RESEARCH SUPPORT SERVICES ON IISER AND AIIMS LIBRARY WEBSITES: A CONTENT ANALYSIS

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Crossref DOI - https://doi.org/10.5281/zenodo.23386792

Abstract :

In the digital age, academic libraries are expected to evolve from custodians of collections into active partners in the research lifecycle — supporting data management, scholarly communication, research discovery and cross-disciplinary collaboration. The library website is the principal gateway through which such research support is announced and delivered, and its content therefore provides measurable evidence of how far a library has travelled toward becoming a research hub. This paper reports a content analysis of the research support services visible on the library websites of all seven Indian Institutes of Science Education and Research (IISERs) and a purposive sample of seven All India Institutes of Medical Sciences (AIIMS), observed directly during July 2026 against a ten-criterion research-support checklist: institutional repository, electronic theses and dissertations access, research data services, open access and scholarly communication guidance, reference management tool support, plagiarism-detection service, subject research guides, interlibrary loan and document delivery, bibliometric and research metrics support, and research training or information literacy programmes. Results show that IISER library websites achieved a mean research-support compliance of 58.6% against 34.3% for the sampled AIIMS websites, with an overall compliance of 46.4%. Interlibrary loan and document delivery (71.4%), plagiarism-detection services (64.3%) and research training (64.3%) were the most visible services, while research data services (21.4%), open access guidance (28.6%) and bibliometric support (28.6%) were the least developed. The findings indicate that libraries in both systems remain strongest in compliance-oriented services and weakest in the collaborative, data-centred services that interdisciplinary research most requires. Recommendations are offered for repositioning these libraries as genuine interdisciplinary research hubs.

Keywords : research support services; library websites; interdisciplinary research; content analysis; institutional repositories; research data management; IISER; AIIMS

Introduction :

Contemporary research problems — public health, climate adaptation, inequality, digital society — rarely respect disciplinary boundaries. Addressing them requires

researchers from the natural sciences, medicine and the social sciences to share data, methods and literature across fields, and it requires institutional infrastructures that make such sharing routine. Academic libraries are natural candidates for this integrative role: they are the one campus unit whose collections, metadata and services already span every discipline. Accordingly, the international literature increasingly describes the library not as a storehouse but as a hub of the research lifecycle — embedded in data management, scholarly publishing, research discovery and researcher training (Auckland, 2012; Corrall et al., 2013).

Whether Indian libraries have actually assumed this role is best tested where the role is publicly performed: the library website. Modern research support is delivered digitally — repositories are web platforms, plagiarism checks are web services, data management guidance is published as web pages — so the website content of a library is a direct, verifiable indicator of its research-support maturity (McGillis & Toms, 2001; Walia & Gupta, 2013). This paper applies a structured content analysis to the library websites of two systems of Institutions of National Importance, the IISERs and AIIMS, to measure the research support services they make visible to their scholars and, by extension, their readiness to function as interdisciplinary research hubs.

The Library in the Research Lifecycle :

The research lifecycle model divides scholarly work into stages — conception, literature discovery, data collection and management, analysis, writing, publication and impact measurement — and identifies library services attached to each: subject guides and discovery tools at the beginning; data management planning and dataset curation in the middle; reference management, plagiarism screening and open access publishing support toward the end; and bibliometric and altmetric services for impact assessment (Cox & Pinfield, 2014; Tenopir et al., 2014). A library that supports the full cycle, across disciplines, is functioning as a research hub; a library that supports only lending and licensed access is not. The ten criteria used in this study operationalise this distinction.

Study Populations :

The seven IISERs (Pune, Kolkata, Mohali, Bhopal, Thiruvananthapuram, Tirupati and Berhampur) are research-intensive science institutions whose faculty and doctoral scholars generate substantial data-driven output. The AIIMS are medical universities of national importance whose research spans clinical, laboratory and community health domains — inherently interdisciplinary territory. Seven AIIMS websites were purposively sampled: New Delhi (the parent institute) and the six first-phase institutes at Bhopal, Bhubaneswar, Jodhpur, Patna, Raipur and Rishikesh.

Review of Literature :

Two strands of literature frame this study. The first concerns library website evaluation. Checklist-based direct observation is well established: Walia and Gupta (2013) evaluated national library homepages in Asia; Devi and Verma (2016) compared the design

and content features of two Indian university library websites; Verma and Devi (2016) analysed the websites of Indian Institute of Management libraries; and Brahma and Verma (2018) applied webometric methods to BRICS national libraries. These studies confirm that structured checklists yield replicable, comparable measures of website content maturity.

The second strand concerns research support services. Auckland (2012) documented the re-skilling of subject librarians toward research data and scholarly communication roles. Corrall, Kennan and Afzal (2013) surveyed bibliometric and data-support services internationally and found adoption uneven and resource-dependent. Tenopir, Sandusky, Allard and Birch (2014) reported that even in North America research data services were more often planned than delivered. Si, Zeng, Guo and Zhuang (2019) found Chinese university libraries concentrating on repository and training services while data curation lagged. Federer (2013) described the embedded data librarian model in a biomedical setting, demonstrating the particular relevance of data services in health sciences institutions. Indian studies of research support remain scarce and largely descriptive, and no published work has measured research-support content on IISER and AIIMS library websites comparatively. The present study addresses that gap.

Objectives of the Study :

1. To identify the research support services visible on the library websites of the seven IISERs and seven sampled AIIMS institutions.
2. To measure institution-wise and criterion-wise compliance against a ten-criterion research-support checklist.
3. To compare the research-support maturity of the two library systems.
4. To assess how far these libraries currently function as interdisciplinary research hubs and to recommend measures for strengthening that role.

Hypotheses :

H1: IISER library websites display a significantly higher level of research support service content than the sampled AIIMS library websites.

H2: Research data services are well established across the library websites of both institutional systems.

Methodology :

Structured direct observation was employed following the content analysis tradition (Prasad, 2008). A ten-criterion checklist was derived from the research lifecycle literature: (1) institutional repository; (2) electronic theses and dissertations (ETD) access, including Shodhganga linkage; (3) research data services (data management guidance, dataset deposit or discovery); (4) open access and scholarly communication guidance; (5) reference management tool support (Mendeley, Zotero, EndNote); (6) plagiarism-detection service (Turnitin, DrillBit, iThenticate or equivalent); (7) subject research guides or pathfinders; (8) interlibrary loan and document delivery (DELNET, NML or institutional service); (9)

bibliometric and research metrics support (citation analysis, h-index, journal selection guidance); and (10) research training, workshops or information literacy programmes. Each of the fourteen websites was examined in July 2026 and scored dichotomously (present = 1, absent = 0); both investigators observed independently and reconciled differences by joint verification. Institution-wise scores (maximum 10) and criterion-wise adoption percentages were then computed. Only publicly visible website content was scored; services delivered solely offline or behind institutional logins were excluded.

Data Analysis and Interpretation :

1. Institution-wise Research-Support Compliance :

Institution	Score (out of 10)	Compliance (%)
IISER Pune	8	80.0
IISER Kolkata	7	70.0
IISER Thiruvananthapuram	7	70.0
IISER Mohali	6	60.0
IISER Bhopal	6	60.0
IISER Tirupati	4	40.0
IISER Berhampur	3	30.0
AIIMS New Delhi	7	70.0
AIIMS Jodhpur	4	40.0
AIIMS Bhopal	3	30.0
AIIMS Bhubaneswar	3	30.0
AIIMS Rishikesh	3	30.0
AIIMS Patna	2	20.0
AIIMS Raipur	2	20.0

Table 1: Institution-wise research-support scores (direct observation, July 2026)

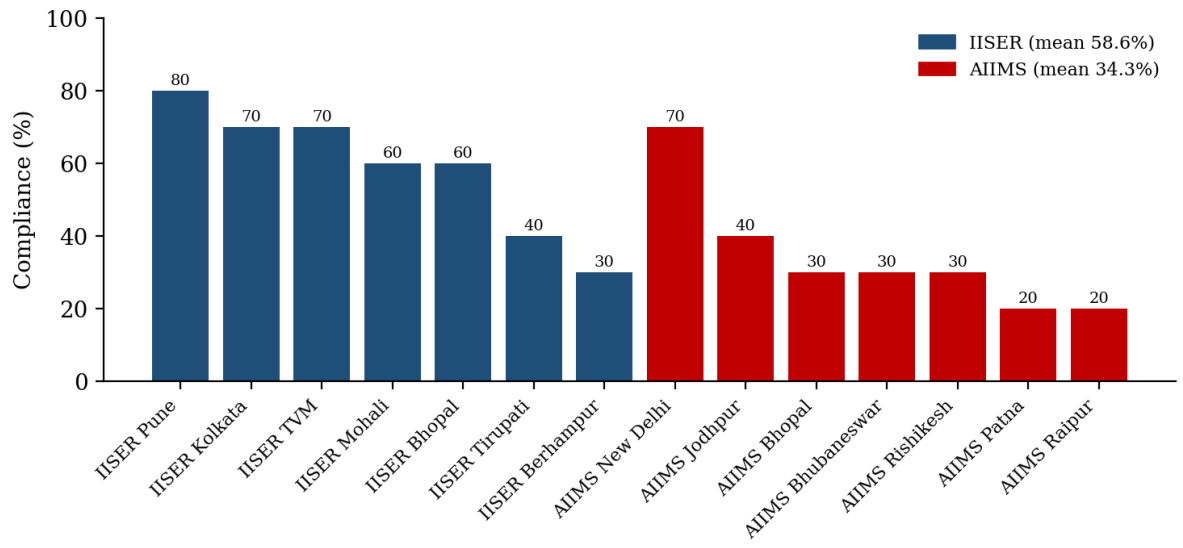


Figure 1: Institution-wise research-support compliance of IISER and AIIMS library websites

The IISER system scored 41 of a possible 70 (mean 58.6%), while the sampled AIIMS system scored 24 of 70 (mean 34.3%); overall compliance across all fourteen websites was 65 of 140 (46.4%). IISER Pune led the sample at 80.0%, followed by IISER Kolkata, IISER Thiruvananthapuram and AIIMS New Delhi at 70.0% each. AIIMS New Delhi was again the solitary high performer of the medical system: the six first-phase AIIMS websites ranged only from 20.0% to 40.0%. A generational gradient is also visible within the IISER system, the newest campuses (Tirupati 40.0%, Berhampur 30.0%) trailing the established institutes.

2. Criterion-wise Adoption of Research Support Services

Research-Support Criterion	Websites (n = 14)	Adoption (%)
Interlibrary loan / document delivery	10	71.4
Plagiarism-detection service	9	64.3
Research training / information literacy	9	64.3
ETD access / Shodhganga linkage	8	57.1
Reference management tool support	7	50.0
Institutional repository	6	42.9
Subject research guides / pathfinders	5	35.7
Open access / scholarly communication guidance	4	28.6
Bibliometric / research metrics support	4	28.6
Research data services	3	21.4

Table 2: Criterion-wise adoption of research support services across the fourteen websites

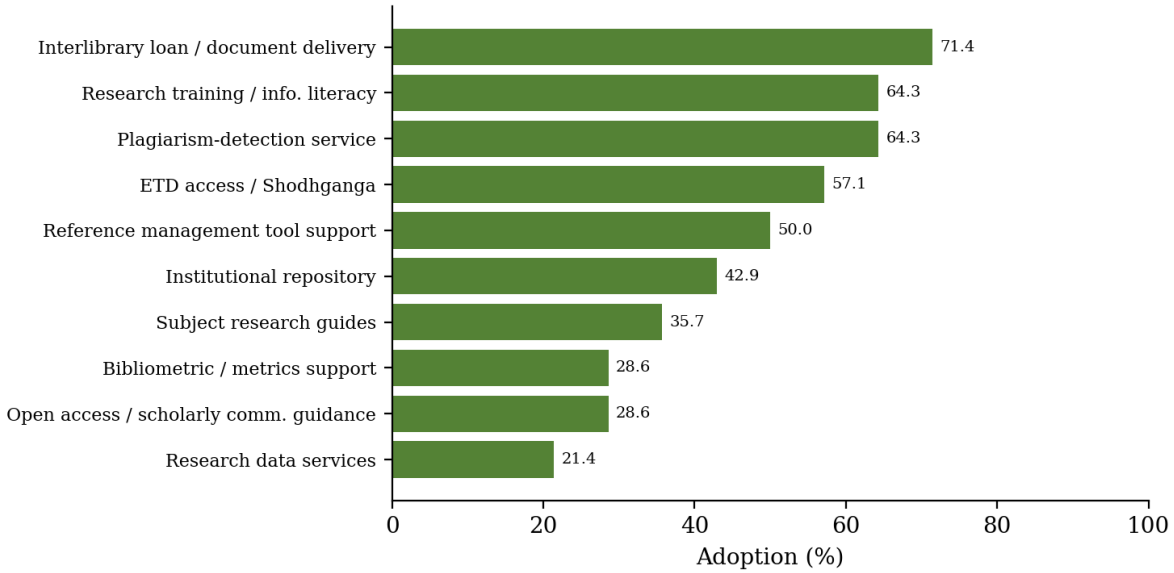


Figure 2: Criterion-wise adoption of research support services (n = 14 websites)

The adoption hierarchy is revealing. The three most visible services — interlibrary loan and document delivery (71.4%), plagiarism screening (64.3%) and research training (64.3%) — are precisely those tied to regulatory compliance and traditional resource sharing: plagiarism checks are mandated for thesis submission, DELNET membership is a long-standing consortial norm, and orientation programmes are an established library routine. The middle band comprises ETD access (57.1%), reference management support (50.0%) and repositories (42.9%). At the bottom sit the services most closely associated with the interdisciplinary research hub role: subject guides that map literature across fields (35.7%), open access and scholarly communication guidance (28.6%), bibliometric support (28.6%) and, weakest of all, research data services (21.4%). Not a single AIIMS website in the sample published research data guidance, despite the centrality of clinical and community health data to medical research.

3. Interpretation: Compliance Services versus Hub Services :

Grouping the criteria conceptually clarifies the pattern. “Compliance and access” services (ILL, plagiarism detection, ETD, training) average 64.3% adoption; “research hub” services (repositories, data services, open access guidance, subject guides, bibliometrics) average only 31.4%. Both systems, in other words, have built the services that institutional regulation requires, but not yet the services that interdisciplinary research collaboration requires. The IISER system has begun the transition — repositories and data pages appear on its senior campuses — while the sampled AIIMS system, New Delhi apart, has scarcely started. Given that medical research is intrinsically interdisciplinary, spanning laboratory science, clinical practice and social determinants of health, this is the sample’s most consequential gap.

Findings :

1. IISER library websites (mean 58.6%) display substantially richer research support content than the sampled AIIMS library websites (mean 34.3%); overall compliance is 46.4%.
2. IISER Pune (80.0%) is the most research-support-rich website; AIIMS Patna and AIIMS Raipur (20.0% each) are the least.
3. Compliance-driven services dominate: interlibrary loan/document delivery (71.4%), plagiarism-detection (64.3%) and research training (64.3%) are the most widely published services.
4. Research data services are the weakest criterion (21.4%) and are entirely absent from the sampled AIIMS websites.
5. Open access guidance and bibliometric support (28.6% each) remain minority practices, limiting libraries' visibility in scholarly communication and research assessment.
6. AIIMS New Delhi (70.0%) matches senior IISER campuses, demonstrating that the system-wise gap is institutional rather than structural.

Testing of Hypotheses :

H1 — Supported. The IISER mean (58.6%) exceeded the AIIMS mean (34.3%) by 24.3 percentage points, and five of seven IISER websites scored above the overall mean against one of seven AIIMS websites. The hypothesis that IISER library websites display significantly higher research support content is supported.

H2 — Rejected. With research data services visible on only three of fourteen websites (21.4%) — and on none of the sampled AIIMS sites — the hypothesis that research data services are well established across both systems is rejected.

Suggestions and Recommendations :

1. Every library in the sample should publish a research support portal on its website consolidating repository, data, publishing and metrics services on a single page, so that researchers from any discipline can locate the full service menu.
2. Research data services — data management plan guidance, dataset deposit and data discovery support — should be established as a priority, beginning with the AIIMS libraries, where funder and journal data-sharing mandates already apply to clinical research.
3. Institutional repositories should be created or made web-visible at the eight libraries currently lacking them, with interoperable metadata to support cross-disciplinary discovery.
4. Open access and scholarly communication guidance — covering article processing charges, self-archiving rights and national open access initiatives — should be added to all websites to strengthen libraries' publishing-support role.
5. Subject research guides should be redesigned as interdisciplinary pathfinders that

deliberately map resources across fields (for example, health data plus social statistics), rather than mirroring departmental silos.

6. Bibliometric and research metrics support, including responsible-metrics guidance, should be offered systematically to serve institutional research assessment.
7. The two systems should form an inter-institutional community of practice so that mature libraries (IISER Pune, AIIMS New Delhi) can mentor newer campuses, reducing the wide intra-system variance documented here.

Conclusion :

This study asked whether the library websites of two premier Indian institutional systems present their libraries as partners in the research lifecycle — the defining characteristic of a library functioning as an interdisciplinary research hub. The answer is a qualified no. The fourteen websites achieved an overall research-support compliance of 46.4%, but the composition of that figure matters more than its size: services rooted in compliance and traditional resource sharing are widely published, while the collaborative, data-centred services that interdisciplinary research most needs — data management, open scholarship guidance, cross-disciplinary research guides and metrics support — remain minority practices, and research data services are absent from the entire sampled medical system. The IISER libraries, particularly Pune, Kolkata and Thiruvananthapuram, have begun the hub transition; most sampled AIIMS libraries have not moved beyond the compliance layer. As research funding, evaluation and publication increasingly assume data sharing and cross-disciplinary work, the library website will be where each institution's readiness is publicly judged. The checklist and baseline reported here provide a replicable instrument for measuring progress toward that hub role.

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