



The role of libraries in empowering academic communities: Fostering pedagogical growth and research innovation in India

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Abstract

Academic libraries have traditionally functioned as knowledge repositories; yet, swift technology advancements, shifting teaching methodologies, and transforming research landscapes have broadened their role from mere information suppliers to key collaborators in academic growth. In India, the National Education Policy (NEP) 2020 is instigating substantial changes in higher education, with libraries increasingly serving as catalysts for teaching excellence, research output, digital literacy, and knowledge creation. This article explores the changing function of academic libraries in enhancing university communities through the promotion of educational development and the facilitation of research advancement. Utilising contemporary literature, legislative frameworks, and advancements in Indian higher education, the research investigates the role of libraries in enhancing faculty development, student education, multidisciplinary cooperation, open knowledge initiatives, and data-informed research assistance.

Keywords: Academic library, Librarian, Digital library, Academic community, Pedagogical growth, Research, Innovation

Introduction

Academic libraries enhance their institutional communities by establishing themselves as engaged collaborators in teaching and research. Elucidating the library's function as an educational collaborator relies on recognised theoretical models, historical background, and congruence with institutional objectives (Gilman and Kunkel, 2010) ^[10]. Higher education institutions and universities are progressively acknowledged as entities that produce knowledge, where the interplay of teaching, learning, and research fosters social and economic change. In this ecosystem, university libraries hold a unique role as they link students, instructors, researchers, and informational assets (Mayende *et al.*, 2021) ^[18]. Historically, libraries were predominantly regarded as repositories for books, periodicals, and archival resources. Nonetheless, modern educational institutions have dramatically altered their roles (Ingole, 2017) ^[12]. The advent of digital scholarship, open access publication, artificial intelligence, online educational platforms, and data-centric research has transformed the anticipations of university libraries. They have transitioned from being passive repositories to becoming proactive participants in academic advancement, innovation, and institutional superiority. Libraries collaborate not solely with their faculties, departments, and learning design teams, but also with administrative divisions, such as information technology services, responsible for formulating and executing institutional learning outcome frameworks (Atkinson *et al.*, 2018) ^[1]. They engage in methodical mapping of curricular and co-curricular processes to discern collaboration frameworks and co-design prospects. They also establish indicative factors and illustrate how libraries cultivate particular skills, like information literacy, data and digital literacy, open knowledge

practices, and computational thinking, that are essential to pedagogy and entirely aligned with the strategic development priorities of pedagogy (Kumar, 2014) ^[16].

Comprehensive incorporation within the curriculum encompassing syllabi, educational activities, and evaluative methods, sets libraries apart as educational collaborators. They engage in the collaborative design of syllabi, work together on curriculum and course mapping, and define learning objectives, create and conduct general or subject-specific instructional sessions, assist in programmatic digital competency and information literacy efforts, offer assessment and analytics support, and record instances and jointly developed materials. Libraries facilitate the expression of information-literacy aims structured by discipline and synchronised with institutional and departmental educational objectives and results. Formal expression elucidates stakeholder anticipations and facilitates candidates' evaluation of their skill enhancement as outlined in the resume.

The role of library as a pedagogical partner

Academic libraries are distinctly situated to participate as partners in educational development due to their focus on user assistance and their steadfast dedication to the institution's educational objectives. Historically, from the inception of university libraries, librarians have been regarded as collaborators in education and evaluation (Gilman and Kunkel, 2010; Kumar and Sharma, 2018) ^[10, 15]. The role of teaching-librarian has arisen in professional literature since. Library-supported research infrastructure comprises spaces, services, and tools that further define long-standing library engagement with faculty, research centres, information management units, educational development examples to outline some library-

mediated partnerships are increasingly described (Monroe-Gulick *et al.*, 2013) ^[22]. Sophisticated pedagogical progress partnerships share common aspects. Library information management and educational advancement further delineate essential competencies that libraries foster for active participation in these areas (Bhatia, 2021) ^[5]. The sought-after graduate attribute of information literacy has been omitted from the framework of graduate attributes, graduate competencies, or learning outcomes in other contexts. Consequently, academic-library support for information literacy and related ideas of critical thinking remain vital to pedagogical advancement projects.

Libraries and research infrastructure

Research serves as a pivotal role within higher education institutions, facilitating scientific growth, policy formation, technological innovation, and societal advancement. In recent years, academic libraries have evolved beyond only offering access to research books to being proactive collaborators in the research process (Berg *et al.*, 2020) ^[4]. They assist scholars from the preliminary phases of literature exploration to the distribution, conservation, and evaluation of research results. In India, libraries are increasingly acknowledged as vital contributors to research excellence, since research quality and worldwide visibility have emerged as national priorities under the NEP 2020 and the formation of the National Research Foundation (NRF). The library aids academic communities by offering research facilities, encompassing spaces, services, tools, and management. This environment includes conventional assets like laboratories and innovative resources such as makerspaces or data labs (Bansode and Shinde, 2019) ^[3]. The library collaborates with partners to define finance and sustainability frameworks, specify ownership and operational guidelines, and outline service-level agreements. These initiatives promote openness and reduce the likelihood of facilities becoming obsolete (Witt *et al.*, 2024) ^[32].

Proactive involvement in institutional research allows libraries to integrate assistance into wider projects. These contributions encompass the advocacy for augmented funding; the promotion of collaborative services; involvement in the development of knowledge repositories, research information systems, and restructured databases; support for research data management strategies; and participation in open science, open access, or research evaluation initiatives. Engagement with field-specific colleagues in central services promotes the creation of efficient, inventive, and pertinent infrastructure.

Contemporary academic libraries provide an extensive array of research support services that surpass conventional reference help. Librarians currently aid researchers in locating appropriate databases, doing systematic literature reviews, choosing journals for publication, organising references with citation management tools, comprehending copyright laws, and adhering to publisher stipulations (Gurumurthy and Padmamma, 2023) ^[11]. Numerous Indian university libraries conduct training on research methodologies, scholarly writing, publication ethics, plagiarism awareness, and citation analysis (Nishane, 2019) ^[24]. These endeavours enhance the research

skills of postgraduate students, PhD candidates, and nascent researchers. Libraries enhance research quality and publishing success by assisting researchers in navigating intricate scholarly communication systems. Moreover, librarians are progressively partnering with research offices, academic staff, and graduate institutions to deliver cohesive research assistance. This collaboration allows institutions to establish more robust research environments in which information professionals play a crucial role in knowledge creation.

Information literacy and critical thinking

The swift acceleration of information creation and distribution is increasingly shaping education, making information literacy and critical thinking essential skills that enable students to manoeuvre through tumultuous learning contexts (Kaur and Verma, 2009; Jogdand *et al.*, 2025) ^[14, 13]. The capacity to locate, assess, employ, and integrate information proficiently is crucial for both academic achievement and responsible citizenship. Library information literacy programs ultimately foster the development of an academic identity in students (Babu, 2004) ^[2]. In accordance with the educational goal, instructors invest significant energy in cultivating students' information literacy and critical thinking skills across several fields; yet, a structured evaluation of library contributions to student learning at the school has yet to materialise. Information literacy is frequently characterised as the ability to identify an information requirement, collect relevant data from diverse sources, and evaluate information with critical insight. Critical thinking includes a wider array of talents; however, several scholars view the two capabilities as interdependent (Thanuskodi, 2011) ^[29]. Extensive literature delineates frameworks for competencies, underscores effective teaching methodologies, and suggests assessment strategies to record skill development and user involvement; these established frameworks guide continuous initiatives to improve classroom teaching and foster library collaborations.

Open knowledge, open access, and scholarly communication

The mere presence of information does not inherently generate knowledge. Learners require competencies to identify, assess, and proficiently utilise knowledge. Academic libraries are crucial in fostering information literacy, a vital academic skill. Library-led information literacy initiatives assist students in comprehending database navigation, academic assessment techniques, citation methodologies, plagiarism avoidance, and the ethical utilisation of information. These competencies are especially crucial in the digital age, because learners face substantial amounts of online material of differing quality. Recent research suggests that information literacy plays a crucial role in academic success by enhancing students' capacity for independent research, assignment preparation, and critical engagement with scholarly material. In India, enhancing information literacy via libraries is crucial due to the varied educational backgrounds of students and their disparate access to digital resources. Tools, technologies, and methodologies for knowledge creation and dissemination have

radically transformed. Universal access to the internet has altered modes of scholarly communication; openness is both embraced and mandated by funding agencies and institutions; and the sharing of scholarship is becoming embedded in a broad spectrum of scholarship. Expanding beyond the conventional definition of Open Access (OA), Open Knowledge encompasses a diverse and extensive spectrum of Open initiatives- Open Data, Open Educational Resources, Open Innovation, Open Science, Open Source, Open Standards, and Open Surveys- across academic disciplines (Ann Gardner, 2017).

Scholarly communication describes the multistage process of knowledge creation, dissemination, and preservation. Seven interconnected stages define the scholarly communications cycle that positively correlate with the teaching and learning journey: plan, create, share, connect, discover, reuse, and preserve. Institutions of higher education across the globe have established a myriad of policies and missions as keystone documents outlining the fair use, the reuse, and the re-dissemination of scholarly works (Rosenblum, 2008). Libraries forge links between disciplines-both content areas and degree programs-in the pursuit of equitable access to research materials; and these well-established connections cleanse, enhance, curate, enrich, supplement, and/or support the implementation of broader institutional knowledge.

Role of librarian in teaching-learning process and research innovation curricula

The view of libraries as just administrative support has endured in higher education and continues to limit wider involvement. The linkage of libraries predominantly with the accumulation of collections perpetuates the fallacy that libraries influence pedagogy in an indirect manner (Gilman and Kunkel, 2010) ^[10]. Although libraries undoubtedly offer a wealth of resources for research and education, modern academia acknowledges their essential function as vital elements of instruction and learning in higher education. Libraries specifically promote information literacy as an essential skill that underpins inquiry and critical thinking, which are integral to the research and educational objectives of academic institutions. Libraries have adopted this broadened function and integrated their resources and services into the whole teaching and learning framework.

A primary contribution of academic libraries is their capacity to improve instructional efficacy. Contemporary education increasingly prioritises learner-focused instruction, exploration-driven methodologies, and the incorporation of digital tools. Libraries facilitate these methodologies by offering selected educational materials, instructional resources, and information literacy initiatives. Academic staff necessitate access to current educational materials to develop efficient curricula (Mehta and Choudhary, 2015) ^[20]. Libraries facilitate the integration of modern information into instruction through digital databases, electronic journals, free educational resources, and specialised collections (Mandal, 2024) ^[17]. Librarians work in conjunction with instructors to pinpoint pertinent resources, curate reading lists, and incorporate library items into educational management systems. In Indian

institutions, where educators frequently handle extensive teaching duties, library-assisted instructional services can enhance the quality of courses. Through the provision of research-informed instructional materials, libraries assist educators in transcending traditional textbook-centric teaching to adopt evidence-based and internationally connected educational methodologies. The involvement in education and learning has gained significant importance for libraries, while the characteristics and degree of this engagement range considerably among various institutions (Kaur and Verma, 2009) ^[14]. Numerous libraries function as intermediary collaborators that augment educational endeavours already centred on faculty members. Certain libraries engage in collaborative creation, design, and complete involvement in the execution of curricular and co-curricular programs including various facets of pedagogy and education (Eshbach, 2020) ^[9]. A diverse assortment of instructional design and learning analytics resources is often accessible to assist in shaping and directing education. Librarians participate in numerous educational and instructional capacities, both in conjunction with and independent of curriculum development. Instructional design assistance is a particularly significant type of contribution. Librarians and educators work together progressively, utilising diverse expertise and insights, to promote curriculum development in teaching and learning. Institutions of higher education are progressively assessing research efficacy through quantitative metrics including citation tallies, h-index, journal impact scores, Field-Weighted Citation Impact (FWCI), and collaborative networks. Academic libraries have cultivated proficiency in bibliometric analysis to aid institutional decision-making. Librarians produce research performance assessments utilising databases like Scopus, Web of Science, Dimensions, and Google Scholar. These evaluations assist universities in pinpointing fruitful research domains, nascent fields, extensively referenced works, and avenues for partnership. In India, bibliometric services have gained significant importance for accreditation procedures carried out by NAAC, NIRF rankings, and institutional strategic planning. Libraries furnish empirical data that aid university officials in assessing research output and strategising future investments. Furthermore, libraries instruct researchers on the prudent application of research measurements, highlighting that qualitative research significance ought to enhance quantitative measures. Research reliant on extensive data has established new obligations for scholarly libraries. Funding organisations are progressively mandating that researchers develop data management strategies and safeguard research datasets for subsequent utilisation. Research Data Management (RDM) encompasses the organization, documentation, storage, preservation, and dissemination of research data across the research lifecycle. Libraries support researchers by formulating institutional norms, offering secure storage options, guiding on metadata standards, and guaranteeing adherence to ethical and legal obligations (Singh and Kaur, 2009) ^[28]. Despite the nascent stage of RDM in India, prominent establishments including the Indian Institutes of Technology (IITs), Indian Institutes of

Science Education and Research (IISERs), and central universities have initiated the creation of research data services. Academic libraries are anticipated to assume a pivotal role in facilitating open science and reproducible research in the next few years.

Technological enablers: digital repositories, data services, and beyond

The progression of academic libraries mirrors wider changes in the creation and distribution of knowledge. Previous library models predominantly focused on collection enhancement, conservation, and the administration of physical access. Librarians engaged in tasks associated with procurement, cataloguing, categorisation, and distribution. Nevertheless, the modern scholarly landscape necessitates that libraries participate proactively in knowledge generation, digital scholarship, and research dissemination. Digital archives, data services, and a diverse array of technologies facilitate the evolution of libraries as essential collaborators in the pedagogy-research continuum (Patil and Pradhan, 2014) ^[25]. In India, academic libraries have seen a progressive evolution due to technology innovations and activities at the national level. The creation of networks like the Information and Library Network Centre (INFLIBNET) facilitated resource sharing, the advancement of digital libraries, and cooperation among universities. The establishment of e-ShodhSindhu allowed researchers and students access to myriad electronic journals, databases, and scholarly resources (Chadha and Sharma 2020; Chaurasia, 2021) ^[6, 7]. In a comparable manner, Shodhganga has emerged as a significant archive for Indian PhD dissertations, enhancing the prominence and accessibility of local research.

Recent studies highlight that academic libraries are progressively operating as "academic collaborators" instead of only "support services. This transformation entails a movement from resource possession to resource availability, from information delivery to knowledge enhancement, and from solitary services to cooperative scholarly participation (Mandave, 2024) ^[19]. Libraries currently emphasise assisting users in manoeuvring through intricate information landscapes, where the difficulty lies not just in obtaining information but also in assessing, interpreting, and utilising knowledge proficiently. The advent of digital scholarship has broadened the duties of librarians. Scholars seek support for comprehensive literature evaluations, citation oversight, research impact analysis, data structuring, and publication methodologies. Contemporary librarians are progressively acquiring proficiency in these domains, establishing themselves as research advisors at academic institutions. In the Indian framework, this change corresponds with the NEP 2020's aspiration to establish research-focused and interdisciplinary institutions. Robust university libraries facilitate this aim by promoting interdisciplinary knowledge sharing, fostering autonomous learning, and enhancing research capabilities. Libraries enhance academic communities by positioning themselves as proactive collaborators in education and research, utilising empirical analysis and

established frameworks. Libraries have been allocated substantial public funding, extensive academic infrastructures, and research and development grants, ranking among the globe's most precious knowledge and information assets. As a result, digital repositories, data services, and various technology facilitators promote the progressive development of infrastructures that include library services into the wider educational and research environments (Sharma, 2025) ^[27]. With the remarkable increase in the volume and breadth of academic endeavours, groundbreaking methods of sharing knowledge and information are now reaching a global audience like never before. Nonetheless, the educational and investigative requirements of faculties, departments, research teams, and students persist; libraries must cultivate new skills and abilities, enhance procedures, and fortify collaborations without compromising the integrity of high-quality infrastructure and services. Libraries illustrate the necessity for transformation that fundamentally alters the methods of academic communication, research distribution, and educational practices. Libraries have a crucial role in the expression, collection, dissemination, representation, and assessment of evidence; the interchange and customisation of development among various libraries are vital (Meesad, and Mingkhwan, 2024) ^[21]. The intersection of growth and development, along with patterns of regional and worldwide ideas, offers a compelling perspective. Libraries bolster their academic communities through ongoing support and expanding infrastructural improvements.

Emergent infrastructures enhance conventional data, reference, and academic library services: experimental and practical research and instruction, the three research paradigms, sophisticated libraries, research data stewardship, and open knowledge persist in propelling the agenda. Awareness of the library's function enhances comprehension of the overall "teaching and scholarship ecosystem" (Gilman and Kunkel, 2010) ^[10]. The expression and reinforcement of inquiry, exploration, analysis, resources, and structures further enhance the congruence between pedagogy and academia. Incorporating concepts and methodologies from this terminology promotes the improvement of deep learning, inquiry-driven education, curriculum reform, and the 4R initiative: reuse, redistribute, remix, and retain. The concept of library-supported infrastructures thereby enhances ongoing discussions within the library sector about cultural, social, and ethical advancement as a counterbalance to solely technological priorities.

The emergence of novel digital technologies and their increasing application within the realm of scholarly communication are perpetually transforming the academic ecosystem and enhancing the library's role within institutional frameworks (Thanuskodi, 2012) ^[30]. All academic communities consistently express the digital-technology framework pertinent to scholarly communication practices and broaden dialogues to encompass the publicly funded, publicly accessible, and widely available research policy initiatives alongside the current requirements and methodologies of distinct scholarly communities (Corrall, 2014) ^[8]. Advocating

for robust, sophisticated, modern 2D and 3D illustrations of various infrastructures within extensive, continuous infrastructure development across personal, institutional, national, and international systems facilitates the alignment towards comprehensive 2D and 3D frameworks and assists libraries in examining crucial enabling functions and contributory endeavours, including the developing contours of the research-data-and-analysis agenda in connection with the overarching infrastructure discourse.

By using digital platforms, institutional repositories, AI-based services, research analytics, open educational materials, and scholarly communication support, libraries bolster academic proficiency and stimulate innovation (Mandal, 2024) ^[17]. Initiatives in India, like INFLIBNET, e-ShodhSindhu, Shodhganga, and the National Digital Library of India, highlight the rising relevance of library networks in promoting universal access to knowledge (Prava and Bharati, 2025) ^[26]. Yet, issues of digital inequity, infrastructural constraints, competency gaps among library staff, and poor integration of libraries into institutional frameworks remain barriers to their optimal capacity. The paper posits that bolstering academic libraries through legislative backing, technology enhancements, and professional evolution is vital for creating an inclusive, inventive, and globally competitive Indian higher education landscape.

Equity, inclusion, and community engagement

Equity, diversity, and inclusion, in conjunction with community participation and outreach, have consistently been fundamental principles of libraries, propelling their efforts to guarantee that services are accessible and attuned to the many backgrounds and requirements of clients. Libraries enhance their services and resources based on this fundamental dedication, proactively tackle systemic disparities, and promote community-focused teaching, outreach, research, and scholarship. Academic staff and support services collaborate with libraries to enable the creation of community-oriented learning courses, permitting students to engage with or investigate and aid local organisations. Committed representatives—academic staff, postgraduate scholars, and librarians—collaborate with community stakeholders to develop community-oriented educational programs. Library-facilitated open pedagogy projects offer instructors a means to link students and their contributions to publicly accessible papers and archives (Gilman and Kunkel, 2010) ^[10]. The availability of these instructional resources—either available for free download or lending, enhances educational equity by offering materials at no expense. A diverse array of services, collections, and environments promotes community involvement by linking students, researchers, and professionals from multiple fields, community organisations, and the public. Libraries and collaborators facilitate humanities study and scholarship for marginalised and unofficial languages by gathering, safeguarding, and granting access to cultural heritage resources and documents. Research infrastructure includes elements such as services, tools, collections, and governance that contribute to the local academic community,

facilitate research through digital initiatives, libraries, and other library-supported services, as well as institutional support. Social initiatives and informal environments led by graduate students enhance community involvement.

Assessment, evaluation, and impact metrics

Libraries enhance scholarly communities by assessing educational and research outcomes and by collecting evaluative data that supports advancement and creativity in accordance with institutional objectives. The efficacy of institutions, along with the influence of libraries, is enhanced by formative, summative, and longitudinal evaluation processes. Librarians conduct foundational evaluations to ascertain the library's impact on education, research, and community involvement, hence guiding strategic planning for overarching goals. These evaluations utilise several assessment frameworks for a range of library activities across different levels of knowledge. Every interaction with academics, students, administrators, or community partners is documented, including its type, required resources, co-curricular connections, and the relevant engagement metric. Program metrics are assessed based on factors including course demand, research output, funder goals, and transparency to determine the linearity and interconnectivity required for longitudinal studies of academic growth, knowledge generation, community participation, and engagement levels (Powers *et al.*, 2017). Library-produced intervention tracking charts lay the foundation for composing institutional position statements and defining library frameworks for research dissemination facilitated by open-access knowledge-sharing policies.

Libraries record qualitative community feedback that enhances enrichment, catalogue deposit items with their respective quantities, and observe Altmetric or DOI metrics. Qualitative evaluations from professors detailing the influence of scholarly communication workshops on their library citation abilities and catalogue expansion are recorded (Helmstutler, 2015). Comparable measures concerning community effect disseminate information about developmental initiatives. Personalised electronic resource consultations, interdisciplinary workshops of notable significance, integration of open data or open objects into institutional repositories, journal clubs promoting alternative funding project initiatives, and enhanced engagement analytics are among the library services facilitating sustained empowerment endeavours. Library development initiatives are therefore dynamic, yet necessitate additional measurements and the identification of pathways for enhancing analysis.

Challenges and opportunities in the evolving library landscape

Academic communities traverse a transforming library environment influenced by technology advancements, altering financing structures, and evolving user habits (Mays, 2019). These transformations provide difficulties like tightening financial resources and new ethical, privacy, and governance issues, but also provide libraries with the chance to establish

themselves as vital collaborators in education and research. Adjusting to the evolving environment necessitates anticipatory examination of the context, strategic recognition of requirements, and progressive policy and service development. The most significant and enduring obstacle is insufficient financial resources. Numerous public universities and their associated institutions function with constrained library resources, hindering their capacity to subscribe to costly electronic databases, obtain latest publications, upgrade infrastructure, and adopt new technology. The rising expenses associated with academic journals, especially those released by global publishers, exert more strain on institutional finances. Despite the efforts of consortia like e-ShodhSindhu to lower subscription expenses via collective licensing, numerous institutions continue to face restrictions in obtaining extensive academic resources. Financial limitations further postpone the enhancement of physical infrastructure, acquisition of sophisticated library management systems, and use of artificial intelligence technologies.

The accelerated movement towards digital library services has shown discrepancies among higher education institutions in India. Despite the advanced digital infrastructure of prestigious institutions such as the IITs, IISc, and IISERs, numerous state universities and affiliated colleges face challenges with poor internet connectivity, obsolete computer systems, and insufficient digital resources. Students hailing from economically disadvantaged backgrounds may also face challenges in securing dependable internet connectivity or appropriate devices, thereby diminishing their capacity to utilise digital library services effectively. Therefore, the process of digital transformation must be complemented by policies that foster digital inclusion and equitable access to educational technologies.

The duties of academic librarians have significantly broadened in the last ten years. Modern librarians are anticipated to have proficiency in digital resource administration, bibliometrics, research data stewardship, artificial intelligence, metadata protocols, digital conservation, academic communication, and information literacy education. Nonetheless, numerous library professionals had their formal education prior to the integration of these technologies into library operations. Ongoing professional advancement is hence vital. Recent research on Indian library professionals reveals a significant enthusiasm for AI integration, although highlights staff training, financial resources, and technological proficiency as substantial obstacles to its execution. Institutions of higher education ought to allocate resources towards ongoing training initiatives, global partnerships, and credentialing courses to equip librarians for new scholarly duties.

Policy implications and strategic directions

University libraries play a crucial role in fostering academic communities by collaborating with academics on educational projects and with researchers on infrastructure enhancement. This role as an engaged collaborator in education and research requires well-defined policy and procedural structures that specify the methods, locations, and partnerships for the optimal

implementation of library services in alignment with institutional objectives. The Framework for Information Literacy for Higher Education characterises information literacy as “the capacity to identify when information is required and to find, assess, and utilise the necessary information proficiently” (Mays, 2019). This expansive definition recognises that information is a complicated and varied concept that relies on the user's academic discipline, area of study, and particular informational requirements. Thus, the Framework delineates five fundamental concepts that enhance the definition and underscore various viewpoints on information literacy: “Authority is constructed and contextual”; “Information creation as a process”; “Information has value”; “Research as inquiry”; and “Scholarship as conversation”. These ideas evidently resonate across various fields and highlight the significance of critical examination, source assessment, comprehension of the research methodology, and the cultivation of an academic identity skills vital for student achievement that library programs actively endorse.

Conclusion

Academic libraries have had a significant evolution from conventional book storage facilities to vibrant hubs of knowledge generation, digital education, and research assistance. This change signifies wider trends in tertiary education, digital innovations, and academic discourse. In India, the execution of the National Education Policy (NEP) 2020, the enhancement of digital knowledge frameworks, and the increasing focus on research excellence have bolstered the strategic significance of academic libraries. The analysis illustrates that libraries play a crucial role in educational development by providing faculty with high-quality learning materials, enhancing information literacy, enabling blended learning, and fostering collaborative learning spaces. Concurrently, they promote research innovation via sophisticated research support services, institutional repositories, bibliometric evaluation, research data administration, scholarly communication assistance, and open access programs. National platforms like INFLIBNET, e-ShodhSindhu, Shodhganga, and the National Digital Library of India have significantly enhanced fair access to academic resources, thus fortifying India's higher education framework. Nonetheless, obstacles such as insufficient finance, technology gaps, digital inequity, copyright limitations, and a lack of professionally educated librarians persist in hindering the complete fulfilment of university libraries' capabilities. Tackling these challenges necessitates ongoing investment, favourable governmental policies, perpetual professional advancement, and enhanced incorporation of libraries into institutional governance and academic strategy. Anticipating the future, artificial intelligence, learning analytics, open science, digital scholarship, and research data management are projected to transform library services. Instead of supplanting librarians, new technologies will augment their ability to deliver specialised, data-informed, and user-focused services. The forthcoming academic library will progressively serve as a cooperative knowledge center that fosters innovation, multidisciplinary inquiry, and continuous education.

Ultimately, empowering scholarly communities necessitates more than mere access to information; it involves equipping learners and researchers to convert information into knowledge and knowledge into creativity. Academic libraries are distinctly equipped to accomplish this objective. Enhancing them is crucial for realising India's ambitions of evolving into an inclusive, research-driven, and globally competitive knowledge society.

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