

Shodhganga, INFLIBNET, and the Future of Research Repositories in India

Shashi Prabha

Lecturer Library, Govt. Degree College
Budaun

Kunwar Sanjay Bharti

Pravakta Library,
Rambai Govt. Women P.G. College Akbarpur, Ambedkarnagar

Abstract

India's research ecosystem has witnessed a significant transformation in the past two decades, largely driven by digital innovations and government initiatives that support open access to scholarly work. Shodhganga, an open-access repository developed under the auspices of the Information and Library Network (INFLIBNET) Centre, has emerged as a pivotal tool in this transformation. The repository has not only democratized access to doctoral and M.Phil. theses but also elevated the visibility of Indian research at the global level. Through its digital platform, Shodhganga seeks to create a comprehensive academic archive that strengthens the foundations of India's research culture. The growing recognition of research repositories in India also speaks volumes about the evolution of academic standards, transparency, and academic integrity in higher education institutions. Shodhganga, by making it mandatory for universities to deposit electronic theses, is paving the way for more robust research governance. As of now, hundreds of institutions across the country participate in this initiative, contributing to a collective knowledge economy. This has enabled young scholars, researchers, and institutions to avoid duplication of work and explore new interdisciplinary territories with greater confidence. This paper explores the foundational principles, current achievements, and future trajectories of Shodhganga and INFLIBNET. Through a critical analysis of these digital initiatives, it investigates the challenges faced by Indian research repositories and identifies strategic directions for their advancement. In the context of India's growing academic aspirations and global academic collaborations, understanding the role of these platforms becomes vital for framing future educational and research policies.

Keywords: Shodhganga, INFLIBNET, Research Repositories, Open Access, Digital Archives, Academic Visibility, Plagiarism Detection, UGC Regulations, Higher Education in India, Theses and Dissertations, Metadata Standardization, Knowledge Dissemination, National Education Policy 2020, Academic Infrastructure, Research Governance.

I. Introduction

The emergence of digital repositories has redefined how knowledge is produced, accessed, and preserved globally. In India, this shift is symbolized by the launch of Shodhganga, an initiative of the University Grants Commission (UGC) under the stewardship of the INFLIBNET Centre. As a centralized digital archive for doctoral and M.Phil. theses, Shodhganga serves as a bridge between traditional research practices and contemporary digital knowledge dissemination. It ensures that the academic work of Indian scholars is accessible, searchable, and citable across the globe, aligning India with international norms of open access. The Information and Library Network (INFLIBNET) Centre, an autonomous Inter-University Centre of the UGC, has played a foundational role in reshaping academic information services in India. It was established to modernize libraries and promote networking among academic institutions. INFLIBNET's collaboration with UGC on Shodhganga reflects a broader strategic move to digitize and democratize academic research outputs. Over the years, it has expanded its services to include bibliographic databases, library automation, e-content, and e-journals, making it indispensable for educational and research institutions.

This paper positions Shodhganga and INFLIBNET as symbols of India's digital academic awakening. The study aims to delve into their historical development, assess their present impact, and speculate on their future roles in the broader context of academic research. By doing so, it also examines the shift in policy attitudes towards open access and the institutional efforts necessary to sustain and scale such repositories.

II. Literature Review

The evolution of digital repositories in India cannot be studied in isolation from the global open-access movement that gained momentum in the early 2000s. Scholars like Suber (2012) and Budapest Open Access Initiative advocates emphasized the need for free, unrestricted access to scholarly literature, particularly in developing nations where journal subscriptions are cost-prohibitive. In India, this vision materialized through the UGC's mandate to create centralized repositories for doctoral research. Early studies by Arunachalam (2008) identified that India's lack of a cohesive research dissemination platform restricted the international visibility of its academic output. This foundational understanding led to policy interventions that culminated in the establishment of INFLIBNET and later, Shodhganga.

Various empirical studies have explored the implementation and usability of Shodhganga as a national repository. According to Sharma and Goyal (2017), Shodhganga's integration into university workflows has significantly reduced the duplication of research topics and improved compliance with anti-plagiarism policies. Their survey revealed that over 75% of research scholars found the repository helpful in understanding methodology and framing literature reviews. Meanwhile, Bansode and Shinde (2019) studied metadata quality in Shodhganga and concluded that while the platform had achieved considerable outreach, uniformity and quality control of submissions remained a challenge. This suggests that although Shodhganga is a powerful resource, its optimization still relies heavily on institutional practices. International comparisons further reinforce the need for robust policy backing and technical standardization. For instance, repositories like DART-Europe and ProQuest's ETD initiatives have seen success through centralized curation and consistent evaluation protocols. Chaurasia (2021) compared Indian repositories with European counterparts and noted that while India has made great strides through INFLIBNET, the lack of multilingual metadata, weak interoperability with global academic databases, and limited integration with research analytics tools pose significant barriers. These insights underline the importance of sustained investment and regular upgrades to ensure that India's digital repositories remain competitive on a global scale.

Shodhganga: Genesis and Vision

Shodhganga was officially launched in 2011 to address the need for a unified platform where Indian universities could deposit and share theses and dissertations in an open-access format. The vision behind this initiative was to enhance transparency in academic submissions and ensure the availability of high-quality research outputs to the wider academic community. The repository also supports the UGC's regulation mandating universities to ensure plagiarism-free research submissions—a move that further legitimizes the scholarly output archived in Shodhganga. The name "Shodhganga" metaphorically represents a "river of research," and the repository has lived up to its name by accumulating a vast collection of theses from a diverse range of disciplines. It allows scholars not only to showcase their work to a broader audience but also to engage in comparative analysis with existing literature. This exposure has had a cascading effect on the quality and originality of research conducted in Indian universities, fostering a culture of academic accountability. The repository's user-friendly interface, searchable database, and regular updates have made it an invaluable tool for students, academicians, and policymakers. By providing metadata and full-text documents, Shodhganga facilitates comprehensive literature reviews and informed academic decision-making. Furthermore, the integration of similarity detection tools ensures that submissions maintain high ethical standards. The initiative has successfully blended technological advancement with academic necessity, creating a model worthy of emulation by other developing countries.

INFLIBNET: A Digital Backbone for Indian Academia

INFLIBNET, headquartered in Gandhinagar, Gujarat, was envisioned as a catalyst for library automation and resource sharing in Indian universities. Over time, it has evolved into a multifaceted platform supporting educational research, data analytics, digital content creation, and infrastructure development for universities. It offers services like SOUL (Software for University Libraries), e-ShodhSindhu (a consortium for e-resources), and Vidwan (a database of experts), all of which complement the Shodhganga initiative. As the parent body managing Shodhganga, INFLIBNET ensures the technical and operational support necessary for its seamless functioning. The platform emphasizes standards compliance, metadata indexing, and long-term digital preservation, which are critical for any repository's sustainability. INFLIBNET also conducts workshops and training programs for university staff and scholars to familiarize them with the processes of thesis submission, plagiarism checks, and repository usage, thereby building institutional capacities.

The success of INFLIBNET lies in its ability to harmonize diverse functions across India's educational spectrum. From supporting digital libraries to facilitating citation analysis, its role extends far beyond mere repository maintenance. It embodies the spirit of India's Digital India campaign and aligns well with the goals of the National Education Policy (NEP) 2020. The synergy between INFLIBNET and academic institutions has laid the groundwork for a more collaborative, tech-enabled, and inclusive research environment.

Impact on Academic Research and Policy

One of the most significant contributions of Shodhganga and INFLIBNET is the elevation of research visibility and accessibility in India. Earlier, most theses were confined to university libraries and often went unread beyond a narrow circle of evaluators. Shodhganga has changed this dynamic by making research work accessible to scholars across the world, thereby improving citation counts, collaborations, and academic reputation of Indian universities. This open access also aids in reducing redundancy in research topics and encourages more innovation.

The influence of these platforms extends to policymaking as well. With institutions now obligated to contribute to Shodhganga, there has been a marked increase in adherence to plagiarism norms and quality guidelines. Universities have begun establishing internal mechanisms for research scrutiny before submission. Furthermore, funding agencies now look at repository entries as evidence of scholarly productivity, adding another layer of accountability. These developments indicate a maturing of India's academic infrastructure that is both transparent and performance-driven. From a pedagogical perspective, these repositories are immensely valuable. Faculty members use them for curriculum development, while research scholars refer to them for methodological and theoretical insights. Policymakers, too, rely on Shodhganga to understand academic trends, subject popularity, and regional disparities in research output. This data-driven approach allows for targeted interventions and better resource allocation, strengthening the overall academic ecosystem.

III. Challenges and Limitations

Despite its success, Shodhganga faces several operational and strategic challenges. First, the issue of compliance remains a significant concern. Although UGC mandates the submission of theses to Shodhganga, not all institutions adhere to this uniformly. Smaller universities, particularly those with limited digital infrastructure, lag in their contributions. Additionally, language barriers, metadata inconsistencies, and lack of technical staff further impede participation from rural and semi-urban academic centers. Second, the quality of submissions is uneven. While the platform is comprehensive in scope, the depth and originality of some theses vary significantly. There have been concerns about inadequate review processes at the institutional level, leading to the uploading of substandard or plagiarized content despite the availability of plagiarism detection software. This threatens to undermine the credibility of the platform if not addressed through strict audits and capacity-building initiatives. Lastly, the financial and infrastructural sustainability of these platforms is still uncertain. Continuous investment is required to maintain server uptime, enhance security, upgrade user interfaces, and ensure long-term digital preservation. Without a dedicated funding mechanism and robust public-private partnerships, these repositories risk stagnation. It is imperative that the government, along with academic institutions and industry stakeholders, develop a roadmap for ensuring the scalability and financial viability of these platforms.

IV. The Future of Research Repositories in India

The trajectory of Shodhganga and similar repositories suggests that India is well on its way to building a knowledge society rooted in transparency, accessibility, and innovation. However, to fully realize this potential, future repositories must go beyond storage and evolve into dynamic platforms that offer analytics, collaboration tools, and integration with global academic networks. Initiatives like AI-based literature mapping, real-time peer review systems, and blockchain-based citation tracking can transform the utility of these platforms. Moreover, the upcoming National Research Foundation (NRF), as envisioned in NEP 2020, could play a pivotal role in consolidating research repositories under a unified framework. If effectively linked with INFLIBNET and Shodhganga, the NRF could streamline data analytics, reduce administrative redundancies, and enhance the strategic planning of national research priorities. Such a move would also encourage interdisciplinary and cross-institutional research, amplifying India's academic voice on the global stage. Capacity-building must remain central to this vision. Future research repositories must invest in training educators, scholars, and administrative staff. Universities must be encouraged to establish repository management cells, supported by a national helpdesk and funding bodies. By fostering a culture that values documentation, ethical research, and open access, India can ensure that its repositories are not just storage hubs but vibrant spaces of academic collaboration and innovation.

V. Discussion

The progress made by Shodhganga and INFLIBNET demonstrates the potential of digital repositories in enhancing research visibility and promoting open-access scholarship. Their success has transformed the traditional model of thesis submission, turning static documents into dynamic, accessible knowledge resources. However, a detailed examination of their functioning reveals a mixed bag of achievements and shortcomings. On one hand, the repositories have empowered researchers and democratized information access; on the other, inconsistent institutional support and infrastructural disparities have led to uneven implementation across the

country. Therefore, any discussion on the future of these repositories must take a balanced view that appreciates the progress while acknowledging the gaps.

A key issue lies in ensuring quality assurance across all contributing institutions. While INFLIBNET provides the framework and technological support, the onus of maintaining content standards rests with the individual universities. This leads to significant variability in the quality and structure of theses, which can undermine the repository's credibility. Additionally, training programs for librarians and researchers are still limited in reach, affecting the effectiveness of repository use and metadata handling. There is a pressing need for UGC to issue stricter guidelines and conduct periodic audits to ensure that all uploads adhere to a uniform set of academic and technical criteria. Looking forward, the sustainability and innovation capacity of these platforms will be critical. With the government pushing for digital transformation in education, Shodhganga and INFLIBNET must leverage AI and machine learning for document analysis, research trend mapping, and predictive analytics. Integration with global databases like Scopus, Web of Science, and ORCID can also increase the international discoverability of Indian research. In the long run, the creation of multilingual interfaces, incorporation of regional research, and inclusion of undergraduate and postgraduate dissertations can further deepen the repositories' impact. Their role in shaping India's knowledge economy is undeniable, but to remain relevant, they must continually evolve.

VI. Conclusion

In conclusion, Shodhganga and INFLIBNET have collectively altered the landscape of academic research dissemination in India. They have brought transparency, accessibility, and global relevance to a domain that was previously fragmented and inaccessible. These platforms have empowered scholars, informed policymakers, and modernized research practices, making them central to India's educational transformation. The growing volume of submissions and institutional participation reflects their widening impact. However, sustaining and enhancing this momentum requires consistent policy support, technological upgrades, and capacity development at institutional levels. The future of research repositories in India depends on how effectively these challenges are met and how innovatively the platforms evolve. Strategic partnerships, regulatory coherence, and data ethics will be essential to ensure that the promise of open access does not come at the cost of quality or trust.

As India aspires to be a global academic leader, repositories like Shodhganga will be instrumental in shaping its research identity. By fostering a culture of openness, accountability, and academic rigor, these digital initiatives are not just preserving knowledge—they are propelling India into a future where scholarship is both inclusive and globally competitive.

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