

IMPLICATIONS OF USING LIBRARY OF CONGRESS CATALOGUING SYSTEM IN DEVELOPING COUNTRIES

Oyelekan Gbadebo Oyeniran

Department of Library Science, University of Maiduguri, Maiduguri, Nigeria

Abstract

The paper traces the development of the LCSH and LCC as Library of Congress Classification System. Reasons why many libraries and other information related institutions outside the Library of Congress are using the scheme are also stated. The implications of using the scheme by other libraries are examined. They include formulation of appropriate policy, proper planning that would lead to taking relevant decisions, acquisition of related bibliographic tools; setting up of ICT, continuing education for staff and users on the application of the scheme and ability to meet the cost of operating the scheme. The paper concludes that unless the libraries are ready to meet these obligations they would not be able to apply the scheme successfully.

Keywords: BIBLIOGRAPHIC TOOLS; CATALOGUING SCHEMES; COST IMPLICATION; EDUCATION AND TRAINING; PLANNING AND POLICY DECISIONS.

Introduction

The Library of Congress Subject Headings (LCSH) and the Library of Congress Classification (LCC) are the two main LC related bibliographic tools used for organising the collections of the Library of Congress (LC). The LCSH consists of all the headings established for the documents in the Library; while the LCC is used for classifying and arranging the documents on the shelves. The two tools are used in organisation and retrieval of documents in the Library. The list of subject headings allows cataloguers to assign key words within controlled vocabulary and enables users to know if a document on a named subject is available in the Library; while the classification number is used to retrieve the document on the shelves. Thus, the LCC and LCSH complement each other.

Apart from the LCSH and LCC, there are other subject headings and classification schemes. Examples of subject headings include the following: Sear's List of Subject Headings; Medical Subject Headings (MeSH); and thesauri on different disciplines. For classification schemes, examples such as Dewey Decimal Classification (DDC), Universal Decimal Classification (UDC), Colon Classification (CC) and Bibliographic Classification (BC) readily come to mind.

However, the LCSH and LCC constitute unique cataloguing schemes. First, they are designed exclusively for organising the collections of the Library of Congress. Second, they are distinctive cataloguing schemes that do not derive their authorities from or lean on any of the cataloguing schemes listed above. Third, the schemes are developed by individual subject specialists following the laid down general principles. They are therefore, subjected to inconsistencies depending on the individual subject specialists' disposition and understanding of their subject areas. It should be noted however, that subject specialists work in consultation with experts. For instance, the LCC classes are developed and maintained by subject experts who continue to be responsible and are consulted if there is need for additions and changes. Thus, in developing the schemes, subject specialists do not really have absolute freedom.

Last, the schemes are based on “literary warrant” for items acquired by the LC alone. In other words, items not acquired by the LC cannot be catalogued using the schemes (Rowley, 1987; Chan, 1995).

Though the LCSH and the LCC were designed exclusively for organising the LC collections, many libraries and bibliographic institutions are adopting one or the two schemes for use. Wynar (1980), Rowley (1987) and Chan (1995) have variously listed organisations using either or both schemes. The LC schemes have become popular and widely accepted by many libraries because of the advantages accruing from their use. For example, Shoyinka (1975), Wynar (1980), Rowley (1987), Chan (1995) and Oyelekan (1997) have enumerated their advantages. These include suitability for organising general collections, ease of use because of detailed instructions provided, facilitates copy cataloguing and currency of cataloguing records through consistent review. Other reasons also include: the LC cataloguing data are made widely available to user libraries from the beginning by the Cataloguing Distribution Service (CDS) to ensure great convenience to cataloguers because original cataloguing and classification have always been labour-intensive; the dominance of the United States of America in the publishing industries coupled with her general power of economic and cultural hegemony has led to the adoption of the LC-related bibliographic access systems; and, because of the vast scale of the bibliographic systems of LC collections and its influence on many libraries and bibliographic institutions.

Adopting the LCSH and LCC schemes for use is not a “free gift” from the LC. There are obligations either explicitly or implicitly to be fulfilled by libraries outside the LC before they can apply the schemes successfully. Such obligations are not often given adequate considerations by user institutions. Hence, the purpose of the paper is to trace the development of the LCSH and LCC and also examine the various implications of using the schemes by libraries outside the LC.

Establishment of the Library of Congress

The Library of Congress was established in 1800 to provide for the information needs of law makers in both Houses of Congress of the United States of America. The cataloguing schemes used in organising the collections of the Library were the Library of Congress Subject Headings (LCSH) and Library of Congress Classification (LCC). In 1897, the Library decided to adopt a dictionary catalogue in which entries were alphabetically arranged. This was because the dictionary catalogue was becoming more popular to American library users than the classified catalogue. Accordingly, the compilation of subject headings in the Library started in 1898 by picking headings from the American Library Association (ALA) list of subject headings with modification, after consulting several works most especially Charles Ammi Cutter’s Rules for Dictionary Catalogue. According to Chan (1995:6):

Hanson also indicated other works consulted in addition to ALA list. These included the Decimal and Expansive Classifications; the Harvard List of Subjects; the New South Wales Subject Index; Forescure’s Subject Index; and numerous other catalogs, bibliographies, encyclopedias and dictionaries.

The Library list of subject headings was not published until 1914 when it was published using the title: **Subject Headings Used in the Dictionary Catalogue of the Library of Congress**. The title changed to the **Library of Congress Subject Headings (LCSH)** with the publication of the eighth edition in 1975 (Chan, 1995). The thirty-first edition was published in five volumes in 2009.

Also in 1897, it was decided that there was a need to develop a new classification scheme for classifying the Library’s collections because the classification schemes that were in existence

at the time were flawed and found inadequate for use. After studying several classification schemes, including Charles Ammi Cutter's **Expansive Classification**, Herbert Putnam, the Librarian of Congress and Charles Martel, the Chief Cataloguer at that time came out with general outlines and principles of a new classification scheme. The individual subject specialist was given the responsibility of developing each schedule. As noted earlier, the development of the classes is not entirely a mastermind of the subject specialists alone. The classes have also been developed and maintained by subject experts who continue to be responsible and are consulted about the need for additions and changes. This is why it is referred to as "a coordinated series of special classes". The main schedule consists of forty-one volumes both main and sub-classes, using the order of the alphabets A-Z with the exception of the letters I, O, W, X that were not included as part of the main classes. The omitted letters are, however, adopted for use by the National Library of Medicine (NLM) as part of its main classes.

In order to maximise the benefits of using the schemes, there are caveats overtly or covertly in forms of corresponding obligations that must be considered and taken on board. These include proper planning and taking a number of policy decisions; ability to acquire all the necessary bibliographic tools; the need to set up information and communication technology (ICT); availability of Online Public Access Catalogue (OPAC), continuing education for both staff and users; and appraisal and understanding of the cost involved.

Implications for a Successful Application of LC Cataloguing Schemes

Planning and Policy Decision

Using the LC cataloguing schemes should not be based on "bandwagon effect". Rather, before embarking on the use of the schemes, it is important to plan and take a number of policy decisions. For example, it must be decided whether to "adopt" or "adapt" the schemes. To "adopt" means following the LC cataloguing practices without a change. It means "cataloguing like LC". To "adapt" means using the schemes with modifications to meet the needs of individual library and its users. But the modification would be done following the LC cataloguing principles as stated in the **Subject Cataloguing Manual**, thus, "cataloguing as LC" (Pietris, 1987). If a library was using a different cataloguing scheme before and decided to change over to LC schemes, a decision has to be made on whether to recatalogue the whole collections or to start cataloguing with the LC schemes from the point when the decision was made to change over to LC schemes. To recatalogue would involve a lot of hard work that must be backed up with experienced cataloguers. It may also create initial disruption and problems of access to library resources. Not to catalogue the whole collections on the other hand, would create distortion and confusion when there are two different types of library catalogue systems in a library. It is also important to assess the extent of resources available, most especially experienced cataloguers and financial resources. Finally and most importantly, the convenience of the users must be of paramount importance (Haykin, 1914). The convenience of the users in terms of understanding their library catalogue needs and behaviours should be taken into consideration when planning to use LC cataloguing schemes. Planning and policy decisions are crucial in determining the structure of the library catalogue that is going to be set up. According to Chan (1995:9):

In any indexing system, policy decisions on structure and applications reflect the system director's ideas of what it should do for its users. Different notions of a system's objectives lead to a different result.

It is therefore important to plan carefully before embarking on the application of LC cataloguing schemes. Failure to plan would lead to confusion; the kind reported by Shoyinka

(1975) when the University of Ibadan Library (now Kenneth Dike Library) was adopting LCC to reclassify its collections.

Bibliographic Tools

The general assumption by some cataloguers using LC cataloguing schemes is that all it takes to apply the schemes is to acquire the working schedules of Library of Congress Subject Headings (LCSH) and Library of Congress Classification (LCC). A visit to six first generation university libraries in Nigeria such as University of Ibadan, University of Lagos and Ahmadu Bello University, Zaria using the LC cataloguing schemes by the writer, confirmed this assumption. During the visit, it was observed that in all the libraries visited, cataloguers were using the schemes without reference to any auxiliary publications for instructions. This confirmed the erroneous impression held by some cataloguers. As stated by Chan (1995:8):

Not all information needed for the application of LCSH appears in Library of Congress Subject Headings or its other versions, which contain main headings, some subdivisions, and cross references. Not only do main headings and subdivisions appear elsewhere, but LC policies and instructions on using LSCH are also found in other publications.

Wynar (1982), Chan (1995) and Cataloguing Distribution Service [CDS] (2009) listed bibliographic tools required before LC cataloguing schemes could be applied successfully. Table 1 shows all the bibliographic tools and their prices.

Table 1: Bibliographic tools required in using LC cataloguing schemes

Subject Access Tools	Price (\$)
a) Library of Congress Subject Headings (LCSH) 31 st edition, 2008-2009 in five volumes.	345
b) Subject Headings Manual	140
c) Library of Congress Subject Headings Supplemental Vocabularies	25
d) Free-floating subject-subdivision: An alphabetical index, 21 st edition, 2009	40
e) LC Subject Headings Principles of Structure and Policies to Application (1990). Prepared by Lois Mai Chan	23
f) LC Periodic Sub-division under Names of Places, 5 th edition, 1994	
g) LC Subject Headings Weekly List on CPSO web page.	
h) MARC Distribution Service-Subject Authority	
i) Subject Cataloguing Manual: Subject Headings-Update	80
j) SACO Participants Manual, 2 nd edition, 2007. (Available online only www.loc.gov/catdiv/pcc/sac/SACOmanual2007.pdf)	

Classification Manuals and Tools

a) LC Classification Schedules A-Z including sub-classes (41 volumes)	2,120
b) Classification and Shelf-listing Manual (2008)	80
c) LC Classification Outlines, 7 th edition, 2003	18
d) LC Classification Additions and Changes (online on weekly basis at www.loc.gov/aba/cataloging/classification/ in the section titled Library of Congress Classification)	
e) LC Classification Posters each	10
f) The Library of Congress Classification: A Content Analysis of the schedules in preparation for their conversion into Machine-Readable-Form (1995)	26
g) JZ and KZ: Historical Notes and Introduction to Application (1997)	15
Total:	2,922

Source: CDS (2009) *Cataloguing Distribution Services: Tools for Authority Control-Subject Headings. A New Era for Classification Schedules.*

Each of the tools plays different roles in the successful application of the LC cataloguing schemes. For example, the **Subject Headings Manual** contains guidelines for cataloguers to follow when assigning subject headings from the LCSH. Failure to use auxiliary publications along with the working schedules of LCSH and LCC may result in wrong application of LC cataloguing schemes.

Information and Communication Technology (ICT) and Online Public Access Cataloguing (OPAC)

The ICT environment in the United States of America has impacted greatly on the application of the LC cataloguing schemes that cannot be ignored by libraries in developing countries or any library using the LC cataloguing schemes. One important component of the ICT is the Online Public Access Cataloguing (OPAC) system. The OPAC is an electronic system of accessing and retrieving cataloguing records, held on computer databases at different locations and over long distance, all over the world, linked together by communication network. Some of the examples of OPAC databases are the Library of Congress Machine-Readable Cataloguing (LCMARC); Online Computer Library Center (OCLC); the British Library Automated Information Service (BLAISE); and Research Library Information Network (RLIN).

In 1966, the LC started the MARC (Machine-Readable Cataloguing) pilot project which led to the establishment of the Library of Congress Machine-Readable Cataloguing (LCMARC) database. The database contains *13 million bibliographic records, over 13 million holdings records, over 14 million item records, and approximately 6 million authority records* (Library of Congress [LOC], 2010). According to Rowley (1987:344):

most of the records are for post-1966 publications, but as a result of RECON Project (Retrospective Conversion) and the COMARC Project (Cooperative Machine-Readable Cataloguing), records for many earlier materials are also present.

The LCMARC database is the latest method through which the LC makes its cataloguing records available online to user libraries. The earlier manual methods are through the printed cards, published National Union Catalogue (NUC) and magnetic tapes.

In this electronic age, it would be appropriate if authorities of libraries in developing countries using the LC cataloguing schemes could also setup OPAC systems. This would enable them to have direct access to the LCMARC database from where they could copy and update their cataloguing records as regularly as the LCMARC records. It would also enable

them to be part of an international co-operating cataloguing system of libraries using the LC cataloguing schemes co-ordinated by the LC through the LCMARC database. The setting up of OPAC would allow the libraries to open up their cataloguing records for verification and correction by the LC and for possible inclusion in the LCMARC database. As observed by Rowley (1987:344):

the LCMARC database contains both records created by the LC staff and those created by the co-operating libraries and verified by the LC.

To be online, would enable cataloguers in developing countries to adopt common approach towards using the LC cataloguing schemes rather than using the schemes in isolation of one another. Moreover, it would facilitate their direct interactions and exchanges with the cataloguers in the LC from whom they could get advice relating to how to use the schemes. Finally, the OPAC system has all the 'attractions of computer cataloguing as enumerated by Rowley (1987). Some of them include: easy co-operation between systems, ability to choose and produce different cataloguing formats and the possibility of using centralised cataloguing data.

However, in setting up an OPAC in libraries in developing countries, there are challenges. Some of the challenges include: problem of internet connectivity (networking); development of appropriate software to use for database; training in ICT, especially training in the use of the library's own software and other ICT-related trainings; management of current and back files of MARC records; sustainability, most especially payment of subscription fees for accessing databases and maintenance of reliable power supply. As a result, many libraries in developing countries only have Internet facilities with access to the LCMARC database for copying their catalogue records which do not have all the advantages of OPAC system enumerated earlier.

Apart from the OPAC system, it has to be noted that all the bibliographic tools required for using the LC cataloguing schemes listed in Table 1 are also in micrographic forms apart from the print forms e.g. LCSH-microfiche, CDMARC subjects and others that are being published in microforms. Some of the LC cataloguing publications can only be accessed online e.g. the **LC Subject Headings Weekly List and SACO Participants Manual**. All of these require Internet service, telecommunication services and other ICT support services. In fact, failure to set up an OPAC and other ICT-related facilities would have negative implication on the application of the LC cataloguing scheme.

Education and Training Requirement

The LC cataloguing system is complex and sophisticated. This is due in part to the fact that the system is used to organise the collections of the largest library in the world and the dynamics of information often lead to constant changes in the mode of operating the schemes. Again, as exclusion cataloguing schemes, designed for use primarily in the Library of Congress alone, there is always a constant change of principles and practices to accommodate the convenience of the library and its users. In order to cope with the complexity and sophistication of applying the LC schemes, libraries in developing countries should establish education and training programmes for both cataloguers and users alike on the application of the schemes. Continuing education in the form of short courses, study-day programmes and in-service fellowship for staff and training opportunities like the attendance of seminars, workshops, exchange programmes should be arranged for staff on regular basis. In the same way, users also should be educated and trained on how the cataloguing schemes are being applied. It is in recognition of the importance of continuing education and training in the application of the LC cataloguing schemes that the LC Cataloguing Distribution Service (CDS) has prepared training kits for both cataloguers and users alike (CDS, 2009).

The Library also admits cataloguers of other libraries on short term courses and exchange programmes to update their knowledge on the use of the schemes. Without continuing education and training, cataloguers outside the LC would not be able to update their knowledge on new developments on the application of the schemes.

Cost Implications

The cost of applying the LC cataloguing schemes by libraries outside the LC could be enormous. This is why it is necessary for libraries to properly evaluate and understand the full cost implications of applying the schemes. The cost can be divided into two categories – “variable cost” and “fixed cost”. The “variable cost” consists of cost of procuring bibliographic tools, cost of setting up an OPAC system, telecommunication and other ICT-related gadgets and cost of education and training. As shown in Table 1, the cost of procuring bibliographic tools for libraries outside the United States of America alone was put at two thousand, nine hundred and twenty two dollars (\$2,922). The cost varies with the number of sets required by the individual library and subject to annual price variations by the LC. The cost of airtime for Internet connectivity services, subscription or retainership charges for accessing the LCMARC and other LC databases; cost of telecommunication and other ICT related services have not been determined for inclusion. Also, the cost of continuing education and training and other variable costs have not been determined for inclusion. The “fixed cost” includes: initial cost of setting up Internet service; creating website for the OPAC system; installing telecommunication services; acquisition of computer hardware and putting in place other infrastructural facilities. The fixed cost is part of operating the schemes which should be calculated and met.

Without going into cost benefit analysis, one would see that the cost of applying the LC cataloguing scheme could be enormous. Every library should be prepared to bear the cost.

Conclusion

The Library of Congress cataloguing systems consist of mainly the Library of Congress Subject Headings (LCSH) and the Library of Congress Classification (LCC) schemes. The development of the schemes started in 1898. Though the schemes were specifically designed for use in the LC alone, many libraries including bibliographic utilities have either adopted or adapted them for use because of the advantages accruing from their use. Some of these advantages include: ease of use; currency and updateness of records; and facilities for copy cataloguing among others. But in order to apply the schemes successfully and enjoy their full advantages, their obligations should be fulfilled by libraries planning to use the schemes. The obligations include: extensive planning and taking certain policy decisions; acquisition of relevant bibliographic tools; setting up an OPAC system, Internet services, telecommunications and other ICT-related services; continuing education and training for staff; and ability to meet the cost of operating the system.

Finally, any library in a developing country wishing to use the LC cataloguing schemes should first assess its capability to apply them successfully. Failure to do this, would lead to the schemes not being properly applied. This may impugn on the integrity of the library catalogue being set up.

References

- Cataloguing Distribution Service [CDS] (2009). **Tools for Authority Control-Subject Headings and Classification Manuals and Tools**. Retrieved November 15, 2009 from www.loc.gov/CDS.
- Chan, Lois, M. (1995). **Library of Congress subject headings: Principles and application**. 3rd ed. Colorado: Libraries Unlimited.

- Haykin, David J. (1914). **Subject headings: A practical guide**. Washington, D.C.: U.S. Government Printing Press.
- Library of Congress [LOC] (2010). **Frequently asked questions**. Retrieved on 20/03/2010 from <http://www.loc.gov/ils/ilsfaq.html> 20/03/2010.
- Oyelekan, Gbadebo O. (1996/97). Application and use of the Library of Congress Subject Headings in the University of Maiduguri Library. **Annals of Borno**, Vols. 13/14, pp. 58-68.
- Pietris, Mary K.D. (1987). LC: New Manual not code needed. **American Libraries**, Vol. 18, No. 12, p. 958.
- Rowley, Jennifer E. (1987). **Organising knowledge: An introduction to information retrieval**. Aldershot: Gower.
- Shoyinka, Patricia (1975). Adoption of the Library of Congress Classification at the University of Ibadan: Decisions and Practices. **Nigerian Libraries**, Vol. 11, Nos. 1 & 2, pp. 65-78.
- Wynar, Bohdan S., Dowell, Arlene T. and Osborn, Jeanne (1980). **Introduction to cataloguing and classification**. 6th ed. Colorado: Libraries Unlimited.