methaodos.revista de ciencias sociales (2026) 14(2) m261402a07

Same Technology, Different Problems? A Comparative Bibliometric Analysis of Generative AI Across Education, Business, Communication, and Governance

¿Misma tecnología, diferentes problemas? Un análisis bibliométrico comparativo de la inteligencia artificial generativa en educación, negocios, comunicación y gobernanza

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10.17502/mrcs.v14i2.980

Received: 02-07-2026
Aceptado: 05-10-2026

Abstract

The rapid diffusion of generative artificial intelligence (GenAI) has raised questions about whether this technological phenomenon is problematised differently across institutional domains. This study compares GenAI scholarship in education, business and organisational research, communication and media and public governance, law, and policy. Four domain-specific Web of Science Core Collection corpora for 2023–2026 comprised 6,132, 1,901, 300 and 444 documents, respectively. Bibliometric performance analysis, thematic mapping, and author-keyword co-occurrence analysis were conducted using Bibliometrix/Biblioshiny and VOSviewer. Distinct thematic configurations emerged across the four domains. Education foregrounds learning, assessment, AI literacy, and academic integrity. Business research emphasises innovation, technology adoption, decision making, and organisational capability. Communication scholarship centres on journalism, trust, disinformation, and informational credibility, whereas research on governance foregrounds regulation, accountability, rights, and legal responsibility. These patterns are not treated as direct measures of institutional logics. Instead, the study develops a theory-informed mapping that relates empirical thematic configurations to institutional problems and normative priorities. GenAI is not problematised uniformly; its institutional salience is shaped by divergent criteria of legitimate knowledge, organisational value, professional authority, and public accountability. The study offers a comparative framework for examining GenAI as an institutionally situated sociotechnical phenomenon while maintaining a clear distinction between bibliometric evidence and institutional interpretation.

Keywords: institutional complexity, institutional logics, normative priorities, professional authority, science mapping, sociotechnical change.

Resumen

La rápida difusión de la inteligencia artificial generativa (GenAI) ha planteado interrogantes acerca de si este fenómeno tecnológico se problematiza de manera diferente en distintos ámbitos institucionales. Este estudio compara la producción académica sobre GenAI en educación, investigación empresarial y organizacional, comunicación y medios, y gobernanza pública, derecho y políticas públicas. Se construyeron cuatro corpus específicos por ámbito institucional a partir de la Web of Science Core Collection para el período 2023–2026, con 6.132, 1.901, 300 y 444 documentos, respectivamente. Se realizaron análisis bibliométricos de desempeño, mapeo temático y análisis de coocurrencia de palabras clave de los autores mediante Bibliometrix/Biblioshiny y VOSviewer. Se identificaron configuraciones temáticas diferenciadas entre los cuatro ámbitos. La educación prioriza el aprendizaje, la evaluación, la alfabetización en IA y la integridad académica. La investigación empresarial enfatiza la innovación, la adopción tecnológica, la toma de decisiones y la capacidad organizacional. La producción académica en comunicación se centra en el periodismo, la confianza, la desinformación y la credibilidad informativa, mientras que la investigación sobre gobernanza destaca la regulación, la rendición de cuentas, los derechos y la responsabilidad jurídica. Estos patrones no se tratan como medidas directas de las lógicas institucionales. En cambio, el estudio desarrolla un mapeo teóricamente informado que relaciona las configuraciones temáticas empíricas con problemas institucionales y prioridades normativas. La GenAI no se problematiza de manera uniforme; su relevancia institucional está configurada por criterios divergentes de conocimiento legítimo, valor organizacional, autoridad profesional y rendición de cuentas pública. El estudio propone un marco comparativo para examinar la GenAI como un fenómeno sociotécnico situado institucionalmente, manteniendo una clara distinción entre la evidencia bibliométrica y la interpretación institucional.

Palabras clave: *autoridad profesional; cambio sociotécnico; complejidad institucional; lógicas institucionales; mapeo científico; prioridades normativas.*

Summary

1. Introduction | 2. Literature Review and Theoretical Framework | 2.1. Generative AI as a Cross-Institutional Sociotechnical Phenomenon | 2.2. Institutional Logics, Institutional Complexity, and Technological Change | 2.3. Algorithms, Expertise, Professional Authority and Institutional Tensions | 2.4. Institutional Differentiation of GenAI and the Analytical Framework | 3. Methodology | 3.1. Research Design and Corpus Construction | 3.2. Data Source, Search Strategy and Eligibility Criteria | 3.3. Bibliometric Analysis | 3.4. From Empirical Thematic Synthesis to Theory-Informed Interpretive Mapping | 4. Results | 4.1. Publication Output and Comparative Bibliometric Profile | 4.2. Leading sources, countries and authors | 4.3. Cross-domain thematic structure | 4.4. Author-Keyword Co-Occurrence Networks | 5. Discussion | 5.1. From Thematic Differentiation to Institutional Problematisation | 5.2. Domain-Specific Configurations in the Problematisation of GenAI | 5.3. Institutional Complexity and Cross-Domain Tensions | 5.4. Theoretical Implications: GenAI as Institutionally Situated Sociotechnical Change | 6. Conclusions | References.

How to cite this work

Pătruț, M. (2026). Same Technology, Different Problems? A Comparative Bibliometric Analysis of Generative AI Across Education, Business, Communication, and Governance, *methaodos.revista de ciencias sociales*, *14*(2), m261402a07. https://doi.org/10.17502/mrcs.v14i2.980

1. Introduction

Generative artificial intelligence (GenAI), particularly applications built on large language models (LLMs), has rapidly entered activities concerned with the production, interpretation, and circulation of knowledge. These systems can generate text, images, code, and other forms of synthetic content. Their capabilities have extended artificial intelligence beyond specialised applications and enabled its incorporation into educational, organisational, communicative, and administrative activities. GenAI can therefore be situated within a broader category of cross-cutting technologies whose consequences depend not only on technical performance, but also on the social and institutional contexts in which they are used. Its pace and scale of diffusion make two questions equally salient: what GenAI can do, and how institutions interpret, evaluate, and integrate it.

This perspective approaches GenAI not merely as a technological artefact, but as a sociotechnical phenomenon. Technologies acquire meanings and uses through their relationships with established practices, organisational structures, expertise, professional norms, and mechanisms of authority and accountability (Orlikowski & Scott, 2008; Leonardi & Barley, 2010). Algorithmic technologies may redistribute knowledge and judgement between human actors and computational systems, reconfigure professional practices, and generate new concerns regarding trust, accountability, and the legitimacy of decision making (Introna, 2016; Anthony, 2021; Pachidi *et al*., 2021). The same technology may consequently acquire different meanings and uses across contexts structured by distinct norms, objectives, and criteria of legitimacy.

As GenAI use has expanded, the associated scholarly literature has grown at exceptional speed. Recent bibliometric studies have mapped the field's publication dynamics, intellectual structure, thematic development, collaboration patterns, and application areas, documenting both its rapid consolidation and its considerable fragmentation across technical, educational, organisational, and societal lines (Al Naqbi *et al*., 2024; Dwivedi & Elluri, 2024). Most existing studies, however, remain organised around particular technologies, applications, or disciplinary settings. Their analyses typically examine thematic differences within separate research contexts rather than comparing how a common technological phenomenon is constructed across institutionally distinct domains. Comparative analyses of the ways in which GenAI is problematised across such contexts remain limited. This gap is both empirical and sociological. That education, business, communication, and governance investigate different applications of GenAI is unsurprising. The more analytically consequential question is whether they systematically construct the same technology through different institutional problems, criteria of legitimacy, and normative priorities. Addressing this question requires moving beyond inventories of topics and applications toward an examination of the institutional concerns activated as GenAI is incorporated into different social spheres.

The *institutional logics* perspective provides an analytical framework for examining socially constructed systems of values, beliefs, rules, and practices through which actors interpret reality, establish legitimate objectives, and assess appropriate courses of action (Thornton & Ocasio, 1999; Thornton *et al*., 2012). Institutional differentiation does not imply that each domain is governed by a single logic, nor does it assume that bibliometric themes directly measure institutional logics. Rather, the perspective enables recurring thematic configurations to be interpreted in relation to institutional problems, normative priorities, and distinct criteria of legitimacy.

This study compares four domains in which GenAI has become a salient object of scholarly inquiry: education; business and organisational research; communication and media; and public governance, law, and policy. These domains constitute distinct contexts for the production and validation of knowledge, organisational coordination, public communication, and the formulation of collective rules. They are not equated *a priori* with singular or exclusive institutional logics. The comparative bibliometric analysis examines the extent to which a shared technological phenomenon is problematised through thematic configurations that can be associated with different institutional problems and normative priorities. Empirical analysis and theoretical interpretation are deliberately separated. Thematic configurations are first synthesised as institutional problems and priorities, then interpreted through the institutional logics perspective.

The study is guided by the following research questions:

***RQ*$_1$.** How does the thematic structure of GenAI research differ across education, business and organisational research, communication and media, and public governance, law, and policy?

RQ₂. How can these cross-domain thematic configurations be interpreted in terms of institutional problems, normative priorities, and orientations associated with institutional logics?

2. Literature Review and Theoretical Framework

2.1. Generative AI as a Cross-Institutional Sociotechnical Phenomenon

The rapid development of generative artificial intelligence has extended the use of AI beyond the automation of specialised tasks. It now enters activities associated with knowledge production, communication, creativity, judgement, and decision making. Large language models and related applications generate and transform content, synthesise information, and interact through natural language, thereby facilitating the integration of GenAI into professional and organisational practices (Dwivedi *et al*., 2023; Feuerriegel *et al*., 2024; Wamba *et al*., 2025). This versatility helps explain the simultaneous interest in GenAI across education (Pătruț, 2026; Altinay *et al.,* 2025), management and marketing (Manolică *et al*., 2025), communication and media (Guzman & Lewis, 2024), and public administration, law, and public policy (Cho *et al*., 2026). GenAI therefore provides a valuable case for examining how a common technology is incorporated into heterogeneous institutional contexts.

The cross-sectoral diffusion of a technology does not imply uniformity in its effects, uses, or meanings. The sociology of technology and Science and Technology Studies (STS) challenge deterministic explanations that treat technical properties as sufficient causes of social and organisational change. From a sociotechnical perspective, technologies are developed, interpreted, and used in relation to established practices, infrastructures, organisational arrangements, and forms of authority. The sociomaterial perspective rejects a strict separation between technology, work, and organisation. Technological materiality and social action must instead be examined as mutually constitutive processes (Orlikowski & Scott, 2008; Leonardi & Barley, 2010). The organisational consequences of an introduced technology cannot, therefore, be inferred solely from its technical capabilities.

This point is particularly relevant to GenAI. It intervenes in activities previously associated with human and professional capacities, including writing and interpreting texts, synthesising knowledge, formulating recommendations, producing content, and supporting judgement. The sociological issue thus extends beyond technology adoption. It concerns GenAI's integration into established divisions of labour, expertise, and responsibility. Relationships between human actors and algorithmic systems cannot be reduced to the substitution of human labour. Raisch and Krakowski (2021) conceptualise these relationships through the automation–augmentation paradox, while Anthony *et al.* (2023) foreground the interdependencies among technology, work, and organisation.

GenAI's cross-institutional character therefore creates an analytical opportunity. Variations in how a technology with a shared technical core is discussed and problematised across distinct institutional contexts may reveal features of the social environments into which it is incorporated. Thematic differences cannot be automatically attributed to institutions or institutional logics. They may, however, indicate how similar technological capacities are evaluated through different criteria of relevance, legitimacy, and appropriate action.

2.2. Institutional Logics, Institutional Complexity, and Technological Change

The *institutional logics* perspective explains how broader institutional orders structure action and produce meaning. Friedland and Alford (1991) argue that societies comprise distinct institutional orders associated with particular symbolic principles and material practices. Thornton and Ocasio (1999), and later Thornton, *et al.* (2012), define an institutional logic as the socially constructed system of material practices, assumptions, values, beliefs, and rules through which actors organise their existence and make sense of social reality. When applied to technology, this perspective shifts attention away from technology's mere presence and towards the criteria through which actors interpret and evaluate it. In the interinstitutional system proposed by Thornton *et al.* (2012), the market, corporation, profession, and state provide distinct principles of legitimacy, authority,

and identity. These are ideal types rather than exhaustive descriptions of organisations or empirical domains. The concerns associated with a particular domain therefore do not justify its automatic attribution to a single institutional logic.

The concept of institutional complexity reinforces this theoretical caution. Organisations and institutional fields are often simultaneously exposed to logics that advance compatible, complementary, or competing prescriptions (Greenwood *et al*., 2011). The coexistence of multiple logics can generate different patterns of organisational compatibility and centrality (Besharov & Smith, 2014). Analysis must therefore avoid two simplifications: assuming internal homogeneity within a domain and equating a social domain with a singular institutional logic. The relationship between technology and institutional logics requires similar restraint. Technologies may become objects of institutional interpretation, enable practices compatible with particular logics, or create conditions under which established practices are contested. They do not mechanically determine institutional change. Digital artefacts and infrastructures acquire meaning through their relationships with existing practices and normative systems. Any analysis of GenAI must consequently distinguish between the empirical observation of thematic configurations and their institutional interpretation.

This distinction is methodological as well as theoretical. Purdy *et al.* (2019) argue that *institutional logics* is not the only framework available for explaining institutional meaning making, highlighting the role of framing in problem definition. In the present study, bibliometric terms and clusters are not treated as direct evidence of institutional logics. Thematic configurations first indicate recurring problems, objectives, and evaluative criteria within a research corpus. Only subsequently can they be related to the ideal types developed in the *institutional logics* literature.

2.3. Algorithms, Expertise, Professional Authority and Institutional Tensions

Professional authority brings the institutional implications of algorithmic technologies into sharper focus. A profession involves more than specialised knowledge. Professional groups claim jurisdiction over particular problems and activities, encompassing both the competence to perform tasks and the socially recognised authority to define problems, apply expertise, and legitimise specific interventions (Abbott, 1988). Freidson (2001) conceptualises professionalism as a distinct logic of work organisation grounded in expertise, discretion, and occupational autonomy. It cannot be reduced to market coordination or bureaucratic-managerial control. Technologies therefore become institutionally relevant not only when they automate tasks, but also when they intervene in the production, validation, and application of expertise.

Algorithmic systems and AI increasingly participate in activities previously associated with expert classification, interpretation, prediction, and judgement. Their integration may reconfigure the practices through which actors produce, verify, and legitimise knowledge. This relationship should not be reduced to a simple opposition between human expertise and technological capability. Anthony (2021) shows that the black boxing of analytical technologies reshapes validation practices and the development of professional expertise. Pachidi *et al.* (2021) identify a transformation in the regime of knowing that affects the practices and relationships through which knowledge acquires authority within organisations. Algorithms are not neutral instruments of evaluation. They contribute to the classification, assessment, and governance of behaviour and performance (Introna, 2016).

The integration of AI into professional and knowledge-intensive activities raises questions that extend beyond technological substitution. What matters is the redistribution of tasks, expertise, judgement, and authority among professionals, organisations, and computational systems. Raisch and Krakowski (2021) conceptualise automation and augmentation as an organisational paradox: AI can substitute for particular activities while simultaneously expanding human capabilities. The effects of human–AI collaboration should therefore be examined through the relationships among technology, work, and organisation, rather than solely through comparisons of human and algorithmic performance. The significance of ethical issues surrounding algorithms also depends on the norms, practices, and responsibilities of the professional communities in which algorithmic systems are used (Avnon *et al*., 2024).

These issues vary across institutional contexts. Educational, communicative, organisational, and governmental activities are structured to different degrees by professional jurisdiction, managerial authority, market coordination, and public or legal accountability. The present study does not classify the four domains as equivalent professional fields, nor does it assume that each corresponds to a distinct professional logic. Its

more limited purpose is to offer a complementary perspective on the institutional relevance of GenAI in activities involving expertise, judgement, autonomy, and socially recognised authority.

The redistribution of expertise and authority also intersects with institutional tensions. Such tensions should not be understood automatically as binary oppositions. Contradictions may create conditions for reflection and change (Seo & Creed, 2002), while organisations and actors frequently operate under simultaneous and divergent institutional prescriptions (Greenwood *et al*., 2011). Distinct principles of action and evaluation may coexist, be negotiated, or become temporarily incompatible without either principle necessarily displacing the other.

GenAI may make these relationships more visible because its capabilities intersect with activities structured by professional norms, organisational objectives, and institutional mechanisms of accountability. Automation may coexist with professional judgement; efficiency may coexist with human expertise; innovation may coexist with responsibility; and expanded algorithmic capabilities may generate stronger demands for the attribution of liability. These relationships should not be presumed to be effects of GenAI or direct evidence of institutional conflict. They instead provide a vocabulary for examining situations in which different institutional priorities become simultaneously relevant.

In the present study, institutional tensions are not variables measured directly through bibliometric analysis. They are interpretive constructs inferred when multiple thematic elements converge around distinct institutional priorities that may compete yet coexist. A single keyword, such as *ethics, trust, automation, or accountability*, does not provide sufficient evidence of an institutional tension. Interpretation requires a broader thematic configuration that is related to the institutional problem foregrounded in the corpus and to its associated normative and organisational priorities.

This caution avoids deterministic interpretations of GenAI. The study does not assume that generative systems replace professional authority, inevitably reduce actor autonomy, or necessarily produce conflicts among institutional logics. Instead, it examines how scholarship across different domains problematises the distribution of expertise, judgement, authority, and responsibility within institutionalised activities. The sociology of professions clarifies the relationships among expertise, jurisdiction, and authority, while scholarship on algorithms identifies their possible reconfiguration. The *institutional logics* perspective situates these relationships within a plurality of institutional priorities and criteria of legitimacy.

2.4. Institutional Differentiation of GenAI and the Analytical Framework

Research on AI in organisations and public institutions shows that the integration of algorithmic systems is context dependent. Meijer *et al.* (2021) demonstrate that comparable predictive-policing technologies can generate distinct organisational models—an *algorithmic cage and an algorithmic colleague*—depending on the social norms and administrative cultures into which they are embedded. Research on data governance and trustworthy AI similarly highlights the role of accountability, control, transparency, and external scrutiny in the integration of algorithmic systems (Janssen *et al*., 2020). AI may therefore reconfigure authority, discretion, responsibility, and control within public institutions.

These observations extend beyond public administration. GenAI does not possess an invariant institutional meaning. Technologies that generate content, synthesise information, or support decision making are evaluated differently according to established practices, professional jurisdictions, organisational structures, and regimes of accountability. Institutional differentiation thus concerns not only different uses of GenAI, but also distinct ways of defining relevant problems, desirable outcomes, and legitimate technological uses.

This premise underpins the analytical strategy adopted in this study. Keywords are not equated with institutional logics, and term frequencies are not treated as measures of the intensity of a particular logic. Instead, the analysis distinguishes four analytical levels. First, empirical thematic configurations are identified bibliometrically. Second, these configurations are synthesised in terms of the institutional problems foregrounded in the specialist literature of each domain. Third, the normative and organisational priorities implied by these problematisations are identified. Finally, the resulting configurations are interpreted in relation to the ideal types and concepts developed within the *institutional logics* perspective.

The proposed analytical relationship is therefore sequential: empirical thematic configurations are identified, institutional problematisations are formulated, normative and organisational priorities are specified, and these

elements are then interpreted through the *institutional logics* perspective. GenAI-related tensions represent an interpretive extension of this process. They are identified when distinct, potentially competing institutional priorities become simultaneously relevant within the same thematic configuration. Such tensions do not denote mutually exclusive oppositions, nor do they constitute causal relationships demonstrated through bibliometric analysis.

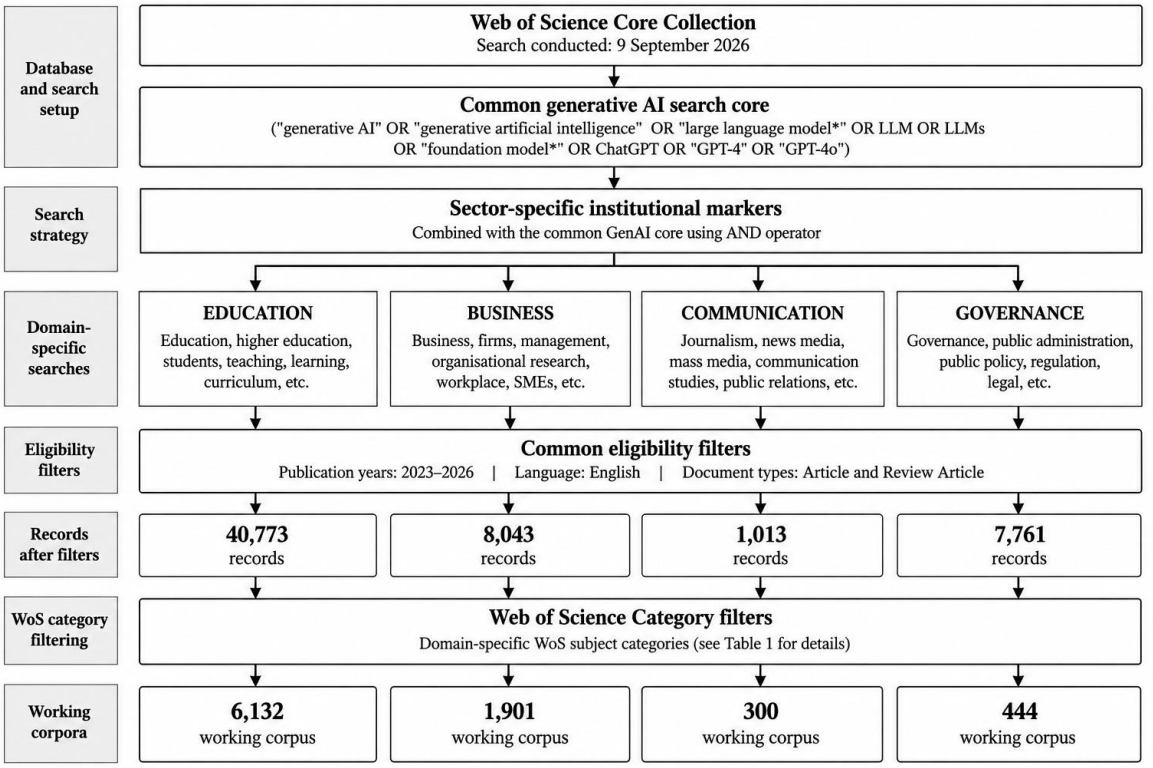
This framework avoids two analytical reductions. The first assumes that cross-domain differences are trivial because each literature inevitably addresses its own objects. The second assigns a fixed institutional logic to each domain on the basis of selected keywords. Instead, the analysis examines whether thematic relations reveal recurring configurations of problems and priorities that can be interpreted through theoretically defined institutional categories. The *institutional logics* perspective therefore functions as an interpretive lens rather than as a bibliometrically measured variable.

3. Methodology

3.1. Research Design and Corpus Construction

This study adopts a comparative bibliometric design to examine GenAI research across four institutional domains (Figure 1). Rather than relying on a single corpus, four corpora were constructed through separate searches that combined a common GenAI search core with domain-specific institutional descriptors. This strategy preserves comparability in the technological component while explicitly delimiting the institutional contexts under examination.

Figure 1. Construction of the four institutional-domain GenAI corpora



Source. Own elaboration.

The common search core included terms referring to GenAI, large language models, and their associated designations. It was combined separately with institutional and actor-related descriptors for each of the four domains. These descriptors were constructed primarily around institutions, actors, and organisational settings. Concepts such as *academic integrity, productivity, misinformation, trust,* and *accountability* were not used to define the corpora. Their exclusion reduced the risk of introducing *a priori* the themes that were subsequently identified through empirical analysis.

The domain-specific search strategies were piloted to assess retrieval precision. Descriptors that generated irrelevant technical or cross-domain records were removed or replaced before the final searches were conducted. The corpora were not treated as mutually exclusive. Publications eligible for more than one domain were retained in each relevant corpus because multiple inclusion may reflect institutional overlap rather than internal duplication.

3.2. Data Source, Search Strategy and Eligibility Criteria

Bibliographic data were retrieved from the Web of Science Core Collection. The final searches were conducted on 9 September 2026[1] using the Topic (TS) field, which searches titles, abstracts, author keywords, and Keywords Plus. The same GenAI search core was applied to all four corpora:

TS = ("generative AI" OR "generative artificial intelligence" OR "large language model*" OR LLM OR LLMs OR "foundation model*" OR ChatGPT OR "GPT-4" OR "GPT-4o").

This search core was combined, using the Boolean operator AND, with the descriptor set corresponding to each institutional domain. The full search strategies and eligibility criteria are presented in Table 1.

Table 1. Search strategy, eligibility criteria, and construction of the four institutional-domain corpora

Search component	Education	Business, management and organisational research	Communication research	Public governance, law and policy
Common GenAI search core	*TS=("generative AI" OR "generative artificial intelligence" OR "large language model" OR LLM OR LLMs OR "foundation model"* OR ChatGPT OR "GPT-4" OR "GPT-4o")			
Institutional-domain markers	educat* OR "higher education" OR universit* OR college* OR school* OR student* OR teacher* OR educator* OR instructor* OR pedagog* OR classroom*	business* OR firm* OR compan* OR enterprise* OR corporation* OR corporate OR manager* OR entrepreneur* OR employee* OR workplace* OR "small and medium enterprise*" OR SME OR SMEs	journalis* OR journalist* OR newsroom* OR "news media" OR "mass media" OR "media stud*" OR "communication stud*" OR "public relations" OR "strategic communication" OR "political communication" OR "organizational communication" OR "corporate communication" OR advertis*	governance OR government* OR "public administration" OR "public sector" OR "public service*" OR "public agenc*" OR "government agenc*" OR policymak* OR "public policy" OR regulator* OR regulatory OR legal OR legislation
WoS Category filter	Education & Educational Research; Education Scientific Disciplines; Psychology Educational; Education Special	Business; Management; Business Finance; Economics; Operations Research & Management Science	Communication	Law; Political Science; Public Administration

[1] The search strategy and corpus construction were substantially revised during the manuscript revision process; therefore, the final searches reported in this version were conducted on 9 September 2026

Table 1 (continued)

Search component	Education	Business, management and organisational research	Communication research	Public governance, law and policy
Records after common eligibility filters	40,773	8,043	1,013	7,761
Records in working corpus	6,132	1,901	300	444
Retention rate (%)	15.0	23.6	29.6	5.7

Source. Own elaboration.

Publications dated from 1 January 2023 to 9 September 2026 were included if they were written in English and classified in Web of Science as either *Article* or *Review Article*. In Web of Science, these document types broadly capture original research outputs and literature-review publications, respectively.

Applying these common eligibility criteria produced 40,773 records for Education, 8,043 for Business, 1,013 for Communication, and 7,761 for Governance. To focus the analysis on literature substantively relevant to each institutional domain, the resulting sets were subsequently refined using domain-specific Web of Science Categories (WC). This WC-based refinement was applied after the institutional-term searches and was not used to predefine the themes examined in the subsequent analysis. This distinction is important because Web of Science Categories classify the subject area of the source publication or journal, rather than the specific content of an individual article. Following the application of the WC filters, the final working corpora comprised 6,132 documents for Education, 1,901 for Business, 300 for Communication, and 444 for Governance.

3.3. Bibliometric Analysis

Bibliographic files corresponding to the four corpora were exported from the Web of Science Core Collection and analysed separately. The analysis combined performance analysis and science mapping through Bibliometrix/Biblioshiny (Aria & Cuccurullo, 2017) and VOSviewer (Van Eck & Waltman, 2010), two complementary tools widely used in bibliometric science mapping. Their combined application enabled both a quantitative assessment of research performance and the visualisation of the field's intellectual and conceptual structure.

In the first stage, the principal bibliometric indicators were calculated for each corpus: the number and types of documents, sources, authors, author keywords, single-authored documents, average number of co-authors, international collaboration, and mean citations per document. Leading sources, countries, and authors were also identified using Bibliometrix/Biblioshiny indicators. Citation counts were interpreted descriptively because the observation window was recent and documents had unequal periods in which to accumulate citations. The thematic structure was examined using two complementary science-mapping procedures. First, thematic maps based on author keywords positioned clusters according to centrality and density, indicating both their internal development and their connections to the overall corpus structure. These maps were used to identify the relative thematic configurations within each domain.

Second, author-keyword co-occurrence networks were constructed in VOSviewer using full counting. Minimum occurrence thresholds were adjusted to the size of the corpora and the volume of their vocabularies: 50 occurrences for Education, 15 for Business, and 5 for Communication and Governance. Following threshold application and data cleaning, 21, 20, 16, and 23 terms, respectively, were retained for network visualisation. These different thresholds preclude direct comparisons across corpora with respect to the number of nodes, network density, or centrality. The comparative analysis instead focuses on thematic composition, relations among terms, and relative configurations within each corpus.

Before the thematic and co-occurrence analyses, keywords were cleaned and standardised to reduce semantic fragmentation arising from spelling variants, singular/plural forms, abbreviations, and equivalent expressions. The VOSviewer analyses employed corpus-specific thesaurus files that harmonised relevant variants and removed clearly irrelevant terms or indexing artefacts. This procedure was intended to achieve formal normalisation rather than substantive reinterpretation. Terms were not excluded because they failed to correspond to the theoretical framework, nor were terms introduced to represent institutional concepts absent from the data. The theoretical interpretation therefore remained analytically distinct from bibliometric data preparation.

The comparative strategy accounted for substantial differences in corpus size across the four domains. Raw publication and keyword frequencies were therefore not interpreted as directly comparable measures of thematic importance. Descriptive indicators are reported separately, while the comparison addresses relative positioning, co-occurrence patterns, and thematic configurations internal to each domain. Thematic maps and keyword co-occurrence networks were used in a complementary manner. The former reveal the positioning of themes within the structure of each corpus, whereas VOSviewer networks indicate proximities among the terms used by authors. The thematic synthesis was based on convergence between these two representations. A theme was regarded as relevant for institutional interpretation only when it was supported by configurations of semantically related terms, rather than by the isolated occurrence of a single term. This strategy permits comparison across corpora of unequal size without assuming direct equivalence between their network structures. The study does not draw conclusions about the comparative centralisation, density, or fragmentation of the domains. Instead, it identifies differences in the thematic problems and relationships foregrounded by each literature.

3.4. From Empirical Thematic Synthesis to Theory-Informed Interpretive Mapping

To connect the bibliometric findings to the *institutional logics* perspective without treating institutional logic as a directly measured variable, the analysis was conducted in two stages: empirical thematic synthesis and theory-informed interpretive mapping.

During the empirical thematic synthesis stage, the configurations identified through thematic maps and co-occurrence networks were synthesised separately for each domain. Interpretation was based on convergent groups of terms and the relationships among them, rather than on isolated keywords. This stage aimed to identify the problems and concerns foregrounded by the thematic structure of the literature in each domain.

In the second stage, theory-informed interpretive mapping, the thematic syntheses were interpreted through the framework presented in Section 2. The process began with empirical thematic evidence derived from bibliometric analysis, including recurrent terms, co-occurrence relations, and broader thematic configurations. These configurations were then synthesised as institutional problematisations: the institutional problems towards which thematic elements converged within each domain. The analysis subsequently identified the normative and organising priorities implied by these problematisations, including criteria of legitimacy, relevant values and responsibilities, and organisational objectives. Finally, the resulting configurations were interpreted in relation to the ideal types and conceptual vocabulary of the institutional logics perspective. This step did not classify individual keywords, publications, or domains as direct expressions of fixed institutional logics. Rather, it assessed whether recurring thematic configurations, institutional problematisations, and associated priorities could be meaningfully interpreted through theoretically defined institutional categories.

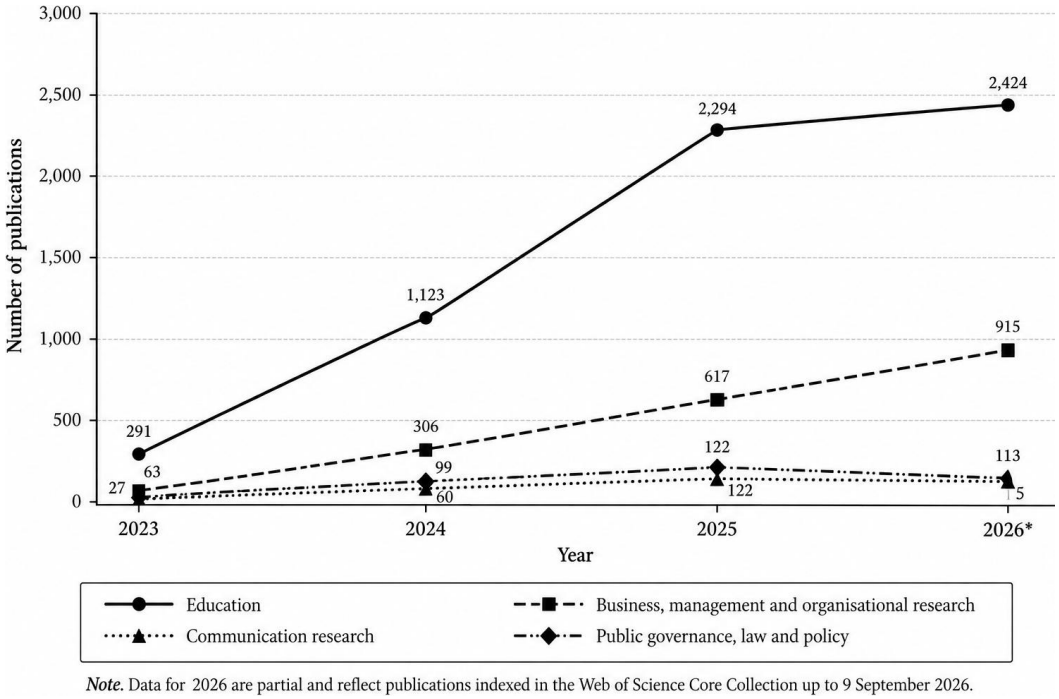
An institutional orientation was inferred only where related thematic indicators converged around a recognisable institutional problem and its associated normative priorities. Individual keywords were not treated as direct indicators of institutional logics, and the analysis does not assume that any domain is governed by a single or homogeneous logic. GenAI-related institutional tensions were interpreted only when thematic configurations indicated priorities that were simultaneously salient and potentially competing, although not necessarily incompatible. Such tensions constitute theoretically informed analytical constructs rather than variables directly observed or bibliometrically measured. The relationship between the two analytical stages can be expressed as a sequential progression: from bibliometric evidence to empirical thematic synthesis, institutional problematisation, identification of normative and organisational priorities, interpretation through the institutional logics perspective, and, finally, analysis of institutional tensions.

4. Results

4.1. Publication Output and Comparative Bibliometric Profile

The four corpora differ substantially in both publication volume and bibliometric characteristics. Education is the largest corpus, comprising 6,132 documents, followed by Business, management and organisational research with 1,901 documents, Public governance, law and policy with 444, and Communication research with 300 documents (Figure 2). Annual publication distributions indicate rapid growth in GenAI-related scholarship across all four domains during the study period, although the absolute scale of this expansion differs markedly. Education maintained the highest publication volume throughout the period, while Business, management and organisational research constituted the second-largest corpus. Communication research and Public governance, law and policy remained considerably smaller. The 2026 values should be interpreted as partial-year output because the searches were conducted on 9 September 2026. Partial-year counts may reflect incomplete indexing as well as the shorter observation period and should not be read as evidence of a decline in research activity.

Figure 2. Annual publication output on generative AI across four institutional-domain scholarly domains, 2023–2026



Note. Data for 2026 are partial and reflect publications indexed in the Web of Science Core Collection up to 9 September 2026.

Source. Own elaboration.

As shown in Table 2, articles constitute the majority of publications across all four corpora. Education includes 5,710 articles and 422 review articles; Business includes 1,813 articles and 88 review articles; Communication research includes 291 articles and 9 review articles; and Governance includes 431 articles and 13 review articles. Important differences also emerge in the structure of authorship and collaboration. The average number of co-authors per document is 3.54 in Education, 3.59 in Business, 2.76 in Communication research, and 2.11 in Governance. The proportion of international collaboration is highest in Business (40.82%), followed by Communication research (31.67%), Education (22.18%), and Governance (18.69%).

Table 2. Comparative bibliometric profile of the four institutional-domain GenAI corpora

Bibliometric indicator	Education	Business, management and organisational research	Communication research	Public governance, law and policy
Documents	6,132	1,901	300	444
Articles	5,710	1,813	291	431
Review articles	422	88	9	13
Sources	510	488	92	173
Authors	16,024	5,637	730	879
Author's Keywords	11,412	5,755	1,011	1,238
Single-authored documents	956	179	65	220
Co-authors per document	3.54	3.59	2.76	2.11
International co-authorship (%)	22.18	40.82	31.67	18.69
Average citations per document	18.91	16.02	7.09	7.18

Source. Own elaboration.

The average number of citations per document is 18.91 in Education and 16.02 in Business, compared with 7.09 in Communication and 7.18 in Governance. These values are descriptive and are not used to establish differences in impact across domains, because the corpora cover a very recent period and documents have had unequal time intervals in which to accumulate citations.

4.2. Leading sources, countries and authors

Publication structures also differ with respect to the leading publication outlets. In Education, the most frequent sources are *Education Sciences* (348 documents), *Frontiers in Education* (301 documents), *Computers and Education: Artificial Intelligence* (296 documents), *Education and Information Technologies* (280 documents), and *JMIR Medical Education* (195 documents). In Business, the leading sources are *Expert Systems with Applications* (65 documents), *Technological Forecasting and Social Change* (52 documents), *Finance Research Letters (*44 documents), *International Journal of Management Education* (44 documents), and *Journal of Business Research* (40 documents). These distributions indicate a concentration of publications in distinct outlets across the two larger corpora. Communication displays a distinct publication profile, with *Journalism and Media* (23 documents), *Public Relations Review* (14 documents), *Journalism Practice* (13 documents), *Digital Journalism* (12 documents), and *Frontiers in Communication* (12 documents) among its leading sources. In Governance, the most frequent sources are *Computer Law & Security Review* (40 documents*), Data & Policy* (15 documents), *Frontiers in Political Science* (14 documents), *Artificial Intelligence and Law* (13 documents), and *Law, Technology and Humans* (13 documents).

The geographical distribution shows that China and the United States are among the leading countries across all corpora, although their ranking and frequencies differ. China and the United States record the highest frequencies in Education (3,306 and 2,926, respectively) and Business (1,111 and 1,109, respectively), whereas the United States ranks first in Communication (174) and Governance (182). Because the *Country Scientific Production* indicator reflects country occurrences in authors' affiliations, these frequencies are not equivalent to document counts, and a single document may contribute to more than one country.

Table 3. Leading sources, countries, and authors across institutional-domain GenAI research

Indicator	Rank	Education	Business, management and organisational research	Communication, media and journalism research	Public governance, law and policy
Sources	1	Education Sciences (348)	Expert Systems with Applications (65)	Journalism and Media (23)	Computer Law & Security Review (40)
	2	Frontiers in Education (301)	Technological Forecasting and Social Change (52)	Public Relations Review (14)	Data & Policy (15)
	3	Computers and Education: Artificial Intelligence (296)	Finance Research Letters (44)	Journalism Practice (13)	Frontiers in Political Science (14)
	4	Education and Information Technologies (280)	International Journal of Management Education (44)	Digital Journalism (12)	Artificial Intelligence and Law (13)
	5	JMIR Medical Education (195)	Journal of Business Research (40)	Frontiers in Communication (12)	Law Technology and Humans (13)
Countries	1	China (3,306)	China (1,111)	USA (174)	USA (182)
	2	USA (2,926)	USA (1,109)	Spain (58)	China (92)
	3	Australia (844)	UK (374)	China (53)	UK (79)
	4	UK (561)	India (250)	Germany (41)	Italy (47)
	5	Turkey (555)	Germany (237)	UK (34)	Australia (42)
Authors	1	Gasevic D (42)	Li Y (21)	Kim J (5)	Hacker P (4)
	2	Chiu TKF (30)	Dwivedi YK (14)	Sun YB (4)	Audrito D (3)
	3	Hwang GJ (26)	Liu Y (12)	Ananny M (3)	Helberger N (3)
	4	Zou D (25)	Duong CD (10)	Borah P (3)	Sulis E (3)
	5	Bozkurt A (24)	Kumar A (10)	Campbell C (3)	Abbasi Z (2)

Source. Own elaboration.

At the author level, the distribution is also specific to each corpus. In Education, Gasevic D (42 documents), Chiu TKF (30 documents), and Hwang GJ (26 documents) are among the authors with the highest number of publications. In Business, the leading positions are held by Li Y (21 documents), Dwivedi YK (14 documents), and Liu Y (12 documents). Communication and Governance show lower individual values, consistent with their smaller corpus sizes. These results are used to characterise the descriptive structure of the literature and not to assess the quality or individual influence of the authors.

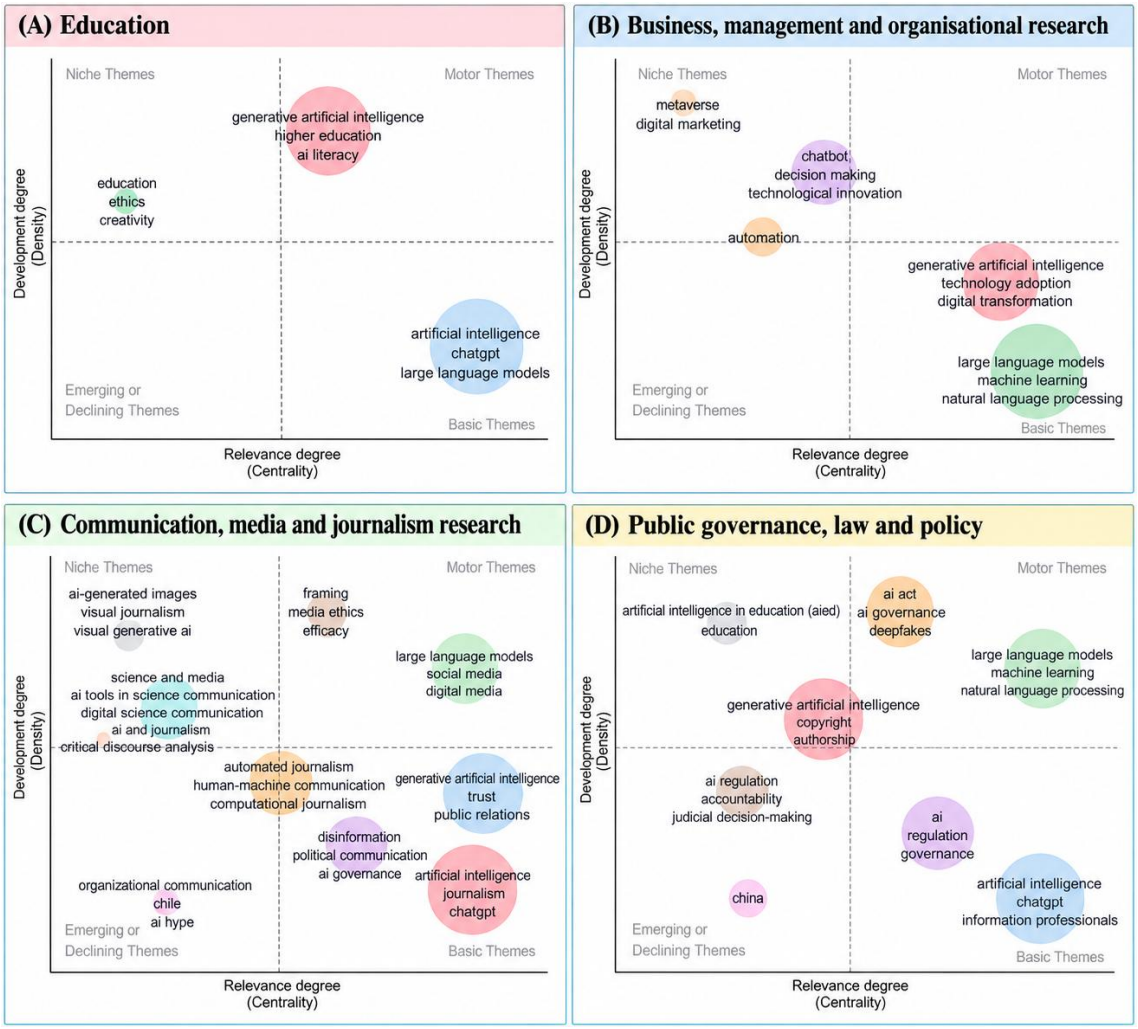
4.3. Cross-domain thematic structure

The thematic maps presented in Figure 3 reveal distinct keyword configurations across the four corpora. As each map was generated separately, cluster positions should be interpreted in relation to the internal structure of the corresponding corpus rather than as absolute measures directly comparable across domains. The analysis therefore focuses on the relative position of themes—as niche, motor, basic, or emerging/declining—and on the relationships among their constituent terms.

In the Education corpus, the dominant theme combines *generative artificial intelligence, higher education, and AI literacy*. Positioned in the motor-theme quadrant, it displays high density and centrality. This configuration indicates a well-developed thematic direction that is strongly connected to the broader structure of the specialised literature. The *education–ethics–*creativity cluster occupies the niche-theme quadrant, suggesting relatively consolidated internal development but weaker integration with the corpus as a whole. By contrast, *artificial intelligence, ChatGPT*, and *large language models* are located within the basic-theme quadrant, which

is characterised by high centrality and lower density. The map thus shows the coexistence of a conceptual infrastructure centred on AI and language models with concerns relating to higher education, AI literacy, ethics, and creativity.

Figure 3. Comparative thematic positioning of generative AI research across four institutional domains



Source. Own elaboration.

Within the Business, management and organisational research corpus, the map differentiates several configurations. The *chatbot–decision making–technological innovation* cluster is positioned near the boundary between niche and motor themes, exhibiting relatively high density and centrality close to the median threshold. The *generative artificial intelligence–technology adoption–digital transformation* grouping appears in the basic-theme quadrant, suggesting high cross-cutting relevance but lower internal density. *Large language models–machine learning–natural language processing* also occupy the basic-theme quadrant, forming a broadly connected technological infrastructure that remains relatively weakly specialised in relation to the business literature. The theme of *automation* lies close to the intersection of the median centrality and density thresholds. *Metaverse* and *digital marketing*, by contrast, emerge as niche themes, displaying internal development but more limited connections to the overall corpus structure.

Within the Communication, media and journalism research corpus, the thematic structure is more diversified. Two configurations appear in the motor-theme quadrant: *framing–media ethics–efficacy and large language models–social media–digital media*. Both indicate developed themes that are relevant to the broader organisation of the field. *Science and media–AI tools in science communication–digital science communication, AI-generated images, visual journalism*, and *visual generative AI* are positioned as niche themes, combining relatively high specialisation with more limited connections to the overall corpus. The basic-theme quadrant includes *generative artificial intelligence–trust–public relation*s and *artificial intelligence–journalism–ChatGPT*. These configurations highlight the organisation of research around journalistic production, credibility, AI-generated content, and the communicative uses of the technology. The emerging or declining quadrant contains configurations associated with *automated journalism, human–machine communication, computational journalism, disinformation, political communication*, and *AI governance*. This positioning suggests themes that remain in the process of consolidation and are located at the intersection of automated media production, political information, and AI governance.

In the Public governance, law and policy corpus, the thematic map reveals a structure organised around several legal and governance concerns. The *AI Act–AI governance–deepfakes* cluster occupies the motor-theme quadrant, indicating high centrality and substantial internal development. *Large language models–machine learning–natural language processing* form a second motor configuration, oriented towards the technological infrastructure relevant to governance and public-policy scholarship. The *generative artificial intelligence–copyright–authorship* grouping is positioned close to the centre of the map, highlighting the intersection between GenAI and intellectual-property issues. *AI regulation–accountability–judicial decision-making* appears in the emerging/declining quadrant, indicating relatively low centrality and density within the corpus structure. The static map does not, however, permit determination of the temporal direction of this configuration. In the basic-theme quadrant, the AI–regulation–governance and artificial intelligence–ChatGPT–information professionals clusters indicate cross-cutting concerns that are connected to the broader structure of the field but are less internally dense.

4.4. Author-Keyword Co-Occurrence Networks

Co-occurrence network analysis provides a complementary representation of the relationships among author keywords. The different thresholds applied across the four corpora reflect variations in corpus size and vocabulary volume. The comparison therefore focuses on thematic composition and relationships rather than on the absolute number of nodes or network density.

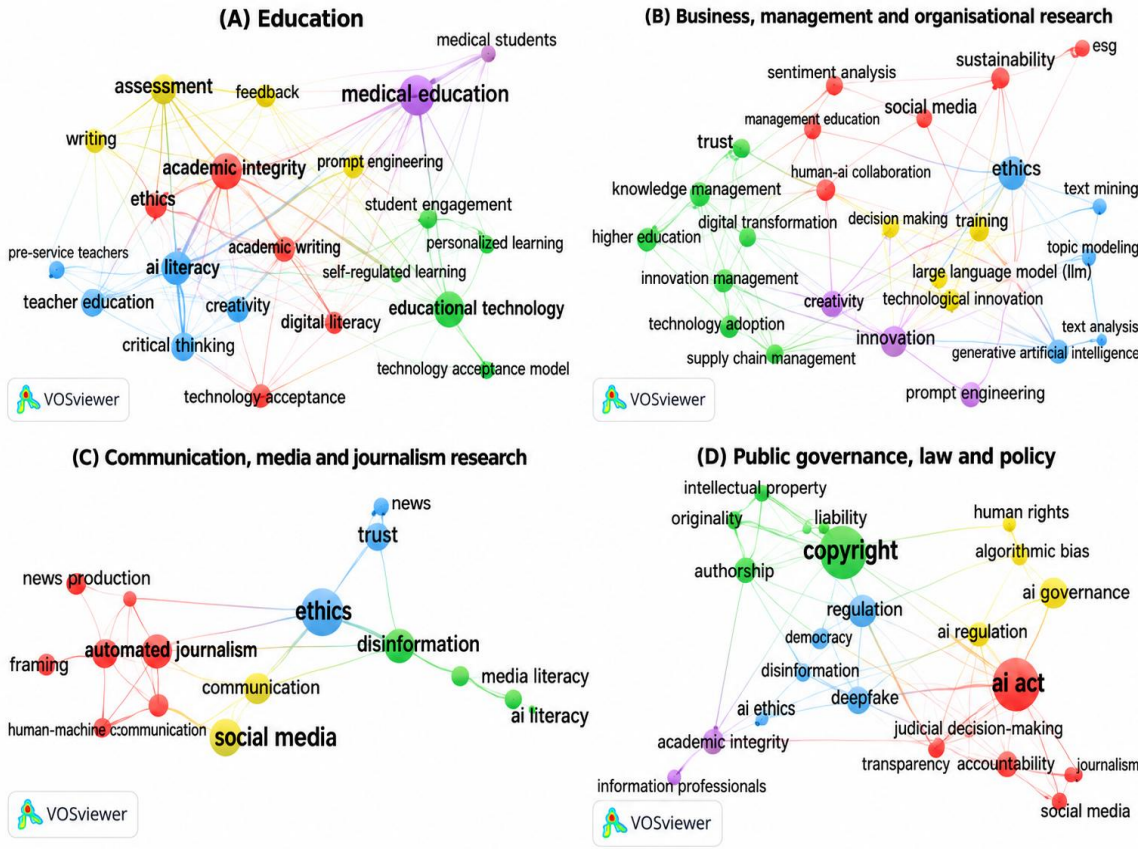
In the Education corpus, the network reveals a densely interconnected configuration in which *academic integrity* links themes relating to *assessment, feedback, writing, academic writing,* and *prompt engineering* with broader concerns surrounding *AI literacy, ethics, critical thinking*, and *creativity*. A further relational area brings together *student engagement, personalized learning, self-regulated learning*, and *educational technology*, while *teacher education* and *pre-service teachers* connect GenAI use with teacher preparation. Themes related to technology adoption are also present, including *digital literacy, technology acceptance*, and the *technology acceptance model*.

In Business, the co-occurrence structure articulates technological themes such as *generative artificial intelligence and large language model (LLM)* with *innovation, technological innovation, and decision making*. These themes are connected to an organisational configuration comprising *technology adoption, digital transformation, knowledge management, innovation management*, and *supply chain management*. *Human–AI collaboration, trust,* and *ethics* introduce the relationship between technology use and organisational processes, whereas *sustainability, ESG (environmental, social, and governance),* and *social media* form another area of association. The network also includes applications and methods such as *sentiment analysis, text mining, text analysis,* and topic *modeling*.

In the Communication corpus, the network highlights a relational configuration connecting *news production, framing, automated journalism, and human–machine communication* with *ethics*. This area is, in turn, linked to *disinformation, trust,* and *news*. *Social media* and *communication* occupy intermediate positions within this structure, while *media literacy* and *AI literacy* are associated with the *disinformation* area. The configuration therefore shows that vocabulary relating to the automation of journalistic production coexists and connects with terms concerning ethics, disinformation, trust, and media literacy.

In Governance, the co-occurrence structure reveals a legal configuration centred on *copyright*, connected to *authorship, liability, intellectual property,* and *originality*. A second configuration brings together *AI Act, AI regulation, AI governance, accountability, transparency*, and *judicial decision-making*, while *regulation* is connected with terms such as *democracy, deepfake, disinformation*, and *AI ethics*. *Human rights* and *algorithmic bias*, as well as *journalism* and *social media*, extend the structure towards the social and communicative implications of AI governance. Taken together, the network links the vocabulary of regulation with legal responsibility, intellectual property, and the public consequences of AI use.

Figure 4. Keyword co-occurrence networks in the four institutional-domain GenAI corpora



Source. Own elaboration.

Viewed comparatively, Figures 3 and 4 show that, although general terms relating to AI and GenAI appear across several corpora, they are connected to different sets of domain-specific themes. Education associates GenAI with a broad range of issues related to learning, assessment, and educational practices. In the Business corpus, GenAI is linked to innovation, technology adoption, organisational processes, and decision making. Within Communication, it is connected to media production, journalism, communication, trust, and disinformation. In Governance, GenAI is associated with regulation, accountability, rights, and legal issues. These differences provide the empirical basis for the comparative synthesis and theoretical interpretation developed in the following section.

5. Discussion

5.1. From Thematic Differentiation to Institutional Problematisation

The comparative analysis shows that GenAI, while constituting a shared technological object, is embedded in distinct thematic configurations across the four domains examined. This differentiation is not, in itself, unexpected, as scholarly research addresses different applications, actors, and problems. Its analytical relevance lies instead in the relational structure of the themes: GenAI is associated with distinct questions concerning the capabilities the technology is expected to support, the risks it may generate, and the criteria required to assess its legitimate integration.

Bibliometric analysis does not directly observe institutional logics, professional norms, or organisational values. Rather, it maps the scholarly problematisation of GenAI. Thematic maps and co-occurrence networks indicate how researchers associate GenAI with particular problems and areas of inquiry. These empirical configurations constitute the first analytical level, while their translation into institutional problems and normative or organisational priorities represents the interpretive stage outlined in Section 2.

Table 4 synthesises this transition. In the Education corpus, the association of *AI literacy, assessment, feedback, academic integrity, critical thinking, creativity, teacher education*, and learning-related themes foregrounds concerns about the legitimacy of learning, assessment, and pedagogical judgement. In Business, *innovation, technology adoption, decision making, human–AI collaboration, digital transformation*, and *knowledge management* highlight the integration of GenAI into organisational processes and capabilities. Within Communication, GenAI is linked to journalism, news production, trust, disinformation, media literacy, and human–machine communication, bringing the production and validation of credible information to the fore. The Governance corpus brings together regulation, accountability, transparency, copyright, legal liability, human rights, and judicial decision making, highlighting the normative conditions and accountability mechanisms required for the legitimate use of GenAI.

These formulations do not represent latent variables extracted from bibliometric networks. Rather, they constitute theoretical syntheses of recurring thematic configurations. The *institutional logics* categories presented in Table 4 function as analytical mappings rather than as classifications of domains. Since institutional fields are rarely organised around a single logic (Greenwood *et al*., 2011; Thornton *et al*., 2012), the analysis identifies orientations that are compatible with ideal types while preserving the possibility of coexistence, overlap, and institutional complexity.

The bidirectional arrow in the final column of the table (↔) denotes priorities that may be competing but are not necessarily incompatible. It signals coexistence and negotiation rather than binary opposition.

5.2. Domain-Specific Configurations in the Problematisation of GenAI

~ Education: GenAI and the Organisation of Legitimate Learning

The Education corpus is distinguished not merely by the presence of educational terminology, but by the association of GenAI with *assessment, feedback, academic integrity, AI literacy, critical thinking, creativity, teacher education, student engagement*, and forms of personalised or self-regulated learning. Considered together, these themes indicate that the scholarly literature is concerned with the conditions under which GenAI can be integrated into educational practices while maintaining legitimate forms of learning, assessment, and pedagogical judgement.

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Table 4. Cross-domain thematic evidence and institutional-logics interpretation of GenAI research

Institutional domain	Empirical thematic evidence (Figures 3–4)	Institutional problem foregrounded	Normative / organising priorities	Institutional-logics interpretation	GenAI-related institutional tensions
Education	AI literacy; assessment; feedback; academic integrity; critical thinking; creativity; teacher education; student engagement; personalised and self-regulated learning	How can GenAI be incorporated into educational practice while preserving legitimate learning, assessment and pedagogical judgement?	Learning quality; assessment and knowledge integrity; pedagogical responsibility; learner development and autonomy	Profession-oriented interpretation. The thematic configuration is consistent with professional norms concerning legitimate knowledge, pedagogical judgement and responsibility.	Assistance ↔ learner autonomy; innovation ↔ academic integrity; personalisation ↔ assessment validity; algorithmic assistance ↔ pedagogical judgement
Business, management and organisational research	Innovation; technology adoption; decision making; human–AI collaboration; digital transformation; knowledge management; sustainability/ESG; supply-chain management; trust	How can GenAI be incorporated into organisational processes to generate value and develop organisational capability?	Value creation; performance and efficiency; innovation; organisational adaptation and capability	Market- and corporation-oriented interpretation. The thematic configuration is consistent with value creation and innovation associated with market orientation, alongside organisational coordination, capability and managerial decision making associated with corporate orientation.	Automation ↔ augmentation; efficiency ↔ human expertise; innovation ↔ responsible use; algorithmic decision making ↔ organisational trust
Communication, media and journalism research	Journalism; automated journalism; news production; framing; trust; disinformation; media/AI literacy; human–machine communication; public relations; media ethics	How does GenAI alter the production and validation of socially credible information and the authority of professional communicators?	Credibility; authenticity; informational integrity; professional authority; public trust	Primarily profession-oriented interpretation. The thematic configuration is consistent with professional norms concerning credible information production, editorial judgement and public trust, while automation raises questions about the location of communicative authority.	Automation ↔ professional authority; synthetic content ↔ authenticity; automation ↔ editorial judgement; innovation ↔ informational integrity
Public governance, law and policy	AI Act; AI regulation/governance; accountability; transparency; copyright; authorship; liability; human rights; algorithmic bias; judicial decision making; disinformation	Under what rules, rights and accountability arrangements can GenAI be legitimately deployed and governed?	Legality; accountability; transparency; rights protection; legitimate authority and public control	Primarily state-oriented interpretation intersecting with legal-professional norms. The thematic configuration is consistent with rule-setting, accountability and rights protection associated with state institutions, alongside professional norms of legal judgement and responsibility.	Innovation ↔ regulation; opacity ↔ transparency; generative capacity ↔ authorship/liability; algorithmic decision making ↔ accountability and rights

Source. Own elaboration.

This configuration is compatible with a professional institutional orientation, without demonstrating that education is governed by a singular professional logic. Such a logic privileges specialised knowledge, judgement, legitimate expertise, and the authority to evaluate appropriate practices (Thornton *et al*., 2012). Educational activity involves more than the transmission of information. It also requires judgements concerning learning, competence, assessment, and pedagogical intervention. In Abbott's (1988) terms, technological change becomes institutionally relevant when it intersects with activities over which professional groups exercise, or claim, jurisdiction.

Academic integrity becomes particularly salient through its association with *assessment, writing, feedback, AI literacy*, and *critical thinking*. Its importance does not derive from the frequency of the term itself, but from its position within a configuration that problematises GenAI in relation to the legitimacy of knowledge production and evaluation. Similarly, *AI literacy* and *critical thinking* shift attention away from technological access towards actors' capacity to evaluate and use the technology appropriately.

The configuration also highlights potential tensions. GenAI may support personalised learning and feedback, yet it may affect learner autonomy and the validity of assessment. It may facilitate innovation while complicating the criteria of academic integrity. These do not represent binary choices between technology and education. Consistent with sociomaterial perspectives (Orlikowski & Scott, 2008), they concern the embedding of technological capabilities within established practices of knowledge production, assessment, and pedagogical accountability.

~ Business: GenAI as an Organisational Resource and Value-Creation Technology

The Business corpus displays a distinct thematic configuration. *Innovation, technology adoption, decision making, human–AI collaboration, digital transformation, knowledge management, sustainability*, and *supply-chain management* associate GenAI with the processes through which technological resources are integrated into productive and managerial activity. Compared with Education, questions concerning the legitimacy of learning or assessment are structurally less prominent. Adoption, innovation, decision making, and organisational transformation instead occupy central positions.

This configuration is compatible with the intersection of market- and corporation-oriented institutional principles. Within the *institutional logics* perspective, a market orientation privileges competition and value creation, whereas a corporation logic emphasises hierarchy, coordination, managerial authority, and organisational capacity (Thornton *et al*., 2012). The findings therefore cannot be reduced to a "productivity logic." Rather, they indicate the problem of integrating GenAI into organisational processes capable of creating value and developing or reorganising organisational capabilities.

The relevance of *human–AI collaboration* and *decision making* is central. Automation and augmentation do not constitute mutually exclusive outcomes: AI may automate particular activities while simultaneously extending the capabilities of human actors (Raisch & Krakowski, 2021). Similarly, algorithmic technologies may reconfigure knowledge regimes and the relationship between technological outputs and organisational expertise without eliminating human judgement (Anthony, 2021; Pachidi *et al*., 2021).

The Business configuration suggests tensions between automation and augmentation, efficiency and human expertise, innovation and responsible use, as well as algorithmic decision support and organisational trust. These tensions are analytical interpretations of the observed configuration rather than directly measured relationships. They indicate that GenAI integration extends beyond technological adoption, involving the coordination of knowledge, the distribution of decision-making authority, and the reconciliation of technological capabilities with established organisational arrangements.

~ Communication: GenAI, Information Credibility, and Professional Authority

The Communication corpus associates GenAI with journalism, automated journalism, news production, framing, human–machine communication, trust, disinformation, media and AI literacy, and public relations. These themes indicate concern with GenAI not only as a tool for producing communication, but also with the conditions under which technologically mediated content is credible, authentic, and professionally legitimate.

The configuration may be interpreted through a professional-logic orientation, although one that differs from the orientation identified in Education. The similarity concerns expertise, judgement, and professional authority rather than concrete practices. Journalism and communication professions claim authority in the selection, production, validation, and contextualisation of information; GenAI becomes institutionally relevant when it intervenes in these activities.

The coexistence of *automated journalism, human–machine communication, trust,* ethics, and *disinformation* suggests that automation is recurrently associated with questions concerning the location of communicative authority and responsibility, rather than with the straightforward replacement of journalistic authority. This interpretation is compatible with Avnon *et al.'s* (2024) socio-professional perspective, according to which the significance of ethical issues associated with algorithmic technologies depends on the norms and responsibilities of their professional contexts of use.

Recent research on AI adoption in journalism supports an interpretation in terms of negotiation rather than direct technological substitution. Studies published in 2026 show that journalists negotiate GenAI use in relation to existing professional boundaries and institutional arrangements, identifying professional judgement, autonomy, and accountability as central concerns in the governance of AI in newsrooms (Dodds *et al*., 2026; Gërguri *et al*., 2026). These studies are compatible with the bibliometric interpretation but do not directly validate it.

The resulting tensions concern automation and professional authority, synthetic content and authenticity, automated production and editorial judgement, as well as innovation and information integrity. Although Education and Communication can both be interpreted partly through professional logics, their institutional objects differ. The former privileges the legitimacy of learning and assessment, whereas the latter concerns the credibility and authority of information circulating in society.

~ Governance: GenAI as an object of regulation and accountability

The fourth corpus, Governance, reveals the clearest shift from the use of GenAI towards the institutional conditions required for its legitimate implementation. The coexistence of *AI Act, AI regulation, AI governance, accountability, transparency, copyright, authorship, liability, human rights, algorithmic bias*, and *judicial decision making* places rules, responsibility, and rights at the centre of the corpus. This configuration is compatible primarily with a state logic intersected by legal-professional norms. State logic emphasises legitimate authority, rule setting, and collective order, while the prevalence of legal concepts points to the relevance of legal judgement and responsibility.

Governance cannot therefore be reduced to "regulation." Regulation is an observable theme, whereas the broader institutional problem concerns the rules, rights, responsibilities, and accountability mechanisms through which technologically mediated action may acquire a legitimate form.

This interpretation is compatible with research on AI integration in public administration, which is mediated by public values, administrative structures, bureaucratic roles, and accountability mechanisms. Janssen *et al.* (2020) link trustworthy AI to data-governance arrangements, while Meijer *et al.* (2021) show that the integration of algorithmic systems varies according to administrative and organisational contexts. Recent literature also places public values, institutions, bureaucratic actors, and accountability at the centre of AI adoption, rather than treating technical considerations as sufficient explanations (Cho *et al.,* 2026).

The Governance configuration reveals tensions between innovation and regulation, opacity and transparency, generative capacity and norms governing authorship or legal liability, and algorithmic decision making and institutional accountability. These associations do not indicate a rejection of innovation. Rather, they problematise GenAI through the institutional conditions required for the technology to acquire public and legal legitimacy.

5.3. Institutional Complexity and Cross-Domain Tensions

The comparative findings do not support a direct and exclusive correspondence between the four domains and distinct institutional logics. Instead, they point to institutional complexity: similar technological capabilities intersect with multiple organising principles, while the same principles become relevant to different problems.

The professional orientation identified in Education and Communication illustrates this pattern. In both domains, expertise, judgement, and legitimate authority are visible, yet they concern distinct institutional objects. In Education, they relate to learning, assessment, pedagogical accountability, and the integrity of knowledge. In Communication, they concern the production of credible information, editorial judgement, authenticity, and public trust. A shared professional orientation therefore does not imply thematic equivalence. Rather, it reflects the enactment of professional principles through different jurisdictions and forms of socially recognised expertise. Business and Governance likewise demonstrate the limitations of a simple correspondence between domain and logic. Business combines market-oriented value creation with corporate coordination, knowledge management, and managerial decision making. Governance combines rule setting and accountability, associated with a state-oriented logic, with legal-professional concerns relating to authorship, liability, rights, and legal judgement. These combinations are compatible with research on institutional complexity, according to which organisations and fields are simultaneously exposed to multiple institutional prescriptions (Greenwood *et al*., 2011; Besharov & Smith, 2014).

A second comparative observation concerns the recurrence of apparently similar concepts across domains. Terms such as *ethics, trust, accountability, innovation*, and *AI literacy* do not possess a stable institutional meaning independent of the configurations in which they appear. Individual keywords were therefore not coded as indicators of institutional logics. Trust associated with journalism, disinformation, and news production differs from trust associated with organisational adoption and human–AI collaboration. Similarly, *accountability* linked to regulation, judicial decision making, and human rights is not equivalent to responsibility in educational or organisational practices.

This relational interpretation moves beyond strictly descriptive comparative bibliometrics. The contribution of the comparison does not lie in identifying different vocabularies, but in explaining how recurring technological capabilities are integrated into distinct configurations of institutional problems and criteria for legitimate action. The *institutional logics* perspective adds analytical value only after the thematic structure has been established empirically; it does not replace bibliometric observations with theoretical categories. The tensions reported in Table 4 should be interpreted in the same manner. Relationships such as *automation ↔ professional authority* or *innovation ↔ regulation* do not represent binary oppositions. Competing demands may coexist and be accommodated, negotiated, or recombined without eliminating either pole (Seo & Creed, 2002; Greenwood *et al.,* 2011). In the case of GenAI, institutional integration may involve arrangements in which technological capabilities and established forms of authority coexist and are continuously renegotiated.

5.4. Theoretical Implications: GenAI as Institutionally Situated Sociotechnical Change

The findings have three implications for understanding GenAI as a sociotechnical phenomenon.

First, the cross-domain diffusion of technology must be distinguished from institutional convergence. The presence of GenAI in education, business, communication, and governance does not mean that these domains construct the same problems around it. The comparative maps indicate that GenAI is integrated into constellations of concerns that are specific to each domain. This result is compatible with sociomaterial and constructivist approaches, according to which technological consequences arise from the relationship between technological capabilities, established practices, organisational arrangements, and forms of authority, rather than from technical properties alone (Orlikowski & Scott, 2008; Leonardi & Barley, 2010).

Second, the institutional significance of GenAI becomes visible when generative capabilities intersect with mechanisms for validating knowledge, distributing judgement, and assigning responsibility. Across the four domains, the central questions converge on the actors or mechanisms that can legitimately produce knowledge, make decisions, evaluate outcomes, or be held accountable for their consequences. GenAI need not replace professionals to acquire institutional relevance. Its participation in classification, content production, interpretation, or decision support may reopen questions concerning expertise and authority (Anthony, 2021; Pachidi *et al*., 2021).

Third, GenAI integration should be interpreted as institutional negotiation rather than direct technological substitution. The recurring tensions indicate that technical possibilities coexist with institutional requirements that cannot be eliminated through optimisation. Efficiency does not replace expertise. Automated production does not resolve credibility. Personalised assistance does not eliminate assessment. Innovation does not

substitute for legal and public accountability. Institutional complexity therefore explains why GenAI may be simultaneously promoted, constrained, adapted, and contested within the same institutional environment.

This interpretation delimits the study's theoretical contribution. The analysis does not demonstrate that GenAI has already transformed the institutional logics of education, business, communication, or public governance. Such a claim would require evidence concerning organisational practices, actor interpretations, and actual processes of change. The bibliometric data support a more limited conclusion: scholarly problematisations of GenAI are institutionally differentiated. Their thematic structures foreground distinct problems and priorities that can be systematically related to established categories within the *institutional logics* perspective, without treating those categories as directly observable variables.

The value of the *institutional logics* perspective in this study does not lie in classifying domains. It lies in explaining how similar technological capabilities become relevant through different criteria of legitimate action. Attention therefore shifts from GenAI adoption to the problems activated by its integration: what constitutes legitimate knowledge, valuable organisational action, credible communication, or responsible public decision making. GenAI consequently emerges as a shared sociotechnical phenomenon that is problematised within plural institutional orders.

6. Conclusions

This study comparatively examined research on GenAI across four institutional domains: education; business and organisational research; communication and media; and public governance, law, and policy. Although GenAI constitutes a shared technological object, the scholarly literature problematises it through distinct thematic configurations. These differences extend beyond variation in applications, indicating concerns with legitimate learning and assessment; value creation and organisational capacity; information credibility and professional authority; and regulation, rights, and public accountability.

The study's principal contribution lies in linking bibliometric mapping with institutional interpretation. The analysis distinguishes among observed thematic configurations, the institutional problems they foreground, the associated normative and organisational priorities, and their subsequent interpretation through the institutional logics perspective. The institutional relevance of GenAI derives not only from technological capabilities, but also from their intersection with practices of knowledge production and validation, organisational coordination, the exercise of expertise, and the allocation of responsibility. The cross-domain diffusion of GenAI therefore does not imply convergence in the ways the technology is evaluated or integrated.

The comparative approach shifts attention from adoption and use towards the questions of legitimacy, expertise, authority, and accountability activated by technological integration. The identified configurations point to processes of negotiation and coexistence among institutional priorities rather than to the linear substitution of established practices by algorithmic capabilities.

The findings should be interpreted in light of several limitations. The analysis relies exclusively on the Web of Science Core Collection and English-language publications, which may underrepresent contributions indexed in other databases, published in other languages, or located in social-science, communication, and legal literatures. The corpora, delimited through search strategies and Web of Science Categories, are analytical constructions rather than exhaustive representations of the respective domains. Substantial differences in corpus size required a focus on relative thematic configurations rather than on raw frequencies or network topology. The period from 1 January 2023 to 9 September 2026 is short, and 2026 represents an incomplete publication year. Citation indicators are therefore descriptive and sensitive to the temporal window. Bibliometric data reflect scholarly discourse rather than institutional practices. Interpretation through the institutional logics perspective constitutes a theoretically informed mapping, not a direct measurement of institutional logics or institutional change.

Future research could test these interpretations by combining bibliometrics with methods that directly observe institutional practices and actors, including content analysis, interviews, comparative case studies, and longitudinal research. Extending the analysis to other databases and multilingual literatures would allow the robustness of the identified configurations to be assessed. Longitudinal research could examine whether the tensions and priorities visible in scholarly discourse stabilise, are reconfigured, or alter institutional practices and arrangements as GenAI use matures.

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Conflict of interest

The author declares that she has no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.