LIBRARY SCIENCE

University Library Classification Systems: An Evaluation in Hyderabad, India

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Abstract

When assessing library categorization, it is important to consider how well it aligns with a university's collection and workflows as well as the ways in which its users seek information. When using comparative frameworks, intellectual and practical aspects like as terminology, specificity, flexibility, simplicity of use, and modification are taken into account (Bury, 1980). According to the research, significant generic options include DDC, LCC, UDC, and Ranganathan's Colon Classification (CC). While CC is relevant to Indian librarianship's past and LCC is widely used in specific academic library settings, UDC is portrayed as adaptable to complicated and multidisciplinary topics (Lund et al., 2019). Some have argued that major systems are prejudiced and lacking in detail, and they have also suggested additional descriptors and changes for multimodal and Indian-language collections (Zins and Santos, 2011). There is a lack of information regarding the classification systems used or comparisons of their performance in the existing local literature regarding Hyderabad. The literature does cover topics such as the organization and user satisfaction of the collection at Osmania University Library, perceptions of users at the University of Hyderabad, and technology provision across university libraries (Rani, 2023). Consequently, a firsthand audit of many libraries is necessary for a Hyderabad-specific proposal.

1 Introduction

The term "library classification" refers to the practice of organizing books and other library resources in a structured way based on the topics covered, fields of study, and connections between them. To aid users in locating the necessary papers, it offers a systematic framework for organizing information resources and giving categorization numbers. In order to make it easier to browse library resources in a methodical fashion, classification systems provide a structured link between various themes. Additionally, they aid library staff in making sure all resources are organized consistently and in streamlining library services. To be effective, a categorization system has to cover enough ground, be well-organized logically, be adaptable, accurate, and easy to use. Assigning numbers to books is only one technical aspect of categorization; it is also a crucial knowledge organization technique that affects how academic content is accessible, discoverable, and used. (Rani, 2023)

Academic collections encompass a vast array of disciplines, including science, technology, engineering, medicine, management, social sciences, the humanities, business, law, and interdisciplinary study fields. As a result, categorization systems play a crucial role in university libraries. Traditional categorization methods face difficulties from the ever-growing number of academic fields and new areas of knowledge. Topics that draw from a variety of fields include interdisciplinary studies, data science, biotechnology, financial technology, sustainability in the digital age, artificial intelligence, and data science. As a result, library cataloging systems need to be flexible enough to include newly

established fields of knowledge and accurately portray intricate subject linking. Classification systems are only useful if they can organize both established and new topics efficiently, without making searching for specific information or exploring related topics more difficult.

In order to help libraries organize their resources more efficiently, many categorization systems have been created throughout the years. Notable systems include the Colon Classification (CC), Universal Decimal Classification (UDC), Library of Congress Classification (LCC), and Dewey Decimal Classification (DDC). Different theoretical frameworks, systems of notation, and methods of knowledge organization are followed by each categorization system. While both systems aim to organize information resources, they differ in how they represent topics, how they use hierarchies, how flexible their notation is, how specialized they are, and whether or not they accommodate transdisciplinary subjects. Size, collection type, academic needs, library policy, and staff competence are some of the factors that could affect their practical applicability. (Bury, 1980)

Melvil Dewey created the Dewey Decimal Classification (DDC) in 1876, and it is being used by libraries all around the globe today. It starts with 10 broad categories of knowledge and then breaks it down even further into subcategories and sections. Decimal notation simplifies the organization, retrieval, and comprehension of library items. DDC's systematic hierarchical structure and proven applicability in many library systems make it especially helpful for general and academic library collections. Nevertheless, it may become more difficult to adequately describe some intricate domains of knowledge due to the proliferation of specialized and multidisciplinary fields. Therefore, it is critical to revise and update the system often to ensure it remains relevant in evolving academic contexts.

Another significant system, especially in major academic and research libraries, is the Library of Congress Classification (LCC), which was created by the United States Library of Congress. It uses alphabetic notations to classify information into broad categories, which are then further subdivided numerically and alphabetically. There is a lot of room for big, specialized academic collections at LCC. University libraries with a focus on research and large holdings in a variety of fields may find it useful due to its thorough subject organization. However, specialized professional expertise and training may be necessary to comprehend and implement LCC. Consistency, employee competence, and access to suitable categorization tools are some of the potential obstacles to its successful execution.

2 Method and scope

Academic library categorization comparisons, university library practice in India, analyses of individual schemes, and studies from Hyderabad and Telangana were all part of a focused literature search. We looked for sources that had something to do with local institutional environment, scheme performance, or categorization decision. Because it is not a systematic study but rather a narrative evaluation, it does not attempt to quantify pooled effects or provide comprehensive coverage. The main drawback is that the sources that were found in Hyderabad do not compare DDC, LCC, UDC, and CC in university libraries there, which is a major factor in the finding (Rani, 2023). There is a research from 2023 that talks about how the Osmania University Library is organized and how satisfied people are with it, and another study from the University of Hyderabad that talks about how users feel about the services and resources they get. However, neither of these abstracts reveals the classification scheme or how well it works. There is a 2015 research that looks at IT resources at eight different university central libraries in Hyderabad, however there is no comparison of classification schemes in the summary that is accessible. (Ziabari and Mohan, 2015)

3 Comparative evaluation

3.1 Dewey Decimal Classification

A clear and organized path from general fields to more specific ones is provided by DDC's decimal notation and hierarchy. Instead of basing evaluations just on popularity, comparative literature considers features such as flexibility, openness to new ideas, language, connections, notation, specificity, usability, and revision as valid criteria for schemes (Bury, 1980). If the university's users and staff are familiar with the concept and the collections are small or structured for open-shelf browsing, then DDC might be a good fit. Nevertheless, the literature highlights the theoretical significance of decimal division and its hierarchical structure allows for the distribution of interdisciplinary topics throughout numerous courses. (Satija and Martínez-Ávila, 2017)

Adopting DDC does not ensure local sufficiency. There have been suggestions to add descriptors and adjustments to DDC for Indian-language and multimodal collections. This suggests that local vocabulary may be necessary for access requirements that are format-specific and multilingual, even if a standard scheme is maintained (Sharada and Kumari, 2011). The necessity to assess real subject access rather than presume comprehensive coverage is highlighted by a study that compares the knowledge representation schemes and finds that major systems such as DDC, LCC, and UDC do not adequately or completely represent modern knowledge at the highest levels. (Zins and Santos, 2011)

3.2 Library of Congress Classification

The worldwide literature provides a solid academic-library precedence for LCC. According to a research that compared academic libraries in the US and Nigeria, 81% of US libraries and 93% of Nigerian libraries utilized LCC for the majority of their holdings. Staff members favored LCC in most cases, with the exception of institutions that used DDC (Lund et al., 2019) where staff members favored DDC. In light of these findings, LCC might be considered by libraries that house research-intensive collections and those that wish to conform to the standards of academic cataloging. Due to differences between the local decision context and the study's nations, institutional settings, and legacy practices, they fail to demonstrate that LCC works better for users in Hyderabad. Users requiring less broad subject classifications may find the system unsuitable for smaller or open-shelf collections due to its scope and complexity. While stressing that the quality of a scheme is determined by how well it serves patrons, an earlier study of US college and university libraries notes that librarians are concerned about the elaborateness and appropriateness of LCC for modest open-shelf collections (Eaton, 1955). This study is valuable for its historical context, but it does not provide evidence regarding the functioning of LCCs now due to its 1955 date.

3.3 Universal Decimal Classification

When users want a way to represent complex subjects and relationships across disciplines in a class mark, UDC is a great fit. In 2026, researchers compared DDC, UDC, and CC, and found that UDC was the best at conveying multidisciplinary and complicated topics due to its flexibility and comprehensiveness (Agarwal and Jaiswal, 2026). While this is encouraging comparison evidence, it is limited to a single research and does not assess user retrieval, cataloging effort, or local implementation in Hyderabad. Consequently, rather than seeing UDC as a guaranteed winner, libraries with extensive multidisciplinary collections should consider it as a contender.

3.4 Colon Classification

The faceted, analytico-synthetic method that CC provides allows for the construction of compound topics from component ideas; it is a substantial indigenous intellectual contribution to categorization. An evaluation of DDC, UDC, and CC based on surveys is available in the Indian university library literature. The study found that one-third of Indian university libraries were using CC when it was conducted (Kumaravel and Shanmuganathan, 1989). Although this discovery sheds light on the past, the source is from 1989 and cannot prove the prevalence in the present. The theoretical merits of CC need to be considered in light of the practicality of its implementation. According to its revision history, CC underwent seven revisions until it fell out of favor in 1987. One reason for this was because it had less institutional backing than DDC, UDC, and LCC (Satija, 1997). This is a real issue for university libraries: sophisticated synthesis won't help much if there isn't enough staff training, up-to-date scheduling, software support, and uniformity among libraries.

3.5 Evaluation criteria for Hyderabad region

Instead of relying solely on theoretical characteristics, a reasonable local comparison should evaluate each system using common, measurable criteria:

- **Retrieval and browsing:** Finding what you're looking for and finding similar works through shelves, the online catalog, and subject searches—this is retrieval and browsing.
- **Local and Multilingual representation:** Test categorization and subject headings combined; if regionally important themes and resources in Telugu, Urdu, and Hindi gain meaningful access points; and whether additional pertinent languages and materials have adequate representation in any way. Findings from studies of Indian-language archives provide light on the importance of multilingual and multimodal adaptation.
- **Interdisciplinary Coverage:** Data science, public health, environmental studies, and regional studies are all examples of multidisciplinary fields that might be covered in a sample; UDC is flexible enough to handle complicated and interdisciplinary issues, according to comparative research.
- **Cataloguing quality and consistency:** Ensure consistency and quality in cataloging by having classifiers agree, being precise enough, and not mixing together new and old records.
- **Operational Feasibility:** Training classifiers, scheduling availability, processing speed, metadata-system support, and the library's ability to preserve local additions are all operational feasibility considerations.
- **Transition Burden:** The effects on user advice, catalogues, and shelf placements as well as the reclassification effort and mixed-scheme migration hazards and retraining add to the transition burden. The results from the studies in Hyderabad that were retrieved do not constitute the basis for these recommended local audit actions.

Classification is a knowledge map influenced by its social and historical context, and comparative analyses warn against viewing any scheme as neutral or permanently complete, therefore the local multilingual issue demands special consideration. Further evidence that category revision and design can give rise to representational problems, as shown in a critical examination of DDC, provide credence to the idea of conducting an explicit audit of the characterization of marginalized and local subjects.

4 Discussion and summary

A conditional ranking, rather than an absolute one, is supported by the literature. With its extensive collection suitable for study, well-established academic-library compatibility, and competent personnel, LCC is an attractive contender. In cases when familiarity with the system, clear hierarchies, and consistency are important, DDC is still a viable option. For collections that often require multidisciplinary and compound-subject work, UDC deserves careful testing. It is important to confirm CC's present support and maintenance capabilities before adopting it, however it deserves attention in strategic goals related to faceted synthesis and Indian categorization traditions. Since the reported usage of LCC in libraries in the US and Nigeria is context-specific, the existing comparative research does not support adopting a foreign prevalence estimate as a proxy for local efficacy.

Prior to contemplating reclassification, university libraries in Hyderabad should conduct an evaluation of the current system. Before imposing a single categorization method on institutions with diverse collection characteristics, university libraries that share cataloging, lending, or discovery infrastructure should weigh the pros and cons of compatible classification practice. Pilots can record their retrieval successes and cataloging efforts, as well as compare methods using matched samples of data and typical user activities. This suggestion is based on the proven necessity to take into account both intellectual and practical usability factors, as well as the proven significance of user-oriented collection arrangement.

The sources cited here do not identify existing schemes or give comparative local user-performance data, so it is not possible to use them to support a recommendation to replace a specific library's current scheme in Hyderabad. The sources do cover topics such as Osmania's collection organization and user satisfaction, perceptions of service at the University of Hyderabad, and technology resources available to university libraries in Hyderabad. A systematic audit across a range of university libraries in Hyderabad is the next decision-making stage. The audit will include the following areas: staffing, user retrieval outcomes, language profile, catalog metadata, current scheme, collection size and topic mix, and cataloging.

5 Conclusion

CC, UDC, DDC, and LCC all provide unique compromises rather than a one-size-fits-all solution. CC brings faceted synthesis and an Indian intellectual lineage, but it faces documented support and sustainability issues; DDC offers continuity and a recognizable hierarchy; UDC has a recent comparative claim to flexibility for interdisciplinary topics; LCC has strong academic-library uptake in studies outside of India; CC faces these challenges while also contributing to faceted synthesis and an Indian intellectual lineage. The best course of action for Hyderabad would be to conclude that there isn't enough information to declare a victor based on the city alone, rather than that one system is clearly better. Preceding any decision to reclassify, a local comparison trial should be conducted to measure retrieval, representation, consistency, workload, and migration feasibility.

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