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A STUDY ON DEVELOPMENT AND CLASSIFICATION OF LIBRARY

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Abstract

In the article author has introduce the library classification and present the historical development of library classification from the Vedic period.

KEYWORD: Library Classification, Development of Library Classification, History of Library Classification

INTRODUCTION:

Knowledge has been created in different periods of time, known as well as unknown, in various subjects. We can easily understand that, though the time-span from Greek-Roman period and in India from the period of creation of literature in Sanskrit, is one of the periods of the available source of knowledge; the process of creation of knowledge had begun hundreds of years even before this, or even from the beginning of human life itself. From this, it is universally acknowledged truth that the system of classification came into being to weave in one strand the depth and extent of this subject, to have the classification of the creation of knowledge in this subject scientifically. Instead of mere creation of knowledge and its availability, we realize the extraordinary importance of scientific classification of knowledge available in various disciplines, texts and criticism and the means of research, and the cooperation we can get in the work of creation of knowledge. It is through this that the well-known experts in the field of Library Science, through their study and experience, have put forth different classification schemes. In this article the author has presented historical development in the library classification.

CLASSIFICATION:

“Classification” is derived from a Latin word Classis, which was used in ancient Rome from groups of citizens according to their wealth. Classification is probably the simplest method of discovering order in the overwhelming multiplicity of nature. It is a process of sorting, which brings together like things / objects and separates unlike ones. The ideas or objects are collected into groups. These groups stand for certain qualities which

its members possess. The procedure, necessary to form the groups is called classifying and the result is a classification.

A classification is a structure; a map. Knowledge classification is a cognitive map of knowledge. According to Ranganathan Library Classification is the translation of the name of the subject of a book into

preferred artificial languages of ordinal numbers.

According to Mann, classification is the arranging of things according to likeness and unlikeness. It is the sorting and grouping of things, but, in addition, classification of books is a knowledge classification with adjustments made necessary by the physical form of books Sayers defined library classification as the arrangement of books on shelves, or description of them, in the manner which is most useful to those who read.

Classification aims at demonstrating the way in which the human intellect transforms the chaos of sense impressions into a cosmos of concepts. Human beings seem to have an innate need to organize entities. This need to organize large amount of knowledge and information led to the development of classification schemes and other organizational tools. The ultimate aim of all classification work is to make sense out of chaos by grouping similar things together. Library classification has mainly four purposes like order the fields of knowledge in a systematic way, bring related items together in the most helpful sequence, provide orderly access to the shelves, and lastly to provide an exact location for an item on the shelf.

Classification has ruled traditional libraries for centuries in systematic arrangement of the books for their better retrieval. The classification, not only assists the memory, but also expresses the relationships of things. The need for a classification system is much more in today's electronic environment than ever before.

SCHEME OF CLASSIFICATION:

According to Ranganathan Scheme of Classes is statement showing the filiation sequence of the classes arising in the course of the successive divisions of the universe of knowledge. Scheme of Classification is Scheme of Classes fitted with terminology and notation.

It is helpful to distinguish between a Scheme of Classes and a Scheme of Classification. The latter differs from the former in having a distinctive class number to documents or catalogue entries of documents. These are often taken out for use from out of their respective places in the collection. After use, they should be replaced in their correct places. The class number mechanises this replacement-that is, it eliminates the need for re-thinking about the relative positions of the documents or the entries of in it to. Again the universe of knowledge is continuously growing and throwing out new classes. The finding of the right, filiation, helpful place for each such new class among the already existing ones is also rendered easier by representing each class by a unique class number. The class numbers constitute in effect an artificial language of ordinal number. It may be called a Classificatory Language. There should be no synonyms or homonyms in a classificatory language if the mechanization of the arrangement of the classes and of the documents embodying them or of the entries of the document is to be free from any ambiguity or noise.

There are various schemes of classification which deal with universe of subjects in different ways. The main division of classification schemes is Enumerative Classification and Faceted Classification.

DEVELOPMENT IN THE LIBRARY CLASSIFICATION

The Development in the library classification is divided into two groups namely, the important events in the knowledge-classification and important events in the classification of books.

1.The Important Events in Knowledge-Classification :

Knowledge Classification is the classification of knowledge stored in the field into different groups, and to organize these groups chronologically according to their mutual relation. Knowledge is science. According to Henry Wilson, "Science is only science, because it is progressive, its progress and change mean what is gained and invention of idea that did not exist before."

The philosophers of the past brought clarity in knowledge, and to chain knowledge together they made use of the scheme of classification. Real effort of classification of knowledge was done by ancient philosophers; as a result classification got philosophical background. Following are the stages of this knowledge classification.

1.Vedic Classification :

The earliest of the known schemes of knowledge classification is the Vedic one. This scheme is implied in the Upanishads. It divided the universe of ideas into four groups, called dharma, artha, kama and moksha. In the group named Dharma there are subjects related to human society. These subjects are like the modern subjects such as Theology, Ethics, and Sociology. In the group called 'Artha' there are included

subjects related to the human social system. These subjects are like modern subjects such as History, Politics, Economics. In the group 'Karma', there are subjects concerned with the work of human beings. These subjects are like modern subjects such as Literature, Arts and Technology. In the group 'Moksha', along with the experience of soul, there are included subjects like Logic, knowledge of Science, Metaphysics, etc.

2.Greek Classification :

Greek classification is said to have developed from the time of Plato. Plato's scheme continued logic, physics and ethics. However, the scheme of knowledge classification put forward by Aristotle is regarded as a representative of the Greek schemes. He divided knowledge into three groups, such as theoretical philosophy, practical philosophy and productive arts. The first objective of this scheme of classification was that knowledge is for the use of the self. The second objective is a guide showing us the way how to use knowledge. The third objective is to form useful and beautiful subjects.

In the group of Theoretical Philosophy there are included the subjects such as Logic, Metaphysics, Mathematics and Physics. The subjects Ethics, Politics and Economics are included in the group of Practical Philosophy. And subjects Applied Science (technology), useful Arts are included in the Productive Arts Group. Until the year 2000, only the Aristotelian methods were used for the classification of knowledge.

3.Scholastic Classification :

There arose the scheme of Scholastic Classification after Greek Classification scheme in the medieval

Europe. This scheme divided the universe of ideas into three groups, namely, trivium, quadrivium and the third group. In trivium, the dominant subject were linguistics, dialectics and rhetoric. The dominant subjects in quadrivium were arithmetic, geometry, astronomy and music. The dominant subjects in the third group were theology, metaphysics and ethics.

4.Baconian Classification :

Francis Bacon studied the knowledge of universe and organized the scheme of knowledge classification. He recorded the information about this scheme of classification in his book *Advancement of Learning*. In this scheme “divided the universe of ideas into three successive groups, namely history, poesy and philosophy. History group includes Geography and History. The Poesy group includes Arts and Literature, while Philosophy includes the remaining subjects. The scheme of D. D. C. and U. D. C. are based on Baconian scheme of classification. The D. D. C. and U. D. C. scheme have accepted the order opposite of the one in Baconian classification.

5.Hobbes' Classification :

Thomas Hobbes (1585 – 1679), described his scheme of knowledge classification in his *Leviathan* (1651). He divided knowledge into the following two groups:

- 1) Mechanics, Engineering, Architecture Navigation and
- 2) Acoustics, Music.

His method of knowledge classification schemes to have been followed by the philosophers of the 19th century onwards, who worked out his method in greater details.

6.Kant's Classification :

Emanuel Kant published the information about this classification scheme in 1781 in his book *Critique of Pure Reason*. This is based on the approach that a given universe of entities can always be divided into two groups on the basis of primitive human instinct.

7.Hegel's Classification :

George Wilhelm Friedrich Hegel (1770-1831) described the triadic scheme of knowledge classification in his *Logic* (1812). This scheme seems to have been influenced by the Greek triad. In this

scheme he has classified knowledge into three groups : Logic, Natural Science and Mental Science. The Group of Logic has been further classified into Ontology, Theology and Knowledge of Science. The group of Natural Science is again classified into three groups : Mechanics, Physics and Biological Sciences. And the group of Mental Science has been divided into three groups, namely 1) Anthropology 2) Philosophy, Ethics, Law and 3) Arts, Religion and Philosophy.

8.August Comte's Classification :

Auguste Comte (1798-1857) put forth his serial system of knowledge in his *Course de philosophie positive* (1830). In this scheme of classification Comte organized the subjects Mathematics, Astronomy, Physics, Chemistry,

Biology and Sociology. These subjects have been inter-related. Each group depends on its previous group. In this way he has developed a system of string classification.

9.Ampere's Classification:

Andre marle Ampere (1775–1836) worked out his system of serial classification in his Essai sur philosophie....(1834-43) Ampere created a string classification of the subjects such as Physics, Engineering, Geology, Mining, Botany, Agriculture, Zoology, Animal Husbandry, and Medicine. Ampere has prepared this system of classification much more carefully and inclusive than previous systems.

10.Spencer's Classification:

Herbert Spencer (1820-1903) formulated another serial scheme, which was described in his classification of sciences (1864). His sequence of subjects is given below:

Logic, Mathematics, Mechanics, Physics, Chemistry, Astronomy, Geology, Biology, Psychology and Sociology.

Ampere's classification scheme is considered to be more useful than Spencer's classification scheme. But Spencer is the first classification expert who has proposed principles for the classification of knowledge. These principles proved to be guides in the field of knowledge classification.

3.2 Important Events in the field of Classification of Books:

Books, which discuss particular fields of knowledge, are collected in the libraries. Then they are to be divided into particular groups. A system has to be formulated to bring close the inter-related fields of knowledge bringing together in one group the books on the common branch of knowledge. And, the work of classification of books involves preparing a particular scheme of book classification, and with its help carry out the classification of books. This classification of book is restricted by the books related to particular field of knowledge, language in which written, nature of discussion and particular time and place. For this, it will be useful to have a look at the stages of the classification scheme of books.

1.Brunet Scheme :

The Brunet scheme had much influence, and was used widely. A scheme was used by Paris booksellers and French bibliographers since the seventh century. J.C.Brunet revised the same and published it in his Manuel du libraire et de l'amateur des livres (1809) The libraries of British Museum also have used this classification scheme. This classification scheme was most being used in France to organize indices, and by the book-sellers and by those making personal collection of books. There are many limitations of this method. Ten main classes have been facilitated in this method. This scheme uses sign-system, which is a mixed sign-system. In this classification scheme, the main classes in existence now have been included in the annexure. There is no index prepared of this scheme.

2.Dewey Decimal Classification :

The father of this classification scheme is Dr. Melvil Luis K. Dewey. The word decimal has been in use from the middle of the sixteenth century to the middle of the nineteenth century, and stood for the use of the integral number expressed through the scale of ten. But Dewey used the pure decimal fraction notation in 1876, DDC was

published under the title A Classification and subject index. The 22nd edition was published in July 2003, which is available at present in print and on the web. This classification scheme has been translated into more than 30 languages; it is being used in more than 135 countries and 2 lac libraries.

Dr. Dewey's Classification scheme is based on the knowledge classification of Bacon and Harris. Harris had inverted the order in the fields of knowledge in Bacon's system; which was accepted by Dewey. He used decimal system for the sections of knowledge. In this classification scheme, the total universe of knowledge is first divided into 10 main sections and out of it each section into 10 sub-sections and out of it each again into 10 sub-sub-sections. These have names such as Divisions, Subdivisions, etc. In this scheme the numbers used for all subjects are used as decimal fractions.

3.Expansive Classification Scheme :

American Librarian Charles A. Cutter is the father of Expansive Classification Scheme. This scheme was developed in seven expansions. All six expansions were published in one volume in 1893. The seventh expansion was started later and continued till 1903. The same was published in installments in the form of folded sheets. In reality, this scheme is 7 independent classifications. Out of these, the first classification is very comprehensive, the second comparatively less comprehensive; the 3rd is still less comprehensive. In this way, these classifications become more and more deep. In this classification scheme Roman letters have been used for signs. As a result, it is possible to assign more minute subject titles than in the decimal classification scheme. The class numbers can also be made of less number of signs. The class number of every main subject starts with a Roman alphabet. All twenty six main subjects can be shown, making use of all the Roman Capital letters. Even though Expansive Classification scheme has been accepted by some libraries in New England, this scheme is not considered to be technical and excellent like the scheme of American classification. The plan of this classification scheme and its nature is like library of Congress Classification

4.Subject Classification :

James Duff Brown is the father of this classification scheme. In 1894, Brown presented a new scheme of classification (called the Quinn-Brown classification), formulated jointly with John Henry Quinn before the Library Association (Great Britain). It proved to be inadequate, and an expanded scheme was published by Brown in 1897 under the title Adjustable classification. An entirely new scheme was brought out in 1906, under the title Subject classification. The Third edition came out in 1939. The sign system of this classification scheme is the mixed sign system. In this scheme, Roman Capital letters are used as signs for the main subjects. For the remaining sections the Signs of classes from 000 to 999 have been made constantly. In some cases, to include new subjects, some places have been left unfilled. Subject classification is the only English general scheme. This system of classification was used in U. K. in maximum number of libraries at a time. Since this scheme failed to include new subjects, it was found inadequate. When British National Bibliography started using D. D. C; the use of subject classification was stopped.

5.Universal Decimal Classification Scheme :

The Universal Decimal Classification is the world's foremost multilingual classification scheme for all fields of knowledge, a sophisticated indexing and retrieval tool. It was adapted by Paul Otlet and Nobel Prizwinner Henri La Fontaine from the Decimal Classification of Melvi Dewey, and first published (in French) between 1904 and 1907. The second edition was published in French language during 1927 to 1933 and third edition during 1934 to 1951. The first English edition of this scheme was published in 1928. This scheme is very flexible and newly

created subjects can be very easily included in it. U. D. C. is being used in the whole world in different libraries, and this scheme has been published in 39 different languages. According to the survey made by Aida Slavic, this scheme of classification is being used in 60 per cent countries in the world.

6. Library of Congress Classification Scheme :

The Library of Congress Classification is a classification scheme that was “first developed in the late nineteenth and early twentieth centuries to organize and arrange the book collections of the Library of Congress. During 1904, 1920 and 1942 this scheme was published in its improved form. Every time changes were made in its form in the range of the main subject, and its sub-topics. The whole knowledge of this classification scheme is divided into 21 main classes. Roman capital alphabet has been used for the main topics and for their first sections. There is mixed sign system in this classification. But, for the class-number there is a limit of 2 letters and 4 Arabian figures. This classification scheme is practice – oriented,

because while forming this system the point of view of the users of the system is taken into account. Expansive Classification Scheme has been used as the basis in preparation of this scheme. But, changes have been made in the lists of some main classes, and they are of more improved nature than in the Expansive classification scheme. In the 20th century, this classification scheme was accepted by almost all the educational libraries in the USA and also by other libraries. At present this classification scheme is the most used one in the world.

7. Bibliographic Classification :

Henry Evelyn Bliss was the author of Bibliographic Classification. The scheme was first conceived in 1908. An outline of the scheme was published in the Library Journal in 1910. A condensed version was published in 1935 under System of bibliographic classification. Later it appeared in full between 1940 and 1953. The second edition of this system is being developed in Britain since 1977. Even though this system of classification was prepared in America, it was used in the British libraries.

8. Harvard Yenching Classification :

Alfred Kaiming Chiu (1898-1977) was a pioneer of establishing a library classification system for Chinese language materials in the United States of America. The system devised by him was known as Harvard Yenching Classification System. The system was primarily created for the classification of Chinese language materials in the Harvard – Yenching Institute Library which was founded in 1927. The Library of Congress Classification System could not carry out classification of the historical material in Chinese language properly. American libraries started organizing the historical literature in China. The American libraries such as East Asian Library of the university of California, Colombia University, University of Chicago, Washington University, etc. made use of Harvard Yenching Classification System. Similarly, the libraries in the universities in the countries England, Australia, New Zealand, Hong Kong, Singapore, etc. made use of this system of classification.

During 1970 to 1980, all subjects in the Chinese literature were included in the system of Library of Congress Classification. As a result, after 1970, in the American libraries Library of Congress Classification System began to be used for Chinese literature instead of Harvard Yenching Classification. Yet this system has not completely stopped. At present this system of Classification is being used in the libraries of England, Australia, New Zealand and other Commonwealth countries

9.Colon Classification :

Colon Classification is a scheme of library classification developed by S. R. Ranganathan. It was the first ever faceted (or analytico-synthetic) classification. Dr. Ranganathan published the first edition of Colon Classification scheme in 1933. Subsequent editions appeared in 1939, 1950, 1952, 1957 and 1960. The latest 7th edition came out in 1987. In these editions newly created main subjects and their sub-topics were included. In this way efforts were made to keep this classification scheme up-to-date. Similarly, libraries in some of the foreign countries have also used this scheme. In this scheme, the constituent subjects have been classified into five aspects. As a result, deep classification can be done. Independent class numbers can be given to many subjects.

10.National Library of Medicine Classification :

A Survey Report on the Army Medical Library, published in 1944, which recommended that the Library be reclassified according to a modern scheme, and that the new scheme be a mixed notation resembling that of the library of congress. Subsequently a classification committee was formed, chaired by Keyes D. Metcalf and including Mary Louise Marshall who compiled the schedules. Medical specialists acted as consultants to the committee. Based on the consultants advice that of the committee and of the NLM cataloging staff, M.s. Marshall produced a preliminary edition of the Library Classification, which was issued in 1948. This preliminary edition was revised by Frank B. Rogers, and he published the first edition of this scheme in 1951 under the title U S Army Medical Library Classification. The fifth edition of this scheme was published in 1999, and it was published in electronic medium in 2002.

11.Nippon Decimal Classification :

The Nippon Decimal Classification is a system of library classification developed for mainly Chinese and Japanese language books maintained by the Japan Library Association since 1956. This system is based on Dewey Decimal classification, in this system the main subjects are divided into 9 main classes. And those main subjects which have not occurred in these 9 main classes, the 10th new main class, 'Genera', has been created for them

12.Chinese Library Classification :

Chinese Library Classification is the national library classification system in China. All the libraries in China in the primary and the secondary schools, university libraries, educational libraries, public libraries make use of this system of classification. The publishers in China also make use of this classification for the books published in China. The Book Classification of Chinese Libraries was first published in 1975, under the auspices of China's Administrative Bureau of Cultural Affairs. Its Fourth Edition (1999) was renamed CLC. CLC has twenty two top level categories, and inherits a Marxist orientation from its earlier editions. In this system classification has been made in 22 main subjects and in 43600 sub-topics in them. For the main subjects English Capital letters have been used as sign numbers. Similarly, for sub-topics English letters and figures have been used as sign numbers.

13.Traditional Knowledge Resource Classification :

In June 2001, in India, the project of Traditional Knowledge Digital Library (T. K. D.L) was prepared as per agreement between National Institute of Science Communication, New Delhi and Department of Indian Systems of Medicine and Homeopathy, Ministry of Health and Family Welfare. When compiled, TKDL would have documented the traditional knowledge available in the public domain in a digitized format, starting with the existing literature in Ayurveda. In the first phase, a Traditional Knowledge Resource Classification (TKRC) is being prepared for 2147 medicinal plants. The content of TKDL would initially consist of about 35000 Slokas from

Ayurveda. The code of each couplet has been saved in the Data Base. This code has again been decoded in several languages such as English, French, German, Hindi, Japanese and Spanish, etc. In future these codes will be available in 20 foreign languages and in each Indian language.

14.Korean Decimal Classification :

Korean Decimal Classification is a system of library classification used in Korea. In this system, the main subjects are divided into 9 main classes, and those subjects which have not been included in these 9 main groups, the 10th general is created as the main section.

15.American Numismatic Association Classification :

This scheme of classification has been used by American Numismatic Association for their own library. This classification scheme is the same as the Library of Congress Classification Scheme. In this system, two letters and two numbers have been used in the first line. But, in reality, it is a totally different system. As books on different main subject are available in great numbers in this library, the systems of Library of Congress and Dewey Decimal classification are not adequate. So, American Numismatic Association has created its own system of classification.

16.Cambridge University Library Classification :

Cambridge University, U. K. have created this classification scheme for the use in their main library. In this classification scheme, main subjects are indicated in 3 figures. It is the Library's general aim to make available on open shelves most works of academic importance that are physically suitable. The class number of books is prepared in four sections. In the first section, the class of the main subjects is up to three figures, and after this it is three decimals. The decimal is shown by the sign of colon, for example, 384 : 13. In the second section, the size of the book is indicated by small English letters. On account of this, it is helpful to organize books in the cupboards according to their size. In the third part, the year of publication of the book is shown, and in the fourth part the volume of the book is indicated.

17.Y. K. L. Classification :

The YKL classification system, which is being used by most of the Finnish public libraries, is an adaption of the American Dewey Decimal Classification. In this system all the main subjects are classified into 10 groups and after that sub-topics in 10 sub-groups. The description in the index has been included in it.

CONCLUSION:

Classification is the technique of organizing knowledge in the library. To facilitate the use of this reading material easily, this reading material is to be organized keeping in mind the demands, and convenience of the readers. It is the System of Classification in the library that facilitates the easy use of the reading material. There are several classification schemes are developed like Dewey Decimal Classification, Universal Decimal Classification, Library of Congress Classification, and Colon Classification. Some library classification schemes are developed for specific subject like National Library of Medicine Classification for Medical Science Subject.

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