Some arguments against the suitability of Library of Congress Classification for Spanish libraries

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ABSTRACT: This paper introduces the history of library classifications application in Spanish libraries and discusses the validity of criteria followed in the recent adoption of the Library of Congress Classification (LCC) by some Spanish university libraries. The suitability of the scheme for subject indexing and retrieval is analysed contrasting advantages and disadvantages from several viewpoints: practical aspects of implementation, value as a knowledge organization system, efficacy for subject representation and retrieval, user friendliness and adequacy to functionalities required in Web OPACs. From the theoretical perspective, the lack of adherence of LCC to some fundamental canons for building library classifications defined by Ranganathan is also pointed out. On the overall, the paper argues in favour of decimal classification systems.

KEYWORDS: LCC, DDC, UDC, Spain

1. The first implementations of the UDC in Spain in Second Republic

The major library development in Spain started with the Second Republic, in 1931 as a part of the Republican government's programme aimed to national raising literacy level of population in the then predominantly rural Spain. The role of the national library network planned at the time was to support literacy and education efforts and bring culture and knowledge to culturally and educationally deprived parts of the country. This period from 1931 to 1939 was known as the Silver Age of Spanish Culture. Universal Decimal Classification (UDC), being the most widely used classification in Europe at the time, backed by the universal bibliographic project, was implemented in Spanish libraries. This implementation was extended to the large library network created at the request of the Book Interchange and Acquisition Board. The outbreak of the Civil War, in 1936, brought the library development to a halt and the extensive library network created at the request of the Republican government was destroyed, collections classified by UDC at the time, were burnt, censored and plundered.[1]

2. Official adoption of UDC for Spanish libraries in 1939

At the end of the Civil War, in 1939, with the defeat of the Republican government and its departure into exile, General Franco's new government made it officially compulsory to use the UDC to classify the collections in Spanish libraries. The new Government legislated this official implementation of the UDC and drafted the Order of 1939. The new Spanish government of 1939 was closely related to those of Germany and Italy at the time, and the new implementation of the UDC was expected to have great impact in the Spain-Germany-Italy axis.
The Order of 29 July, whereby the decimal bibliographical system was implemented in the

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[1] San Segundo, Rosa (1999) Futura implantación de los distintos sistemas de clasificación en las bibliotecas del Estado español. In: *Les biblioteques i els centres de documentació al segle XXI peca clau de la societat de la informacio*, Colegio Oficial de Bibliotecarios-Documentalistas de Cataluña, ISBN 84-86972-9-4, pp. 507-520. Available at: http://www.cobdc.org/jornades/7JCD/36.pdf.

classification of the collections of the State Public Libraries, established the compulsory use of UDC in state-owned libraries, not only in terms of collection arrangement but also in the organization of catalogues. Instead of the international edition of the UDC in French (Classification Décimale Universelle, (FID 151), Brussels: IIB, 1927-1933), valid at that time, the edition adopted in Spain was the German further extended, international full edition (Dezimal-Klassifikation: Gesamtausgabe (FID 196), Berlin : DIN 1934-1953).

The implementation of the UDC was completed with the decree of 1939, which reinstated a library practice that had been fully in force during the previous decade. This implementation was also accompanied by serious purging in libraries: a large number of libraries created by the Republican government were closed and the purging and censorship of the books in existing libraries was imposed. Simultaneous with the official implementation of the UDC, the above-mentioned Republican Interchange Board was reinstated in 1939, via the Order of 13 December. The Book and Journal Interchange and Acquisition Board for Public Libraries was created which, although with a similar name, would have totally new goals.

Before 1939, the Republican Board had adopted the UDC but not through legal regulations. There was no desire to legislate this aspect so as not to hinder the lively growth of libraries. The new Board created in 1939 ratified the adoption and extension of the UDC but the direction of the activities of the new Board was diametrically opposed to that of its predecessor. This new Board was committed to a policy and measures whose dynamics was, basically, the burning of books,[2] control, purging and repression.[3]

3. UDC and legislative change in the Library Network of Catalonia

During the Spanish Second Republic, an autonomous government had been created for Catalonia. At the end of the Civil War, the autonomous government of the *Generalitat* disappeared and, once again, the Library of Catalonia depended on the Council of Barcelona, as had occurred during the dictatorship of Primo de Rivera in 1923. The new Central Administration set the guidelines for Catalan libraries and, via the aforementioned decree of 29 July of 1939, the UDC, that is, the 1934 version of the Dewey Decimal Classification system, was implemented.

Nevertheless, ten years before, the Decimal System had already been implemented in Catalonia, with the modifications made in 1905 by the International Bibliography Institute or, in other words, the version of the Universal Bibliographical Repertoire Manual. This system was implemented in the Library of Catalonia and throughout the public library network at the request of the director of the Library of Catalonia and classification teacher from the Library College of Catalonia, Jordi Rubio i Balaguer. In the Library of Catalonia, the implementation began later, while the latter was transferred during the Civil War under the direction of Jordi Rubió i Balaguer. However, the final implementation occurred once the war was over, after 1939, when Rubió had already been dismissed from his post. So the new guidelines in the recently installed library meant that, in the end, the UDC was implemented and not the Decimal Classification System. As in the rest of the Spanish state, Catalan public libraries were subject to the classified collection

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[2] Vicens, Juan (1938) *L'Espagne vivante. Le peuple a la conquète de la culture*. Paris : Editions Sociales Internationales, pp. 25, 31.

[3] Marquez Cruz, Guillermo (1988) Sociología de la lectura en España en el proceso de modernización. De los orígenes de la organización bibliotecaria a la burocratización de la lectura (1808-1939). *Boletín de la Asociación Andaluza de Bibliotecarios*, año 4, núm. 12-13, pp. 46-62.

arrangement in reading rooms and stacks, though in some cases it was not totally implemented as in many libraries users did not have direct access to the shelves. Nevertheless, the UDC was used to organize and distribute the systematic catalogues.

4. UDC in the current Spanish library scene

Following the end of Franco's dictatorship, and the introduction of democracy in 1978, a great change occurred in Spanish legislative and library environment. The decree of 19 May 1989 approved the *Regulations for State Public Libraries and the Spanish Library System* which laid down the regulatory standards for the organisation and modus operandi of state-owned libraries. Regarding the technical processing of collections, the Regulations' preamble expounded the abolition of the Order of 29 July which had implemented the Decimal System.

The new royal decree did not prescribe the compulsory use of any classification systems and this was left awaiting new provisions which would regulate the normalisation and unification of a classification system. Such new provisions have yet to be issued. In Chapter III, Article 10, the Regulations state: "*Technical and systemization of data. 1. Following a report by the Library Coordinating Council, the Minister of Culture shall dictate the technical standards for: a) The drawing-up of the different types of catalogues listed in the previous article. (Alphabetical catalogue of authors, subjects, titles and systematic procedure)*".

Furthermore, in conjunction with the administrative decentralisation of the state and the creation of the Autonomous Regions, between 1979 and 1983, specific competences were created in library matters in each region. However, existing regulations in autonomous regions still do not include classification-related rules.[4]

It can be inferred from the above that there is currently a legal loophole or *vacuo legis* regarding the classification system to be used. The new body to be created via the provision of 1989, the Library Coordinator Council, would be the authority to dictate the specific regulations for classification of library collections and systematic catalogues. But this new organ has not yet been consolidated, which explains the current legal loophole in this matter. This situation could be avoided with provisions issued by a transitory law, which could oblige professionals in state-owned libraries to use the UDC until subsequent regulatory provisions. As a consequence, once again, we find ourselves in a moment of transition, towards new theoretical and practical configurations in terms of classification systems in Spain.

5. First adoption of a different classification system: the LCC in a university library

Based on the provision of 1989, the first implementation of a different classification system in a Spanish state-owned library took place in Catalonia, at the library of the Pompeu Fabra University, inaugurated in 1990. In the process of selecting a classification system for this library,

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[4] Decree 65/1986 of 15 May, rules of the Principality of Asturias for library services.
Library Law of Aragon, 8/1986, of 19 December.
Law on Library Organisation of the Autonomous Region of Valencia, 10/1986, of 30 December.
Library Law of Castilla y León, 9/1989, of 30 November.
Library Law of Castilla-La Mancha, 1/1989, of 4 May.
Library Law of Madrid, 10/1989, of 5 October. Library Law of Galicia, 17/1989, of 11 October.
Library and Bibliographical Heritage Law of the Region of Murcia, 7/1990.
Library Law of La Rioja, 4/1990, of 29 June. Basque Cultural Heritage Law, 7/1990, of 3 July.
Library System Law of Catalonia, 4/1993, of 18 March, modifying the preceding Library Law of 1981.

the rationale was that tradition should not be a hindrance:[5] being a newly-created library, it did not had to be tied to traditionally used systems. The choice of the classification system was addressed and it was initially considered that if a new system was to be chosen it would delay all the technical processes with the inconvenience that any new personnel would not be trained to work with it. Some requirements were formulated in advance for the classification scheme to be chosen, specifically that it should:

- be universal,
- be one single system for the whole library,
- allow free access,
- allow development so as not to compromise the future
- be prescriptive in the treatment of subject matters.

Several special libraries were also visited in order to make a comparative study of their practical application. Thus, the library of the Institute of Comparative Law in Lausanne, Switzerland, was visited, and technical advice was received from a librarian from Harvard University. The conclusion reached was that the Library of Congress Classification would be the best system to fulfil the desired requirements.[6]

Numerous advantages were put forward in favour of implementing the LCC[7] in the Pompeu Fabra University library. Firstly, it was considered to be a universal system as it covers all subject matters, as a specialised classification system would not do, as the collections in a university library are multi-disciplinary in terms of subject. Furthermore, diverse classification systems could not be applied as the Pompeu Fabra University library does not hold several libraries with multiple specialist subjects, rather it has a single library with one *modus operandi* and one management system.

It was, thus, considered important that only one classification system should be used which would also be applied to the single catalogue of the library, to the arrangement of collections and to online access. The fact that the LCC was implemented in numerous academic and university libraries, in addition to in the Library of Congress itself, and that the system worked efficiently for users, was also an added advantage.

The classification system should not become insufficient or obsolete with the development of collections in size and scope. This seemed to be guaranteed as this system has been used widely in academic and university libraries in the United States. It was also taken into account the fact that LCC is a classification system maintained by an institution acting as the Registration Authority, with official responsibility for creating and maintaining the system.

It was also argued that LCC has economic advantages due to the high number of bibliographic records that include this classification, which may be consulted and even copied. Another argument put forward was the fact that a large percentage of the Library of Congress Subject Headings (LCSH)[8] have the corresponding LCC number linked to them, both in their printed and CD-ROM versions. The

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[5] Baiges I Miró, A.; Brunet I Sahún, X.; Espinós I Ferrer, M. (1993) La Library of Congress Classification a la biblioteca de la Universitat Pompeu Fabra. *ITEM*, no 12, p. 94.

[6] Idem, p. 96

[7] Idem, p.96-97

[8] Library of Congress. Subject Cataloging Division. *Subject Cataloging manual. Classification*. Washington : Subject Cataloging service, Library of Congress, 1992.

Pompeu Fabra University Library uses LCSH to assign subject headings to bibliographic entries.

All these arguments supported the option for the Library of Congress Classification,[9] in addition to the enthusiasm shown by members of the academic staff. One of the initial difficulties that became apparent was the lack of knowledge regarding the LCC, which was rectified through a training course delivered by a librarian from Harvard University to the library personnel.

6. Objections to LCC from the practical point of view

The use of LCC in Spain, started with the Pompeu Fabra University Library has been rapidly expanding and there are already several libraries that have implemented this system, such as the Humanities Library of the Autónoma University of Madrid, Galicia University Library and the Library of the European University of Madrid, to name but a few. This leads us to reflect on the criterion upon which knowledge organization systems are selected.

Prior to discussing the theoretical criteria that should govern the choice of a classification system, it is useful to discuss each of the practical arguments in favour of implementing the LCC by the Pompeu Fabra University:

1. The Library of Congress Classification is not an integrated knowledge scheme in which related subjects across knowledge fields are clearly articulated and cross-referenced. Instead the scheme is an exhaustive enumerative list of extremely specific simple or complex subject-matters. Consequently, it is not a system but a highly detailed subject-matter list, lacking the option of distinguishing and reusing of common concepts such as place, time or document form[10] or relating subjects in ways different from the one enumerated in the scheme.

1. LCC is not a universal system, but a series of special subject schemes based on the literary warrant of a single library collection: the Library of Congress. Consequently, subjects that are poorly represented in its collections have few classes associated with them in classification tables while the significant prominence in the schedule is given to subjects related to the North America and Anglo-American countries. The universality of LCC is therefore rather questionable.

1. Due to its enumerative structure, LCC's suitability for shelf arrangement i.e. its topographic function can also be disputed. The lack of systematic hierarchical structure creates problems if library needs to choose a logical broader class to collocate similar content on the shelves. Consequently, many similar and related disciplines get separated in the tables and also on the shelves.

1. The above reason is also valid for online access: lacking systematic and hierarchical organisation it does not facilitate browsing. The enumeration is too exhaustive and extensive for users who are generally inexperienced in handling classification systems. As a consequence, users can easily get lost in the catalogue, as they are unable to situatethemselves either thematically or hierarchically within the classification tables.

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[9] Idem, p. 98.

[10] Otlet, Paul (1895-1896) Sur la structure des nombres classificateurs. *Bulletin de l'Institut International de Bbliographie*, vol. I, pp. 230-243.

2. Furthermore, LCC brings more difficulties for users in Spain where librarians know-ledgeable about this classification system are few and almost all users are unfamiliar with the system.

1. Concerning the fact that the system has been used in academic and university libraries much beyond the Library of Congress, it is worth arguing that a conversion process from the LCC to the DDC is occurring in US libraries. Moreover, there are already numerous computer programmes and publications which provide for this conversion, and the two systems are even being kept simultaneously in a large number of libraries. In other words, in the United States, there is an ascending conversion process from LCC to DDC. Consequently, a high number of libraries include the DDC or both systems in their catalogues.

1. With respect to the fact that the LCC is linked to LCSH, it is worth noting that other subject access tools exist with such links, as it is the case with the 21st and 22nd editions of the DDC. Since Ranganathan has introduced the method of chain index in creating verbal access to classification,[11] this method has been implemented in many systems. It is a procedure which associates a hierarchically structured classification to subject headings or, in other words, it ensures that each notation of a classification system has already pre-coordinated headings linked to it. This alleviates previous problems of both subject headings and classification systems, such as thematic and notational homonym and synonym issues, and provides for a better guidance for the navigation in an online catalogue. The notations of the 21st and 22nd editions of the DDC have the full list of the LCSH associated with and linked to them, which was drawn up with the collaboration of OCLC. This enormous advancement in coordinating systematic structure and verbal access to classification is presented as a major outcome of current content analysis. This tool surpasses many of the shortcomings of systematic and alphabetical classifications and is being more widely implemented than the LCC Plus tool.

1. The enthusiasm around the implementation of the LCC, said to be expressed by lecturers at the Pompeu Fabra University, should be taken with caution. Lecturers are not always the best advisers in university libraries, although they do contribute valuable information and compare the use of different libraries. Nevertheless, they lack the theoretical knowledge on information organization and information retrieval that information specialists have and which is essential when it comes to choosing tools and solutions.

1. Regarding future perspectives, we must not forget the rapid development and implementation of communication networks such as Internet, and the high percentage of libraries across the globe that have made their catalogues available on the web, making use of hypertext. Hypertext technology has enabled catalogues, to make better use of hierarchical browsing and the lack of logic in LCC structure makes this scheme less user-friendly when compared to decimal classifications with prominent hierarchical structure.

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[11] San Segundo Manuel, Rosa (1999) Indización en cadena y su aplicación práctica en cadena. In : *Organización del Cono-cimiento en Sistemas de Información y Documentación: Actas del IV Congreso de ISKO-España, Granada, 22-24 de abril de 1999*. Granada: ISKO-España, pp. 53-59.

7. Objections to LCC from the perspective of classification theory

In his *Prolegomena to Library Classification,* S. R. Ranganathan (1967) proposed fundamental principles (canons) for building a library classification. Ranganathan tested his principles on UDC, proving that some of the points put forward against UDC by Sayers were correct. Based on the same principles, one can find many more objections to the LCC. Based on Ranganathan's principles, objections to LCC can be systematised according to the following canons:

1. The canon of *differentiation* expresses that, in all classification systems, each division of the main categories must be made according to different characteristics which are pursuant to systematisation, that is, to subdivision. This does not happen in the LCC.

1. The canon of *relevance* expresses that the characteristics chosen to systematise in a given subject area must be relevant for that area. Created to serve subject arrangement in a single library, LCC criteria for subject arrangement are not objective and may not be likely to be relevant for subject as such.

1. The canon of *ascertainability* does not govern the LCC due to the fact that the tables are not systematised using ascertainable criteria, rather they are enumerations instead.

1. The canon of *permanence* states that a characteristic used as a classification criterion must be maintained and cannot be changed. In the LCC this is not the case, as each main class is structured based on different principles decided upon by subject specialists for their specific areas irrespective of systematic structure chosen for other disciplines.

1. The canon of *concomitance* refers to the fact that concomitant, i.e. concurrent characteristics should be avoided. In the LCC, concomitance occurs frequently as it is governed by criteria of functionality and dynamism compared to theoretical criteria.

1. The canon of *relevant sequence* refers to the fact that a succession of characteristics must be used in a relevant manner, which is why Ranganathan proposed his specific faceted formula for each main class. For example, if we classify literature, we would be interested first in the linguistic scope, then the form and finally the date. This relevant sequence is non-existent in most LCC tables as, continuing with the example of literature, it is not systematised following a single, common, unalterable criterion, but it responds to a list of authors without making use of any auxiliary or systematising characteristic.

1. The canon of *consistent succession* indicates that, in each scientific area, a classification system should present an order of common characteristics. For instance, In the UDC, in most cases, the filing order of facets puts, geographical first, followed by chronological period, followed by more specific subject facets: tools, materials, processes.

1. The canon of *exhaustiveness* refers to the fact that the classes must totally exhaust the universe from which they stem. In the LCC, this does not occur as this system is a reflection of the collections existing in the Library of Congress, meaning that knowledge areas not represented in its collections are not represented in the tables of the LCC.

1. The canon of *exclusiveness* is not accurately featured in LCC tables, as these have been designed by different subject specialists with no intention to relate different subject areas. Thus; concepts are repeated and enumerated in various subject areas.

2. The canon of *helpful sequence* states that the sequence order of the categories must be helpful or, in other words, the order of the focal points must be established as a classifying criterion. Ranganathan explained the principles that should govern the helpful sequence, as follows:
    - The principle of Increasing Concreteness which states that if one class is more concrete and another more abstract, the latter has precedence.
    - The principle of Later-in-Evolution expresses that if two classes pertain to the same line of evolution, the first stage must prevail over the second.
    - The principle of Later-in-Time indicates that if one class belongs to a preceding moment in time, the latter must prevail over a subsequent class.
    - The principle of Spatial Continuity expresses that geographical areas must follow an order according to their nearness (in a lax sense, in the UDC, it is sometimes fulfilled with some auxiliaries, for example, 43 Germany, 44 France, 45 Italy and 46 Spain).
    - The principle of Canonical Sequence shows us that if there did not exist another scientific principle for the ordering of sequences, traditional or canonical methods should be used. These principles of the helpful sequence itself which must govern each faceted formula or each systematisation of the sciences and their auxiliaries are not respected in the LCC.

1. The canon of *consistent sequence* confirms that the same characteristic must be used to systematise coordinated classes or, in other words, if we systematise Botany via classes of plants and then by large geographical places, in Zoology the same criterion should be followed. As transpires from the previous comments this is not the case in LCC which is not constructed as an integrated system.

1. The canon of *decreasing extension* adds that, in hierarchical structure, if one of two classes has greater extension and contains the other, the former will have preference over the latter. The LCC does not have a hierarchical structure so this canon is not followed.

1. The *canon of modulation* means that, between the first thematic link of a chain and the last, there must not be lost links or thematic absences. In the LCC this is frequent as the entire extension of the universe of things is not systematised.

1. The canon for *co-ordinate classes* expresses that all class subdivisions of the same level have to be coordinated. LCC lacks this structural logic as its organisation does not abide by a hierarchical structure.

1. The canon of subordinate classes indicates that in hierarchical and subordinate structuring all inferior subordinate classes must have a decreasing degree of relationship. The LCC lacks this feature since class subordination is not based on hierarchical principles.

Without going into further and more detailed analysis based on Ranganathan's principles - it is clear that the LCC structure does not comply with many fundamental principles necessary for knowledge organization and presentations schemes. The lack of logic in LCC is so notorious that it hardly requires further arguments. It is important to take on board that the LCC was not created as an universal knowledge organization system for international information exchange and access and it is not surprising that it lacks many of the qualities needed to fulfil this role. Because of the long history and nature of its development, being primarily created for shelf arrangement, it is easy to dispute LCC suitablity for use as an effective subject access system, It is worth commenting that many faults in its structure from the point of view of logic and indexing functionalities and concept synthesis causes problems even for the Library of Congress. Every time a complex subject combination appears in the collection it cannot be classified by combi-

nation of existing subjects and a new subject has to be introduced in the schedules. Hence, LCC, which contains several hundreds of thousands of classes, requires constant insertion of new classes and is constantly growing while its power in indexing remains significantly weaker when compared to systems based on more modern synthetic principles.

8. Concluding remarks

Questioning the Library of Congress Classification from a theoretical point of view is quite easy as the 9th century principles on which it was built have long been superseded by modern classification theory introduced by Dewey and further developed by Otlet, Ranganathan, Bliss and others. Nevertheless, LCC pragmatic approach was greatly legitimated through its use in the largest library in the world and being made available through bibliographic services reaching libraries throughout Anglo-American world and beyond, since the beginning of the 20th century. Its use in libraries worldwide in spite of its many and well known weaknesses is a phenomenon entirely based on the power of centralized bibliographic service designed to save the time and labour of libraries lacking professional staff and resources.

Every classification system has its weaknesses. But precisely because LCC is in the theoretical sense beyond repair and, in so many ways, weaker than DDC, UDC, Bliss Bibliographic Classification, Colon Classification etc., very few classification specialists would think necessary to engage in an in-depth analysis.

It is obvious that all classifications are a reflection of the *Weltanchaung* in which they are developed but the existing body of knowledge on modern classification schemes should suffice to make a correct professional decision. Classifications schemes are helpful artificial constructs, representing knowlege, in addition to echoing social, economic, political and other structures in their schedules.[12] But even if taking this on board UDC or DDC seem to be much better suited to the Spanish context. Furthermore, as mentioned earlier, modern library OPACs tend to enable subject browsing and hierarchical schemes with expressive decimal notation seem to be best suited for this type of application.

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