ISSN: **3107-6513**

Building Skills for a Developing World in 21st-Century Library and Information Science (LIS) Education

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Abstract:

The study focuses on Library and Information Science (LIS) education in India. In India, traditional libraries and digital libraries currently coexist. India's LIS curriculum is still not adapting to the new positions. Students have not gained the crucial information technology-related knowledge and abilities from library institutions. Because of their expertise, Library and Information Science (LIS) professionals serve as a conduit between readers and information resources. The library follows the laws and regulations within the profession when acquiring and processing resources. Furthermore, there are drawbacks to these norms and restrictions. They are learned in the academic setting, where they are taught how to manage library information resources so that patrons can access them with ease. Cataloging, classification, indexing, inquiry work, user education training, facilitating, and assessment skills are among the fundamental abilities typically linked to library and information science. Depending on their library area, an information professional may have a range of these skills. Information technology skills, including word processing and spreadsheets, digitization, and internet search capabilities, as well as proficiency with loan systems, computer databases, managing content, and specially created programs and packages, are some crucial cross-sector competencies that are changing in the twenty-first century. Additionally, there are soft skills like time management, negotiation, and dispute resolution that are applicable to all encounters at work. Because of this, learners from LIS programs are not very competitive in the information industry. The paper talks about the difficulties of teaching LIS in India. It addresses the cooperation & resource sharing between institutions of librarianship as well as educating LIS professionals for managerial and leadership positions to promote India's economic and national development. Additionally, it covers job opportunities for LIS professionals, the abilities required, the influence of LIS education on graduates' work and careers, the recent emphasis on e-learning in LIS courses in India, and the ongoing professional growth of LIS professionals. It is essential for librarians to have the skills required to operate in a specialized job in the cutting-edge era of information technological advances, when client needs and equipment are changing quickly. Library and Information Science (LIS) education should therefore include contemporary information processing abilities to ensure the profession remains valid in the rapidly evolving 21st century.

Keywords: Library and Information Science (LIS) education, 21st century India

1.0 INTRODUCTION

The quick developments in technological advances, data access, & user expectations have resulted in major modifications to Library and Information Science (LIS), or library and information science, education. Librarians' conventional responsibilities are growing to encompass skills in data curation, technology integration, and digital information management. Library and Information Science (LIS) education must change to prepare graduates for the ever-changing demands of the technological landscape.

This study examines the situation of Library and Information Science (LIS) learning and professional growth today, highlighting significant developments, obstacles, and chances that influence the field. The development of the abilities and proficiencies necessary for efficient information management and delivery depends heavily on Library and Information Science (LIS) education. Given the widespread use of digital

ISSN: **3107-6513**

resources and information technology, library personnel must possess both fundamental knowledge and useful skills to serve various user demographics. Additionally, ongoing professional development, or CPD, is essential for keeping librarians up to date on the latest developments and industry best practices. Education in library and information science, or Library and Information Science (LIS), is essential to meeting the demands of an advanced information environment.

A revolutionary approach to Library and Information Science (LIS) training and development for professionals is required in light of the rise of digital technologies, changing user expectations, and the expansion of information sources. Library and Information Science (LIS) curricula, which historically concentrated on cataloguing, classification, and reference services, now need to include a broad range of abilities and knowledge that correspond with current procedures in data curation, information management, and user interaction. This change is a reflection of both the digital age's technological breakthroughs and libraries' evolving roles as hubs for information access, community involvement, and education for a range of demographics.

In the last few years, libraries have become much more important. They are now vibrant hubs for education, creativity, and cultural preservation rather than just holding books. The need to adapt to a rapidly digitalizing culture where knowledge is accessible drives this transformation. Because of this, Library and Information Science (LIS) professionals are required to have a broad range. As we confront the problems of the digital age, it is important that Library and Information Science (LIS) education keep up with the changing world of information. These credentials will help library professionals develop a culture of creativity, teamwork, and lifelong learning.

The fact that information literacy is becoming a basic skill for everyone shows how important it is to pursue a strong Library and Information Science (LIS) education. Finding, assessing, and using information efficiently are all parts of information literacy, which is crucial at a time of misinformation and information overload. Librarians are particularly suited to spearhead information literacy programs, but doing so calls for a strong educational background that affords them the pedagogical know-how and abilities they need.

Library and Information Science (LIS) courses must embrace the values of diversity, equity, and inclusivity as library services place a greater emphasis on user-centered approaches. Another essential element of Library and Information Science (LIS) education is professional development (PD), which guarantees that librarians stay knowledgeable and flexible in a field that is evolving quickly. For library workers, who need to continuously improve their knowledge and abilities to keep up with changing user demands and technology breakthroughs, lifelong learning is crucial.

Initiatives for Continuing Professional Development (CPD) afford librarians the chance to participate in workshops, networking, and training, which promotes cooperation and knowledge exchange among professionals. However, these programs' efficacy hinges on how well they match practitioners' real needs, which calls for constant monitoring and evaluation. Furthermore, it is impossible to ignore the worldwide significance of Library and Information Science (LIS) education. The necessity for cross-border cooperation and the sharing of best practices is increasing as libraries everywhere face comparable difficulties. By enabling professionals and students to gain knowledge from various experiences and methodologies, this global viewpoint enhances Library and Information Science (LIS) education.

International Library and Information Science (LIS) program accreditation and standards can also improve educational quality and guarantee that graduates have the abilities needed to succeed in a competitive labour market. Given these considerations, the purpose of this case study is to examine the present status of Library and Information Science (LIS) educational and

ISSN: 3107-6513

professional growth, with an emphasis on determining practical methods for improving the abilities and proficiencies of library professionals.

This study aims to add to the ongoing conversation about the potential future of Library and Information Science (LIS) education and its role in forming the next generation of library professionals by looking at the nexus of practice, education, and professional development. The results will offer insightful information about how Library and Information Science (LIS) schools can better equip graduates for the possibilities and challenges that await them in the rapidly changing information services industry.

This study will shed light on the future directions for Library and Information Science (LIS) education by thoroughly examining curricula, professional development programs, and the viewpoints of practitioners and educators. This will guarantee that Library and Information Science (LIS) education stays current and responsive to the demands of library professionals as well as the populations that they serve. As we deal with the problems of the digital age, it is important that Library and Information Science (LIS) education stays up to date with how information is changing. This will help library professionals develop a culture of creativity, teamwork, and lifelong learning.

1.1.THE HISTORICAL ERA

India is the largest democracy in the world, home to 1.1 billion people, and has 620 million young, energetic workers. India has a demographic edge as a quarter of the world's youth live there, and the economy is expanding quickly, on track to reach 9.2 percent of global GDP in 2007. Together with China, the country is changing the balance of power in the world by moving from serving as an observer to an active player. Reminiscent of Western countries, this new India emphasizes outsourcing, IT improvements, and a growing middle class. The nation is experiencing an unparalleled economic boom, but it is also dealing with the sharp differences between its more developed and less developed areas. As a knowledge society emerges, libraries are becoming venues for knowledge-based services due to the development of information and communication technologies. Library workers are encouraged to proactively adjust to changing societal demands, enhancing India's potential to become a major player on the world stage and a place full of opportunities for the future.

As the need for professional librarians increased in the early 20th century, library schools started to appear, marking the beginning of the development of Library and Information Science (LIS) education. Library and Information Science (LIS) programs gradually broadened their curricula to cover a wider range of topics, such as information retrieval, reference services, and computer technology, after initially concentrating on cataloguing and classification. Library and Information Science (LIS) education has changed over the years due to the proliferation of digital content, the advent of the internet, & user-centric library services, which calls for a constant review of curricula and instructional strategies. These days, Library and Information Science (LIS) programs aim to strike a mix between modern capabilities in technology and information management, along with user engagement and conventional library skills. The complicated and extensive background in library and information science (LIS) education reflects the changing requirements of society, the nature of libraries, and information practices. Though its roots are in ancient library practices and traditions, Library and Information Science (LIS) emerged as a separate discipline of study in the early 20th century.

1.2. INITIAL DEVELOPMENTS

The dynamic environment of the twenty-first century requires library schools to use information and communication technology to support contemporary knowledge-based society. They ought to concentrate on creating cutting-edge curricula and turning out qualified library and information workers who can compete on a global scale. Every institution needs to have a concise mission and vision that encourages a dedication to excellence in training and research. The University Of Texas School Of Information is a great example of these institutions because it stresses the

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importance of global involvement and human-centered values in information practices. The management and faculty of library schools should have a global perspective to meet world-class standards. They should also consistently align their resources and initiatives with their fundamental beliefs and objectives while remaining flexible to adapt these statements as necessary. This shared vision will inspire a strong dedication to the enhancement of library instruction by directing staff, teachers, and students to Melville Dewey founded the first library school in 1887, but since then, library education has changed significantly. The phrase "School of Library Economy" has evolved into the acronym "School of Library and Information Science." This evolution is attributable to technological breakthroughs and multidisciplinary integration with disciplines such as computer science and knowledge strategy. The emphasis on user-centered courses, growing information technology integration in curricula, flexible programming, and an expansion of degree programs at all academic levels are some of the major trends impacting the fields of library and information science (LIS) education. Institutions in Nigeria that teach professionals for the evolving library landscape are expanding, indicating the ongoing development of LIS education in that country. Ancient civilizations, including Mesopotamia, Egypt, & Greece, established Library and Information Science (LIS) formal libraries, which became the basis of Library and Information Science (LIS) education. Scribes and academics were responsible for organizing and preserving the manuscripts in these early libraries, which functioned as knowledge stores. However, the idea of library education did not start to take shape until the 19th century. The rise of public libraries within the US and Europe brought attention to the demand for qualified experts in collection management and curation. Melvil Dewey founded the Columbia School concerning Library Economics, which was the country's first library school, in 1887. Prominent educator and librarian Dewey promoted the scholarly nature of library duties and developed the idea of library education just as a way to prepare people for jobs in librarianship. Early Library and Information Science (LIS) education was based on Dewey's theories, which highlighted the value of cataloging and classification, along with user services.

1.2.1. DEVELOPMENT IN INDIA: A PROSPECTIVE

First recognized at the University of Pittsburgh in 1964, Library and Information Science (LIS) is a combination of library and information science. In the 21st century, LIS adopted the title "information science" to emphasize the merger of other fields, reflecting its global evolution over decades. Dewey founded the Harvard Graduate School of Library Economic Studies in 1883, marking the beginning of LIS education. Important advancements in India were the construction of libraries and training schools for librarians. In particular, Dr. S.R. Ranganathan established India's initial master's program in library science in 1937, which paved the way for LIS departments to spread throughout institutions starting in the 1950s.

1.2.1.1 Indian LIS education

In the 1960s, two documentation schools were offering associateship-level courses toward the end of the 1960s. The Indian government recognized the Indian National Scientific Documentation Center (INSDOC) in 1961 and the Documentation Research Training Center (DRTC) in 1968. Both institutions have all the infrastructure and personnel they need. Furthermore, the trainees receive sufficient exposure to seminars, including special lecture programs, workshops, refresher courses, and annual seminars.

1.2.1.2. The 1970s and LIS Education

The 1970s saw a general increase in awareness of professional settings and learning environments, the underpinning of resource-based universal collaborative information systems such as DEVIS, INIS, and AGRIS. The mid-1970s saw a shift in the nomenclature of "library science" to "library & information science," with a greater emphasis on information sources and associated subjects in LIS courses. In 1978, Delhi University began offering M.Phil. Programs in library science, which served as a transitional program between M.Lib.Sc. and PhD programs.

1.2.1.3. The 1980s and LIS Education

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Some universities, like M.L. Sukhadia University, Kashmir University, and Punjab University, expanded their official teaching programs in the 1980s. They started offering correspondence courses at several levels, such as diploma and certificate programs. Madras University started offering postgraduate courses. Andhra Pradesh Open University began offering degree programs in 1984. The Indira Gandhi National Open University (IGNOU) in New Delhi launched BLIS in 1989. Through its BLIS, MLIS, PhD, & PGDLAN (one-year postgraduate diploma course), IGNOU has established a new setting for LIS education. Finally, the employment of computer systems in libraries marked the beginning of professional development. The mechanisms for gathering, storing, and retrieving information are accessible electronically. The LIS curriculum saw numerous revisions throughout this decade.

1.2.1.4. LIS Education from the 1990s to the Present

India had a computer system in the 1990s. All types of information are now available in "e," or electronic, formats, such as e-books, e-magazines, and e-journals, thanks to the expansion and influence of ICT. This trend has caused the function of libraries to shift from the traditional to the digital era and from the traditional to the hybrid library. The telecommunications revolution in the mid-1990s impacted the library industry, from 1G to 4G. Information technology (IT) studies in a variety of theoretical and practical contexts, including Foundations of Information Technology, Application of IT in Libraries along with Academic Information Resources, Computer Networking, Web-Based Libraries, Internet along with Electronic Publishing, Technology for Knowledge Management, and Library Automation, have received increased attention. Significant advancements in the discipline of LIS education occurred between the 1990s and the 21st century. In the twenty-first century, users needed digital information in an electronic format to meet their needs.

1.2.1.5.1. Library and Information Science Education

These days, many colleges and institutions offer a broad range of programs in library and information science as well as associated subjects. Each offers a range of concentrations and experience levels, from certificate courses to Ph.D. degrees. Currently, India offers the following LIS courses: LIS (C.Lib.Sc.) certificate course, LIS diploma, Health Science Librarianship diploma, Digital Library and Data Management diploma, Information Technology diploma, Archives and Documentation Management diploma, B.Lib.Sc./BLIS (five years of combined library and information science courses), MLIS (Master of Library and Information Science), MSc in Library and Information Science, PGDLAN (Post Graduate Diploma in Library Automation and Networking), M.Phil. (Master of Philosophy in Library and Information Science), PhD (Doctor of Philosophy in Library and Information Science), and D.Litt. in Library and Information Science.

1.2.1.5.1.1. Certificate program in library and information science: Some colleges provide a certificate course for one year of library and information science called the Diploma in Library Science (D. Lib.). People may apply for this course after matriculating; however, some other colleges also demand 10+2 as a prerequisite.

1.2.1.5.1.2. Library Science Diploma Program: Polytechnic colleges usually initiate this three-year program. To enroll in the course, you must have a high school graduation. After gaining a comprehensive academic understanding of the subject, students can train as interns.

1.2.1.5.1.3. B. Lib. /BLIS: The aforementioned one-year bachelor's degree scheme teaches the foundational understanding of the field. Students must have graduated in any subject to participate in this course. In the past, it was recognized with an undergraduate Bachelor of Library and Information Science degree. Some universities now include a substantial portion of information science in their courses; numerous schools provide a three-year, honors Bachelor of Library and Information Science program.

1.2.1.5.1.4. M. Lib. /MLIS: Students can enroll in a one-year master's degree following a B. Lib. as well as a BLIS. The course provides extensive

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understanding about the skills and processes of the subject. The course for the Master of Library Science has a new name. However, institutions that include a significant element of information science in their curricula refer to the study as library and information science.

1.2.1.5.1.5. MLIS (Integrated): Students enroll in an integrated two-year program following graduation. Some universities have merged their master's and bachelor's degree programs in library and information science through a single, integrated course. Some universities have referred to this as a master's program in library and information science, while others that provide sufficient information science courses have categorized it as a master's program in library science.

1.2.1.5.1.6. PGDLAN: This one-year postgraduate diploma program focuses on networking and library automation. It develops the sophisticated and scientific skills required to use computer programs for routine housekeeping duties in libraries.

1.2.1.5.1.7. Master of Philosophy (M. Phil.): This one- or one-and-a-half-year program focuses on research and comes after a master's degree. The focus of this specialized postgraduate degree is academic study and investigation in the field of library and information science. The M. Phil. program offers students the opportunity to conduct original research while thoroughly exploring specific LIS areas of interest in collaboration with academic mentors. In December 2027, the University Grants Commission (UGC) ended the Master of Philosophy (M.Phil.) program.

1.2.1.5.1.8. Doctor of Philosophy (Ph.D.): The highest academic degree awarded in the field is the Doctor of Philosophy (Ph.D.), which signifies mastery of sophisticated study and intellectual investigation. In addition to conducting original research and publishing publications that further the profession's understanding, doctoral candidates in library and information science also showcase their abilities in dissertations that substantially contribute to the body of knowledge in the field.

1.2.2. ADOPTION OF DIGITAL LITERACY AND TEACHING IN DIGITAL ERA

The adoption of digital literacy has fundamentally altered the landscape of higher education. Every educational establishment is working to advance e-learning. We may refer to this era as the "digital revolution" in the Indian educational system since new technology will soon radically alter the landscape of higher education. The purpose of the National Mission on Education through ICT (NMEICT) is to enhance the quality of education via the use of ICT and to convert its potential into more learning possibilities. The NMEICT has made remarkable progress over the past three years, following the expansion of information technology that enabled a transformation in the higher education landscape. The Indian government has implemented numerous programs as part of the digital revolution in education, such as Study Webs of Interactive Learning for Young Aspiring Minds (SWAYAM) and SWAYAM Prabha: the 32 Academic DTH Channels. The National Academic Depository (NAD), the National Digital Library (NDL), e-Shodh Sindhu, virtual labs, e-Yantra, campus connectivity, speaking with a teacher, e-Acharya, and e-Kalpa Digital India; NPTEL (National Programming in Technical Education Learning); VIDWAN; Central cloud infrastructure; and the Free and Open Source Software for Education (FOSSEE) Shodh Ganga (Indian Thesis Repositories) Shodh Gangotri (Research in Progress Repositories) The Spoken Tutorial, e-PG Pathshala, and the Development of Library Network (DELNET) are all important components of library services.

1.2.3. LIS'S FUNCTION INSIDE THE INDIAN EDUCATIONAL FRAMEWORK

More people are increasingly acknowledging the significance of libraries as a social agency for the advancement of contemporary society. The development of libraries must follow the right procedures to meet these expectations. A nation's ability to grow and develop depends heavily on its educational system. Following independence in 1947, the Indian government took a number of steps to modernize the system and make it more pertinent to the requirements of the country. The government recently drafted a new education strategy that called for numerous reforms to the

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educational systems. The library's primary function is to foster an educational atmosphere and inspire reading among academics, researchers, and students. The library serves as a dynamic educational tool in addition to being a repository for books and reading spaces. Everyone who enters the library is welcome to read. The finest place to change our naive notions is the library. The library's resources are essential for supporting academic research initiatives in addition to the curriculum. It is important to arrange the collections such that their topic matters are accessible. To foster a library atmosphere, the library ought to hold orientation programs. To accomplish the university's goals, faculty members and professional staff should work together in every manner imaginable. LIS is introducing new multidisciplinary courses and teaching innovative approaches to information service delivery in the Indian educational system.

1.2.4. IMPORTANT LIS COMMISSIONS AND COMMITTEES

Education Both before and after independence, the government appointed numerous committees and commissions to overhaul the educational system. Specifically created to help the government fulfill its constitutional duties, the University Grants Commission (UGC), AICTE, CBSE, ICSE, and MHRD are the most significant statutory, advisory, and executive bodies. They have been instrumental in enhancing college, university, and school libraries. Occasionally, the government establishes various committees and commissions to further the library's development. Under the direction of Dr. S.R. Ranganathan, the UGC program (commission) established the Ranganathan Commission, which consisted of the Library Committee (1957–59) and the Review Committee (1961–65). Under the direction of K. P. Sinha, the Govt. of India established an advisory group in 1957. In 1959, the committee submitted its report, which included the draft of the Model Public Libraries Bill. On the basis of the working group's suggestions, the commission created the Model Public Libraries legislation in 1965. Prof. D.P. Chattoapadhyaya was appointed head of the National Policy on the Library and Information System (CONPOLIS) committee, which the Indian government established in 1985. He is advised to improve the country's public library system. The Committee on the National Network System with Universities and Libraries was chaired by Dr. N. Seshagiri in 1988. The years 1990 and 2001 saw the formation of two curriculum development committees. Prof. P. N. Kaula headed the first one in 1990, and Dr. C. R. Karishiddappa chaired the second one in 2001. The second group proposed a two-year integrated course in library and information science, and the first committee had structured the curriculum. Professor P.N. Kaula chaired the Kaula Committee, which released the report in 1993 under the title "Report to the curriculum development committee for library & information science." The 2001 publication of the Karisiddappa Committee detailed the committee's work on ICT sector redesign, which directly affects libraries. "Libraries as the entrance to knowledge" was the title of the 2005 report from the National Knowledge Commission.

1.2.5. DEVELOPMENT OF LIS PROFESSIONALISM AND COMPETENCIES

LIS professionals have a significant role in supporting academic society in the higher education system of the twenty-first century. They play a crucial function in the libraries. They are constantly worried about how important it is for students, researchers, instructors, and professors to have access to educational materials. They should acquire a range of professional abilities to run the organization and lead workshops to create a positive library atmosphere. By developing their competencies, librarians and other library professionals may effectively respond to user requirements using emerging technologies. India has a well-advanced educational system as a result of the libraries' efforts. Teachers and library and information managers in India are actively involved in planning a range of professional gatherings and specialized training courses. LIS professionals need to take action to increase organizational capacity by using effective management skills, training, and approaches. The ability to disseminate a collection of complementary expertise, abilities, and skills that

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enable outcomes to carry out "essential work functions" is known as competence.

1.2.5.1. Competency: Competency is defined as the ability to perform a task efficiently. Competencies are pertinent to a person's tasks, responsibilities, and talents at work. In general, there are two categories of competencies: functional and behavioral. Effectiveness usually requires a combination of both talents. Functional competencies are referred to as technical abilities, whereas behavioral competencies are typically referred to as soft skills. The key to overcoming the development obstacles in the communist society is regular exercise in our life competencies. Competency determines whether an individual or institution succeeds or fails.

1.2.5.2. Skills and competencies: Skills and competencies are the fundamental components of personnel management. The traits of a person that influence their performance and conduct at work are known as their competencies. The primary pillars supporting an organization's mission and planning are its skills, talents, aptitude, and behavior. The competencies can significantly contribute to the development of the library environment. Competencies can be broadly useful in the following ways: enhancing challenging connections, reorienting the focus towards improving the library environment, promoting continuous professional education programs, and implementing crucial directives, all of which can significantly contribute to the development of the library environment. Establish an atmosphere and culture of open learning.

1.2.6. LIBRARY PROFESSIONAL SKILLS

Professionals working in libraries should possess the skills necessary for the acquisition process, document classification, cataloguing, user index and abstract creation, bibliography creation, and other fundamental tasks. The preservation of library items is another area where professionals need to possess a minimum level of expertise. Library professionals also need certain managerial abilities, such as time management, financial management, and human resource management, to ensure the proper operation of the library. The use of ICT in various library areas, such as automation, digitization, digital library creation and management, library security, social media use, e-resource access and use, e-resource preservation, etc., has completely altered the landscape of libraries and information services. Professionals working in libraries must enlighten patrons about the services and resources offered so that the advantageous resources can meet their information needs. As a result, they ought to practice communication both conventionally and with various ICT technologies. Several national and international apex bodies have been involved in enhancing the abilities of LIS students.

1.2.6.1. LIS students' skill development: The Guidelines of IFLA Established in 1927, the International Federation of Library Associations and Institutions (IFLA) is a prominent worldwide professional organization that released "Guidelines for Professional Library/Information Educational Programs." The most recent edition of this publication, released in 2012, underwent its latest revision on September 22, 2015. The purpose of these standards is to provide library and information science/education (LIS) schools worldwide a set of preferred practice guidelines to follow when creating and implementing their curricula. The most recent guideline focuses on the abilities of LIS students, as noted by IFLA (2012). "Teaching and assessment methods should be geared to improve or increase students' communication abilities and ability to work in teams & manage time and duty skills," the guideline states. Developing students' analytical and problem-solving abilities should be a top priority at the professional level. Additionally, this guideline notes that teaching and research staff members must possess leadership skills.

1.2.6.2. UGC's strategy for LIS students' skill development: The University Grants Commission, also called UGC, India's primary regulatory body for higher education, has concentrated on several areas to improve the overall effectiveness and caliber of the system. Under the direction of Dr. S. R. Ranganathan, the "Ranganathan Committee on Development of University & College Libraries" was established in 1957, and its report was released

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in 1965. Under the direction of Dr. S. R. Ranganathan, the UGC once more established a committee in the early 1960s to examine the quality of research and instruction in Indian universities. In 1965, this committee delivered its recommendations to the UGC, and the majority of Indian universities' curricula that taught library science were created in accordance with it. To revamp the LIS curriculum at Indian universities, the UGC established the Curriculum Development Committee (CDC) in the early 1990s, with Prof. P. N. Kaula serving as its head. The Curriculum Development Committee of Library & Information Science published the Kaula committee's report in 1993. The UGC once more established a CDC according to the chairmanship of Prof. C. R. Karisidappa in 2001 as a result of the ICT sector's rapid development and its application to library and information science. To help students enhance their skills, this report emphasized the importance of integrating ICT within the LIS curriculum. Higher education institutions in India are required under the most recent UGC rules on the Choice Based Credit System (CBCS) to offer students the choice to choose from elective and minor as well as soft skill courses in addition to the required courses. Students can choose the courses they want to take and embrace an interdisciplinary approach to learning thanks to this system. These bodies' guidelines and suggestions have led to the proposal of two methods for LIS students' skill development. The methods—inter-institutional and interdisciplinary—might be the best means of enhancing their skill sets.

1.2.6.3. LIS students' skill development: A strategy The LIS curriculum should identify and contain the fundamental skills needed to prepare LIS students for the problems faced by library professionals. Since LIS professionals need a variety of abilities, collaborating with departments and institutions outside their parent department may be a solution. There is a plan in place for teaching the students using an inter-institution and interdisciplinary approach.

1.2.6.4. LIS students' skill development: an interdisciplinary approach the term "interdisciplinary approach" refers to a method of skill development for students that involves sharing knowledge between other teaching departments. This approach's fundamental features are as follows: regular students; examination-based; long-term program; interdepartmental in nature; regular course/curriculum-based; and theoretical/practical oriented. This interdisciplinary approach is crucial for the LIS course since it allows LIS students to gain the following professional and technical abilities in accordance with the UGC's suggested CBCS. A learner may benefit from this kind of approach in any kind of library.

1.3. ENCOURAGE A FRESH EDUCATIONAL INITIATIVE.

Utilize new technologies for instruction in an adequate manner. Manage your time well. Assemble a conceptual structure. Assemble the necessary equipment, manuals, handbooks, cautions, and recommendations, among other things.

Keplan (2000) discusses the development of strategy and vision.

1.3.1 Strategies and tactics for developing competency

It takes various approaches and strategies to accomplish the intended results. These are a few of the approaches/strategies discussed for carrying out competency-building initiatives. A structured training program the approaches include technical expertise and direction, mentoring, tutoring, and observation or shadowing.

1.3.2 Various abilities for developing proficiency

To establish a positive library environment in the twenty-first century, library staff need to be trained in a variety of abilities.

1.3.2.1 Technical proficiency

To develop a library environment, LIS professionals need to be aware of the many technologies available. An LIS professional in the modern world should be knowledgeable about networking, OPAC, various open- or licensed-source software programs like KOHA, Libsys, SOUL, DSpace, e-Print, etc., as well as LAN, MAN, WAN, HTML, and telecommunication media. They should also be familiar with the various library networks, such as INFLIBNET, DELNET, and CALIBNET, among others. In the

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library environment of the twenty-first century, technical proficiency becomes essential.

1.3.2.2: The ability to manage time

"Save the time of the users/readers" is the fourth law of library information science, according to S.R. Ranganathan. That law states that for LIS professionals, time is more crucial. Effective planning, allocating, goal-setting, delegation, time-spending analysis, monitoring, organizing, and arranging activities are all necessary for LIS professionals to deliver information products to users on time.

1.3.2.3: The ability to present

A library professional with strong presenting skills should introduce new services or technologies for library patrons. They ought to offer a program to raise awareness about information literacy.

1.3.2.4 The ability to communicate effectively with professionals in libraries is essential

Ability to communicate Professionals in libraries must have strong communication skills. They politely convey information to the users. They always pay close attention to the user's issue and then utilize effective communication to address it. They might also be able to interact practically with publishers, dealers, and customers.

1.3.2.5. Managerial competence

To oversee the many departments within an organization, LIS professionals need to possess managerial skills. To manage libraries effectively and adaptably, one must possess the ability and capacity to do so through conscious, methodical, and persistent effort.

- Time management is one managerial skill.
- Management of planning and problem-solving
- Management of networking
- Self-assurance and stress reduction
- Information centers for TQM libraries

1.3.2.6 Confidence in lifelong learning

A library professional ought to possess their own set of professional attributes.

- Identifying suitable materials for clients' needs and capabilities is one of these attributes.
- Outstanding comprehension of the current issue.
- Computer proficiency and language acquisition

1.3.2.7: The ability to preserve

Preservation abilities are essential in today's digital world. LIS professionals should become proficient in digital security and preservation. LIS professionals should be familiar with various antivirus programs, including Bitdefender, Avast, and Malwarebytes, to protect and ensure the security and safety of electronic resources.

1.3.3. 21st-century LIS professionals' proficiency

The system for libraries evolved from manuscript libraries to virtual libraries and finally cloud libraries. The library personnel and librarians must overcome new obstacles in order to adjust to the quickly evolving library environment. The changes primarily affect the growth of collections, personnel, services, content management, finances, organization, and professions within libraries. ICT has drastically changed how libraries operate, transforming them from traditional to hybrid. Users can obtain information from the library personnel in both classic and modern formats. To meet their needs, individuals during the 19th century turned to books, manuals, reference materials, articles, and print periodicals. Since more information sources are now accessible through e-databases and search engines like Google, Yahoo, Google Scholar, and others, user needs have grown. Below is an explanation of the role that LIS professionals play in both the traditional and modern eras.

1.3.3.1. The typical era role of LIS professionals

In the many library departments, such as the acquisition, cataloging, classification, and periodical sections, as well as other divisions as needed, the librarian & his assistant staff carry out their tasks. Recognize and identify the various ways the library obtains books. Purchase books, journals, and periodicals from the appropriate suppliers based on user and management authority recommendations. Report publisher catalogs to faculty members for book recommendations. Share recommendations for various titles and print periodicals needed for the syllabus with the teaching staff. Create a budget for the acquisition of various library resources and equipment. I monitored the acquisition of appropriate print and digital resources.

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1.3.3.2. The function of LIS professionals in the contemporary period

Give users quick access to information in various electronic formats. Determine the demands of the users and acquire the information resources they require. Provide readers with e-books, online journals, and other digital publications based on their demands. Provide internet access and subscribe to online journals, e-books, and databases so that people can use them to learn more. Use library software to automate the library and give patrons quicker access and reference services. Assist customers with resource sharing and offer networking capabilities through the OPAC service. Create a library website that provides links to resources so users may obtain information from many sources.

1.3.4. THE FORMATION OF SCHOOLS WITH LIBRARIES

Following Columbia University, several other library schools emerged in the US and Europe. In 1893, the University of Illinois opened a library school, and the University of Washington did the same in 1901. These educational establishments combined classroom instruction with hands-on library experience, emphasizing both theoretical knowledge and practical training. The American Library Association (ALA) started certifying library schools in 1910, establishing guidelines for Library and Information Science (LIS) instruction and guaranteeing a certain caliber of training courses. This accreditation procedure was essential in making library instruction a recognized academic discipline and giving the profession more legitimacy. By placing a strong emphasis on research and the creation of a scientific approach to library studies, the University of Chicago Library School also made a substantial contribution to the development of Library and Information Science (LIS) education.

1.3.5. CHANGES IN THE MIDDLE OF THE TWENTIETH CENTURY

Library and Information Science (LIS) education saw tremendous expansion and change in the middle of the 20th century. Information access and management underwent a transformation with the introduction of new technologies, such as microfilm, audiobooks, and eventually computers. As a result, library schools began to change their curricula to take advantage of these new technologies. Information science became a separate field of study within Library and Information Science (LIS) education in the 1960s. The exploration of information structure, retrieval, and function in society became more important than just library administration. In response to the evolving demands of libraries & their patrons, programs have started to investigate the link between information and technology. Founded in the year 1970, the Association for Library and Information Science Education (ALISE) aims to advance and enhance instruction in library and information science. This group advanced the subject by giving educators a forum to exchange research, curriculum creation, and best practices.

1.3.NATIONAL KNOWLEDGE COMMISSION

With several encouraging suggestions, the National Knowledge Commission illustrates the importance of improving library education in India. Building a national mission on libraries, improving instruction in Library and Information Science (LIS), promoting research, and building advanced training facilities are some of the main recommendations. The research also recommends a 1:10 teacher-to-student ratio, an evaluation of the need for additional staff, and better teaching facilities, such as computer labs & e-learning materials. It proposes developing a system for assessing and rewarding teaching effectiveness and calls for teachers to receive specialized training in contemporary library practices. William Alanson Borden started the first library school in India in 1911 in Baroda. This was the beginning of professional library education in the country. Library education has changed dramatically over the last century, with substantial developments taking place at the university level, such as the introduction of postgraduate programs. Additionally, the work of Dr. R. Ranganathan has had a significant impact on this discipline. The 1980s saw the incorporation of digital tools into

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library instruction, but at first there was not enough funding or trained faculty. But with the help of the University Grants Commission's (UGC) funding, library schools started to build their own computer labs and update their courses to reflect contemporary needs by the late 1990s. Technology & course offerings have advanced, yet staffing & resource allocation issues continue to occur and have an impact on the standard of library education. Given the critical role libraries play in fostering academic performance, the development of library learning is essential for the larger educational system.

1.4. THE IMPACT OF THE DIGITAL REVOLUTION

Top-notch library schools ought to cultivate an innovative atmosphere that retains a wide range of talent. Achieving a global reputation, preventing inbreeding, and guaranteeing wide representation among staff and students all depend on embracing cultural variety. High recruitment requirements for both professors and students are imperative, along with a unique curriculum that prioritizes the transfer of customs, knowledge, and sound judgment in addition to skills. Library schools must transform into dynamic learning institutions that innovate and adjust to external demands as education changes in tandem with society. Such an evolution calls for a new type of faculty who can support and promote conditions that encourage continuous learning. The creation, storage, and accessibility of information underwent previously unheard-of transformations as a result of the end of the twentieth century's digital revolution. Libraries became information centres with access to a wealth of online resources as a result of the development of the internet & digital technology. As a result, Library and Information Science (LIS) instruction expanded to cover subjects including digital literacy and data management, and various programs for distance learning and online learning in Library and Information Science (LIS) proliferated in the years 1990–2000. Because of this, Library and Information Science (LIS) education became more widely available, allowing people from a variety of backgrounds to pursue jobs in librarianship. Online degree programs have grown in popularity as a way to meet the demands of remote learners and working professionals. Additionally, the increased focus on information literacy and user-cantered services prompted a review of the Library and Information Science (LIS) curriculum. Teachers saw how important it was for library staff to have solid communication skills, educational expertise, and an awareness of user behaviour. Programs started concentrating on educating graduates to work as information educators who could instruct a variety of demographics in information literacy. Information and communication technology (ICT) has a significant impact on library services and instruction, changing the work environment for librarians. Teaching library students how to use these technologies is essential for service delivery, as Web 2.0 turns the World Wide Web into a platform for participation. Tools like blogs and wikis are enabling mass cooperation, which is upending old library roles and fostering new collaborative economies. It is recommended that library schools modify their curricula to incorporate these new digital tools and develop "information empowerment specialists" who are adept at using both electronic and conventional resources. Additionally, the National Knowledge Commission highlights that India's transformation into a preeminent knowledge society depends on expanding access to and production of knowledge. Because of this change, libraries must become online knowledge repositories to remain relevant in the information era.

1.5. CURRENT TRENDS ALONG WITH FUTURE POTENTIAL

As the information environment changes quickly, Library and Information Science (LIS) education is still evolving today. Data science, cloud-based curation, and the use of cutting-edge technology, like machine learning and artificial intelligence, in library operations are some of the current themes. Additionally, Library and Information Science (LIS) education is placing a greater focus on inclusion, equity, and diversity to prepare library workers who can effectively serve various populations. As libraries around the world encounter comparable issues pertaining to budget,

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technology, and user needs, the global setting of Library and Information Science (LIS) education continues to be changing. Worldwide guidelines for Library and Information Science (LIS) education and the sharing of best practices are the results of cooperative efforts between international library groups and academic institutions. The ability of Library and Information Science (LIS) education to stay adaptable and sensitive to the always shifting information ecosystem is what will determine its future. The development of skills relevant to and in line with these new roles must be a top priority for Library and Information Science (LIS) programs as libraries continue to transform into hubs for innovation and community involvement. By encouraging the practice of lifelong learning and adapting to new technology, Library and Information Science (LIS) education may ensure that all future library professionals are competent to address the challenges and advancements of the 21st century. There has been constant adaptation and change throughout the long lifespan of library and information science education. Library and Information Science (LIS) education has evolved from its early foundations in cataloguing and classification to focus on digital competence and user-centered services in order to meet the demands of a more complex information society. To mold future generations of successful library professionals that will take the lead in the constantly changing field of information services, it is imperative that we build on this rich tradition while embracing innovation and teamwork.

1.6. ADAPTING SKILLS BY THE LIS PROFESSIONAL

It is necessary to understand the fundamentals of professionalism and abilities in order to take an examination. Every professional needs certain skills to provide their clients with timely and effective services (Kumar, 2018). Mazumdar (2007) defines skill as the ability or expertise in performance or execution needed for an individual to plan and carry out an action intended to accomplish a specific task or reach certain goals. A competent individual can successfully do any task. A person's skill set can equip them to handle the difficulties that arise in a certain profession due to social, economic, educational, and technological developments. Librarians must therefore possess the necessary abilities to carry out their professional duties efficiently in order to adapt to the constantly evolving library and information science fields. LIS professionals play crucial roles in libraries because they have the skills necessary to obtain relevant information resources and organize them according to the library system. According to Kumar (2018), LIS specialists serve as a conduit between readers and information resources. The library follows the laws and guidelines of the profession when acquiring and processing resources. Furthermore, there are drawbacks to these norms and restrictions. The academic community taught them how to manage library information resources so that patrons can access them with ease. The information handling skills of cataloging, classification, indexing, inquiry work, user education training, facilitating, and assessment are among the fundamental abilities typically linked to library and information science. (Mokhtar and Hashim, 2012).

- Depending on the target audience and the learning environment, various technologies can improve instruction.
- Learning Management Systems (also known as LMS), namely Moodle and Blackboard, are e-learning systems that offer communication tools, course content, and exams.
- Open-source LMSs, which provide flexibility and lower costs, are replacing commercial ones.
- Podcasts are educational audio files that facilitate asynchronous learning and meet the demands of a wide range of students, but if applied improperly, they may result in fewer students attending class.
- Podcasts are accessible from anywhere at any time, improve self-paced learning, and offer resources for different learning styles.
- Blogs serve as online diaries where readers can ponder and debate subjects, encouraging critical thinking and involvement in educational endeavors.
- Blogging can boost student confidence and sense of ownership over their education by promoting blended learning practices,

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increasing participation, and documenting discussions for later review.

Depending on the industry in which they work, information professionals can have a wide range of talents. The following are some crucial cross-sector LIS skills that are changing in the twenty-first century:

a) **IT skills:** IT skills, such as word processing, spreadsheets, digitization, and internet searching, are essential, as is proficiency in databases, loan systems, content management platforms, and specially created programs and packages.
b) **User service:** a database specialist should be able to respond to clients' information requirements.
c) **Proficiency in the language:** Proficiency in the language is necessary to handle the material at hand and attend to client demands.
d) **Soft skills:** They encompass abilities that are helpful in all relationships at work, such as time management, negotiation, and dispute resolution (Wikipedia, 2019).

1.7. TECHNOLOGICAL ADVANCEMENT IN THE CUTTING-EDGE ERA

The rapid evolution of ICTs (information and communication technologies) has caused substantial changes in the knowledge and abilities needed by library and information science (LIS) experts. Librarians must have the skills required to operate in a specialized job in the cutting-edge era of information technological advancement and science, where client needs and equipment are changing quickly. These changes are occurring so quickly that handling information and related concepts requires new abilities and approaches every day (Abotalebi & Biglu 2017). According to Chikonzo, Bothma, Kusekwa, and Mushowani (2014), who referenced Danchak (2012), libraries and librarians should be located where patrons spend the majority of their time. This change in the makeup and nature of library patrons necessitates the identification of new professional competencies and skills that librarians must possess to operate efficiently in the current digital era. In addition to academic capabilities, the dynamic environment of libraries and information centres nowadays seeks to evolve professional skills. The rapid evolution of ICTs (information and communication technologies) has caused substantial changes in the knowledge and abilities needed by library and information science (LIS) experts. It will need another generation of skilled LIS professionals to help bridge the gap in the changed context (Ravi, 2018). Furthermore, Ravi (2018) referenced the National Knowledge Commission (2007), which recommended that libraries serve as "gateways to knowledge." The Commission highlighted the skills necessary to fulfil the evolving role of libraries, including service orientation, ICT knowledge, marketing and presentation skills, interpersonal and training skills, cultural diversity understanding, library and information handling skills, and knowledge mapping skills. In accordance with Ravi (2008), library workers need to be skilled to handle the constantly evolving library and information science fields. The abilities fall into two categories: domain-specific abilities and fundamental abilities, including reading, writing, computer use, critical thinking, and analysis. Planning, organization, handling unfavourable individuals, assertiveness, and dispute resolution are among the managerial abilities that are necessary for the job. One of the most important abilities a librarian must possess to reach the organization's goal is leadership. Setting objectives, fostering teamwork, inspiring people, taking calculated risks, and creating a vision are all examples of leadership abilities. Contextual skills, or operational abilities in a foreign environment or culture, are necessary to accomplish the organizational goals of the library because of the numerous sectional roles, each with its quirks and uniqueness. According to Widén & Kronqvist-Berg (2014), DIK (2011) identified seven crucial areas for LIS professionals to be more efficient. These include educational skills, marketing, reading proficiency, scholarly communication, digitalization, and academic skills. The main topics concentrated on legal competence across the many domains and communication abilities in a variety of methods. Digitalization skills encompass technical proficiency, the ability to interact with IT staff and systems, legal proficiency, knowledge of

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license agreements, and understanding procurement processes. Additionally, reading proficiency requires media and information literacy to accommodate a variety of user groups, including children, multicultural individuals, and individuals with impairments. ICT must therefore be a primary focus for libraries in the twenty-first century. According to Nkanu, Iyishu, and Ogar (2013), these abilities will help those working in library and information science use cutting-edge technology to deliver information resources in an efficient manner.

1.8. ISSUES WITH LIBRARY EDUCATION AND ACCREDITATION IN THE TWENTY-FIRST CENTURY

While some polytechnics continue to offer unaccredited ordinary national diplomas (ONDs) or diplomas in library science, other universities have introduced diploma programs such as diplomas in library science and diplomas in library and information operations (Saka, Garba, and Zarmai 2018). Even some public and private colleges offer LIS degree programs that lack accreditation. As a result, the lack of accreditation for these programs negatively affects students' learning skills. Library school heads problem: the heads of institutions' libraries typically decide how to start library schools in Africa. They typically take action to construct library schools by putting the concept before the institution's management as their term in office draws to a close. With the management agreement, the heads of the libraries at universities, polytechnics, colleges of education, and monotechnics now serve as both the LIS department coordinator and the library head. The head can accept an official appointment to be the head of the new library school and continue to serve as the administrative head of the recently formed department upon retirement. Throughout their careers, some of them worked as practical librarians and lacked sufficient teaching expertise. This circumstance has an impact on the growth of LIS programs in Nigeria in the areas of staffing, physical resource development, curriculum design, development, and implementation, which in turn has an impact on skill acquisition in Nigerian LIS schools, among other things (Saka, Garba, and Zarmai 2018).

1.8.1. The LIS's Changing Character: According to Abubakar (2021), the LIS system is facing certain difficulties in the modern day as a result of the discipline's evolving character. This significant development has a profound and unavoidable impact on LIS education, a crucial sector of the information economy. The difficulties posed by those factors necessitate a review and revision of the curricula at African LIS schools to provide their graduates the knowledge and abilities necessary to thrive in the rapidly evolving information landscape. Low proficiency African library schools lack the necessary resources to help students learn ICT skills. Inadequate computer labs and low ICT proficiency lead to this shortage. Since computers as well as additional information and communication technologies are required to train aspiring LIS graduates, it is critical to remember that the old teaching methods used in African library schools cannot keep up with contemporary developments. Unfortunately, there are not enough computers in the ICT labs at African library schools to accommodate the swarming student body (Saka, 2015).

1.8.2. Position of Staffing: According to Ononogbo (2014) in Saka (2015), the majority of library schools struggle with staffing, particularly at the professorial level. This forces library schools to search for visiting or part-time lecturers. One possible explanation for the phenomenon is that LIS educators are searching for better opportunities. For instance, numerous LIS educators have relocated or shifted their positions to support staff at newly established higher education institutions in Nigeria; consequently, the previous library schools in the country are now severely short-staffed. Ocholla (2000) states that, as a result, there are now too many courses for

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the few faculty members that are available. The distribution of contemporary curricula is thus still impacted by issues related to insufficient infrastructure, resources, and trained instructors, even though many nations intend to create their own domestic LIS education programs.

1.9. THE ISSUE OF PROFESSIONALISM PRESENTS SIGNIFICANT CHALLENGES

- Emerging resource sciences, which incorporate systems theory, management, and computing, pose a threat to the professional legitimacy of library science.
- In light of information technology improvements, librarians & institutions of learning must reevaluate their curriculum and social relevance.
- Although those with degrees in library and information science are considered to be qualified professionals, lawyers and physicians continue to have doubts about librarians' reputations.
- Resource shortages brought on by library schools' expansion have made it necessary to rely on other agencies for infrastructure.
- Because lecturers share a limited amount of office space and other amenities, overcrowding in library education institutions hinders students' ability to learn and impacts their access to computers as well as libraries.
- Many Indian library schools lack basic facilities like computer laboratories and lecture halls, making them severely underfunded. New library schools frequently function in repurposed areas of pre-existing university as well as polytechnic libraries that do not satisfy the necessary academic requirements.

2.0 REVIEW OF LITERATURE

1. **Bansode and Viswe (2015)** state that library professionals who use ICT-based resources, services, and tools must receive training and orientation. With a focus on internal training, they said that library professionals must regularly attend pertinent conferences and workshops and participate in internal training programs to improve their ICT knowledge and skills and make efficient use of ICT-based resources, services, and tools.
2. **Edonkumoh, Nwachukwu, and Emmanuel (2015)** state that mastering the art and craft of the various branches of librarianship and knowledge science requires accomplishing high-powered activities to build practical abilities in these fields. This study specifically addresses the internship program for students enrolled in library and information science courses. One of the fundamental responsibilities of a library professional is information management. Proficiency in information management is crucial.
3. **Kayal, Bandopadhyay, and Banerjee (2015)** state that contemporary library and information skills are crucial for managing delivered information services, facilitating desktop information delivery, utilizing them across the organization's information range, and boosting employee value.
4. **Kattimani and Naik (2013)** conducted a study on the ICT and managerial skills of library professionals working at Karnataka's engineering college libraries. They advised the management of engineering institutions to assign their library professionals to appropriate ICT-based training courses at least once every two years and emphasized the importance of sending library workers for skill development.
5. **Dasgupta (2009)** talked about higher education and libraries at Indian universities both before and after independence. There is a discussion of the current developments in library and information science education in India, particularly how the use of IT has fundamentally altered the landscape of this field. Here are various answers to the issues facing LIS education, including the lack of certification organizations, a shortage of professors, and an outdated curriculum.
6. **Mazumdar (2007)** discussed the many skills needed for library professionals employed in an IT environment. He also emphasized various programs that help professionals develop these

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abilities. One method for LIS students to strengthen their abilities is through internship programs.

7. **Devi and Singh (2006)** talked about how UGC helps LIS professionals build their skills. The authors pointed out the importance of internships at all LIS educational levels.
8. **Mahapatra (2006)** talked about how library professionals need to be able to lead, use information, communicate, manage crises, develop teams, and make decisions to work in a network setting. In addition to these abilities, library personnel should learn how to use and manage resources in a digital setting. It is clear from these works that LIS students need to develop various abilities to become successful professionals. The majority of the literature recommends training and internship programs as a means of developing skills.

3.0 TEACHER'S ROLE IN TEACHING

Teachers play a crucial role in teaching library and information science (LIS) because they prepare students to adjust to the rapid technological changes in the industry. Teachers need to use various instructional strategies and stay up-to-date on new technological developments. Some of their responsibilities include doing research, staying up to date on current literature, grading students, leading class discussions, and getting ready for class. Teachers in the current LIS education environment need to possess qualifications in LIS, information technology, management, and other relevant skills. Effective communication, adherence to moral principles, managerial skills, and critical thinking, along with information technology competence, are among the fundamental abilities that must be taught. To improve their efficacy as teachers and create capable librarians prepared for the challenges of the twenty-first century, faculty members must participate in a comprehensive professional learning program. Practicing professionals' responses reflected this lack of concentration, with many stating that they received minimal exposure to pertinent pedagogical instruction while they were in faculty. Key findings point to the urgent need for an academic program that adapts to the changing digital information ecosystem by fusing traditional LIS expertise with information technology and pedagogical abilities. Despite some efforts to improve information technology competencies, LIS programs still fail to adequately address the teaching and acquisition of knowledge. The demand for Library and Information Science (LIS) professionals is increasing due to "disruptive technologies" in IT; however, the literature indicates a significant deficiency in the pedagogical skills imparted in LIS professional programs. To effectively meet the demands of diverse information environments, it is imperative that traditional LIS competencies, information technology (IT), and pedagogical training be more cohesively integrated.

4.0 RECENT WAYS AND NOTABLE TRENDS

The author discusses how ICT is affecting LIS education and how employers' expectations are evolving. Strong ICT abilities as well as other soft skills are now necessary for LIS graduates to operate in dynamic 21st-century workplaces across various industries. The study also emphasizes how important it is for LIS instructors to help their students acquire various skills that will help them meet the demands of their careers in the rapidly evolving information society. Innovations in technology and shifting user needs drove significant changes in library and information science (LIS). Notable trends include

a) **Information and Communication Technology (ICT) Integration:** The use of ICT revolutionized library services and operations. To increase efficiency and accessibility, libraries have increasingly turned to electronic resources, online databases, and digital catalogues. Because of this shift, LIS professionals had to acquire new technological skills to properly administer and maintain these systems.
b) **The Development of Libraries 2.0:** Libraries promoted interactive and user-focused services by implementing Web 2.0 technologies. To improve user engagement and participation, library platforms now require features like

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blogs, social media integration, and user-generated content.

c) **Growth of Digital Libraries & Open Access:** The creation and management of digital libraries increased significantly, improving the distribution and preservation of digital content. The open access movement gained momentum, and libraries played a vital role in supporting the global information economy by providing free access to scholarly publications.

d) **Place a Focus on Information Literacy & User Education:** Libraries expanded their efforts to teach patrons how to effectively search for, evaluate, and use information in an ethical manner in recognition of the importance of information literacy. The goal of this program was to empower users to navigate the growing information landscape with ease.

e) **Promotion of Open-Source Software:** Library systems have been gradually adopting open-source software programs for content management, digital repositories, and cataloguing. Platforms like DSpace for digital repositories and Koha for Integrated Library Systems (ILS) rose to prominence by offering affordable and adaptable substitutes for proprietary systems.

f) **Stress with Evidence-Based Practice:** A noteworthy movement toward evidence-based library and information practice (EBLIP) has arisen, in which thorough research and data analysis have served as the foundation for decisions and procedures. The goal of this approach was to increase the efficiency and effectiveness of library services.

g) **Development of LIS Research and Education:** By incorporating contemporary methods and technology into its curricula, LIS education underwent significant changes. The scope of research has expanded to include topics like digital preservation, data curation, and the impact of social networking sites on the dissemination of knowledge. Research suggests that maintaining alignment with technological advancements requires ongoing professional development. The research contributions of Das & Chaudhuri (2015), Kaur (2017), Afolabi & Abidoye (2011), and Gupta & Das (2010) are significant in the field.

5.0 DISCUSSION

The study's findings indicate that Library and Information Science (LIS) education and professional development require enhancement in several critical domains. Many Library and Information Science (LIS) programs find it difficult to keep up with technological developments, which could leave graduates lacking in critical digital skills. More extensive CPD options are also required to accommodate the various learning styles and career objectives of library practitioners. According to the findings, the future as part of Library and Information Science (LIS) education will depend on implementing cutting-edge teaching strategies, expanding CPD opportunities, and giving user-centered approaches top priority.

The way that library and information science (LIS) education has changed throughout time highlights how resilient and adaptive the field is to rapidly advancing technology and changing social demands. The curriculum for future librarians must change along with libraries' transformation from static book repositories to vibrant information hubs that serve various communities. The study highlights how crucial it is to promote a culture of lifelong learning among library professionals in order to keep them flexible and sensitive to shifting information environments. In the past, the founding of public libraries and the professionalization of their work required the development of Library and Information Science (LIS) education in response to the increasing complexity of information management.

As the field developed, the establishment of official library schools and accreditation procedures created a framework for a structured educational path. By acknowledging the significance of information organization and retrieval in addition to conventional library procedures, the development of technological principles in the middle of the 20th century considerably broadened the focus of Library and Information Science (LIS) education. Transformational changes brought

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about by the digital revolution made it necessary to rethink Library and Information Science (LIS) courses to handle the problems presented by a changing digital information ecosystem and include emerging technology. Technological breakthroughs, the importance of information literacy, and the need for equal access to library services have placed Library and Information Science (LIS) education in a pivotal position in the modern era. To prepare graduates for the intricacies of contemporary information management, the field has integrated data science, digital curation, & user-centered design approaches. Additionally, the focus on cross-border cooperation and knowledge exchange emphasizes how global the issues libraries face are, promoting a more comprehensive and integrated strategy for Library and Information Science (LIS) education. Library and Information Science (LIS) programs may better qualify graduates with the skills to help all members of their communities by creating an inclusive atmosphere that supports a range of viewpoints and experiences. Two examples include conducting cultural competence training and emphasizing the importance of including underrepresented voices in library collections and functions. Furthermore, Library and Information Science (LIS) education needs to place a high priority on developing skills linked to outreach and user involvement, as libraries increasingly present themselves as community centers. Along with having technical expertise, librarians also need to be able to communicate with a variety of audiences to promote information literacy and the library as an essential tool for lifelong learning. Lastly, the advancement of the field depends on cooperation between Library and Information Science (LIS) instructors, practitioners, and stakeholders.

This state of affairs learning examines the historical background, contemporary trends, and potential futures of Library and Information Science (LIS) education and professional development to demonstrate the importance of a thorough and progressive approach to curriculum design and training. Looking to the future reveals several significant factors that can enhance Library and Information Science (LIS) education and foster professional growth. To keep library professionals prepared to adjust to new technology and changing customer needs, it is first and foremost critical to instill the values of lifelong learning inside them. Opportunities for practitioner collaboration, mentorship programs, and continuous professional development initiatives can help achieve this. Furthermore, Library and Information Science (LIS) curricula need to be flexible, always reviewing and updating course material to meet the needs of the information industry and new trends. Second, to meet the demands of a user base that is becoming more and more diverse, Library and Information Science (LIS) education must prioritize the advancement of inclusion, diversity, and equity.

6.0 SUGGESTIONS

- In the 21st century, library professionals in India require significant improvement and focus from both themselves and the government.
- Library and Information Science (LIS) professionals should embrace a mindset of being lifelong learners rather than feeling outdated.
- The government needs to prioritize the LIS profession for better competency development.
- Continuous technological advancements necessitate reformation and efficient information retrieval within the field.
- LIS professionals should think globally while acting locally, valuing diverse opinions and suggestions.
- Choosing the LIS profession as a deliberate career path promotes competency within the field.

Some others important points

- Advanced IT labs with hardware, software, & Internet access should be available at LIS schools.
- Programs like curriculum planning, continuing education, and personnel exchanges require coordination from a national center for education and research.

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- LIS departments must incorporate seminars, tutorials, & field trips into their curricula and provide teacher librarians with ICT specialist training.
- To stay up-to-date with information technology developments and their implications for the library profession, regular syllabus updates are necessary.
- The Higher Education Commission (UGC) ought to make certain that LIS programs promote student excellence and adhere to global norms.
- The curriculum depends on teaching norms and procedures like Z39.50 & Interlibrary Loan Standards.
- Adequate financing is necessary to acknowledge in-service training and continuing education as essential elements of workforce development.
- Refresher courses as well as new LIS schools should provide IT training to librarians who graduated ten years ago.
- Purchasing new technology to enhance library services requires adequate money.
- It is crucial to have robust library networking and effective resource sharing.
- Librarians must take the lead in developing new information systems and deserve more attention.
- LIS teachers and professionals need more introduction and refresher courses. Why libraries should equipped with IT settings offer hands-on experience to LIS students?
- Every library and information center in the nation should have an ICT environment.
- Library schools & associations should plan frequent conferences, seminars, and workshops. Talented researchers should receive funding to improve the caliber of their work.

7.0 CONCLUSION

The study's conclusion points out that it requires a thorough review of Library and Information Science (LIS) learning and development approaches. Learning institutions can better educate graduates for the intricacies of the information ecosystem by integrating a culture of lifelong learning and adapting courses to the changing needs of library professionals. The Library and Information Science (LIS) community can improve education quality and guarantee that library professionals have the skills to handle future difficulties by exchanging best practices, doing research, and working together to build curricula. In summary, the ever-evolving information world and the critical role libraries play in our society are driving the ongoing evolution of Library and Information Science (LIS) education. It demands the creation of a national accrediting organization, such as UGC or AICTE in India, as well as the reform of degree programs to guarantee skilled labor. To incorporate contemporary technologies and professional ethics in library administration, it is also necessary to redefine the goals of LIS education. It emphasizes how automation, digitization, and globalization have significantly changed the profession, necessitating modern technical education. To prevent duplication and efficiently handle issues, the text highlights the critical role that surveying related literature in Library and Information Science (LIS) plays. The topic includes the value of corporate collaboration among libraries, the need for curriculum redesign in several nations, and the training techniques necessary to adapt to changing document formats and literature. Library and Information Science (LIS) education can present aspiring librarians the information, abilities, and competences required to succeed in a world that is constantly changing by embracing innovation, encouraging inclusion, and placing a high priority on lifelong learning. Building on the long history of Library and Information Science (LIS) education is crucial as we go forward, all the while staying dedicated to developing the field and strengthening the critical role that libraries play in spreading knowledge, facilitating information access, and meeting the many needs of communities around the globe.

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