the highest citations (707) across 9 publications, highlighting his strong influence in the field despite a moderate total link strength. Ronan Carbery also shows significant impact, with 818 citations and 6 publications, though his collaborative ties appear weaker compared to others. Authors like Ellen MacEachen (5 documents, 49 citations) and Pamela Hopwood (3 documents, 33 citations) demonstrate active engagement and strong collaborative networks. Interestingly, a cluster of Japanese scholars including Fujiwara, Fukuda, Goto, Katayama, Kato, and Kohno appear with

single publications but identical citation counts (14) and strong link strengths (19), suggesting close intra-group collaboration. Overall, the results indicate that while a few highly cited scholars drive intellectual influence, smaller regional groups contribute through tightly connected collaborative networks.

4. Co-citation Analysis

Co-citation analysis occurs when two documents are cited together by a third. The higher the co-citation frequency, the closer the intellectual relationship between them (Small, 1973; Zupic & Čater, 2015). This method can be applied at the level of authors (mapping intellectual schools of thought), references (identifying foundational works), and sources (recognizing core journals in a discipline).

Table 4: Top 10 Highly Co-Cited Authors

S.No.	Author	Citations	Total Link Strength
1.	hall, peter a.	12	43
2.	soskice, david	12	43
3.	palier, bruno	5	24
4.	emmenegger, patrick	4	22
5.	hausermann, silja	4	22
6.	seeleib-kaiser, martin	4	22
7.	warhurst, chris	3	16
8.	arthur, michael b	4	14
9.	bergström, ola	1	14
10.	bosch, gerhard	1	14

Source: dimension.ai database

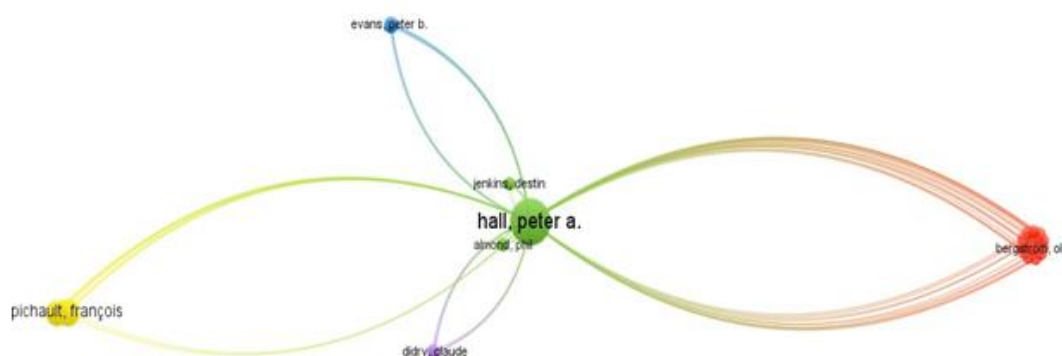


Figure 7: Highly Co-Cited Authors

Source: dimension.ai database

The co-citation analysis Figure 7 shows that Hall, Peter A. and Soskice, David emerge as the

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Table 6: Top 10 Keywords Co-Occurrence

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The co-occurrence analysis reveals that research on employment within the gig economy is strongly clustered around legal and regulatory dimensions. High-frequency terms such as platform worker, employment relationship, and employment status highlight ongoing debates on the classification of gig workers and their position within labor markets. Closely linked terms like legislation, labor relation, labour law, and court indicate that much of the scholarship emphasizes legal disputes, policy frameworks, and judicial interpretations surrounding platform employment. Meanwhile, the presence of independent contractor and social security reflects concerns about worker rights, welfare provisions, and the absence of traditional employment protections. Overall, the thematic structure suggests that academic discourse is primarily centered on the tension between flexibility and precarity, with legal recognition and social protection for gig and platform workers emerging as dominant research frontiers.

Future Research Score

Future research on gig economy and employment should move beyond publication trends to explore the quality of work, income security, and social protection mechanisms for gig workers across regions. Comparative studies between the Global North and Global South can highlight structural inequalities and policy gaps. Additionally, integrating interdisciplinary approaches linking labor studies, digital technology, and development policy will help identify sustainable models of employment in the digital labor economy.

DECLARATION OF CONFLICTING INTERESTSTST

This research was conducted as part of an academic study on the evolving landscape of the gig economy, freelancing, and crowd work in relation to employment research. The author declares no conflicts of interest related to this study.

FUNDING

No specific funding was received for this research.

NOTES

1. The dataset used in this study was retrieved from Dimensions.ai, covering publications from 2007 to August 2025, in the English language. A total of 1,529 research articles related to gig economy, freelancing, crowd work, and employment were analyzed.

2. Co-citation, co-authorship, and keyword co-occurrence analyses were conducted to map the intellectual and collaborative structure of the field using bibliometric methods.
3. The term “Gig and Platform Work” refers to all forms of non-standard employment mediated through digital platforms, including freelancing, crowd work, and on-demand work models.

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