

# THE ROLE OF LIBRARY AND INFORMATION SCIENCE IN THE INDIAN KNOWLEDGE SYSTEM

**Dr. Sushma R. Mawande**

Librarian

Late Madangopal Mundhada Arts,  
Commerce & Science College Chandur  
Rly.

---

## Abstract :

*The Indian Knowledge System (IKS) is a rich, multifaceted repository of indigenous traditions, practices, philosophies, sciences, arts, and epistemologies developed over millennia. In the modern era, as India pushes for digital transformation and educational reform especially under frameworks like the National Education Policy (NEP) 2020 the role of Library and Information Science (LIS) becomes crucial in preserving, managing, disseminating, and integrating this traditional knowledge. This paper examines how LIS contributes to the Indian Knowledge System: its historical role, present challenges, and future opportunities. It draws on literature, case studies, and emerging practices (such as digital libraries, metadata standards, oral tradition archives) to propose a roadmap for strengthening LIS's role in sustaining and propagating IKS.*

**Keywords :** Indian Knowledge System; Library and Information Science; Digital Libraries; Traditional Knowledge; Preservation; Metadata; NEP 2020; Indigenous Knowledge; Sustainability

---

## Introduction :

- **Indian Knowledge System (IKS)** refers to the body of knowledge, philosophies, practices, scientific knowledge, arts, medicine, and cultural practices indigenous to India. It includes classical sciences (like Ayurveda, mathematics, astronomy), philosophical systems (Vedanta, Nyaya, etc.), linguistic and literary traditions, folk knowledge, oral traditions, and more.
- In contemporary India, there is an increasing recognition of IKS in policy (for example, NEP 2020 encourages inclusion of IKS) and public discourse. However, for this knowledge to be preserved, accessed, and made meaningful in modern academic, educational, and technological settings, there is a need for systems that manage this knowledge.
- **Library and Information Science (LIS)** is the field concerned with acquisition, cataloguing, classification, preservation, storage, retrieval, and dissemination of information and knowledge. LIS institutions and professionals play a vital role in ensuring that IKS is not lost or marginalized.

- Purpose of this paper: to explore how LIS has been and can be leveraged to support IKS, what challenges it faces, and what strategies might enhance its effectiveness.

### Literature Review :

Several recent works address either IKS broadly, or the intersection of LIS and IKS.

- **Role of Libraries in Managing Indian Knowledge System (IKS) in the Era of Digital India** (Chari, 2025) examines how libraries are tasked with preserving, digitizing, and making accessible the indigenous and traditional knowledge, in the context of Digital India initiative. It points out technological constraints, challenges of authenticity, and need for professional capacity among LIS practitioners. ([Library Herald](#))
- **Indian Knowledge System Challenges and Its Application in Higher Education for Sustainable Future Development** (Lal, Srivastava, Narayan, Pal, Kumar & Sinha, 2024) explores how IKS can be integrated into higher education, what obstacles exist (frameworks, institutional will, relevance etc.), and offers case studies and roadmap ideas. ([BPAS Journals](#))
- Studies in LIS research trends show that bibliometrics, user studies, information retrieval and management, digital resources, etc., have been growing topics. However, much of that research has been oriented toward “modern” information and knowledge flows; less has been written about how these can support or include traditional and indigenous knowledge systems. ([arXiv](#))
- There is also work on LIS education, for example the paper on the *Medium of Instruction in LIS Education in India—Regional Language or English?* ([SRELS Journal](#)), which touches on a relevant issue: if much LIS training is done in English, issues of access and inclusion arise for traditional knowledge which is often preserved in regional languages or oral traditions.

### Historical Role of Libraries / LIS in Preserving Indian Knowledge :

- **Traditional repositories:** Before modern libraries, Indian knowledge was preserved through **oral transmission**, **ashramas**, **gurukulas**, **manuscript culture** (palm-leaf manuscripts, birch bark, etc.), **temple libraries**, and private collections. These had their own systems of preservation, annotation, and interpretation.
- **Colonial era:** Libraries under colonial rule collected manuscripts, catalogued some, but also imposed Western-classification, sometimes marginalizing indigenous knowledge. Many manuscripts were moved out, or neglected.
- **Post-independence:** Growth of institutional libraries (university libraries, national libraries), discovery and cataloguing of many manuscripts, establishment of manuscript

libraries (e.g., Asiatic Society, Government Oriental Manuscripts Library etc.), some efforts at digitization.

### **Present Role of LIS in the Indian Knowledge System :**

#### **LIS today plays multiple roles with respect to IKS :**

##### **1. Preservation and Conservation :**

- Physical conservation of manuscripts: preserving old manuscripts, restoring palm-leaf, fragile documents.
- Digital preservation: scanning, creating digital copies, creating oral history archives.

##### **2. Metadata, Cataloguing, Classification :**

- Standardizing metadata for manuscripts and traditional knowledge items.
- Classification schemes that respect indigenous systems, local languages, possibly new ontologies rather than purely Western ones.
- Ensuring discoverability.

##### **3. Access and Retrieval :**

- Digital libraries, content management systems.
- Open access and traditional knowledge databases.
- Multilingual access, translations, or transliterations.

##### **4. Dissemination and Education :**

- Libraries in schools and higher education institutions providing access to IKS materials.
- LIS professionals and librarians aiding in integrating traditional texts and knowledge into curricula.
- Community libraries, public libraries, folk knowledge sharing.

##### **5. Policy, Intellectual Property Rights, Ethical Issues :**

- Protecting traditional knowledge from misappropriation (e.g., Ayurveda, folk remedies) through legal frameworks like Traditional Knowledge Digital Library (TKDL).
- Ensuring cultural sensitivity, ethics in how knowledge is shared.

##### **6. Technology Integration :**

- Adoption of digital tools: digital repositories, AI/ML for indexing, knowledge graphs.

- Use of GIS or remote sensing for ecological traditional knowledge, etc.
- Use of mobile apps and platforms to reach remote areas.

### Challenges :

While LIS has an important role, there are many challenges in fulfilling it in the context of IKS :

- **Lack of standardization:** Many traditional knowledge items are undocumented or exist only orally; metadata standards for these are still under development or inconsistent.
- **Language barriers:** Much traditional knowledge is in Sanskrit, Pali, Prakrit, regional languages, or dialects. LIS professionals may not have linguistic competence; translation/transliteration creates problems of meaning loss.
- **Authenticity, provenance, cultural sensitivity:** Ensuring that what is digitized or published is accurately represented, and that community ownership is respected.
- **Resource constraints:** Many libraries lack funding, trained personnel, lab facilities, digitization infrastructure. Studies show recent graduates feel LIS curricula are not always tuned to modern technological needs. ([SRELS Journal](#))
- **Legal and ethical issues:** Intellectual property rights, benefit sharing, traditional knowledge rights, consent of knowledge holders, privacy, and sometimes secrecy.
- **Access issues:** Digital divide, poor infrastructure in rural/remote areas, lack of internet access or devices.
- **Curricular and institutional inertia:** LIS curriculum may be slow to adapt; institutions may not prioritize IKS; lack of policy or institutional mandates.

### Case Studies :

- The **Role of Libraries in Managing IKS in the Era of Digital India** (Chari, 2025) is a recent example of thinking about how libraries are handling IKS in the digital age, exploring challenges faced by LIS professionals, and proposing ways forward. ([Library Herald](#))
- Higher education integration (Lal et al., 2024) exploring how universities can embed IKS in curricula to promote sustainability, include ethical values, etc. ([BPAS Journals](#))
- Research mapping showing that while LIS research output is growing (“Library and Information Science Research in Indian Universities: Growth, Core Journals, Keywords and Collaboration Patterns” Patra, 2021) the topics heavily skew toward

bibliometrics, information retrieval; less attention to traditional knowledge systems specifically. ([arXiv](#))

### **Future Directions and Strategies :**

Based on the above, this section suggests approaches and strategies for strengthening the role of LIS in IKS.

#### **1. Curricular Reform in LIS Education :**

- Introduce courses/modules specifically on IKS, traditional knowledge, manuscript studies, oral traditions.
- Training in regional languages, classical languages, scripts.
- Technical training: digitization, metadata creation, digital preservation, software tools.

#### **2. Policy and Institutional Support :**

- National and state-level policies mandating preservation, documentation, and inclusion of IKS in educational, cultural, and library institutions.
- Funding mechanisms (for digitization, preservation labs, training).
- Incentives for libraries (academic, public, community) to collect, preserve, and provide access to traditional knowledge.

#### **3. Technology Infrastructure :**

- Building and using digital repositories, open access platforms for IKS.
- Use of modern tools: knowledge graphs, semantic web, AI/ML for language processing, classification, translation.
- Digital preservation standards: ensuring long-term storage, format migration, etc.

#### **4. Collaboration and Community Involvement :**

- Engaging traditional knowledge holders, local communities, scholars of classical traditions, folk scholars.
- Co-creating digital archives with permission, involving them in how knowledge is represented.
- Public libraries and community centres as nodes for preserving oral traditions.

#### **5. Standardization and Metadata & Ontologies :**

- Developing metadata standards tailored for manuscripts, oral knowledge, non-textual

knowledge (e.g. performance, craft).

- Ontologies or classification schemes that can map indigenous categorizations and worldviews and allow cross-linking with modern disciplines.

**6. Ethical, Legal, and Access Frameworks :**

- Enforcing or strengthening legal frameworks for protection of traditional knowledge (e.g. TKDL, Biological Diversity Act).
- Benefit-sharing, consent, cultural rights.
- Open access balanced with protection of sensitive knowledge.

**7. Outreach, Awareness and Education :**

- Raising awareness among scholars, students, and the public about the value of IKS and role of LIS.
- Creating exhibitions, storytelling programs, workshops.
- Integrating IKS into school curricula, higher education (aligned with NEP 2020).

**8. Sustainability and Continuous Innovation :**

- Ensuring that efforts are not one-off: maintenance, updating, long-term preservation.
- Regular evaluation, feedback loops.
- Embracing new technologies while ensuring cultural fidelity.

**Conclusion :**

- The Indian Knowledge System is both a heritage to be preserved and a resource to be leveraged for future educational, scientific, cultural, and societal development.
- Library and Information Science has a central role in this: as preservers, mediators, educators, technologists, and ethical guardians.
- However, to fully play this role, LIS must adapt: in skills, infrastructure, policy, collaboration, and mindset.
- With the support of policy (e.g. NEP 2020), institutional will, and community participation, LIS can help Indian knowledge regain its full place—accessible, respected, and integrated in India and globally.

**References :**

- Chari, S. N. "Role of Libraries in Managing Indian Knowledge System (IKS) in the Era of Digital India." *Library Herald*, 2025. ([Library Herald](#))
- Lal, Shankar Kumar; Srivastava, Sanjay; Narayan, Vibhooti; Pal, Nisha; Kumar,

Rajesh; Sinha, Samiksha. "Indian Knowledge System Challenges and Its Application in Higher Education for Sustainable Future Development." *Library Progress International*, Vol. 44 No. 3, 2024. ([BPAS Journals](#))

- Patra, Swapan Kumar. "Library and Information Science Research in Indian Universities: Growth, Core Journals, Keywords and Collaboration Patterns." 2021. ([arXiv](#))
- Yadav, Akhilesh K. S.; Gohain, Rashmi Rekha. "Preparing Indian Library and Information Science Professionals for Employment in the Digital Age." *Journal of Information and Knowledge*, 2016. ([SRELS Journal](#))
- Jana, Sibsankar. "Medium of Instruction in LIS Education in India—Regional Language or English? Analysis Through System Approach." *Journal of Information and Knowledge*, 2006. ([SRELS Journal](#))