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Mapping the research on AI-generated content in social media: A bibliometric analysis approach

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ABSTRACT

AI-generated content (AIGC) is reshaping how social media content is produced, distributed, and consumed. Yet the literature lacks a consolidated account of the field's intellectual foundations. This study maps the knowledge base and theoretical structure of AIGC research in social media through a bibliometric and science-mapping analysis of Scopus-indexed journal articles published between 2014 and 20 May 2025. Following PRISMA-guided screening, 2,945 articles were analysed using Bibliometrix and VOSviewer. Annual publication trends provide temporal context, document co-citation analysis identifies influential knowledge clusters, and keyword co-occurrence analysis offers complementary thematic evidence. Output remained negligible till 2022 but increased to 208 articles in 2023 and 1,440 in 2024, with a further 1,288 indexed by 20 May 2025. The co-citation results show that the field relies heavily on theories borrowed from information systems, social psychology, and marketing, particularly TAM, UTAUT, and social-media engagement frameworks. Keyword analysis highlights increasing attention to AI ethics, trust, misinformation, and related social concerns. Overall, AIGC research in social media remains theoretically fragmented and lacks a cohesive AIGC-specific foundation. The study therefore calls for more integrated frameworks to support future media and communication research.

Keywords: ***AI-generated content (AIGC), social media, bibliometric analysis, science mapping, AI ethics***

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INTRODUCTION

Generative AI systems such as ChatGPT, Midjourney, and Sora can produce texts, images, audios, and videos at scale, dramatically shifting digital communication and social-media content production (Babadoğan, 2024; Hua et al., 2024). Their use in social-media marketing has shifted communication towards algorithmic and synthetic formats, including virtual personas, AI-generated advertising, and recommendation systems (Aggarwal et al., 2024; Flores et al., 2025). These applications improve efficiency but also raise concerns about content quality, audience experience, authenticity, and ethical governance (Arango et al., 2023).

As AI-generated content (AIGC) has expanded from template-based tools to multimodal generative systems, it has attracted research across communication, psychology, marketing, computer science, and ethics (Elkhatibi & Benabdelouhed, 2024; Feng & Wang, 2024). Its rapid and interdisciplinary growth makes the field's intellectual foundations difficult to assess and reinforces the need for systematic mapping (Kubovics, 2025). However, existing AIGC studies are often application-specific and do not provide a consolidated account of the field's intellectual structure (Dixit et al., 2024; Guo et al., 2025).

Prior bibliometric work has mainly examined broad generative-AI developments or sectoral applications, particularly in technology and education (Mayasari et al., 2024; Vhatkar et al., 2024). Consequently, the literature reviewed for this study does not provide a dedicated analysis of the knowledge base through which AIGC intersects with social-media platforms, user behaviour, and communication practices. Without such a map, the field risks fragmented and duplicative lines of inquiry, which may impede cumulative theory development (Zhang et al., 2023).

Accordingly, this study used bibliometric and science-mapping techniques to clarify the field's development and reveal the foundational works and theoretical structure underpinning AIGC research in social media.

Research question and objective

In response to the above limitations, the present study is guided by one research question:

> RQ: What knowledge base and theoretical structure underpin the rapidly expanding body of research on AIGC in social media?

To answer this question, the study pursues one main research objective:

> RO: To reveal the foundational knowledge base and theoretical structure of AIGC–social media research through document co-citation analysis, complemented by keyword co-occurrence analysis.

Annual publication trends were analysed solely to contextualise the field's development and the interpretation of the science-mapping results; they were not treated as a separate research objective.

LITERATURE REVIEW

AIGC and social media: Concepts and applications

AI-generated content (AIGC) comprises digital text, images, audio, and video produced wholly or partly by generative AI systems (Grewal et al., 2025). In social media, it supports automated posts, captions, advertising materials, chatbots, virtual influencers, and AI-curated content flows (Pan et al., 2025; Shao & Yin, 2025). These applications increase production efficiency and enable personalisation but blur distinctions between human and synthetic communication.

The resulting concerns centre on authenticity, trust, misinformation, and governance. Park et al. (2024) found that users often had difficulty distinguishing AI-generated from human-generated Instagram accounts and evaluated AI and influencer accounts similarly in terms of attractiveness and content quality, while also expressing ethical concerns. Related evidence from AI-generated voice research shows that perceived human-likeness shapes audience responses to synthetic media (Leong et al., 2023). Generative AI also increases the scale and sophistication of content manipulation, intensifying regulatory challenges on social platforms (Pan et al., 2025).

Although these studies establish the practical and social significance of AIGC, they remain dispersed across marketing, communication, HCI, and information-systems research. This disciplinary dispersion makes the field's collective development and intellectual foundations difficult to assess.

Existing reviews and bibliometric studies on generative AI

Reviews of ChatGPT and generative AI have synthesised applications and risks across sustainability, health, education, work, social media, and energy (Hussein et al., 2025), while media-focused work has examined AI-assisted content creation and related ethical concerns (Shao & Yin, 2025). Bibliometric studies have also mapped ChatGPT and generative-AI research broadly (Khan et al., 2024; Koo, 2025; Obreja et al., 2025) or within sectors such as higher education and medicine (Gande et al., 2024; Sekwatlakwatla & Malele, 2023; Zhang et al., 2025).

These studies establish rapid interdisciplinary growth but have three limitations for the present purpose. First, they usually treat generative AI as the unit of analysis rather than AIGC within social-media communication. Second, sector-specific mappings do not consolidate research spanning platforms, user behaviour, and communication practices. Third, most emphasise productivity, collaboration, and themes rather than document co-citation structures. A dedicated analysis is therefore needed to identify the knowledge base and theoretical organisation of AIGC research in social media.

Theoretical frameworks in AIGC and social media research

Three theoretical families recur in AIGC and social-media research. First, technology-acceptance models explain adoption through perceived usefulness, ease of use, performance expectancy, social influence, and perceived behavioural control (Ajzen, 1991; Davis, 1989; Venkatesh et al., 2003). Empirical AIGC studies extend this user-response focus by examining engagement with AI-generated advertising (Du et al., 2023) and customer responses to AI-enabled social-media personalisation (Beyari & Hashem, 2025).

Second, communication frameworks explain how platform affordances and engagement processes shape interaction. Kietzmann et al.'s (2011) building-block model identified identity, conversations, sharing, presence, relationships, reputation, and groups, while Hollebeek et al. (2014) conceptualised consumer engagement in social media.

Third, ethics and risk frameworks address transparency, authenticity, privacy, bias, and accountability in AI-mediated communication (Grewal et al., 2021; Pan et al., 2025; Park et al., 2024). Overall, the literature relies mainly on theories borrowed from information systems, social psychology, marketing, and communication. Whether these frameworks form a coherent knowledge base or a fragmented constellation has not been systematically assessed, which motivates the present co-citation analysis.

Research gaps and contributions of this study

The review identified three related gaps. First, existing reviews and bibliometric studies usually examine generative AI broadly or focus on specific sectors such as education and health (Hussein et al., 2025; Sekwatlakwatla & Malele, 2023; Zhang et al., 2025). Second, prior mappings emphasise descriptive indicators, including countries, institutions, and authors, but rarely examine the intellectual structure of AIGC research in communication contexts (Khan et al., 2024; Koo, 2025). Third, although studies frequently apply TAM, UTAUT, TPB, and social-media frameworks, it remains unclear whether these borrowed theories form a coherent knowledge base or a fragmented constellation (Ajzen, 1991; Davis, 1989; Kietzmann et al., 2011; Venkatesh et al., 2003).

This study makes three contributions. It first charts the publication trajectory of AIGC research in social media from 2014 to 20 May 2025 as temporal context. It then uses document co-citation analysis to identify influential works, theoretical clusters, and patterns of theoretical borrowing. Finally, keyword analysis provides complementary evidence on the field's thematic orientation. Together, these analyses clarify the development and intellectual foundations of AIGC–social media research and support the development of more integrated, AIGC-specific frameworks.

Table 1 summarises the three literature strands underpinning the study: conceptual and empirical research on AIGC in social media, reviews and bibliometric studies of generative AI, and theoretical frameworks used in AIGC-related research.

Table 1. Overview of literature strands, limitations, and implications for the present study

Literature Strand	Main Focus	Key Limitations from the Perspective of AIGC in Social Media	Implications for the Present Study (Key References)
AIGC and social media: concepts and applications	Defines AIGC and documents its social media uses (content creation, virtual influencers), with associated opportunities and risks.	Insights fragmented across marketing, HCI, communication and information systems; no consolidated overview of the field.	Motivates the use of publication trends as temporal context for interpreting the field's intellectual foundations. Key sources: Grewal et al. (2025); Pan et al. (2025); Park et al. (2024); Shao & Yin (2025)

Table 1. (con't)

Literature Strand	Main Focus	Key Limitations from the Perspective of AIGC in Social Media	Implications for the Present Study (Key References)
Reviews and bibliometric studies on generative AI	Maps generative AI research across sectors (education, health, work); describes publication patterns and thematic clusters.	Generative AI treated generically or per sector; social media only a sub-theme; emphasis on descriptive statistics rather than intellectual structure.	Reveals the gap for a focused bibliometric and science-mapping study that treats AIGC in social media as a distinct domain and examines its knowledge base and theoretical structure. Key sources: Gande et al. (2024); Hussein et al. (2025); Koo (2025); Obreja et al. (2025); Sekwatlakwatla & Malele (2023); Zhang et al. (2025).
Theoretical frameworks in AIGC and social media research	Applies established theories (TAM, UTAUT, TPB, social media building blocks, ethics and trust frameworks) to user responses to AIGC.	Heavy reliance on theories borrowed from information systems, social psychology and communication; no systematic assessment of the field's actual knowledge base.	Justifies document co-citation analysis as the core method for identifying the foundational knowledge base and theoretical structure of AIGC–social media research, with keyword co-occurrence analysis as complementary evidence. Key sources: Ajzen (1991); Beyari & Hashem (2025); Davis (1989); Du et al. (2023); Grewal et al. (2021); Kietzmann et al. (2011); Venkatesh et al. (2003).

Based on the above literature strands and identified gaps, Figure 1 presents the conceptual framework linking prior work to the study's single research objective.

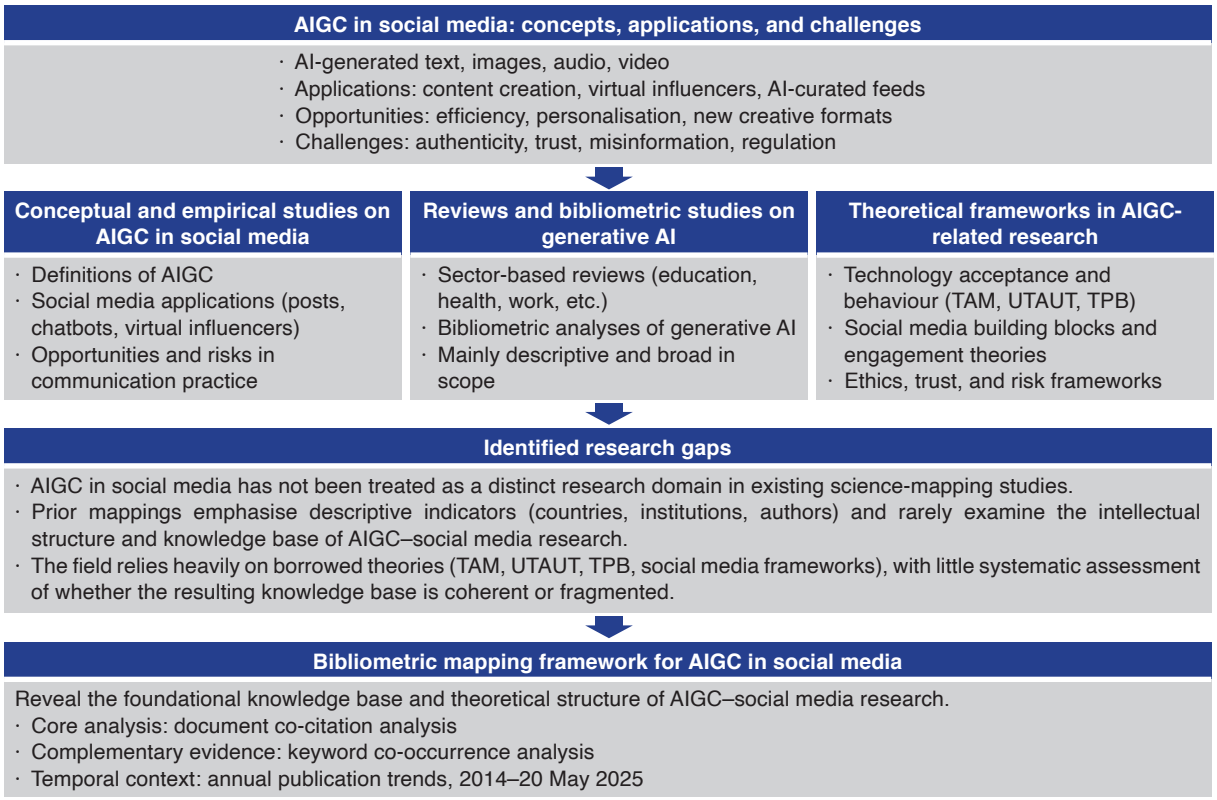

Figure 1. Conceptual framework linking the literature, research gaps, and single research objective

METHODS

Data source and search strategy

This study retrieved bibliographic data from the Scopus database. Scopus was selected due to its broad disciplinary coverage, high-quality indexed literature, robust citation analysis functions, and compatibility with bibliometric tools such as Bibliometrix and VOSviewer (Pranckute, 2021). Scopus was chosen over other databases like Web of Science due to its broader coverage of interdisciplinary journals, particularly in the social sciences and humanities, which is crucial for a topic as multifaceted as AIGC in social media (AlRyalat et al., 2019; Mongeon & Paul-Hus, 2016).

The search strategy combined terms related to generative AI, "AI-Generated Content," "AIGC,", "generative AI", and the term "social media." The research team executed searches using the title, abstract and keyword fields. The publication time window was set to 2014–20 May, 2025, as the earliest relevant document addressing both AIGC and social media appeared in 2014; after applying the inclusion criteria (peer-reviewed journal articles in English), the earliest eligible article dates from 2020 (see Table 2). The initial query returned 5,263 records (see Figure 2). These results were subsequently refined through a screening and cleaning process to determine the final dataset for analysis.

Inclusion criteria and screening process

The study applied pre-defined inclusion and exclusion criteria to screen the retrieved documents. The inclusion criteria were:

1. Document type must be peer-reviewed journal articles (Articles), either published or accepted for publication.
2. Language of publication must be English.

A key decision in our screening process was the exclusion of documents not classified as peer-reviewed journal articles. The study recognizes that conferences play a major role in computer science research dissemination (Franceschet, 2010), yet our research focused on the established knowledge base of the field. According to Thyer (2008), the review process of the peer-reviewed journal articles usually undergoes a more rigorous and lengthy review process, which represents a more stable form of academic communication.

The research followed established theoretical and empirical arguments through its focus. The research team discusses this study limitation in the discussion section because journal articles contain more detailed conceptual development than conference papers which show different levels of quality and completeness (Cossu, 2010; González-Albo & Bordons, 2011). Thus, the exclusion criteria included:

1. Documents that were not journal articles.
2. Articles written in languages other than English.

The screening process was reported using the PRISMA 2020 framework (Page et al., 2021). As shown in Figure 2, documents that did not meet the inclusion criteria were gradually removed. Ultimately, the study included 2,945 articles in the final dataset for bibliometric analysis.

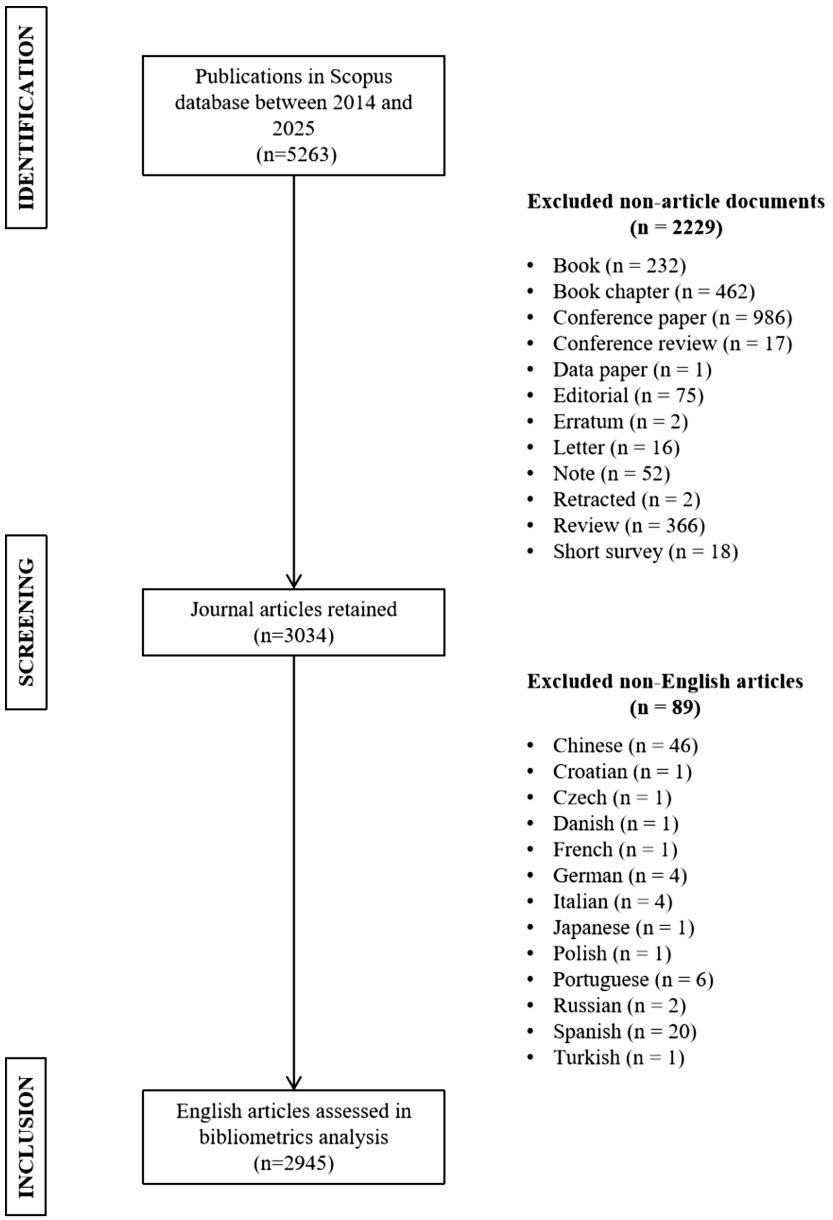

Figure 2. Flow diagram of the article selection process in Scopus.

Analytical tools

To support the study's single research objective, Bibliometrix in R was used to calculate annual publication trends and basic co-citation statistics (Aria & Cuccurullo, 2017; Moral-Muñoz et al., 2020). The publication indicators provided temporal context for the subsequent science-mapping analysis.

VOSviewer was used to construct and visualise document co-citation and keyword co-occurrence networks. VOSviewer constructs network maps based on co-occurrence relationships, where item size represents the selected weight, link thickness represents link strength, and colour represents cluster membership or a selected score, depending on the visualisation (Noyons, 2012; Van Eck & Waltman, 2010). Document co-citation analysis served as the core procedure for revealing the field's knowledge base and theoretical structure, while keyword co-occurrence analysis provided complementary thematic evidence. Annual publication trends were analysed separately as temporal context.

Analytical workflow

The analysis comprised two integrated stages serving the single research objective: a descriptive stage that established the publication trajectory as temporal context, followed by a core science-mapping stage that examined the field's knowledge base and theoretical structure.

The number of relevant publications per year from 2014 to 20 May, 2025 was calculated and visualised to depict the temporal evolution of AIGC in social media research. Key inflection points in the growth curve were identified, and year-over-year growth rates were calculated to distinguish different phases of development in line with prior bibliometric work on emerging technologies (Alrefaee et al., 2025). These procedures provided temporal context for interpreting the field's intellectual structure.

To address the study's single research objective, the most frequently cited publications in the corpus were identified and examined as the potential foundational knowledge of the field. A document co-citation matrix was constructed and imported into VOSviewer to generate co-citation networks and detect clusters of highly cited papers (Lopez-Lopez et al., 2025). Each cluster was then interpreted through the lens of the theoretical framework discussed in the literature review. Bibliometrix was used to summarise the frequencies of Keywords Plus terms and to generate the corresponding word-frequency plot and word cloud. VOSviewer was used to construct the author-keyword co-occurrence overlay visualisation and to examine the relative temporal distribution of author keywords based on average publication year.

FINDINGS

The findings are presented in an integrated sequence: publication trends establish temporal context, while co-citation and keyword analyses address the study's single research objective.

Overview of the corpus and publication trajectory

Publication output remained below five articles annually through 2022. Following the public release of ChatGPT in late 2022, output increased to 208 articles in 2023 and 1,440 in 2024. By 20 May, 2025, a further 1,288 articles had been indexed (Table 2, Figure 3). This expansion demonstrates strong scholarly interest but does not, by itself, establish the theoretical maturity of the field.

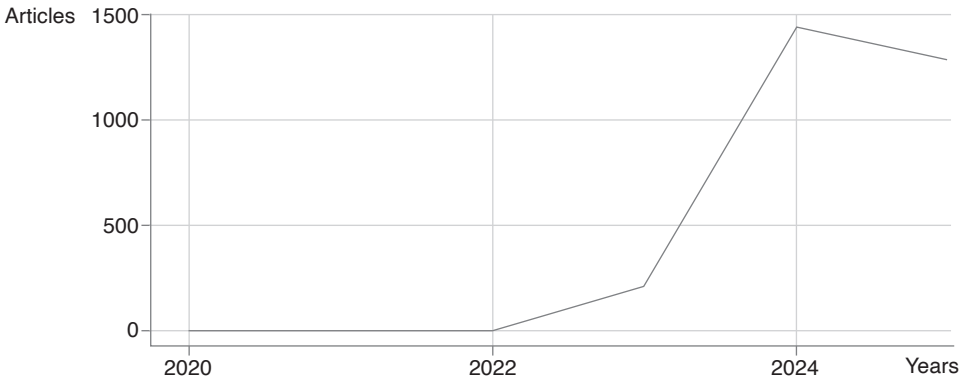

Figure 3. Number of publications per year (2025 data are reported through 20 May, 2025)

Table 2. Number of papers by year and percentage over the total

Year	Articles	Percentage (%)	Annual Growth Rate (%)
2020	3	0.1	–
2021	2	0.07	–33.33
2022	4	0.14	100
2023	208	7.06	5100
2024	1440	48.9	592.31
2025	1288	43.73	–

Note: Data for 2025 reflect publications retrieved up to 20 May, 2025.

Highly cited literature and knowledge base analysis

Central to the study's single research objective, this subsection investigates the knowledge base of AIGC in social media research by identifying and analysing the most highly cited publications in the corpus. As shown in Figure 4, nine of the top ten documents were published in 2023 and one in 2024, indicating that a recent group of publications has rapidly gained substantial citation influence within the corpus. The most cited paper, a 2023 position article by Dwivedi et al. discusses the implications of ChatGPT and has garnered over 2,000 citations (Table 3). Other highly cited papers span education (Tlili et al., 2023), management (Lim et al., 2023), and medicine (Clusmann et al., 2023), illustrating the cross-disciplinary influence of generative AI research. Many of these highly cited papers are conceptual or perspective-oriented, which is consistent with the field's early stage of development.

The subsequent co-citation analysis (Figure 5) shows different theoretical clusters that describe the intellectual structure of the field. One prominent cluster is built around technology acceptance models such as TAM (Davis, 1989) and UTAUT (Venkatesh et al., 2003). This cluster indicates the strong intellectual influence of information-systems and consumer-psychology theories. Several highly co-cited references, including Kuo et al. (2022), have limited direct substantive relevance to AIGC. Their prominence suggests that co-citation rankings in this young corpus may be influenced by concentrated citation patterns and should therefore be interpreted cautiously (Table 4). The broader co-citation network in Figure 5 spans management, psychology, education, and communication, whereas Figure 6 provides a closer view of the concentrated author-linked cluster.

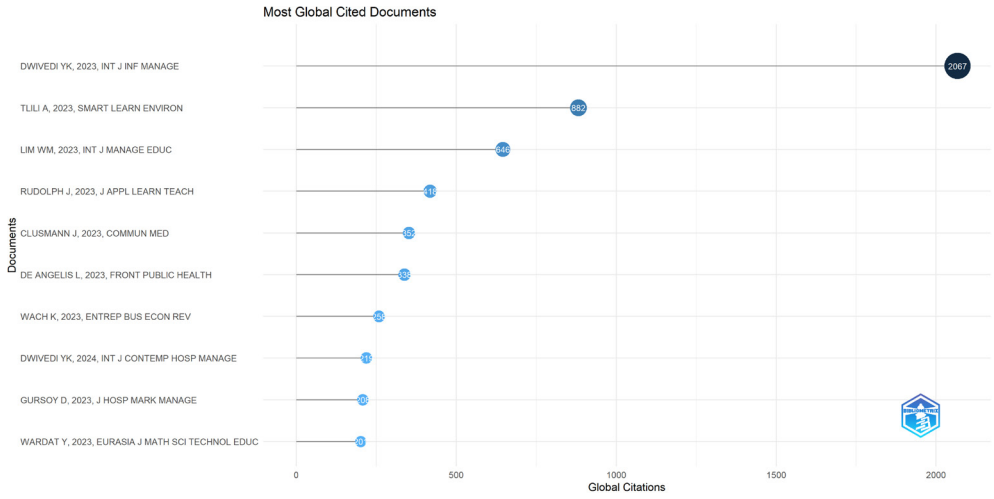

Figure 4. Most cited papers over the study period

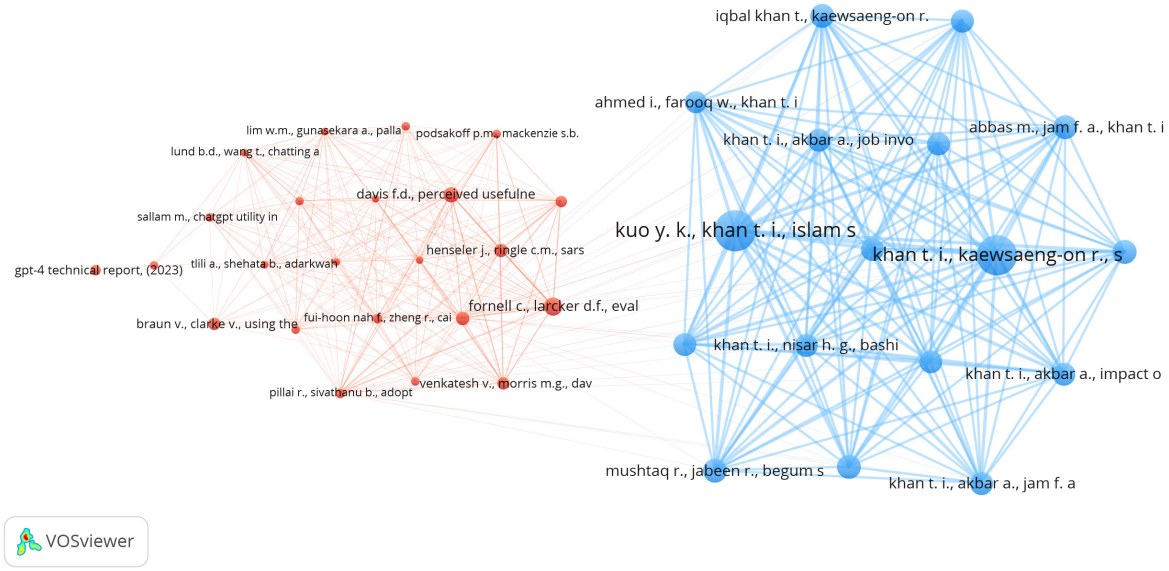

Figure 5. Co-citation between references

Table 3. Top 10 most cited publications and basic information

Author(s)	Paper	Source	Year	Total Citations	TC per Year
Dwivedi et al.	Opinion Paper: "So what if ChatGPT wrote it?" Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy	*International Journal of Information Management*	2023	2067	689
Tlili et al.	What if the devil is my guardian angel: ChatGPT as a case study of using chatbots in education	*Smart Learning Environments*	2023	882	294
Lim et al.	Generative AI and the future of education: Ragnarök or reformation? A paradoxical perspective from management educators	*The International Journal of Management Education*	2023	646	215.33
Rudolph et al.	War of the chatbots: Bard, Bing Chat, ChatGPT, Ernie and beyond. The new AI gold rush and its impact on higher education	*Journal of Applied Learning & Teaching*	2023	418	139.33
Clusmann et al.	The future landscape of large language models in medicine	*Communications Medicine*	2023	352	117.33
De Angelis et al.	ChatGPT and the rise of large language models: The new AI-driven infodemic threat in public health	*Frontiers in Public Health*	2023	338	112.67
Wach et al.	The dark side of generative artificial intelligence: A critical analysis of controversies and risks of ChatGPT	*Entrepreneurial Business and Economics Review*	2023	258	86

Table 3. (con't)

Author(s)	Paper	Source	Year	Total Citations	TC per Year
Dwivedi et al.	Leveraging ChatGPT and other generative artificial intelligence (AI)-based applications in the hospitality and tourism industry: Practices, challenges and research agenda	*International Journal of Contemporary Hospitality Management*	2024	219	109.5
Gursoy et al.	ChatGPT and the hospitality and tourism industry: An overview of current trends and future research directions	*Journal of Hospitality Marketing & Management*	2023	208	69.33
Wardat et al.	ChatGPT: A revolutionary tool for teaching and learning mathematics	*Eurasia Journal of Mathematics, Science and Technology Education*	2023	201	67

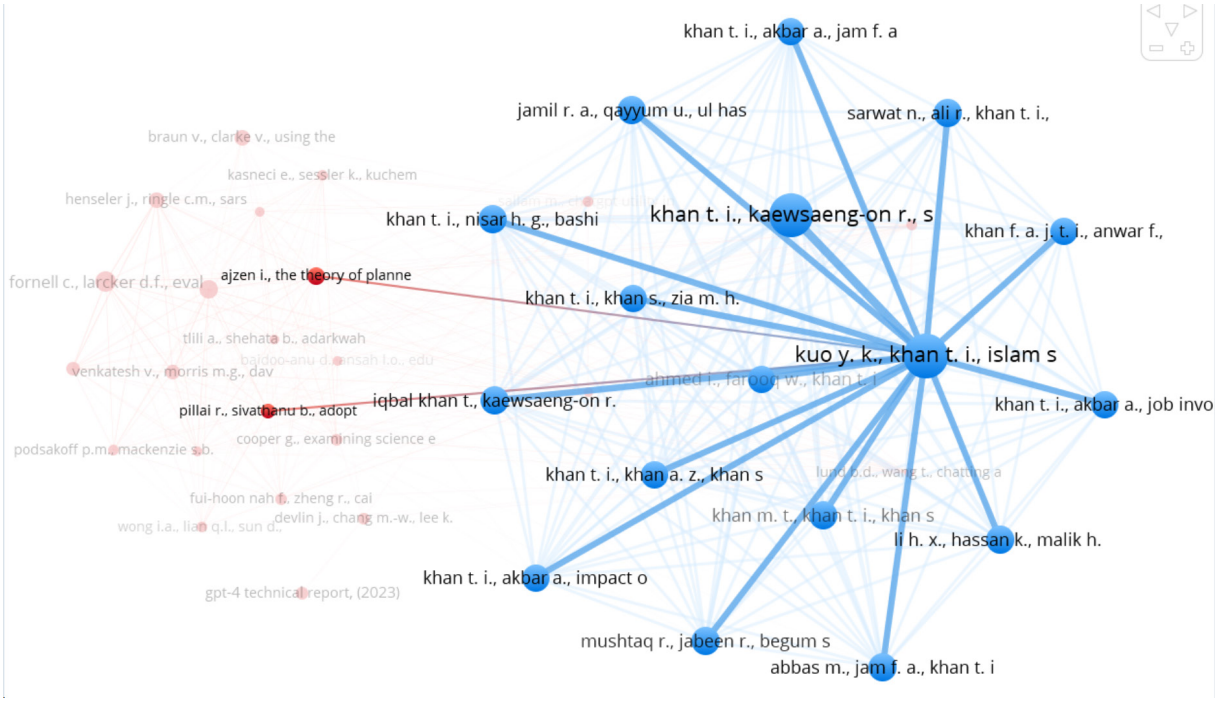

Figure 6. Connections within the cluster ranked first

Table 4. Ranking of the most co-cited references

Rank	Title	Source Title	Citations	Total Link Strength
1	Impact of Green HRM Practices on Environmental Performance: The mediating role of green innovation	*Frontiers in Psychology*	240	4602
2	Impact of workload on innovative performance: Moderating role of extrovert	*Humanities & Social Sciences Reviews*	233	4549

Table 4. (con't)

Rank	Title	Source Title	Citations	Total Link Strength
3	Is it harmful or helpful? Examining the causes and consequences of generative AI usage among university students	*International Journal of Educational Technology in Higher Education*	124	2469
4	Expanded job scope model and turnover intentions: A moderated mediation model of core-self evaluation and job involvement	*Management Science Letters*	123	2469
5	Impulsive and compulsive buying tendencies and consumer resistance to digital innovations: The moderating role of perceived threat of COVID-19	*Frontiers in Psychology*	121	2461
6	Perceived organizational politics and age, interactive effects on job outcomes	*Sage Open*	123	2452
7	Innovation & its diffusion in business: Concept, stages & procedural practices	*Sir Syed Journal of Education and Social Research (SJESR)*	121	2449
8	Impact of aversive leadership on job outcomes: Moderation and mediation model	*NICE Research Journal*	120	2448
9	Effect of time pressure on organizational citizenship behaviour: Moderating role of agreeableness	*Sir Syed Journal of Education and Social Research (SJESR)*	119	2443
10	Impact of social media influencers on consumers' well-being and purchase intention: A TikTok perspective	*European Journal of Management and Business Economics*	120	2436

Keyword co-occurrence analysis

Complementing the document co-citation analysis, this subsection examines keyword co-occurrence patterns to provide thematic evidence on the field's intellectual structure. As shown in Figure 7 and Figure 8(a), the most frequent Keywords Plus terms are "artificial intelligence" (528 occurrences) and "human" (293 occurrences), followed by "article" (235), "humans" (208), and "ChatGPT" (202). Other recurrent Keywords Plus terms include "large language model" (196) and "social media" (173), showing that technology-related terms coexist with broad human-related indexing terms. As Keywords Plus terms are database-generated, these patterns should be interpreted cautiously.

The overlay visualisation in Figure 8(b) provides a relative temporal perspective based on the average publication year of author keywords. Established technology-centred terms, including "artificial intelligence," "ChatGPT," and "machine learning," occupy central positions in the network. Terms such as "generative AI," "ethics," "trust," and "technology acceptance model" appear among the relatively recent topics. This pattern suggests that the field's established technological focus is increasingly accompanied by attention to ethical, trust-related, and user-acceptance concerns.

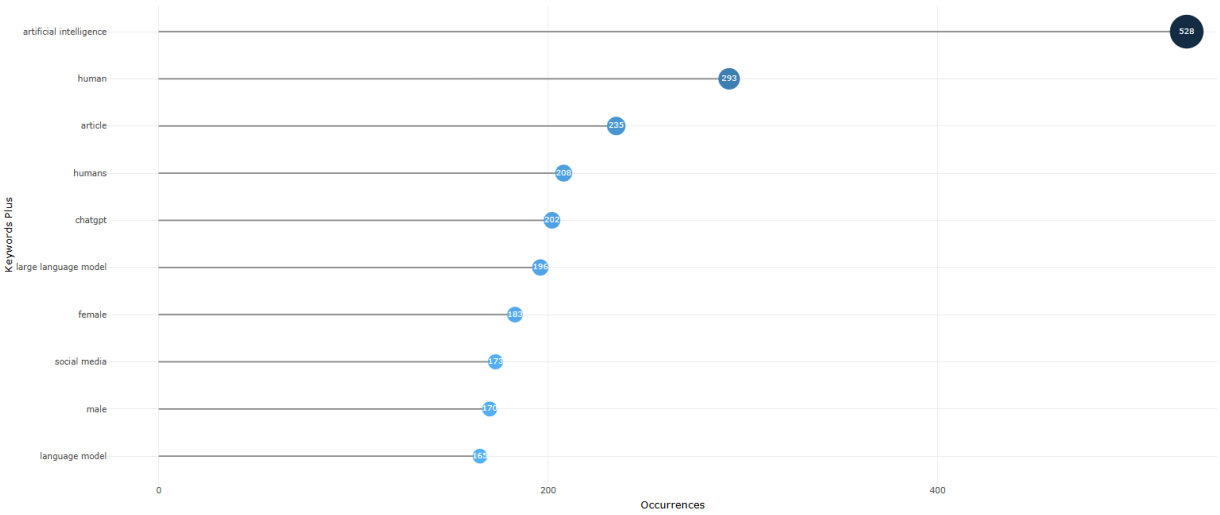

Figure 7. Top 10 most frequent Keywords Plus terms



(a) (b)

Figure 8. Keyword analysis: (a) word cloud of frequently occurring Keywords Plus terms; (b) author-keyword co-occurrence overlay visualisation based on average publication year

DISCUSSION

Taken together, the findings can be interpreted against the three strands of literature reviewed earlier. First, the publication trajectory confirms and extends prior mapping studies of generative AI. The explosive post-2022 growth observed here mirrors the pattern reported in Web of Science-based analyses of ChatGPT research (Koo, 2025) and in broader science mapping of generative AI (Obreja et al., 2025), but the present corpus demonstrates that AIGC in social media has developed into a substantial and rapidly expanding body of research. Notably, although the search window opened in 2014, no eligible journal article combining AIGC and social media was indexed before 2020, and fewer than five appeared annually until 2022. This suggests that the peer-reviewed journal literature is younger than the underlying technology, and that early technical work was disseminated mainly through conference venues excluded by the present inclusion criteria.

Second, the co-citation results substantiate the concern raised in the literature review that the field rests on borrowed theoretical scaffolding. The prominence of TAM, UTAUT, and TPB in the co-citation network indicates continued reliance on established technology-acceptance frameworks, while the visibility of Kietzmann et al.'s (2011) building-block model reflects the influence of pre-generative social-media theory. At the same time, several of the most strongly co-cited references in Table 4 originate from a concentrated author-linked cluster in management and consumer research whose substantive focus is only indirectly related to AIGC. Rather than automatically treating this cluster as the field's theoretical foundation, its prominence should be interpreted cautiously because concentrated citation patterns may influence co-citation structures in emerging fields (García-Villar & García-Santos, 2021). Co-citation rankings should therefore be read alongside the keyword evidence, which offers a complementary, content-oriented perspective of the field's thematic orientation.

Third, the keyword findings show that ethical and trust-related concerns have become visible alongside established technology-centred themes. This pattern is consistent with recent conceptual and empirical work on trust, authenticity, misinformation, and governance (Pan et al., 2025; Park et al., 2024; Shao & Yin, 2025). The convergence between the keyword evidence and the substantive literature suggests that the field is becoming increasingly attentive to the social implications of AIGC and underscores the need for AIGC-specific frameworks that integrate technical transparency with user-centred and ethical considerations.

CONCLUSION

Summary of findings

This study mapped the knowledge base and theoretical structure of Scopus-indexed AIGC research in social media published through 20 May, 2025. Annual trends provided temporal context, document co-citation analysis identified influential clusters, and keyword analysis supplied complementary thematic evidence. The field expanded rapidly after 2022 but remains theoretically fragmented. Co-citation patterns show continued reliance on theories from information systems, social psychology, and marketing, particularly TAM, UTAUT, and social-media engagement frameworks. Keyword patterns also indicate growing attention to ethics, trust, authenticity, and misinformation. Overall, application-oriented research is expanding faster than AIGC-specific theory development.

Challenges and limitations

Beyond the theoretical fragmentation identified through co-citation analysis, the present study does not directly assess the geographical distribution, platform coverage, sampling strategies, or research designs of individual studies. These dimensions therefore remain outside the evidential scope of the current analysis and should be examined through future systematic reviews and content analyses.

The research contains various methodological limitations that impact the study findings. The analysis relies solely on Scopus-indexed, peer-reviewed publications. Although Scopus is one of the most comprehensive databases, relevant works indexed

exclusively in Web of Science, IEEE Xplore or regional databases may have been omitted. The exclusion of conference proceedings from the analysis follows the journal article focus but could result in missing important technical breakthroughs. The search strings and inclusion criteria which researchers carefully constructed still influence the final collection of research, but they failed to retrieve every possible study about AIGC. Bibliometric indicators together with network maps show how papers relate to each other, yet they do not assess research quality or establish cause-and-effect relationships between studies. Thus, the results need to be evaluated with these study restrictions in mind.

Future research

There is a need to develop AIGC-specific theoretical frameworks that move beyond generic technology acceptance or social media models. Such frameworks could, for example, conceptualise human–AI co-creation, perceived algorithmic authenticity, or the negotiation of agency and responsibility in AI-mediated communication. Theory development that integrates insights from communication studies, human–computer interaction, critical data studies and media ethics would help consolidate the currently fragmented knowledge base.

Future work should broaden the geographical and cultural scope of AIGC in social media research. Comparative and cross-cultural studies, particularly from under-represented regions such as Africa, Latin America and Southeast Asia, are needed to examine how local values, regulatory regimes and media ecologies shape attitudes towards AIGC, perceptions of risk and patterns of adoption. Such work would contribute to a more geographically and culturally inclusive understanding of AIGC in social media.

The growing emphasis on ethics and trust calls for closer dialogue between technical and social-scientific research. Interdisciplinary studies that combine explainable AI (XAI) techniques with user-centred methods could investigate how algorithmic transparency, disclosure and control mechanisms influence trust, perceived bias and engagement on social platforms. This would transition from theoretical ethical concepts to specific assessments of practical design implementations.

Academic institutions need to develop better connections with industrial organisations for future research to produce more robust empirical evidence. The development of standardised metrics for AIGC real-world effectiveness assessment in communication and marketing becomes possible through co-designed studies which measure user behaviour and brand equity and return on investment. The development of new theories combined with diverse academic involvement and open research methods and practical results validation will transform AIGC social media research from landscape mapping to responsible human-centred equitable landscape shaping.

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