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Research Article

Evidence from Unpaywall on Open Access Adoption among Indian Researchers

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ABSTRACT

This study examines the patterns, trends and adoption of Open Access (OA) publishing among Indian researchers, with a focus on selected Indian Institute of Technology (IIT). Using publication data from Scopus and OA metadata from Unpaywall for the period 2020-2024, the analysis explores institution-wise outputs, OA evidence types, hosting platforms, licensing practices, OA versions and publication genres. Results indicate that Closed Access publications dominate across all institutions, although both Gold and Green OA show consistent growth. Publisher platforms emerge as the primary hosts, while Creative Commons (CC) licenses remain sparsely adopted. Most OA publications correspond to the final published version, with journal articles comprising over 99% of the OA corpus. Overall, IITs exhibit higher OA participation compared to the national average, yet fall short of global best practices in repository use, licensing transparency and preprint adoption. Strengthening institutional mandates and implementing supportive policies are crucial to enhance the visibility, accessibility and international impact of Indian research.

Keywords: India, Indian Institute of Technology, Open Access (OA), Researchers, Unpaywall.

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INTRODUCTION

Due to a significant increase in journal subscription prices and the emergence of enabling Information and Communication Technologies, an alternative scholarly publishing system known as Open Access (OA) has emerged to increase the distribution of intellectual content to readers without price or other copyright restrictions (Bjork, 2004; Moller, 2006; Yiotis, 2005). OA publishing represents a transformative shift in scholarly communication, allowing unrestricted online access to research outputs without subscription barriers. This paradigm not only enhances the visibility and scopes of research but also accelerates knowledge dissemination, fosters collaboration and promotes equity in access to scientific information (Suber, 2012). Globally, OA has gained significant traction over the past two decades, driven by policy mandates, funder requirements and the emergence of digital platforms that enable free sharing of scholarly content (Piwowar *et al*., 2018; UNESCO, 2021).

In India, OA adoption is gaining momentum but remains uneven across institutions and disciplines, while approximately 30% of global scholarly output is openly accessible, Indian research lags behind with an estimated 23% of publications available through OA channels (Singh *et al*., 2024). The adoption rate varies widely among institutions, with premier research organizations like the Indian Institute of Technology (IIT) demonstrating higher engagement due to stronger research output and digital infrastructure (Das, 2022; Nazim and Zia, 2019). India has also initiated several national-level OA initiatives that aim to enhance research accessibility. Platforms such as Shodhganga, which provides OA to theses and dissertations and the National Digital Library of India (NDLI), which offers free access to a vast repository of learning resources, reflect the growing institutional commitment to OA. Additionally, the University Grants Commission (UGC) OA Policy encourages universities and research institutions to deposit publications in institutional repositories, promoting wider dissemination of scholarly work (Ali *et al*., 2024; Panda *et al*., 2025; Saikia *et al*., 2025). The significance of studying OA in the Indian context is heightened by several factors. Firstly, India produces a substantial volume of scholarly work annually, yet access to research remains a challenge for many institutions, particularly in resource-constrained settings (Koley, 2022). Secondly, with the rise of global OA mandates and the increasing emphasis on research visibility and impact, Indian researchers face both opportunities and challenges in aligning with international OA norms (Deori *et al*., 2023). Finally, a nuanced understanding of OA patterns can inform institutional strategies, funding policies and national initiatives aimed at promoting open science (Sahoo *et al*., 2024; Singh and Singh, 2024).

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To better understand OA adoption, researchers increasingly rely on bibliometric tools. Among them, Unpaywall has emerged as a vital tool in this landscape, providing an extensive database of OA publications along with metadata on access types, hosting platforms and licensing information (Piwowar *et al.*, 2018). By leveraging Unpaywall data, researchers can systematically examine OA adoption trends, identify dominant OA models, evaluate metadata completeness and analyze publishing behaviors. This enables not only a quantitative assessment of OA prevalence but also qualitative insights into the mechanisms through which research becomes openly accessible (Akbaritabar and Stahlschmidt, 2019; Piwowar *et al.*, 2018; Robinson-Garcia *et al.*, 2020).

However, despite the potential of Unpaywall, systematic bibliometric analyses in the Indian context remain scarce, particularly at the institutional level. Existing studies mainly focus on national-level statistics, OA awareness, or policy frameworks (Das, 2022; Deori *et al.*, 2023; Koley, 2022; Nazim and Zia, 2019; Robinson-Garcia *et al.*, 2020), while existing research largely emphasizes national statistics and policy frameworks but provides limited insight into institution-specific practices, licensing models, hosting platforms and publication genres. This gap is especially visible in high-performing institutions such as the IITs, which play a pivotal role in shaping India's research landscape. Addressing this gap, the present study offers a comprehensive analysis of OA publishing among Indian researchers, with a specific focus on selected IITs. The main aim of this study is to examine the patterns, trends and adoption of OA publishing among Indian researchers, in order to assess the current state of OA. The specific objectives are to:

- Analyze institution-wise publication output and the distribution of access types.
- Classify OA publications based on multiple types of evidence.
- Explore the primary hosting platforms of OA publications.
- Analyze licenses, focusing on Creative Commons (CC) and publisher-specific types.
- Examine the different OA versions of publications; and
- Evaluate the range and distribution of publication types.

METHODOLOGY

This study adopted a quantitative bibliometric approach to examine patterns and trends in OA publishing among Indian researchers, with a particular focus on selected IITs. Four leading IITs namely: Delhi, Kanpur, BHU and Roorkee were selected based on their high research productivity and prominence in national rankings, representing a significant segment of India's higher education system. The primary source of publication data was Scopus, which provided comprehensive bibliographic records of scholarly output, while OA-specific metadata were retrieved from Unpaywall, a comprehensive open database that provides information on the OA status of publications through DOI-based queries. Unpaywall was chosen for its extensive coverage, ability to distinguish between OA models and integration of licensing information and repository availability. DOIs of publications affiliated with the selected IITs were identified from Scopus and matched with Unpaywall records to extract relevant OA related metadata. The study focused on publications from 2020 to 2024, ensuring that the analysis reflected recent trends in OA adoption. Extracted metadata included institutional affiliation, OA access model, OA host, licensing information, evidence of OA, OA genre and OA version. The dataset was compiled and organized for analysis using spreadsheet software.

Prior to analysis, the data were cleaned to remove duplicates and standardize inconsistencies, such as variations in institutional names and licensing categories, ensuring accuracy and comparability across institutions. Descriptive bibliometric techniques were applied to examine key dimensions including institution-wise access types, OA evidence categories, hosting sources, licensing patterns, OA versions and publication genres. The analysis enabled comparison across institutions, identification of dominant OA models and detection of metadata gaps, thereby providing a comprehensive understanding of OA publishing practices in the selected IITs.

FINDINGS OF THE STUDY

Institution-wise Publication Output and Access Distribution

The analysis shows that Closed Access publications dominate across all institutions. IIT Delhi recorded 5,681 Closed Access papers, followed by IIT Roorkee with 3,483, IIT Kanpur with 2,979, and IIT BHU with 1,036 papers. Together, these amount to 13,179 publications out of the total 17,086, indicating the strong reliance on subscription-based publishing as shown in Table 1. In terms of OA, variations can be observed across the institutions. IIT Roorkee contributes the highest number of gold OA publications (660), followed by IIT Delhi (513), IIT Kanpur (407) and IIT BHU (195). Green OA is led by IIT Delhi with 517 papers and IIT Roorkee with 287, while IIT Kanpur (146) and IIT BHU (53) show relatively smaller engagement. These figures suggest that IIT Delhi and IIT Roorkee are comparatively more active in adopting green and gold OA models. Hybrid and Bronze OA are less prominent but remain noteworthy. IIT Roorkee leads in Hybrid OA with 181 papers, while IIT Delhi has 149, IIT Kanpur 94, and IIT BHU 60. For Bronze OA, IIT Delhi records 242 publications, followed by IIT Roorkee (158), IIT Kanpur (112) and IIT BHU (40). These categories indicate selective adoption of publisher-driven or partially open models.

When considering overall OA output that IIT Delhi has the largest number of OA publications (1,421), followed by IIT Roorkee (1,286), IIT Kanpur (781) and IIT BHU (348). However, in relative terms, IIT Roorkee and IIT BHU show stronger OA participation compared to their total outputs, while IIT Delhi and IIT Kanpur remain more dependent on Closed Access. The "blank" entries are minimal across institutions, with a combined total of 93 papers, which has little impact on the overall pattern. In summary, Closed Access remains the dominant mode of publication across these institutions, although OA models together account for 3,814 papers. IIT Roorkee and IIT BHU demonstrate comparatively higher engagement with OA, whereas IIT Delhi and IIT Kanpur continue to favor traditional publishing routes.

Classification of OA Publications by Evidence

According to Table 2, the analysis of evidence-based classification reveals that the majority of publications fall under the "Blanks" category, with 13,272 (77.66%) records. This indicates that for most publications, OA status could not be conclusively determined using the available evidence sources. Among identifiable OA evidence types, publications indexed in the Directory of Open Access Journals (DOAJ) form the largest share, with 1,611 (9.43%) records. This demonstrates that fully recognized OA journals remain a key channel for accessible research dissemination. The second largest evidence source is the OAI-PMH DOI match, which accounts for 734 (4.30%) publications, followed by free PDFs available via repositories 368 (2.15%) and publications carrying a Crossref license 396 (2.32%). Together, these categories highlight the role of repositories and licensing metadata in improving discoverability of OA outputs. Other forms of OA evidence contribute smaller shares but remain important in understanding the diversity of access pathways. Examples include publications identified through OAI-PMH title and author matching 235 (1.38%), author manuscripts 35 (0.20%), Crossref license with author manuscripts 54 (0.32%) and free articles provided on publisher platforms 137 (0.80%). Bronze-like forms of access, such as those where page says license 148 (0.87%) or page says OA 10 (0.06%), reflect publisher-driven or temporary openness, though without consistent licensing clarity.

The remaining categories publisher name 7 (0.04%), OAI-PMH title and last author match 3 (0.02%) and repository page says license 3 (0.02%) constitute marginal evidence of OA. In summary, while DOAJ indexing provides the most reliable evidence of OA in this dataset, green OA routes (such as OAI-PMH matches and free PDFs) and licensing metadata also play a significant role. The predominance of Blanks indicates that bibliometric analyses must account for limitations in metadata coverage and that strengthening OA identification frameworks is essential for accurately mapping the global OA landscape.

Hosting Platforms of OA Publications

The analysis of publication data from four prominent IITs namely: Delhi, Kanpur, BHU, and Roorkee reveals variations in research output and publication type distribution. Table 3 depicts that out of a total of 17,086 publications, IIT Delhi leads with 7,129 publications, followed by IIT Roorkee with 4,796, IIT Kanpur with 3,769, and IIT BHU with 1,392. Publications indexed under Publisher amount to 2,814, while those available through Repository total 1,000 and a significant majority of records, 13,272, and remain uncategorized as Blanks, reflecting incomplete metadata. Institution-specific trends further highlight this pattern: in IIT Delhi, 905 publications are publisher-based, 516 repository-based and 5,708 unspecified; IIT Kanpur has 614 publisher, 145 repository and 3,010 blanks; IIT BHU has 296 publisher, 52 repository and 1,044 blanks; and IIT Roorkee presents 999 publishers, 287 repository and 3,510 blanks. These findings suggest that while the volume of research output differs among institutions, metadata completeness remains a persistent challenge, emphasizing the need for improved data management practices to enhance the accuracy and visibility of scholarly contributions.

Licensing Trends in OA Publishing

Table 4 reveals a highly uneven distribution of licensing types, indicating that a vast majority of publications do not explicitly report license information. Specifically, the Blanks category accounts for 86.39% of the total publications, suggesting that license details are often missing or unrecorded in the dataset. Among the publications with identifiable licenses, CC-BY is the most prevalent, representing 9.49% of the total, followed by CC-BY-NC-ND at 1.95% and CC-BY-NC at 0.81%. Other

Table 1: Institution-wise Publication Output and Access Distribution.

Institutions	Closed Access	Gold OA	Green OA	Hybrid OA	Bronze OA	Blanks	Total
Delhi	5681	513	517	149	242	27	7129
Kanpur	2979	407	146	94	112	31	3769
BHU	1036	195	53	60	40	8	1392
Roorkee	3483	660	287	181	158	27	4796
Total	13179	1775	1003	484	552	93	17086

CC variants, such as CC0 (0.04%), CC-BY-NC-SA (0.10%), CC-BY-SA (0.06%) and CC-BY-ND (0.02%), occur far less frequently, reflecting limited adoption of these OA licenses.

Publisher-specific licenses also appear minimally within the dataset. For instance, ACS-specific author choice/editor's choice usage agreements account for 0.40%, Elsevier-specific OA user licenses represent 0.36%, and publisher-specific author manuscripts constitute 0.25% of the total publications. Other license types, including implied OA (0.08%) and Public Domain (0.01%), are marginal. Overall, the data highlights a significant gap in licensing transparency, with only a small fraction of publications clearly designated under formal OA or publisher-specific licenses.

Table 2: Classification of OA Publications by Evidence.

Evidences	Publications	Percentage
OA journal (via DOAJ)	1611	9.43
OA journal (via observed OA rate)	48	0.28
OA journal (via publisher name)	7	0.04
OA repository (via free pdf)	1	0.01
OA repository (via OAI-PMH doi match)	734	4.30
OA repository (via OAI-PMH title and first author match)	235	1.38
OA repository (via OAI-PMH title and last author match)	3	0.02
OA repository (via page says license)	3	0.02
OA repository (via pmcid lookup)	24	0.14
Open (author manuscript)	35	0.20
Open (via crossref license)	396	2.32
Open (via crossref license, author manuscript)	54	0.32
Open (via free article)	137	0.80
Open (via free pdf)	368	2.15
Open (via page says license)	148	0.87
Open (via page says OA)	10	0.06
Blanks	13272	77.66
Total	17086	100

Trends in OA Versions

As shown in Table 5, the dataset of 17,086 publications demonstrates a notable predominance of missing information regarding the OA version, with 13272 (77.68%) publications classified as Blanks. This indicates that for the majority of records, the specific version of the manuscript made openly accessible whether submitted, accepted, or published is not documented. Among the publications with identifiable OA versions, the Published Version is the most common, representing 2872 (16.81%) of the total, followed by the Submitted Version at 711 (4.16%). The Accepted Version accounts for a smaller proportion, 231 (1.35%), suggesting that relatively few manuscripts are openly shared at this stage prior to final publication. Overall, the data highlights a significant lack of clarity or reporting concerning the OA version of scholarly outputs, with the majority of openly accessible content appearing in its final published form.

Publication Genres in OA Research

According to Table 6, the dataset of 17,086 publications is overwhelmingly dominated by journal articles, which constitute 16953 (99.22%) of the total. This indicates that the scholarly output in this dataset is primarily communicated through traditional peer-reviewed journal formats. Other publication types are extremely limited. Book chapters account for only 35 (0.21%), while books and proceedings articles each represent a negligible 1 (0.01%) each. Similarly, posted content makes up just 3 (0.02%) of the total publications. Additionally, 93 (0.53%) of records are categorized as Blanks, reflecting missing or unspecified genre information. Overall, the data highlights the predominant reliance on journal articles as the main mode of scholarly communication, with other formats such as books, chapters, or proceedings contributing minimally to the total output.

DISCUSSION

This study investigates the patterns, trends and adoption of OA publishing among Indian researchers, with a specific focus on selected IITs. The following discussion situates the findings within the context of existing literature, highlighting areas of convergence as well as divergence.

Table 3: Hosting Platforms of OA Publications.

Institutions	Publisher	Repository	Blanks	Total
Delhi	905	516	5708	7129
Kanpur	614	145	3010	3769
BHU	296	52	1044	1392
Roorkee	999	287	3510	4796
Total	2814	1000	13272	17086

Institution-wise Publication Output and Access Distribution

In the present study analysis revealed notable variation across IITs in both overall publication output and the proportion of OA publications. While all sampled IITs contributed significantly to national research output, their levels of OA adoption differed. This unevenness is consistent with earlier observations that OA adoption in India is fragmented and institution-dependent (Das, 2022; Nazim and Zia, 2019). Internationally, similar institutional disparities have been reported, where adoption is strongly influenced by research culture, infrastructure, and awareness (Robinson-Garcia *et al*., 2020; Simard *et al*., 2024). However, compared to India's estimated 23% OA coverage (Singh *et al*., 2024), IITs demonstrate relatively higher OA engagement, aligning with findings that top-tier institutions often spearhead OA practices (Piwowar *et al*., 2018).

Classification of OA Publications by Evidence

This study classified OA publications based on multiple types of evidence (e.g., DOAJ indexing, publisher name, repository matches and observed OA rates). Results indicated that the majority of OA evidence was publisher-mediated, with fewer instances of repository-mediated access. Similar results have been reported globally, where Gold OA remains the dominant pathway (Akbaritabar and Stahlschmidt, 2019; Piwowar *et al*., 2018). However, contrasting evidence from Europe suggests a stronger reliance on repository-mediated Green OA due to funder mandates and robust repository infrastructures (Robinson-Garcia *et al*., 2020; Simard *et al*., 2024). The limited role of repository-based evidence in the Indian context underscores a gap between national policy ambitions and actual practices at the institutional level.

Hosting Platforms of OA Publications

The findings show that publisher platforms serve as the primary hosts of OA publications in IITs, followed by institutional and subject repositories. This reflects broader global patterns where publishers dominate OA dissemination (Piwowar *et al*., 2018). At the same time, the presence of repository-hosted OA in IITs resonates with India's repository-driven initiatives such as Shodhganga and NDLI (Ali *et al*., 2024; Saikia *et al*., 2025). By contrast, in some European contexts, repositories play a more central role, with strong institutional mandates and compliance mechanisms ensuring deposit (Robinson-Garcia *et al*., 2020). This suggests that while IITs are increasingly engaging with repositories, publisher dominance persists, partly due to the absence of mandatory self-archiving policies.

Licensing Trends in OA Publishing

The analysis revealed that CC licenses were underutilized, with many OA publications either lacking explicit licenses or relying on publisher-specific terms. This finding supports earlier Indian study noting poor metadata quality and limited licensing clarity (Koley, 2022). Globally, however, CC licenses, particularly CC-BY are widely adopted, especially among journals indexed in DOAJ (Piwowar *et al*., 2018). The contrast highlights a key weakness in Indian OA practices: while OA availability has grown, legal reusability through standardized licensing remains limited, restricting the full benefits of open scholarship.

Trends in OA Versions

The study found that the majority of OA publications corresponded to the Version of Record with fewer instances of Accepted Manuscripts or preprints. This mirrors findings in the Indian context, where researchers often depend on publisher-mediated OA rather than proactively depositing manuscripts (Das, 2022; Deori *et al*., 2023). By contrast, disciplines such as physics and biomedical sciences show high engagement with preprints via platforms like arXiv and bioRxiv (Robinson-Garcia *et al*., 2020). The limited representation of preprints in IITs suggests disciplinary and cultural barriers to preprint adoption, despite their growing global recognition as a mechanism for rapid and open dissemination.

Publication Genres in OA Research

The genre-wise analysis confirmed the overwhelming dominance of journal articles, with books, book chapters and proceedings representing a negligible share. This finding is consistent with national studies emphasizing the centrality of journal publishing in India's research ecosystem (Biswas, 2023; Mahesh and Kumar,

Table 4: Licensing Trends in OA Publishing.

Licenses	Publications	Percentage
Acs-Specific: Author choice/ Editors' Choice Usage Agreement	68	0.40
CC0	6	0.04
CC-BY	1622	9.49
CC-BY-NC	138	0.81
CC-BY-NC-ND	333	1.95
CC-BY-NC-SA	17	0.10
CC-BY-ND	4	0.02
CC-BY-SA	11	0.06
Elsevier-Specific: OA User License	61	0.36
Implied-OA	13	0.08
Public Domain	2	0.01
Publisher-Specific License	6	0.04
Publisher-Specific, Author Manuscript	43	0.25
Blanks	14762	86.39
Total	17086	100

Table 5: Trends in OA Versions.

OA Version	Publications	Percentage
Accepted Version	231	1.35
Published Version	2872	16.81
Submitted Version	711	4.16
Blanks	13272	77.68
Total	17086	100

Table 6: Publication Genres in OA Research.

Genre	Publications	Percentage
Book	1	0.01
Book-Chapter	35	0.21
Journal-Article	16953	99.22
Posted-Content	3	0.02
Proceedings-Article	1	0.01
Blanks	93	0.53
Total	17086	100

2022). Similar global findings indicate that journal articles dominate OA publishing due to their established role in scholarly communication and their higher likelihood of being indexed in OA databases (Akbaritabar and Stahlschmidt, 2019). However, in some humanities and social sciences contexts, OA monographs and book chapters are increasingly prominent (Ferwerda *et al.*, 2017), which contrasts with the STEM-dominated outputs of IITs.

Taken together, the findings highlight both alignment and divergence with prior studies. Like global and national patterns, IITs show growing but uneven OA adoption, publisher-dominated hosting, limited CC licensing, and a strong emphasis on journal articles. In contrast, IITs lag behind international best practices in repository use, licensing standardization and preprint adoption. These gaps underscore the need for stronger institutional mandates, greater awareness of licensing benefits and targeted policies to enhance repository use and diversify OA publishing practices.

RESEARCH IMPLICATIONS

This study carries significant implications for the scholarly communication ecosystem in India. While OA publishing is gradually gaining ground, the continued dominance of Closed Access highlights persistent structural and cultural barriers. By analyzing OA publishing patterns through Unpaywall data, the study offers actionable insights for:

Researchers

The study highlights the need for Indian researchers to engage more actively with OA models. Limited adoption of Green OA suggests that many researchers are not fully utilizing institutional or subject repositories to enhance visibility. By choosing appropriate OA licenses and self-archiving their work, researchers can significantly increase the reach, impact and citation potential of their publications.

Government and Policymakers

The findings indicate a strong reliance on Closed Access publishing despite India's growing commitment to open science. This underscores the need for robust national OA mandates, funding mechanisms for Article Processing Charges (APCs), and the development of centralized repositories. Policymakers can use these insights to align India's OA policies with global initiatives like Plan S and UNESCO's Open Science recommendations, thereby ensuring equitable access to publicly funded research.

Universities and Research Institutions

Institutions must strengthen their repository infrastructure and implement clear OA policies to encourage self-archiving. Awareness campaigns and training programs should be conducted to motivate faculty and students to adopt OA practices consistently.

Librarians

Librarians play a critical role in supporting OA adoption by guiding researchers on copyright issues, licensing options and repository use. They can act as facilitators of open scholarship by offering training and advocacy tailored to the needs of different disciplines.

Publishers and Funding Agencies

Publishers and funding bodies should prioritize transparent licensing practices, reduce APC-related barriers and promote equitable publishing models. By supporting affordable and sustainable OA pathways, they can expand research visibility and ensure wider accessibility of scholarly knowledge.

CONCLUSION

This study provides a comprehensive view of the state of OA publishing among Indian researchers, with a focus on four leading IITs. The findings confirm that Closed Access continues to dominate the scholarly communication landscape, while OA though steadily growing remains underutilized. Gold and Green OA models show some promising adoption, yet Hybrid and Bronze OA remain marginal. At the same time, the large proportion of publications with incomplete metadata and unclear licensing reflects systemic gaps in OA reporting and documentation. More broadly, these results highlight the complex dynamics of OA adoption in developing countries like India, where financial constraints, lack of awareness and limited institutional support hinder progress. The predominance of Closed Access not only restricts the visibility of Indian research but also reduces opportunities for international collaboration and knowledge exchange. Strengthening OA practices is therefore

not just a technical or institutional concern, but a matter of research equity, global competitiveness and social responsibility. The implications of this study extend beyond the IITs. In sum, advancing OA in India will require a collective effort across researchers, institutions, governments, and publishers. If supported with the right policies and infrastructures, OA has the potential to transform scholarly communication ecosystem in India, making knowledge not only more accessible but also more impactful, equitable, and globally visible.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

REFERENCES

Akbaritabar, A., and Stahlschmidt, S. (2019). Merits and limits: Applying open data to monitor open access publications in bibliometric databases. *Quantitative Science Studies* 1 (1): 1-17.

Ali, A., Nazim, M., and Ahmad, S. (2024). An empirical investigation of open access scholarly publishing trends in social sciences at high-ranked central universities of India. *Global Knowledge, Memory and Communication*. Advance online publication.

Biswas, A. (2023). Role of institutional repository to promote the open access policy: A study on central institutional repositories of CSIR, ICAR and DST-DBT. *College Libraries* 38 (1): 36-49. Available at: https://collegelibraries.in/index.php/CL/article/view/101 (accessed 11 August 2025).

Bjork, B. C. (2004). Open access to scientific publications - An analysis of the barriers to change? *Information Research* 9 (2): 170. Available at: http://informationr.net/ir/9-2/paper170.html (accessed 11 August 2025).

Das, A. (2022). Trendline of Open Access Publication by Indian Institutes. *SRELS Journal of Information Management* 59 (5): 267-279. Available at: https://www.srels.org/index.php/sjim/article/view/66386 (accessed 11 August 2025).

Deori, B., Mohammad, H., and Verma, M. K. (2023). Open access mandates and policies adopted by the Indian research organisations. *DESIDOC Journal of Library and Information Technology* 43 (1): 29-36.

Ferwerda, E., Pinter, F., and Stern, N. (2017). A landscape study on open access and monographs: Policies, funding and publishing in eight European countries. *Knowledge Exchange.*

Koley, S. (2022). Are journal archiving and embargo policies impeding the success of India's open access policy? *Learned Publishing* 35 (4): 528-538.

Mahesh, G., and Kumar, A. (2022). Open access institutional repositories in India: A status report. *Library Philosophy and Practice*, 6950. Available at: https://digitalcommons.unl.edu/libphilprac/6950 (accessed 11 August 2025).

Moller, A. M. (2006). *The case for open access publishing, with special reference to open access journals and their prospects in South Africa* [Master's thesis]. University of the Western Cape. Available at: https://etd.uwc.ac.za/bitstream/handle/11394/1607/M%C3%B6ller_MBIBL_2006.pdf (accessed 11 August 2025).

Nazim, M., and Zia, S. (2019). Acceptance and adoption of open access publishing by researchers in India. *Global Knowledge, Memory and Communication* 68 (1/2): 148-158.

Panda, S. K., Dey, S., Bhatt, A., and Satapathy, A. (2025). Evaluating the progress and impact of Shodhganga: Enhancements, challenges and future directions for India's centralized ETD repository. *Digital Library Perspectives* 41 (1): 5-20.

Piwowar, H., Priem, J., Lariviere, V., Alperin, J. P., Matthias, L., Norlander, B., Farley, A., West, J., and Haustein, S. (2018). The state of OA: A large-scale analysis of the prevalence and impact of open access articles. *PeerJ, 6*, e4375.

Robinson-Garcia, N., Costas, R., and Van Leeuwen, T. N. (2020). Open access uptake by universities worldwide. *arXiv preprint arXiv:2002.10333*. Available at: https://arxiv.org/abs/2002.10333 (accessed 11 August 2025).

Sahoo, J., Karadia, M., and Mohanty, B. (2024). An empirical study on open access scholarly publications: Unveiling Indian impact (2013-2022). *Annals of Library and Information Studies* 71 (2): 59-68. Available at: http://nopr.niscpr.res.in/handle/123456789/61560 (accessed 11 August 2025).

Saikia, S., Verma, N. K., and Chakraborty, S. (2025). Open access adoption in Sustainable Development Goals research among the Indian leading universities: A computational mapping. *DESIDOC Journal of Library and Information Technology* 45 (4): 259-268.

Simard, M. A., Desrochers, N., and Lariviere, V. (2024). The open access coverage of OpenAlex, Scopus and Web of Science. *arXiv preprint arXiv:2402.09419*. Available at: https://arxiv.org/abs/2402.09419 (accessed 11 August 2025).

Singh, S., and Singh, A. (2024). An empirical investigation of open access publishing trends in social sciences at high-ranked central universities of India. *Global Knowledge, Memory and Communication* 73 (5/6): 607-623.

Singh, V. K., Singh, P., and Kanaujia, A. (2024). Open access availability patterns of Indian research publications during the last two decades. *Current Science* 127 (4): 423-431.

Suber, P. (2012). *Open access*. MIT Press: 256. Available at: https://mitpress.mit.edu/9780262517638/open-access/ (accessed 11 August 2025).

UNESCO (2021). UNESCO Recommendation on Open Science.*United Nations Educational, Scientific and Cultural Organization*. Available at: https://unesdoc.unesco.org/ark:/48223/pf0000379949 (accessed 11 August 2025).

Yiotis, K. (2005). The open access initiative: A new paradigm for scholarly communications. *Information Technology and Libraries* 24 (4): 157-162.

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