

Mapping the Trends and Developments of Library and Information Science Research in India: A Scientometric Study

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Abstract: The present study aims at analysing the Indian LIS publications published from 2021 to 2025 in terms of publication trends, collaboration structure, thematic evolution and citation patterns. A total of 1,072 publications were obtained from the Web of Science Core Collection. Biblioshiny and VOSviewer were used to assess the growth of publications, authorship characteristics, institutional collaboration, keyword co-occurrence, thematic development and bibliographic coupling patterns in the context of scientometric techniques. The results show that Indian LIS research has shown consistent publication rates, reasonably high citation rates and high level of international collaboration. The most prevalent conceptual frameworks of the field were artificial intelligence, machine learning, knowledge management, scientometrics and digital transformation. The study also highlights the importance of the involvement of premier institutions like the IIM system and the IIT system in enhancing the networks of collaborative research. The field has gained some visibility globally and an interdisciplinary orientation, but there are still a handful of authors and institutions that exercise a disproportionate influence over the field. The study is a contribution to the present understanding of the present shape and the future trajectory of LIS studies in India.

Keywords: Library Science, Library and Information Science, Scientometrics, VOSviewer, Biblioshiny, Web of Science

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Introduction

Library and Information Science is always an evolving discipline. It has been through a long evolution starting from classification theory and archival management, and has gradually incorporated new

technologies, new user practices, and new theories such as those of AI, machine learning, and large-scale data analysis. In recent years, Indian researchers have been making substantial contributions to Library and Information Science (LIS) in a number of important areas such as knowledge management, digital transformation, and AI-driven information systems. The transition needs to be understood through structured, quantitative analysis of the kinds of people doing research, where and when it's published, the content of it; and the linkages between various segments of the community. Scientometric analysis represents a method that analyzes publication and citation data to visualize the intellectual structure, monitor the thematic evolution and uncover collaboration networks within large-scale scientific bodies of work (Donthu et al., 2021). Recent research shows a quick shift in the nature of LIS research in the world from inter-disciplinary to technology-based research. Rehman et al. (2024) noted that there is a huge growth of research in BRICS countries, with China as the leading producer and *Scientometrics* as the top journal. Likewise, Damar et al. (2024) emphasized that growing networks of collaboration and the rise of digital transformation, data management, and information retrieval in LIS studies were other key observations. Research from both Scopus and Web of Science databases indicates a growing trend of interdisciplinary collaboration, such as that between computer science, data science, and decision sciences (Wattanasiri et al., 2024). The emerging themes are information retrieval, information literacy, digital technologies, and user behaviour studies, which feature the current LIS research. Despite the increased publication activity in Indian LIS, there is no recent and comprehensive scientometric evaluation of the field which can explain the development of the research themes and their interdependencies, the collaborative structures, the influence of citations and the involvement of institutions. Previous research tends to focus on individual journals, few journals, or specific topical sections, and therefore provides only a partial insight into the overall direction of the discipline. With this background, the current research aims to analyze Indian LIS research from 2021 to 2025 using a scientometric approach. The study aims to map the current research profile of Indian LIS research landscape by considering the aspects of publication growth, collaboration trends, influential authors and institutions, thematic evolution and citation structure.

Objectives of the Study

The main aim of the present study is to find out the current trends and the intellectual structure of Library and Information Science (LIS) research activities in India. The specific objectives are:

- To examine the year-wise growth and pattern of publishing Indian LIS research.
- To find out the most productive authors, institutions, journals and co-authored countries in Indian LIS research.
- To analyze the authorship trends and collaborations at the institutional as well as international level for Indian LIS research outputs.
- To find major research themes and conceptual trends using keyword co-occurrence and thematic mapping analysis.
- To study the impact of citations, influential documents and bibliographic coupling patterns in Indian LIS Research.

Methodology

In this study the Scientometric methodology has been used to analyze the research output of Library and Information Science (LIS) in India (2021-2025). The Web of Science Core Collection was used to collect bibliographic data. The search terms used were library and information science, Information Science & Library Science, India, and publication year range of 2021 to 2025. In March 2025, data retrieval was completed and the records were screened and refined, yielding 1,072 records. Only papers published in English language in peer-reviewed journals and review papers were retained and papers from conferences, editorials, book chapters and duplicate papers were excluded. Performance analysis was made using Biblioshiny integrated with the Bibliometrix R package (v4.1.0), while visualization of collaboration networks, keyword relationships, and bibliographic coupling patterns was done using VOSviewer (v1.6.20).

Analysis and Discussion

The current study applied various scientometrics techniques to the research output of LIS discipline for the last five years (2021-25) to analyse. In this study the Scientometric methodology has been used to analyze the data set consists of 1,072 records from 114 sources.

Main Information of Library and Information Science Research in India



Fig. 1: Main Information of LIS Research in India

The overall publication landscape of Indian LIS studies for the last five years (2021-25) is broadly illustrated in Fig 1. The data set consists of 114 sources with 1,072 records, which forms a reasonably widely-spread communication structure in the discipline. Citation performance was generally good, with the average document cited 28.4 times, indicating strong continuing scholarly visibility, but not evidence of isolated bursts of citations. Collaborative writing prevailed as the mean number of authors was 3.99. International involvement seemed to be fairly large, with 51.4% of publications reporting on international collaboration. The variation does not seem to represent a measurable decline in research activity, although the annual growth rate was -1.3%.

Year-wise Distribution of Publications

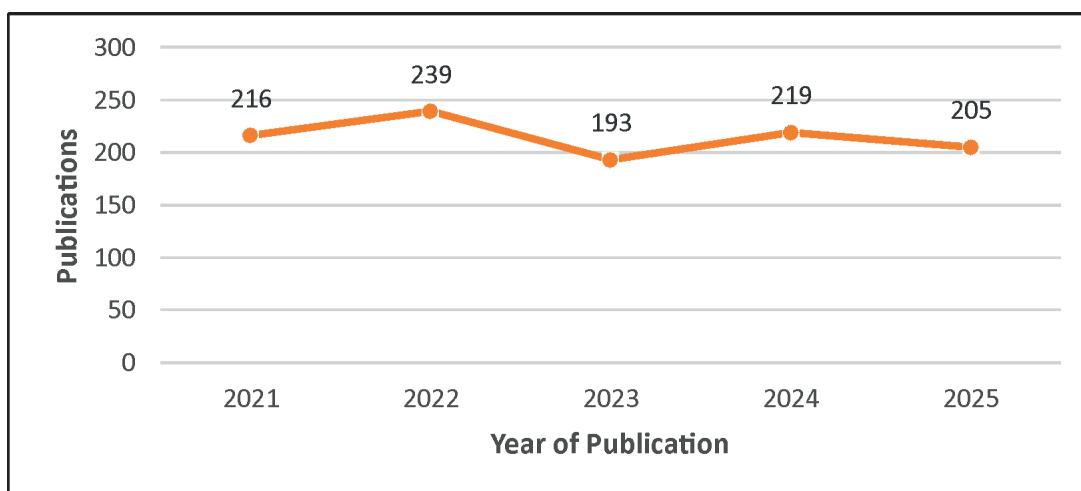


Fig. 2: Year-wise Distribution of Publications from 2021–2025

The annual publishing trend of LIS research in India over the past 5 years is shown in fig 2. It has published 239 in 2022, which is the highest number of publications in a single year in the dataset, starting from 216 publications in 2021. The number of publications dropped significantly in 2023, to 193 records. The pattern reversed in 2024 when there was a recovery to 219 publications, with a slight decrease in 2025 to 205. However, the overall variability was not very high in all the years during the study period. Overall distribution indicates a fairly level overall research environment with no sudden growth or sharp decrease in publications.

Citation Analysis of Scientific Literature

Table 1: No. of Scientific Literature and Citations

Year	Total Publications (NP)	% of Total Publications	Total Citations	% of Citations	ACPP	ACPY	Citable Years
2021	216	20.15%	12200	40.06%	56.48	9.41	6
2022	239	22.29%	7519	24.69%	31.46	6.29	5
2023	193	18.00%	5944	19.52%	30.8	7.7	4
2024	219	20.43%	3603	11.83%	16.45	5.48	3
2025	205	19.12%	1185	3.89%	5.78	2.89	2

As shown in Table 1, there is a definite trend of citation accumulation in Indian LIS research with respect to the age of publication. Papers from 2021 contained 20.15% of the number of papers, but had the highest number of citations (12,200). That year, the average number of citations for that year's papers was 56.48, which is significantly higher than for the papers that followed. The decreasing trend of citation intensity continued through recent years, with a citation intensity (ACPP) of 5.78 for 2025 papers. This variation is methodologically unsurprising, as lately published studies have received limited exposure time in scholarly communication channels. The ACPY values also show increased visibility of citations for earlier publications.

Most Productive Authors

Table 2: Top 10 Most Productive Authors

<i>Author</i>	<i>NP</i>	<i>h index</i>	<i>g index</i>	<i>TC</i>
DWIVEDI YK	36	27	36	9576
GUPTA S	34	15	25	682
RANA NP	29	14	29	6354
KUMAR A	27	17	27	770
KUMAR S	20	12	20	458
KUMAR V	18	10	18	2695
KAR AK	17	12	17	5380
BEHL A	16	10	16	286
PEREIRA V	15	11	15	321
SINGH RK	15	10	15	325

A limited number of researchers is identified in Table 2 and is contributing disproportionately to the research in Indian LIS. Dwivedi YK had the highest number of publications (36) and the best citation impact (9,576) and also had the highest h index of 27. Rana, N.P. and Kar, A.K. had a significant citation impact accounting for lower numbers of publications, suggesting that they are influential within the interdisciplinary research areas relating to information systems and digital technologies. On the other hand, a few authors continued publishing regularly but had relatively low citation counts. A high concentration of authorship across the distribution, with both scholarly visibility and research influence still concentrated in the hands of a comparatively small number of well-connected authors.

Most Productive Institutions

Table 3: Top 10 Institutional Affiliations in LIS Research

<i>Rank</i>	<i>Institutions</i>	<i>NP</i>	<i>Country</i>
1	Indian Institutes of Management (IIM System), India	313	India
2	Indian Institutes of Technology (IIT System), India	124	India
3	National Institutes of Technology (NIT System), India	85	India
4	Symbiosis International (Deemed University), Pune, India	60	India
5	Swansea University, Swansea, Wales, United Kingdom	53	United Kingdom
6	O.P. Jindal Global University, Sonipat, Haryana, India	52	India
7	Management Development Institute (MDI), Gurgaon, Haryana, India	41	India
8	University of Kashmir, Srinagar, Jammu and Kashmir, India	40	India
9	Indian Institute of Technology Kharagpur, Kharagpur, West Bengal, India	37	India
10	Indian Institute of Technology Delhi, New Delhi, India	29	India

The key findings of the research output on LIS are shown in Table 3 and it shows a significant clustering of the research in the top tier institutions of higher education in India. The Indian Institutes of Management (IIMs) were the top scorers with 313 publications, followed by the Indian Institutes of Technology (IITs) with 124 and the National Institutes of Technology (NITs) with 85 publications. This dominance indicates that research in LIS in India is more and more overlapping with management research, digital governance research, analytics research, and information systems research. There was also a visible publication activity from Symbiosis International University and O.P. Jindal Global University. The University of Swansea was the lone foreign University in the top ten, indicating an ongoing trend of international cooperation between Indian and foreign researchers.

Most Productive Journals

Table 4: Most Productive Journals for Indian LIS Research

<i>Journal</i>	<i>ISSN</i>	<i>Publisher</i>	<i>Country</i>	<i>NP</i>	<i>SJR (2025)</i>	<i>Quartiles</i>
JOURNAL OF ENTERPRISE INFORMATION MANAGEMENT	1741-0398	Emerald	United Kingdom	106	1.665	Q1
JOURNAL OF KNOWLEDGE MANAGEMENT	1758-7484	Emerald	United Kingdom	88	2.382	Q1
JOURNAL OF GLOBAL INFORMATION MANAGEMENT	1062-7375	IGI Publishing	United States	84	0.7432	Q1
INTERNATIONAL JOURNAL OF INFORMATION MANAGEMENT	0268-4012	Emerald	United Kingdom	67	5.899	Q1
INFORMATION PROCESSING & MANAGEMENT	0306-4573	Emerald	United Kingdom	66	1.845	Q1
SCIENTOMETRICS	0138-9130	Springer	Switzerland	61	1.077	Q1
INFORMATION TECHNOLOGY & PEOPLE	0959-3845	Emerald	United Kingdom	44	1.956	Q1
DATA TECHNOLOGIES AND APPLICATIONS	2514-9288	Emerald	United Kingdom	35	0.438	Q1
ONLINE INFORMATION REVIEW	1468-4527	Emerald	United Kingdom	31	0.896	Q1
INFORMATION TECHNOLOGY FOR DEVELOPMENT	0268-1102	Taylor & Francis	United Kingdom	26	1.456	Q1

As per the Table 4, Indian LIS publications are mostly concentrated in internationally recognized Q1 journals. The highest number of papers (106 papers) were published by Journal of Enterprise Information Management, followed by Journal of Knowledge Management (88 papers) and Journal of Global Information Management (84 papers). International Journal of Information Management had the highest amount of SJR value (5.899) among the listed sources, which means that most of the journals on the list are highly visible and have a high impact on the global academic community. There was a clear clustering of outlets around Emerald journals, with the majority of the top ranking journals in this category. It indicates that Indian LIS researchers and publications on information systems, digital management, and knowledge research themes are correlated over the period of time.

Three-Field Plot of Relationship Between Authors, Keywords Used and Published Sources

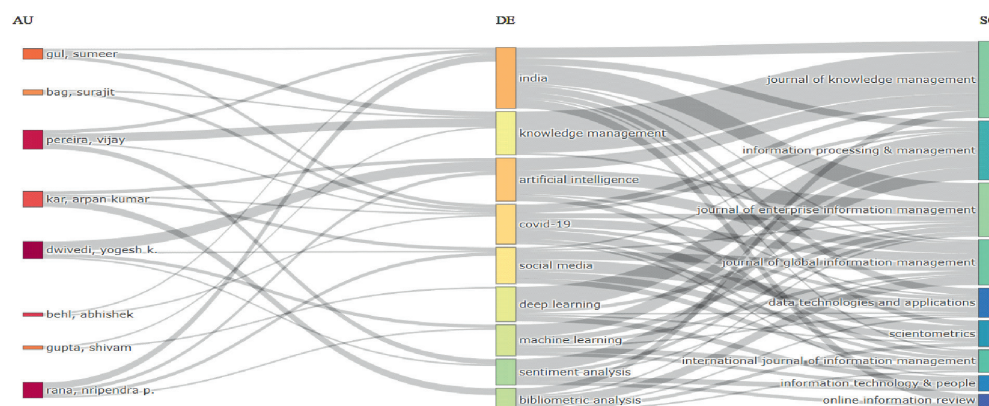


Fig 3: Relationship Between Authors, Keywords Used and Published Sources

As Fig 3 shows, the intellectual landscape was very co-hegemonic, with strong connections between key authors, prevalent research strands, and journals. Dwivedi Y.K., Rana N.P. and Kar A.K. demonstrated very strong relationships with themes like knowledge management, artificial intelligence, machine learning, bibliometric analysis, and sentiment analysis. Thematic linkages signal the beginning of a noticeable trend in Indian LIS studies for data-focused and technology-infused enquiry. The main channels of publications for these themes were journal publications such as Journal of Knowledge Management, Journal of Information Processing and Management, and Scientometrics. The flow structure, which has been used to illustrate the totality of this data, also shows that highly productive authors regularly publish in specialist journals that reflect current information and knowledge management research.

Conceptual Structure: Multiple Correspondence Analysis

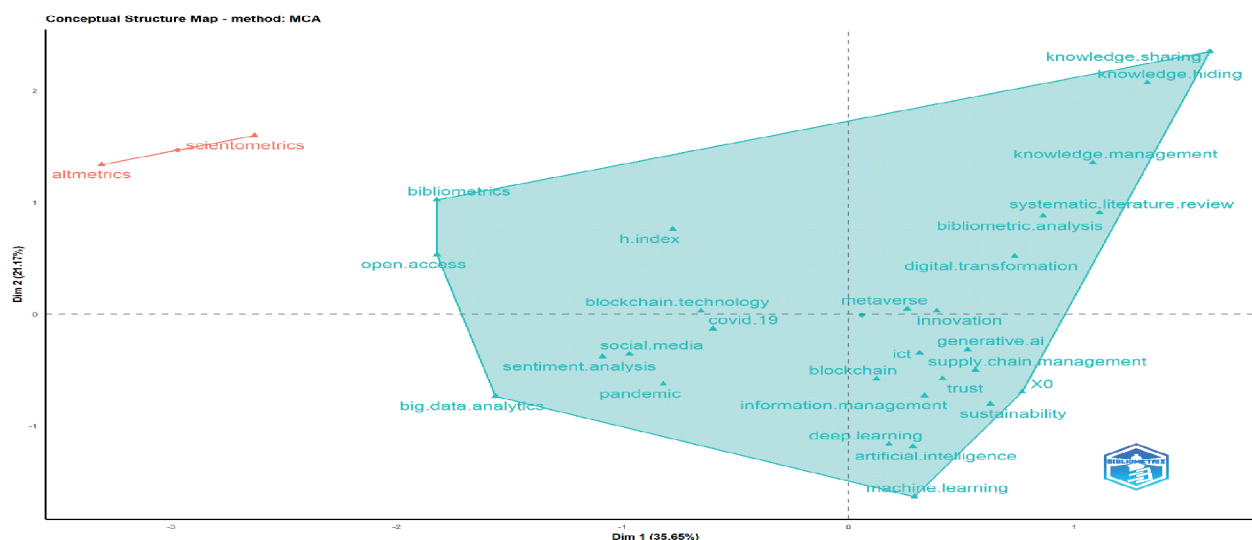


Fig. 4: Factorial Correspondence Analysis

Fig 4, the conceptual structure map emerged from MCA, there is great emphasis on technology related LIS research. The conceptual connectivity was strong, with terms like artificial intelligence, machine learning, deep learning, digital transformation, blockchain, and information management being clustered in the center of the map, suggesting frequent mentions throughout the recent studies. Knowledge management, knowledge sharing and systematic literature review were found to be a strongly interconnected top cluster indicating a relatively advanced and consolidated research strand in Indian LIS scholarship. Scientometrics, bibliometrics and altmetrics, on the other hand, seemed less connected with the main technological group, and would be attributed to their methodological focus rather than low research relevance within the disciplinary matrix.

Co-occurrence Analysis of Author Keywords

Fig 5 resulted in a highly interconnected conceptual structure, the co-occurrence network showed 104 items of keywords linked together by 380 links and having a total link strength of 506. Thematic segmentation resulted in four thematic clusters that were clearly distinguishable based on colors. The red cluster focused on artificial intelligence, digital transformation, innovation, blockchain and

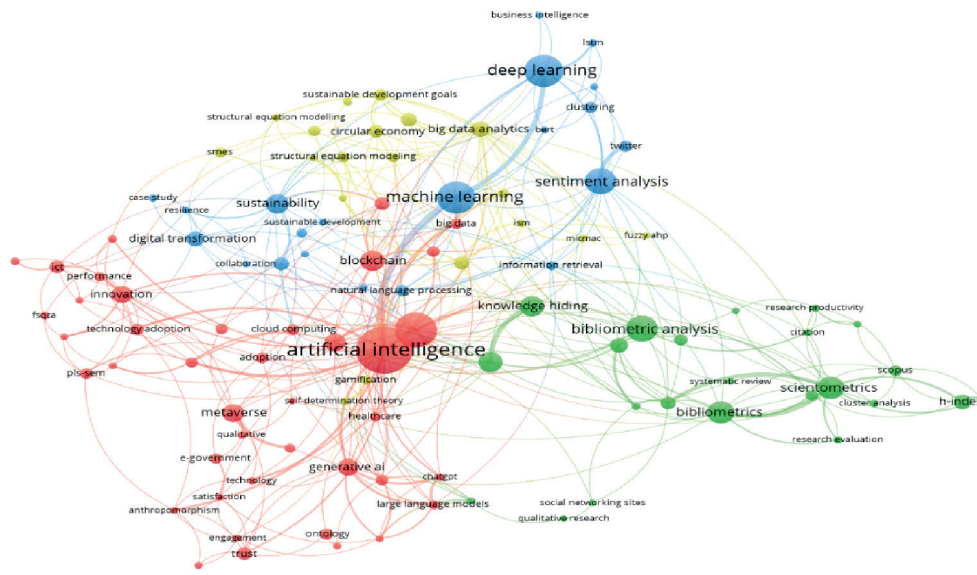


Fig. 5: Network visualization of Co- Occurrence keyword

generative AI, where research focuses on technology. The cluster of blue colors included machine learning, deep learning, and sentiment analysis, which focused on computational and analytical methods. The green cluster (evaluative and measurement-oriented studies) consisted of bibliometric analysis, bibliometrics, scientometrics and h-index. The yellow cluster was a connection between knowledge management, knowledge sharing, sustainability, and big data analytics and related the organizational knowledge practices to the data-intensive research themes.

Thematic Map of LIS Research in India

Fig. 6 shows the thematic map which is being created by organizing author keywords in four strategic quadrants according to the centrality and density measures. The results showed that the Motor Themes quadrant had a significant number of internal developments and external interest in the broader LIS field, and included the three bibliometrics, scientometrics and h-index. Artificial intelligence and knowledge management emerged in the Basic Themes region, indicating that this concept provides a

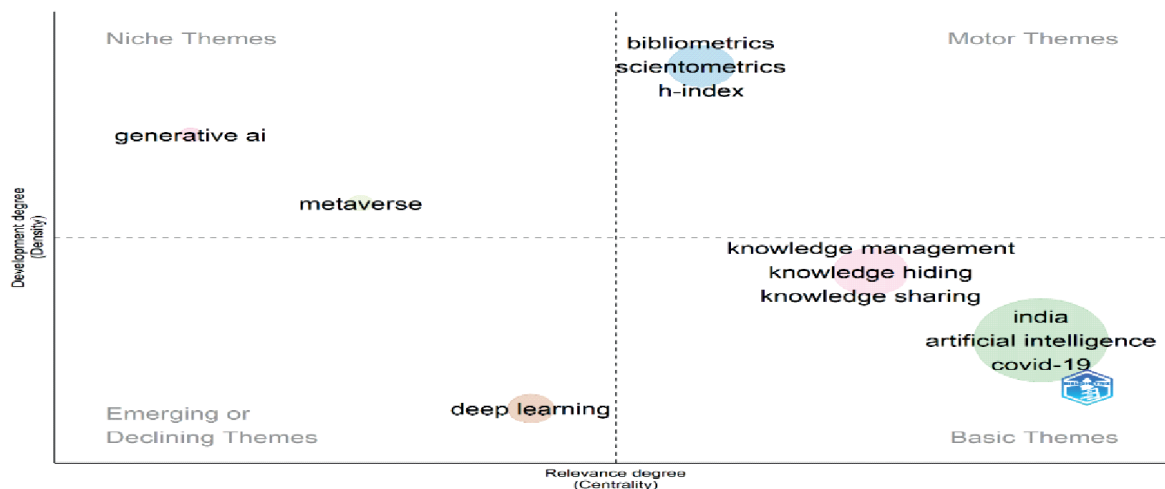


Fig 6: Thematic Structure of Author Keywords

strong conceptual link across a number of research fields. The Niche Themes included Generative AI and metaverse, indicating more specific but relatively focused research interest. The quadrant Emerging or Declining was occupied by deep learning, either a process of thematic restructuring or an integration of the themes within the existing conceptual streams that are influencing Indian LIS research.

Co-authorship Network Among Authors

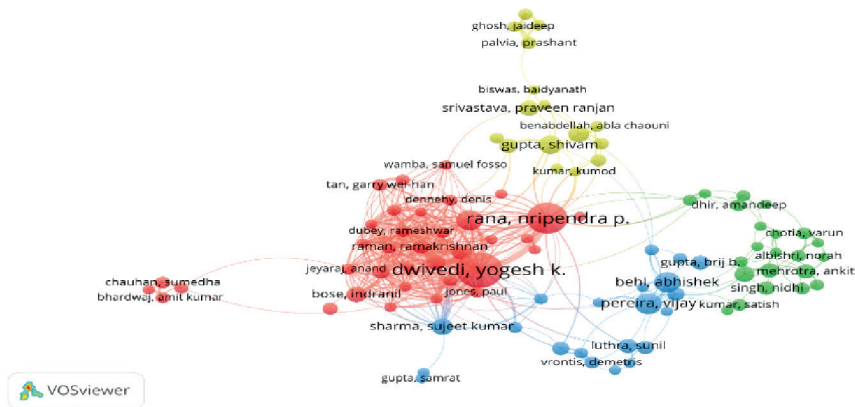


Fig. 7: Network Visualization Co authorship among author

The co-authorship network formed 95 nodes of authors and 494 links among them, which showed a relative dense collaboration network among Indian LIS researchers with a total link strength of 945. In the visualization, four main clusters were formed. The red cluster was the focal core of the collaboration, with Dwivedi Y.K. and Rana N.P. being key collaboration hubs due to their extensive interconnections. The blue cluster (Behl A. and Pereira V.) was moderately connected with the central network. A small group of green squares symbolized a relatively specialized collaboration group, and the yellow cluster served as a kind of ‘bridge’ between the peripheral contributors and the dominant research network.

Country Collaboration Network

Country Collaboration Map

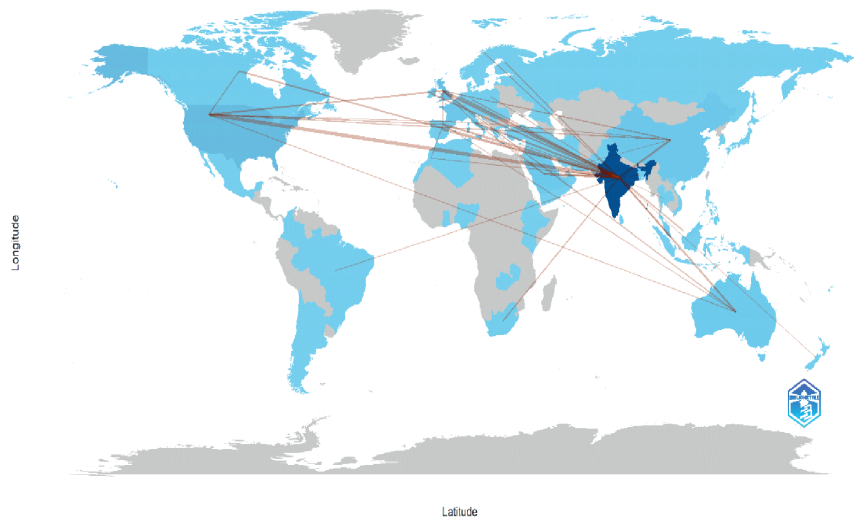


Fig. 8: Country Collaboration Map

Indian LIS research had extensive international research linkages during 2021–2025 as shown by the country collaboration analysis. United States (159 publications) and the United Kingdom (123 publications) were the best collaborative partners, highlighting continued involvement with systems influential in the world. Inter-regional, scholarly exchange was also seen in their additional collaboration with France, China, Saudi Arabia, Australia, and Italy. The collaboration structure indicates that Indian researchers are more actively involved in cross-national research collaboration networks in the fields of technology, knowledge management and information science. The linkage with the USA–United Kingdom group also emerged on its own, but India continued to be the main node for collaboration in the wider network architecture.

Institutional Collaboration Network Analysis

The collaboration network of the institutions was moderately centralized, with 22 nodes spread over eight clusters. The highest betweenness centrality value (37.325) was captured by the Indian Institutes of Management (IIM System) portraying the most influential position in the graph, meaning it has a significant role in bridging the other distinct groups of institutions. The Indian Institutes of Technology (IIT System) had the second highest betweenness score of 34.434 and the highest influence in the network when measured by PageRank. Secondary collaborative connectors were NIT System and Symbiosis International University. Conversely, institutions like Indian Statistical Institute and University of Kashmir were less prominently situated in the middle of the whole collaboration network, and had fewer intermediaries in between them.

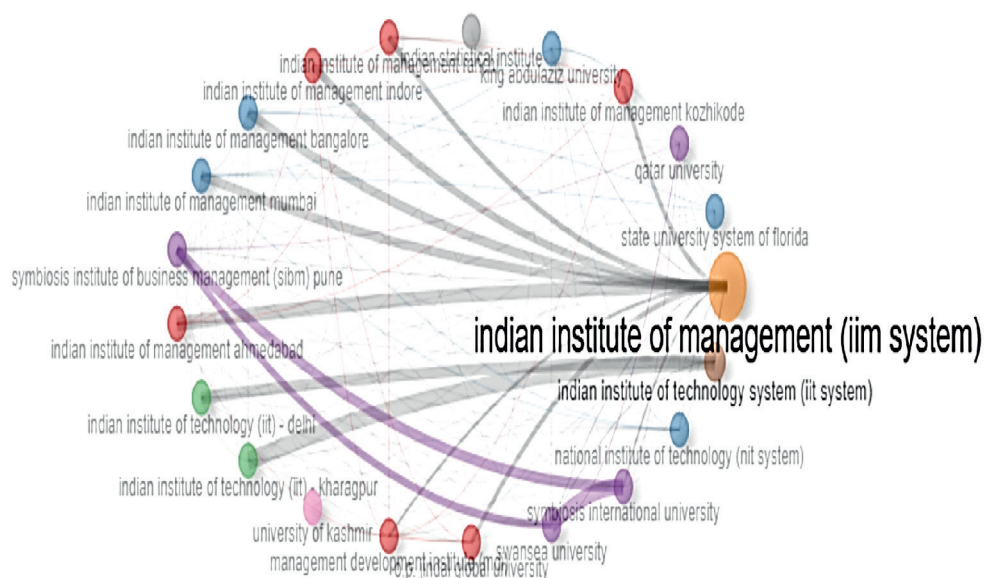


Fig. 9: Collaboration Analysis among Institutions

Bibliographic Coupling Analysis

The bibliographic coupling network consisted of 317 document items grouped into five thematic clusters, with a total of 7133 links, and a total link strength (TLS) of 14009. The red cluster was the

largest group of intellects, and it had a major overlap of citations with Dwivedi (2021a), Dwivedi (2023), and Singh (2021b). The blue cluster was dedicated to technology-related articles on Artificial Intelligence, digital transformation, and information systems. The green cluster was universally dominated by bibliometric and scientometric studies, whereas the yellow and purple clusters were more narrowly focused and had moderate internal coherence. Kautish (2022) had the most number of citations while Mishra (2022a) had the highest number of citations in TLS as there are references across the thematic areas.

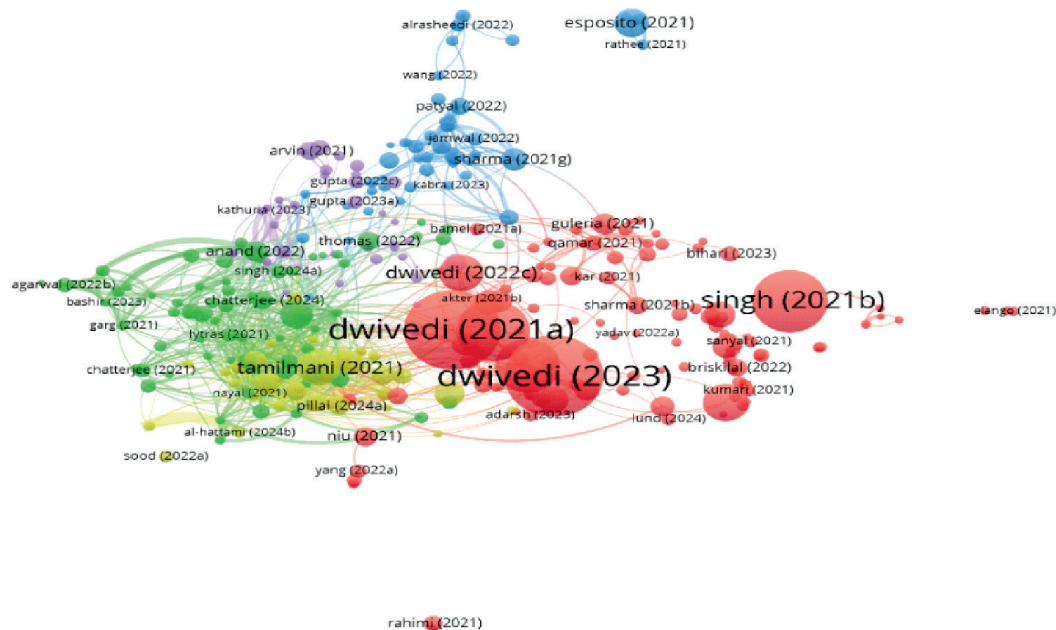


Fig. 10: Network Visualization of Bibliographic coupling

Conclusion

The present scientometric investigation mapped the evolving landscape of Library and Information Science (LIS) research in India between 2021 and 2025. The findings indicate that Indian LIS scholarship has maintained stable publication activity while simultaneously strengthening its international visibility through high citation impact and extensive global collaboration. Research output remained concentrated around technology-oriented themes such as artificial intelligence, machine learning, digital transformation, knowledge management, and scientometrics, reflecting a visible transition from traditional librarianship toward computational and data-driven research practices. The dominance of institutions such as the IIM and IIT systems further demonstrates the growing interdisciplinary nature of LIS research in India. Collaboration patterns revealed a strongly connected research structure, although influence and productivity remained concentrated among a relatively small group of authors and institutions. The thematic and keyword analyses also suggested that emerging areas including generative AI and advanced analytics are gradually entering the mainstream research agenda. These developments position Indian LIS research within broader global scholarly transformations emphasizing digital knowledge ecosystems and information technologies.

The study, however, is limited by its dependence on the Web of Science database and its restriction to English-language journal publications. Future investigations may incorporate Scopus, Dimensions, or regional databases alongside qualitative approaches to achieve a more comprehensive understanding of Indian LIS research dynamics.

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