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Modernizing Library Training in India: Solving the Job Crisis, Poor Quality, And the Digital Divide

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ABSTRACT

This paper presents a comprehensive study of contemporary Library and Information Science (LIS) training systems in India, detailing an industry at a critical structural crossroads. While information environments are moving quickly from paper-based records to digital, cloud-integrated setups, the academic institutions tasked with training the next generation of library professionals have failed to adapt to this hybrid reality. This structural disconnect has created a severe paradox: Indian library schools are continuously expanding student enrollment without verifying actual job availability, resulting in an acute oversupply of underemployed graduates. Concurrently, those entering the workforce frequently lack the modern technical competencies and high-level management skills required by modern employers. By thoroughly evaluating core systemic issues—specifically the total lack of a national quality watchdog, widespread professional underemployment, and the profound digital divide separating urban institutions from rural schools—this paper establishes a practical, five-step policy framework to revitalize library education and ensure its long-term societal relevance in a digitized global economy.

Keywords: Library and Information Science (LIS); Library Education; Curriculum Modernization; Digital Libraries; Information and Communication Technology (ICT); Employability; Quality Assurance; Accreditation; Digital Divide; Higher Education; Library Automation.

1. INTRODUCTION

Library and Information Science (LIS) education has long served as the foundation for preparing professionals responsible for organizing, preserving, and disseminating knowledge resources. Traditionally, library professionals focused on cataloguing, classification, indexing, and reference services within print-based collections. However, the rapid advancement of information and communication technologies (ICT), artificial intelligence (AI), cloud computing, digital repositories, and big data analytics has fundamentally transformed libraries into dynamic digital knowledge centres. Consequently, the competencies expected of contemporary library professionals have expanded beyond traditional librarianship to include digital resource management, research data management, information literacy instruction, metadata standards, institutional repository management, and

knowledge organization in virtual environments (Asundi & Karisiddappa, 2007; Bawden & Robinson, 2012).

India possesses one of the world's largest higher education systems, with more than one hundred universities offering Library and Information Science programmes at undergraduate, postgraduate, and doctoral levels. Since the pioneering contributions of Dr. S. R. Ranganathan, LIS education has experienced substantial institutional expansion through universities, open learning systems, and specialized training institutes. Nevertheless, quantitative growth has not always been accompanied by qualitative improvements. Several scholars have observed that the present educational framework continues to rely heavily on traditional curricula, while the rapidly evolving information landscape demands expertise in digital libraries, information retrieval systems, electronic resource management, research data services, and emerging technologies (Agrawal, 1997; Malhan, 2011).

One of the most significant challenges confronting LIS educations in India is the widening mismatch between academic training and labour market requirements. Universities continue to produce a large number of graduates annually without systematic manpower planning or employment forecasting, resulting in considerable unemployment and underemployment among qualified library professionals. Simultaneously, employers increasingly seek professionals possessing technical competencies in library automation, integrated library management systems, digital preservation, cloud-based information systems, artificial intelligence applications, and research analytics. This disparity between educational outcomes and employer expectations has reduced graduate employability and weakened the professional status of librarianship (Kumar et al., 2013; Singh & Malik, 2014).

Another major concern is the absence of a dedicated national accreditation mechanism for Library and Information Science education. Unlike medicine, engineering, or legal education, which are regulated by statutory accreditation bodies, LIS programmes in India function with considerable institutional autonomy and limited external quality assurance. Although the University Grants Commission (UGC) has periodically introduced model curricula and policy recommendations, their implementation varies substantially among universities. Consequently, significant disparities exist in curriculum design, faculty expertise, infrastructure, laboratory facilities, and technological resources across institutions (Department of Higher Education, 1965; University Grants Commission, 2001; Kaur, 2007).

The digital divide further compounds these structural challenges. While leading universities and national research institutions have adopted automated library management systems, digital repositories, institutional repositories, and sophisticated electronic information services, numerous rural and resource-constrained institutions continue to operate with inadequate ICT infrastructure, outdated laboratory facilities, and limited internet connectivity. Such inequalities restrict students' opportunities to acquire practical digital competencies, thereby creating substantial differences in graduate preparedness across regions (National Knowledge Commission, 2007; Malhan, 2011).

Addressing these multidimensional challenges requires comprehensive policy reforms encompassing curriculum modernization, establishment of a national accreditation

framework, enhancement of faculty development programmes, increased investment in digital infrastructure, stronger collaboration between academic institutions and employers, and integration of emerging technologies into teaching and learning processes. Strengthening these areas would improve educational quality, enhance graduate employability, reduce regional disparities, and ensure that Indian Library and Information Science education remains responsive to the evolving global knowledge economy (Aharony, 2011; Virkus, 2007; Ocholla, 2008).

2. OBJECTIVE

1.To critically examine the major structural challenges affecting Library and Information Science (LIS) education in India, with special emphasis on curriculum quality, employability, accreditation, and digital infrastructure.

2.To propose a comprehensive policy framework for strengthening Library and Information Science education in India through curriculum modernization, quality assurance, technological integration, and institutional reforms.

The Tech Revolution in the Archive Space

The global digital revolution has fundamentally altered the structural framework of knowledge curation, management, and sharing. Traditional physical libraries, which once operated strictly as repositories for printed paper books, are quickly transitioning into automated, cloud-integrated, and highly dynamic digital spaces. In India, this rapid transition presents a double-edged sword, creating immense professional opportunities alongside massive institutional struggles. If library professionals are properly trained, they can serve as vital data navigators; if their training is neglected, the entire academic infrastructure suffers.

The core issue is that a deep, structural gap has formed between university classroom pedagogy and the practical demands of modern information workplaces. While libraries require specialists who understand electronic database development, internet-scale search techniques, and complex network architectures, university programs remain excessively focused on legacy theories. This misalignment directly impacts the livelihoods of young graduates, leading to high underemployment while rendering libraries less capable of serving their users in an increasingly digital world.

Furthermore, this crisis must be viewed against the backdrop of India's massive but highly restricted higher education sector. The nation possesses an expansive network containing over 369 universities and more than 18,000 colleges, yet this vast system remains accessible to only six percent of the overall population. Because traditional classroom spaces are limited, the country has seen an explosion in flexible distance learning and correspondence systems. This shift highlights an urgent, secondary requirement: the critical need to build up robust student support systems and modern, automated digital libraries that can serve remote learners effectively across the subcontinent.

3. HISTORICAL BACKGROUND AND INSTITUTIONAL CAPACITY

To understand why the library education system is struggling today, it is helpful to look at how it grew over the past century. India has a rich, celebrated history of formal library training, with its earliest specialized courses launching in the early decades of the 20th

century. The academic field achieved significant prestige through the launch of advanced postgraduate research tracks at several landmark public institutions:

● The University of Delhi: Became a national pioneer by establishing the first formal M.Phil program in library science in 1977.

● Banaras Hindu University: Helped standardize core postgraduate cataloging and classification degrees.

● Andhra University: Expanded the reach of library science research across the southern region.

To support working library clerks and assistants who could not attend classes full-time, many of these universities launched extensive correspondence and distance-learning programs. This allowed existing professionals to upgrade their credentials while continuing to work.

Current Institutional Growth

Today, the institutional landscape has expanded to a massive scale. As manual workflows are replaced by automated systems, the sheer number of degrees granted has reached an all-time high. Currently, more than 118 universities and specialized national institutions offer formal library training.

● Bachelor's Degree Programs (BLIS): 105 universities offer foundational one-year or multi-year degree courses.

● Master's Degree Programs (MLIS): 78 universities provide advanced, post-graduate specialized training.

● Advanced Research Tracks: Dozens of institutions provide high-level M.Phil, Ph.D., and D.Litt research opportunities.

● Specialized Associateships: Elite technical institutes like NISCAIR and DRTC provide rigorous Associateship training programs that are formally recognized as equivalent to a full Master's degree.

The Evolution of Curriculum Policy

The national teaching curriculum has undergone major changes, though these changes have been difficult to implement smoothly across all regions.

● The Legacy Era (Pre-2000): For several decades, the vast majority of university programs strictly followed the guidelines laid out by the University Grants Commission (UGC) Review Committee of 1965. This committee was famously led by Dr. S. R. Ranganathan, the father of Indian library science. While his principles were brilliant for physical book management, they were designed well before the invention of the modern internet.

4. DEEP-DIVE: THE CONTEMPORARY JOB MARKET AND OVERSUPPLY CRISIS

The Expansion and Unemployment Paradox

The fundamental driver of this crisis is that universities have aggressively expanded enrollment without conducting any national manpower projections or market demand studies. Because launching a library science department is relatively inexpensive compared to engineering or medical labs, universities have used these programs to easily boost their overall student numbers.

Consequently, the volume of newly graduated library professionals has vastly outpaced the actual growth of open library positions. This massive oversupply has saturated the labor market, resulting in severe rates of structural unemployment and underemployment. Thousands of highly qualified Master's degree holders are forced to compete for a handful of low-level assistant positions, or leave the profession entirely to seek work in unrelated corporate fields.

The Low-Salary Trap

This hyper-competitive environment gives employers immense leverage, allowing them to keep entry-level salaries incredibly low. There are massive, unfair disparities between the pay scales offered to library professionals versus other technical fields with similar educational requirements. This low-pay trap creates a damaging cycle: bright, tech-savvy students refuse to enter a field with such poor financial returns, which drains the profession of the innovative talent it desperately needs to manage modern digital repositories.

5. THE TWO-TIER REALITY: QUALITY VARIANCES AND THE DIGITAL DIVIDE

The ongoing struggles in Indian library training cannot be treated as a single, uniform problem; the entire system is deeply split by profound regional and economic inequalities.

The Autonomy Loophole

The primary reason library programs vary so drastically in quality is the high degree of local autonomy granted to individual universities. The University Grants Commission (UGC) operates purely as an advisory board rather than an enforcement agency. It can write model curricula, but it cannot legally force a university to follow them. Without centralized accountability, individual departments face massive variations in their available budgets, local facilities, and overall teaching strength.

The Urban-Rural Infrastructure Divide

This regulatory gap has created a highly unequal, two-tier educational environment across the country:

- The Elite Urban Tier: Specialized research hubs, elite national institutes, and top-tier central university libraries successfully embrace cutting-edge technology. They routinely integrate automated cataloging tools, offer extensive e-learning platforms, and provide students with direct, hands-on experience with modern software.
- The Starved Rural Tier: In stark contrast, smaller regional colleges and rural training schools are completely left behind. These departments are severely constrained by inadequate teaching staff, outdated physical spaces, and a total lack of functional computer labs.

Teaching an advanced class on "digital database indexing" using a whiteboard because the school has no internet access or computers is a common issue in underfunded schools. This digital divide ensures that rural graduates enter the job market with an immense disadvantage compared to their urban peers.

6. THE CRITICAL REGULATORY DEFICIT: A MISSING WATCHDOG

When we compare library science training to other major professional fields in India, a glaring structural flaw becomes completely obvious: the total absence of a specialized, national regulatory body.

Fields like medicine, law, and engineering are strictly governed by powerful central councils (such as the Bar Council of India or the All-India Council for Technical Education) that regularly inspect campuses and strip away accreditation from sub-standard schools. Library education has no such protector. While global models rely heavily on strong professional watchdogs—such as the American Library Association's (ALA) Committee on Accreditation—to enforce educational quality, Indian library schools operate without any independent external oversight.

Because there is no national watchdog to shut down sub-standard programs, colleges with completely inadequate facilities continue to hand out diplomas and degrees. This lack of centralized quality control lowers the value of a library degree nationwide, damages the reputation of the profession, and leaves employers distrustful of the capabilities of job applicants.

7. DETAILED 5-STEP ACTION PLAN FOR RE-ENGINEERING LIBRARY EDUCATION

To solve these deep systemic issues and prepare library students to lead in a technology-driven world, India must move past superficial fixes and implement a coordinated, policy-driven overhaul built on five clear pillars:

Step 1: Establish a National Library Accreditation Body

The Indian government must move quickly to create a dedicated, independent national accreditation agency specifically for library education programs. Modeled after international systems like the ALA's accreditation committee, this watchdog must be given full legal authority to inspect all 118+ existing training institutions. The agency must enforce strict, non-negotiable minimum standards regarding:

- Student-to-faculty classroom ratios.
- The mandatory presence of up-to-date, high-speed digital laboratory equipment.
- The baseline library funding and physical resources required before a university can accept student tuition. Schools that fail to meet these quality standards must have their licenses revoked immediately.

Step 2: Transition Curricula Toward High-Level Leadership and Management

Modern library workers can no longer be trained as simple clerical workers who just organize shelf space. Curricula must be continuously updated to match shifting technological trends, integrating advanced training in statistics, computer systems, database design, and project management. More importantly, programs must focus heavily on cultivating advanced leadership and management capabilities. Training graduates to act as high-level administrators ensures that modern libraries can actively participate in and contribute to national and economic development.

Step 3: Standardize Professional Pay Scales to Attract Elite Talent

The Indian government and academic regulatory bodies must work together to eliminate the severe wage inequalities that currently plague the field. Establishing fair, uniform, and attractive national pay scales across all institutional levels is absolutely critical to making the profession viable. Improving the financial rewards of the field will allow libraries to compete

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for top-tier student talent, ensuring that innovative minds are driving the country's digital knowledge projects.

Step 4: Deploy Targeted State Funding to Eliminate the Digital Divide

The government must play an active role by directing targeted infrastructure funding specifically toward rural and underprivileged library schools. Capital must be deployed to build modern computer labs, install high-speed internet connections, and buy up-to-date library software for underfunded regional departments. Upgrading these localized learning spaces will close the digital divide and simultaneously open up vital new job markets for graduating students within rural communities.

Step 5: Institutionalize E-Learning Networks and Academic Resource Sharing

To offset tight local budgets, library schools and major information centers must build robust, cooperative networks at local, national, and international levels. Wealthier urban universities should share their digital assets, e-learning platforms, and specialized training workshops with resource-strapped rural schools. By embedding structured online learning tools and fostering collaborative cross-institutional training partnerships, the country can ensure that every student receives a modern, relevant education regardless of their geographic location.

8. THEORETICAL ANALYSIS

Table 1. Major Challenges Affecting Library and Information Science Education in India

S. No.	Identified Challenge	Major Findings	Impact on LIS Education
1	Outdated curriculum	Curriculum largely emphasizes traditional librarianship with limited digital competencies	Graduates fail to meet current industry expectations
2	Graduate oversupply	Universities produce more graduates than available employment opportunities	Increased unemployment and underemployment
3	Absence of accreditation	Lack of a dedicated national accreditation body for LIS programs	Wide variation in educational quality
4	Urban-rural digital divide	Rural institutions lack ICT facilities and digital laboratories	Unequal learning opportunities among students
5	Low professional salaries	Limited financial incentives discourage talented students	Declining attractiveness of the LIS profession
6	Weak industry linkage	Minimal collaboration between universities and employers	Graduates possess limited practical skills

Interpretation

The theoretical analysis indicates that Library and Information Science education in India is confronted with multiple interconnected structural problems. Among these, outdated

curricula, inadequate accreditation mechanisms, graduate oversupply, and significant disparities in technological infrastructure collectively reduce the employability and professional competency of graduates. Furthermore, weak collaboration between academic institutions and employers, together with relatively low salary structures, further diminishes the attractiveness of the profession. These findings suggest the need for comprehensive educational reforms aligned with contemporary digital information environments.

Table 2. Proposed Policy Framework for Modernizing LIS Education in India

S. No.	Recommended Strategy	Expected Outcome
1	Establish a National Library Accreditation Authority	Standardization and improvement of programme quality
2	Revise curriculum with ICT, AI, digital libraries, and data management	Industry-ready graduates with modern competencies
3	Introduce leadership, management, and entrepreneurship training	Enhanced managerial capabilities among LIS professionals
4	Increase government funding for rural institutions	Reduction of the digital divide
5	Promote e-learning and resource-sharing networks	Improved accessibility to quality educational resources
6	Standardize salary structures and strengthen industry partnerships	Better employability and professional recognition

Interpretation

The proposed framework provides a strategic roadmap for transforming Library and Information Science education into a modern, technology-driven discipline. Establishing a national accreditation authority would ensure consistent educational standards across institutions, while curriculum reforms incorporating digital technologies, artificial intelligence, and information management would enhance graduate employability. Increased investment in rural infrastructure, expansion of collaborative e-learning initiatives, and stronger partnerships with employers are expected to reduce regional disparities and improve professional competencies. Collectively, these reforms would contribute to a sustainable, globally competitive LIS education system capable of supporting India's evolving knowledge economy.

9. DISCUSSION

The findings of the present study demonstrate that Library and Information Science (LIS) education in India is experiencing a critical transition due to rapid technological advancement, changing employer expectations, and structural deficiencies within higher education institutions. Although the number of universities offering LIS programmes has increased considerably during the past two decades, qualitative development has not kept pace with quantitative expansion. This imbalance has resulted in an oversupply of graduates possessing traditional theoretical knowledge but lacking contemporary digital and managerial

competencies required in modern information environments. Similar observations have been reported by Malhan (2011), who emphasized that Indian LIS education continues to struggle with curriculum relevance in the emerging knowledge society.

One of the major findings is the significant mismatch between academic curricula and labour market demands. Modern libraries increasingly require professionals skilled in digital repositories, institutional repositories, metadata management, artificial intelligence, cloud computing, data analytics, and digital preservation. However, many university programmes continue to emphasize conventional cataloguing and classification practices with comparatively limited exposure to emerging technologies. This curricular gap reduces graduate employability and increases dependence on additional professional training after graduation. The findings support earlier studies by Asundi and Karisiddappa (2007) and Kumar et al. (2013), who recommended continuous curriculum revision to accommodate technological developments.

The study further reveals the absence of an effective national accreditation framework for LIS education. Unlike engineering, medicine, or legal education, library science programmes operate without an independent professional accreditation council responsible for monitoring educational standards. Consequently, substantial differences exist in faculty qualifications, infrastructure, laboratory facilities, and teaching quality among universities. Such institutional disparities contribute to unequal educational outcomes and reduce employer confidence in graduates from different institutions.

Another important issue identified is the persistent digital divide between urban and rural educational institutions. While metropolitan universities have increasingly adopted integrated library management systems, digital repositories, and electronic learning platforms, many rural institutions continue to face shortages of computers, internet connectivity, software, and trained faculty. This unequal access to technological resources creates disparities in practical learning experiences and widens employment inequalities among graduates.

Finally, the study highlights the need for stronger collaboration between universities, government agencies, professional associations, and industry partners. Such partnerships can facilitate internships, faculty development programmes, curriculum revision, research collaboration, and continuous professional education, thereby improving the overall quality and relevance of LIS education in India.

10. FINDINGS OF THE STUDY

The major findings of the study are summarized as follows:

1. Indian LIS education has expanded rapidly in terms of institutional growth; however, educational quality has not improved proportionately.
2. Existing curricula remain predominantly theory-oriented and inadequately incorporate emerging digital technologies, artificial intelligence, and data management.
3. Graduate production substantially exceeds available employment opportunities, resulting in unemployment and underemployment among LIS professionals.
4. The absence of a dedicated national accreditation authority has resulted in considerable variation in programme quality across universities.

5. Significant disparities exist between urban and rural institutions regarding ICT infrastructure, digital laboratories, and internet accessibility.
6. Professional salary structures remain comparatively less attractive than those of other knowledge-based professions, discouraging talented students from entering the field.
7. Limited collaboration between academic institutions and employers reduces opportunities for practical training, internships, and skill development.
8. Curriculum modernization, technological integration, faculty development, and quality assurance are essential for strengthening LIS education in India.

11. CONCLUSION

The training system for library professionals in India stands at a historical turning point. The rapid, uncoordinated expansion of university programs without uniform quality benchmarks has created a highly broken market, flooded with underemployed graduates who lack the modern technical skills required by modern automated libraries. This deep crisis cannot be solved with minor, superficial tweaks. Academic departments, professional associations, and government policy makers must take collective, decisive action. By enforcing strict quality controls through national accreditation, restricting student enrollment to match real-world library job counts, and investing heavily to upgrade underfunded rural classrooms, India can fix these structural flaws. Only through a comprehensive, technology-driven overhaul can Indian library graduates regain their competitive edge and lead the nation forward into the global digital economy.

12. SUGGESTIONS

Based on the findings, the following recommendations are proposed:
1. Establish an independent National Accreditation Council specifically for Library and Information Science education.
2. Revise LIS curricula periodically by incorporating artificial intelligence, digital libraries, cloud computing, research data management, big data analytics, cybersecurity, and digital preservation.
3. Strengthen practical training through compulsory internships, industry collaborations, and project-based learning.
4. Increase government investment in ICT infrastructure, particularly in rural and underdeveloped educational institutions.
5. Introduce continuous faculty development programmes focusing on emerging technologies and innovative teaching methodologies.
6. Develop stronger partnerships among universities, libraries, government organizations, and private information industries.
7. Align student intake with national manpower planning and labour market requirements.
8. Improve professional salary structures and career advancement opportunities to attract talented students.
9. Promote online learning platforms, virtual laboratories, and resource-sharing networks among educational institutions.

10. Encourage interdisciplinary research integrating information science, computer science, artificial intelligence, and knowledge management.

13. IMPLICATIONS OF THE STUDY

The present study has important academic, professional, institutional, and policy implications.

Academic Implications

The study provides a comprehensive framework for redesigning Library and Information Science curricula according to contemporary technological developments and global educational standards.

Professional Implications

The findings emphasize the necessity of equipping future library professionals with advanced digital competencies, leadership abilities, research skills, and technological expertise required in modern information environments.

Institutional Implications

Universities should prioritize infrastructure development, curriculum modernization, faculty training, and quality assurance mechanisms to enhance educational effectiveness and graduate employability.

Policy Implications

Government agencies, the University Grants Commission (UGC), and professional organizations should formulate national policies promoting accreditation, standardized curricula, equitable funding, digital infrastructure, and employment-oriented educational reforms.

Social Implications

Strengthening LIS education will improve access to digital knowledge resources, support lifelong learning, reduce regional educational inequalities, and contribute to India's transition toward a knowledge-based digital economy.

14. FUTURE SCOPE OF THE STUDY

The present study provides several directions for future research:

1. Empirical studies may evaluate the effectiveness of revised LIS curricula in improving graduate employability.
2. Comparative international studies may examine accreditation systems adopted by countries such as the United States, United Kingdom, Australia, and Canada to identify best practices applicable to India.
3. Future research may investigate the role of artificial intelligence, machine learning, blockchain, and big data technologies in transforming library education and services.
4. Longitudinal studies may assess the long-term impact of digital infrastructure development on educational quality and professional competency.
5. Research may explore employer perceptions regarding competencies required for future library professionals.
6. Quantitative studies involving students, faculty members, employers, and policymakers may validate the theoretical framework proposed in this study.

7. Future investigations may examine the effectiveness of online, hybrid, and competency-based learning models in Library and Information Science education.
8. Studies focusing on rural institutions may identify sustainable strategies for reducing the digital divide and promoting equitable access to quality LIS education.

These future research directions can contribute to the development of a globally competitive, technologically advanced, and employment-oriented Library and Information Science education system in India.

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