

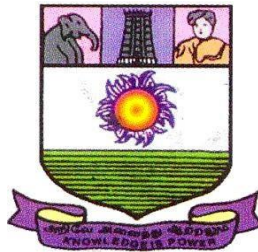
Knowledge Organization - II (Cataloguing Theory)

Curriculum, Programme Structure and Course

Contents

(Prepared in conformity with LOCF)(2025-2026

onwards)



DEPARTMENT of Library and Information Science

Directorate of Distance and Continuing Education

Manonmaniam Sundaranar University Tirunelveli -

627012

Course material prepared by

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METHODS OF ASSESSMENT	
Remembering (K1)	<ul style="list-style-type: none"> - The lowest level of questions require students to recall information from the course content. - Knowledge questions usually require students to identify information in the textbook.
Understanding (K2)	<ul style="list-style-type: none"> - Understanding of facts and ideas by comprehending, organizing, comparing, translating, interpolating and interpreting in their own words. - The questions go beyond simple recall and require students to combine ideas.
Application (K3)	<ul style="list-style-type: none"> - Students have to solve problems by using/applying a concept learned in the classroom. - Students must use their knowledge to determine an exact response.
Analyze (K4)	<ul style="list-style-type: none"> - Analyzing the question is one of the tasks where students breakdown something into its component parts. - Analyzing requires students to identify reasons, causes, or motives and reach conclusions or generalizations.
Evaluate (K5)	<ul style="list-style-type: none"> - Evaluation requires an individual to make judgment on something. - Questions are asked to judge the value of an idea, a character, a work of art, or a solution to a problem. - Students are engaged in decision-making and problem-solving. - Evaluation questions do not have single right answers.
Create (K6)	<ul style="list-style-type: none"> - The questions of this category challenge students to get engaged in creative and original thinking. - Developing original ideas and problem-solving skills.
Pre-Requisites	
<ul style="list-style-type: none"> - Foundational knowledge of the basic concepts of Library and Information Science. - Understanding of the structure and organization of a library collection. - Familiarity with the concepts of library classification. 	
Learning Objectives	
<ul style="list-style-type: none"> - To understand the fundamental concepts, objectives, and functions of a library catalogue. - To learn about the history and development of library catalogue codes. - To understand the different types of catalogue entries and their data elements. - To learn about the choice and rendering of headings for personal authors, corporate bodies, pseudonyms, and anonymous works according to AACR-2. - To understand the concept, purpose, and problems of subject cataloguing, including chain indexing and subject heading lists. - To explore the trends in library cataloguing, including centralized and cooperative cataloguing, bibliographic standards (ISBD, MARC, CCF), and ISBN/ISSN. 	
UNITS	Course Contents
UNIT I: FUNDAMENTAL CONCEPTS AND HISTORICAL DEVELOPMENTS	Library Catalogue: Definition, Objectives, Purposes, and Functions. History and Development of Library Catalogue Codes: British Museum Rules, Jewett's Rules, Cutter's Rules, AA Code (1908), Prussian Instructions, Vatican Rules, CCC, ALA Rules, AACR 1, AACR 2, AACR 2 (1988 Rev.). Physical Forms of Catalogues: Book, Sheaf, Card, Computerized. Types of Catalogues: Author, Title, Dictionary, Classified, Shelf List.
UNIT II: TYPES OF CATALOGUE ENTRIES	Kinds of Entries: Main Entry, Added Entry, Reference Entry, Analytical Entry. Data Elements in Different Types of Entries: Parts of a Main Entry (Heading, Body, Physical Description, Series, Notes, Tracing, Call Number). Filing of Entries: Meaning, Purpose, History, and Principles of Filing in Classified and Alphabetical Catalogues.

UNIT III: CHOICE AND RENDERING OF HEADINGS (AACR-2)	Personal Authors: Western and Indic Names. Corporate Authors: Societies, Institutions, Governments, Conferences, etc. Pseudonymous, Anonymous Works, and Uniform Titles. Non-Print Resources: Cataloguing of non-book materials (AV, electronic, etc.).
UNIT IV: SUBJECT CATALOGUING	Subject Cataloguing: Concept, Purpose, and Problems. Alphabetical Subject Approach: Synonyms, Homographs, Multi-word Concepts. Indexing Languages: Natural, Free, Controlled. Chain Indexing: Mechanism, Steps, Advantages, and Limitations. Subject Headings Lists: Library of Congress Subject Headings (LCSH), Sears List of Subject Headings (SLSH).
UNIT V: TRENDS IN LIBRARY CATALOGUING	Centralized and Cooperative Cataloguing: Definitions, Objectives, Advantages, and Forms. Bibliographic Standards: International Standard Bibliographic Description (ISBD), Machine Readable Catalogue (MARC), Common Communication Format (CCF). ISBN and ISSN: Definition, Structure, Significance, and Procedure for Obtaining.
UNIT VI: PROFESSIONAL COMPONENTS	<i>This unit is for practical application and may include:</i> <ul style="list-style-type: none"> - Practical cataloguing of documents using AACR-2. - Preparation of main and added entries for different types of documents. - Practice in chain indexing. - Assignment of subject headings using LCSH or SLSH. - Comparison of physical forms of catalogues. - Study of MARC record structure.
TEXT BOOKS	
<ol style="list-style-type: none"> 1. Ranganathan, S. R., & Neelameghan, A. (2006). <i>Classified Catalogue Code: with additional rules for Dictionary Catalogue Code</i>. Ess Ess Publications. 2. Bakewell, K. G. B., & Chandler, G. (2015). <i>A Manual of Cataloguing Practice</i>. Elsevier. 3. Chan, L. M. (2015). <i>Library of Congress Subject Headings: Principles of Structure and Policies for Application</i>. Library of Congress. 4. Rovira, C., & Caroline, C. (Ed.). (2016). <i>Sears List of Subject Headings</i> (13th ed.). H.W. Wilson Company. 	
REFERENCE BOOKS	
<ol style="list-style-type: none"> 1. Hunter, Eric J., & Bakewell, K.G.B. (1983). <i>Cataloguing</i> (2nd rev. ed.). Clive Bingley. 2. Krishan Kumar. (1993). <i>Cataloguing</i>. Har-Anand Publications. 3. Needham, C. D. (1977). <i>Organising Knowledge in Libraries: An Introduction to Information Retrieval</i> (2nd rev. ed.). Andre Deutsch. 4. Rout, R. K., & Choudhary, B. K. (1997). <i>*A Practical Manual AACR-2 1998 Revision*</i>. Reliance Publishing House. 	
WEB SOURCES	
<ol style="list-style-type: none"> 1. https://www.loc.gov/catdir/cpsol/ 2. https://www.ifla.org/ 3. https://www.isbn-international.org/ 4. https://www.issn.org/ 5. https://nptel.ac.in/courses/122/106/122106027/ 	

Unit - I: Fundamental Concepts and Historical Developments

Content:

This unit introduces the fundamental concepts of a library catalogue. It covers the definition, objectives, purposes, and functions of a catalogue. The unit traces the history and development of major library catalogue codes from the British Museum Rules to AACR-2 and its 1988 revision. It also describes the physical forms of catalogues (book, sheaf, card, computerized) and different types of catalogues based on their inner form (author, title, dictionary, classified, shelf list).

UNIT – 1

FUNDAMENTAL CONCEPTS AND HISTORICAL DEVELOPMENT

Objectives:

- Introduction to library catalogue
- To learn in depth about the history and development of library catalogue
- To obtain knowledge on various types of catalogues

Introduction:

Classification provides notation to the library materials and their position in the shelves. Catalogue holds a key to the holding of any library. Cataloguing is basically the process of preparation of entries for a library catalogue. It tells us what material a library contains on a given subject and where it may be found in a library.

Library catalogue:

In order to make maximum use of the library collections, every library has to adopt some procedures and techniques. These consist of classification and cataloguing. Classification, as you have already learnt in the previous lesson, comprises arrangement of documents on the shelves in a logical order. A catalogue explains the kind of documents available in a library and their location on the shelves. Let us now know what a library catalogue is. In order to provide access to the holdings of a library, an index or list of available materials in the collection must be maintained. This principal index or list of available materials is called a catalogue. A library catalogue can, therefore, be defined as, “A list of books, maps, stamps, sound recordings or any reading materials that constitute a library collection. Its purpose is to record, describe and index the holdings of any library collection.” A library catalogue, thus, lists documents forming the total holdings or a part of the holdings of a library. The use of the resources of a library depends to a large degree on the quality of its catalogue. Therefore, it is essential that the catalogue should be prepared with care and it should be maintained up-to-

date. It helps the users to use the library effectively and efficiently. In other words, a library catalogue is a record of the holdings of a library. In order to meet the requirements of users, it consists of various unit records. These records are called entries. Each entry is designed for satisfying a particular approach of a user. Entries are prepared according to a set of rules contained in a catalogue code which will be discussed in a later section of this lesson.

The catalogue thus:

- describes what the library owns,
- tells you where the items are, and
- shows you how to get the items.

Definition:

The term „Library Catalogue“ has been formed from „Greek“ phrase “Katalogos”, „kata“ means “according to” and „Logos“ means “order” or „reason“. Logos also denotes to logical concept which is based on the reasoning.

A library catalogue is a list of books and other graphic material in a library arranged according to a recognized order and containing specific items of bibliographical information for the purpose of identification and location of the material catalogued.

Dr S.R. Ranganathan has define the library catalogue involving three aspects.

1. The list, of;
2. Documents, -in a;
3. Library (single library or group of libraries).

Dr S.R. Ranganathan, “A list of document in a library or in a collection forming a portion of it”.

ALA Glossary of Library Terms, “Catalogue is a list of books, maps etc. arranged according to some defined plane”.

James Duff Brown, “Catalogue is an explanatory logical arranged inventory and key to the books and there content and is to the books in a particular library”.

C.A Cutter, “A library catalogue is a list of books which is arranged on some definite plan”.

Margaret Maan, “A catalogue is a record of the material in library”.

L. Akers, “A catalogue is a record of the material in a library”.

L. Jalley, “A catalogue is a communication”.

Purpose of library catalogue:

The books, documents and other reading materials in the library collection are usually physically arranged by one chief mode only. The most consistent and useful arrangement of library materials has been found to be by subject. But a variety of other approaches may be used in seeking materials from a library collection. Therefore, it becomes the function of the catalogue, by means of multiple entries, to provide the necessary access points.

The library catalogue should, therefore be equipped to deal with the principle channels of enquiry. The purpose of the catalogue is:

a) To enable a person to find a book of which either the

- Author or organization having intellectual responsibility is known
- Title is known
- Subject is known
- Category is known

b) To show what the library has

- By a given author or organization
- On a given subject
- In a given kind of literature or form of material

c) To assist the user in the choice of a book as to its

- Edition
- Content
- Physical form

The library catalogue thus assists the user in accurate and speedy determination of whether or not an item known by author or title is in the collection and if so, where it may be found. It also tells what materials the library contains on a given subject and where they may be found.

Function of Library Catalogue:

- To record each work in a library by author, translator, editor, compiler, series or by corporate body as author under which entries are made and a reader likely to search for a book.
- To arrange author entries in such a way then a reader find all the work of an author together. (In a dictionary catalogue).
- To arrange subject entries so that like topic will fall together and related topic will be correlated.
- To record title of works when necessary i.e. if it is a fiction or a popular work or if it is written by more than three author or if it a completed or edited work.
- To employ cross reference i.e. „see“ and „see also“ by which a reader may be guide from one entry or topic to author.
- To provide description of each book by mentioning author, title, edition, imprint, collection, bibliography and note when necessary.
- To list the call number (Class no + Author mark) by which books may be located or obtained.
- To work of as a book selection tool for other comparatively new or small library.
- To help the research workers and readers know what materials are available on a given subject in the library.

Evolution of catalogue:

The custodial responsibility assumed by the libraries of the early stages obligated on them the functions of acquisition and conservation entailing also the use of some system of bibliographic control so that the items on the store could be located and retrieved.

Early Stage (250 B.C. - 800 A.D.):

Some such methods though primitive, existed almost until the time the manuscripts came to end and ceased to be the primary vehicles of communication. The discovery of Assyro-Babylonian clay tablets, the wall inscriptions at Edfu and the extant remnants of the papyrus rolls of the Egyptian, Greek and Roman civilizations testify this fact. The catalogues and the materials they listed, both were in primal forms (clay tablets, inscriptions and papyrus rolls). From the archaeological finds of the Assyro-Babylonian clay tablets (1668-626 B.C.), the antiquity of the library catalogue can be easily placed around 2000 B.C. These tablets were

similar to press guides with bibliographic data, such as title (occasionally, with opening words), number of tablets constituting a work, number of lines on a tablet, distinct subdivisions and location marks inscribed on them. They served as simple location devices. However, all such primal forms were not verily catalogues. This system with no change continued to exist well into the first seven centuries of the Christian era. The fall of the Roman Empire in the 6th century brought about a deliberate destruction and dispersal of the hitherto great collections of the private, public and temple libraries. The emergence of Christianity as the state religion in the 3rd century having already dealt a severe blow, the temple libraries began to disintegrate. Their place was now taken by the monastic libraries. As the major instruments of education in the middle ages (300 AD - 1100 AD) monasteries served the cause by collecting, producing and preserving the books useful in the learning by the clerics. The famous work, institutions of Cassiodorus (6th Century) was intended to serve as a scholarly model with an annotated guide to what was valuable reading of the times. The need of catalogue was not felt. Efforts were made later in compiling inventories. A list of books given by Gregory the Great in the 8th century AD to the church of St. Clements (Rome) was the earliest of the monastic library catalogues. It was a marble tablet with an introduction or prayer and a few biblical works inscribed on it. The catalogue of the monastic library of York composed by Alcuin in verse, which could be either a list of famous authors or a bibliography was the next. A third example is De Trinitate of St. Augustine, which too was a simple list of works transcribed on the flyleaf of a work.

Age of Inventory (1200 A.D. -1500 A.D.):

Such simple lists were attempted in good numbers in the succeeding periods (900 A.D. -1100 A.D.). Louis Pious (814-840 A.D.) issued a decree requiring the monasteries and cathedrals to list all the books in their possession. So the catalogues of the monasteries and cathedrals were compiled to serve the need for inventories of the material possession. Books were arranged not by author but by the importance of the work in the order of Bible, other religious works and secular works. Contents were not indicated in the case of collections (works of the same author and works of various authors on the same subject hound together, as was the practice). The old traditions of the pre-Christian era continued.

Age of Finding List (1600 A.D. - 1800 A.D.):

Although the inventory idea persisted, many catalogues of the 16th century such as the Catalogue of St. Martin's Priory of Dover, the Syon Catalogue, the Catalogue of the Bretton

Monastery, etc. contained many additional details such as content notes, names of editors, translators, etc. in the entry and provided with author and other indexes. The 16th century proved a further productive period influenced by great bibliographers like Gesner, Treflerus, Maunsell, to mention a few. Of particular significance was the contribution made by Andrew Maunsell, a bookseller and a bibliographer in his own right, who published a bibliography of books in English. He adopted dictionary arrangement making entries under the surnames of authors with added entries provided under editors, subject words, etc. in a limited way. Through his procedure the concept of main entry (to be distinguished from the added entries as the one made under author with full bibliographic description) emerged. The idea of uniform heading also owes to him. He entered the Bible and books of the Bible under the uniform heading of Bible. By the close of the century, although the vestiges of the inventory catalogue still existed, the need for uniformity and systematic approach to catalogue was clearly recognised. Full description became evident. Author entry gained importance as the primary entry providing the basic approach. Added entries were sought for additional approaches. Printed catalogue became the fashion. Efforts at standardization received new inspiration from men like Naude, Dury, Brillet and others. The Bodleian catalogues produced during the century marked a milestone and greatly influenced the succeeding studies of cataloguing practice. Initially intended as shelf guides on single printed pages with supplements to follow, a catalogue (in book form) of printed books and manuscripts of the Bodleian library (in the typical manner of the 16th century shelf list) was printed in 1605. Thomas Bodley and Thomas James were the principal men behind it. The last of the Bodleian catalogue issued under the guidance of Thomas Hyde in 1674 marked further improvement. It continued the alphabetical order and other procedures as in the earlier catalogues but provided better assemblage of literary units. The preface contained rules which remained authoritative until the middle of the 19th century. The next century i.e., 18th century was rather a period of stabilisation than innovation or solution. Libraries, more importantly the university and private collections grew in size without definite improvements in organisation. The spread of ideas was slow. Only the printed catalogues did serve the purpose but in a limited way; as examples. But most of them were influenced by the early bibliographers who were immature and were not concerned with logic or theory.

Modern Catalogue (1900 A.D.):

The 19th century was an age of great many codes: Catalogue was considered a finding list with the Bodleian concept of literary unit occasionally given expression in compilations.

There ensued a spate of debates on the relative merits of author, dictionary, classed and alphabeticoclassed catalogues. Author (under surname) and title (for anonymous work) entries constituted the author catalogue. From this author catalogue did develop the dictionary catalogue. It consisted of duplicate entries under authors, titles, subjects and forms. For example, the catalogue of the printed books of the Society of Antiquaries of London (1816), supposed as the first true dictionary catalogue, employed duplicate entry approach in one single alphabetical file. Classed catalogue was limited to subject arrangement in systematic order by grouping related subjects together or in proximity. As the purpose of the catalogue became better clarified, the classed catalogue gained importance. It applied the systems of classification schemes devised by Bacon, Horne, Brunet and others. The alphabeticoclassed catalogue too became popular during the middle of the century. It was rather an amalgam of dictionary and classed catalogue. The first half of the century was, thus, characterised by a variety of combinations of arrangements and indexes, broadly divisible into two „categories. The first category constituted lists arranged in subject or classed order, i.e., broad subjects or classes in shelf list order with works sub arranged according to accession and chronologically by imprint date, title or author. The second category consisted of alphabetically arranged indexes to classified file which was not a systematic one. The supplementary alphabetical subject indexes created the need for standard lists of subject headings as aids. Since the practice of picking up subject words from the title lacked uniformity and made syndetic structure difficult, adoption of a better system specially needed for construction of dictionary catalogue was felt. This initiated efforts towards development of standard lists of subject heading. The AL published such a list entitled, List of Subject Headings for use in the dictionary catalogue in 1895. It was considered as a standard list suitable for all types“ of libraries and found wide acceptance. The third and final edition was brought in 1911 when the Library of Congress List of Subject Headings (issued in 3 parts between 1909 and 1913) replaced it. Besides these two, three other publications viz. Poole's Index to Periodicals Literature, the ALA Index (an index for collections and composite works), and the Catalogue of the ALA Library (intended to serve as selection tool, cataloguing guide and printed catalogue), all published in 1893 (which still continue under different names and publishers) proved as useful bibliographical tools and influenced cataloguing. However, the idea of specific subject entry was still in the process of making with insistence on the use of standard terms in titles to indicate the subjects. The introduction of printed catalogue card service in 1901 by the Library of Congress was yet another development.

History of classification codes:

The 19th century marks the beginning of code making. Since it is not easy to make a complete survey, we will introduce you to a select number of codes that belong to the Anglo-American family of codes. Additionally, we will also examine three other codes, viz., a German Code (Prussian Instructions), an Italian code (Vatican Rules) and Ranganathan's Classified Catalogue Code.

British Museum Cataloguing Rules:

British Museum, Department of Printed Books. Rules for compiling books, maps and music in the British Museum. - Rev. ed. - London: British Museum, 1936. printed by order of the Trustees. In 1757, the Royal Library (merged earlier in 1753 with Cottonian, Harleian and Sloan Collections) was transferred to the British Museum. The library's total stock of books at this time touched 5, 00,000 mark. Since the previously compiled catalogues of the British Museum (*Librorum Impressorum qui in Museo Britanico Ad servantur Catalogus*, compiled by P.M. Many, S. Harper and S. Ayserough, published in 1787) and the other collections were poorly planned and not well executed lists, the trustees wanted to have a fresh alphabetical catalogue along with an additional general classed catalogue compiled. Accordingly, between 1813 and 1819 seven volumes of alphabetical catalogue (update of 1787 *Librorum*) were issued. Sir Henry H. Baber was the keeper of printed books at this time. The general classed catalogue had to be planned and executed. Thomas H. Horne made a convincing presentation of a scientific classification in his *Outline for the Classification of the Library* (submitted to the trustees in 1825). He was therefore engaged, for a time, to accomplish the task. The project, however, failed and it was suspended in 1834. But his ideas on classification and rules for bibliographic description, especially, as they related to content notes, forms of authors' names and indexes for classified catalogue proved valuable addition to the literature on cataloguing. Baber, as the keeper proposed a general alphabetical author catalogue and suggested that Panizzi be entrusted with the task of editing-it. He formulated sixteen rules for guidance and suggested the use of uniform slips for entries so that their arrangement and preparation of the manuscript for printing would prove easy. Baber's rules required entry under author if it appeared either on the title page or elsewhere within the book, the form of the name taken on the same basis. Anonymous works were to be entered under the prominent or the first word (not an article or preposition) of the title with possible author's name added after the title within brackets. Pseudonymous works, similarly required

entry under the pseudonym with real name added at the end of the title within brackets. Collections were to be entered under editor and translations under original author. The current emphasis on scientific classification with Home's advocacy of classified catalogue on one hand, and the adherence to the tradition with Baber's insistence on alphabetical catalogue supported also by Panizzi on the other, ensued a spate of debates and arguments, of course, with no decisive results. Baber's proposal for a new alphabetical catalogue was finally approved by the trustees in 1838 with the stipulation that it should be completed by 1840 and, instead in the shelf by shelf order (as was originally suggested by Baber and Panizzi), the catalogue was to be completely alphabetized and issued in separate volumes for each letter of the alphabet. Panizzi was directed to write the rules for its compilation. Thus, came the famed British Museum Cataloguing Rules known also as Panizzi's 91 Rules. In fact, Panizzi did not author the rules all alone and entirely by himself. The code was the result of collaboration involving the concerted efforts of Edward Edwards, J.W. Jones, J.H. Parry and Thomas Watts besides Sir Anthony Panizzi. Each one first compiled a code individually which were then collectively studied and criticised to formulate rules by consensus so as to reflect the best in the cataloguing philosophy of the time. Initially 79 rules were formulated which were expanded to 91 rules in the final code published in 1841. These rules, clearly, were written to provide for the catalogue of one larger library, the British Museum. They were not intended to be of general use, i.e., use in other libraries. Because both the compilation of the catalogue and the formulation of the rules proceeded side by side, the first volume of the catalogue issued in 1841 proved unsatisfactory, marred by many omissions. Obviously, the rules were applied partially. A rash of criticisms and enquiries followed requiring Panizzi to defend the rules. He questioned the feasibility of the project of a printed catalogue for such a large library as the British Museum Library. His testimony before the commissions presenting his views was considered to constitute not only an excellent notes to the rules but also a remarkable introduction to the foundations of cataloguing. The testimony covered many topics of recurring interest, such as, optimal level of bibliographical description and the relation of description to the objectives and functions of library catalogue; normalisation of names of persons and corporate bodies; problems of transliteration, title page transcription, etc.; entry for different forms of publications; treatment of modifications, adaptations, etc. of original works, anonymous publications, etc. Consistency and uniformity in application of cataloguing rules; nature of cross references; filing and arrangement of entries, and so on. It is perhaps for this reason that Panizzi's name came to be identified rather singly with the formulation of the rules. The job was entrusted to him and he led the team. The printing of

the catalogue was given up with the first volume. However, the manuscript project continued. In 1849, a guard book catalogue with entries copied on slips mounted onto the pages of large registers was devised which resulted in a 150 volume catalogue in 1851. Panizzi contended that author catalogue served the users the best, because, according to him most users preferred author approach as the basic approach. The rules therefore, provided for author catalogue with an index of matter (alphabetical subject index based on the subject words picked up from titles) appended to it. The printed catalogue (in book format) cannot admit (fully descriptive) multiple entries lest it becomes impossibly bulky. As a measure of check against the bulk, one entry per book was the answer. Panizzi assumed that this single entry (under author) with sufficient description should serve as the principal/main entry with references (in lieu of added/additional entries) made to it. To speak about the merits of the code, the British Museum Catalogue Rules continues the practices found as far back as in the catalogues of the medieval monastic libraries, some of which are reflected even in the present day practices as can be seen in AACR 2 and its 1988 revision. Among these practices are punctuations of headings, addition of qualifying phrases to names of certain classes of titled persons, recording of sizes (though the earlier designations were quite different) and more importantly the depth of description of a bibliographical item. The rules, particularly, those which dealt with anonymous publications evidently meant that the catalogue should serve as something more than a finding list. For this and many other reasons, it is considered as the founding code, which influenced the formulation of rules in all the subsequent codes. It became also the first major code to prescribe corporate entries. The rules sought corporate entry as default or as a means of organising publications of certain classes. Corporate publications were considered as forming part of anonymous works. All anonymous works were sought to be separated into three groups: 'corporate', 'form' and what could be called 'miscellaneous' headings groups. In the first group were included publications of a) assemblies, hoards and other corporate bodies and, b) those of academies, universities and similar organisations, the former arranged in alphabetical order under the name of the country or place ("from which they derive their denominations or for want of such denominations under the name of the place from whence their acts are issued") and the latter under the form heading 'Academies', sub arranged by continent and then country. The second group covered special type of materials (where form was considered important) arranged under such headings as 'Periodical publications' (for reviews, magazines, newspapers, journals, gazettes, annuals, etc. periodical publications), 'ephemerides' (for almanacs, calendars, ephemeride, etc.) 'catalogues' (for anonymous catalogues, catalogues of public establishments and of

private collections, general and special catalogues, dealers „catalogues, sale catalogues, etc.), 'liturgies' (for missals, breviaries, offices, horae, prayer books, liturgies, etc.) and, 'Bible' (for OT and NT and their parts).The third group comprised of miscellaneous publications (not covered by rules for personal or corporate works or other categories) was arranged in order of preference as possible alternatives: under person (if named in title), or place name (if referred to in title), substantive(if lacking both person and place) and under first word (if not substantive in title).In conclusion it can be said that the code was certainly a pioneering attempt although it lacked guiding principles to ensure consistency as needed especially for any subsequent formulation and addition of new rules for treating new types of materials which contingency was admittedly anticipated by Panizzi.

Jewett's Rules:

Jewett, Charles Coffin. Smithsonian report on the construction of catalogues of libraries and their publication by means of separate stereotyped titles, with rules and examples. - 2nd ed. - Ann Arbor, Mich.: University Microfilms, 1961. - Reprint of the original 2nd ed. Published Washington, D.C.: Smithsonian Institution, 1853.A small pamphlet, this was first published in 1852 under the title, The Smithsonian Report on the construction of catalogues of libraries, and their publication by means of stereo-titles contained a proposal and a plan of action envisioning a cooperative system of cataloguing through the application of the technology of stereo-typed plates for producing and printing of library catalogues. The second edition published in 1853 included 33 rules written by Jewett. The Smithsonian Institution (Washington) was established in 1846 with the bequest made by the English chemist, James Smithson. The objective was to promote the increase and diffusion of knowledge among men." What should be the means to accomplish this objective became a contentious issue. Charles Coffin Jewett, the librarian and assistant secretary of the institution felt that the best means to accomplish the objective was to develop the Smithsonian into a national library with legal depository rights incorporating as well a union catalogue of the holdings of all the public libraries in the United States which would eventually become a universal catalogue. His impassioned and eloquent assertion, "how much this would promote the progress of knowledge how much, by rebuking the rashness which rushes into authorship, ignorant of what others have written, and adding to the mass of books without adding to the sum of knowledge" is reflective of his strong conviction in his undertaking. Joseph Henry, a scientist, and the secretary, who was Jewett's superior held altogether a different view. He felt that the Smithsonian institution served the cause better by providing financial assistance to

the scientists to carry out their research. This clash of interests and views, "emblematic of the antagonism between the two cultures, Jewett representing literature and Henry, science reached its denouement with Jewett's dismissal from the Smithsonian." Jewett's proposal envisioned a national system of centralised and cooperative cataloguing applying the then available, technology of stereotyped plates. The advantages claimed were economy in the cataloguing costs of individual libraries since printing and updating of the book catalogues was highly expensive while they still remained less efficient. So it could be obviated if each bibliographical record were stereotyped on a separate plate which would permit mass production of catalogues at a relatively reduced cost. Further it was said that the system would also ensure elimination of duplicate efforts, greater measure of uniformity, easy location of source for the books, greater access to bibliographic information, possible exchange of materials among the libraries, an American national bibliography and a future universal bibliography. His plan called for preparation and submission of entries by the individual libraries according to the rules (drafted by Jewett), getting each single entry stereotyped and producing catalogues on demand by simply interfiling the new entries and printing. The process was inexpensive and so every library could as well have the required version of the catalogue (i.e., either the classed or alphabetical catalogue) compiled and printed. The use of stereotyped plates further would facilitate compilation of the union catalogue. The Smithsonian Institution as the national library and central agency would coordinate the entire programme. Besides maintaining the union catalogue it would also bring out monthly bulletin, annual and quinquennial catalogues for the books received by it through copy right. The idea was far ahead of the times and for want of wide support and for lack of proper technological material means, the project however, did not succeed. According to Jewett, a library catalogue was a list of titles of books designed to show what the particular library contained. It was generally not required to give any more information "than the author gives or ought to give in the title page, and publisher, in imprint or colophon; except the designation of the form which is almost universally added. Persons who needed more information should seek for it in bibliographical dictionaries, literary histories or similar works". This means that he was advocating minimum description in catalogues based on the title page so that those who needed more bibliographical details would find them in bibliographical reference sources. Like Panizzi, Jewett preferred alphabetical catalogue. His rules were basically the same as those of Panizzi but for minor modifications, He established the concept of corporate body more clearly and sought to place them in one category by providing for entry under the name of the body instead of place name or other, with cross

references made from important substantive/adjective to the principal word in the name of the body. To achieve uniformity, he wanted anonymous works to be entered under the first word of the title (not an article) with cross-references made from sought terms. Pseudonymous works required entry under pseudonyms followed by the word, pseudo. If the author had used his real name in any edition, continuation or supplement, the pseudonym was not to be chosen for entry. Instead the real name was to be preferred because the author's identity is no more concealed. For Jewett, anode was intended to promote uniformity in cataloguing among the libraries. He therefore, intended his code to be adopted by all libraries. For this purpose, he prescribed style, extended the principle of corporate entry, preferred the use of pseudonym (unless the real name also appeared in the publications) and required entry under first word than the subject word of the title for anonymous works (because title subject words were not uniformly standard ones).He established a principle that could be called the principle of standardization by stating that "the rules for cataloguing must be stringent and should meet so far as possible, all difficulties of detail. Nothing, so far can be avoided should be left to the individual taste or judgment of the cataloguer". He favoured legalistic approach, i.e., and a rule to meet every cataloguing problem and appeared to have preferred an enumerative code. Suffice to say that Jewett's rules like other codes of the time exerted great influence on the future development of catalogues and catalogue codes.

Cutter's Rules:

Cutter, Charles Ammi. Rules for a Dictionary Catalogue. - 4th ed., rewritten. - Washington D.C.: Government Printing Office, 1904. - Republished: London: The Library Association, 1953. The US Bureau of Education commissioned Cutter to write a status report on the public libraries in the United States to commemorate the nation's centenary year. The report, Public libraries in the United States, prepared, accordingly by Cutter, was published in 1876 along with his code entitled, Rules for a Printed Dictionary Catalogue which constituted the second part of the report. Considered as a "landmark work," and described as an "epitome of the cataloguing art of the period," the rules presented consistent summary of the ideas and works of most leading librarians of the time, evincing particularly, the influence of Panizzi, Jewett, Perkins, Poole and many others. The first edition (1F) contained 205 rules which was tested by applying to the Boston Athanaeum and the rules then were revised and expanded, and continued through the fourth edition (the second edition published in 1889, the third in 1891 and the fourth posthumously in 1904). The fourth (and the final) edition contained 369 rules. The Library Association (UK) later brought out at least three reprints of this final edition

(1938, 1948 and 1953) which is proof enough of the popularity of the code even long after the demise of the author. Ranganathan commenting about the code had to say that "RDC [Rules for a Dictionary Catalogue] is indeed a classic. It is immortal. Its influence has been overpowering. It inhibits free rethinking even today. Being a one man's creation it has been largely apprehended intuitively. This is why RDC is whole as an egg". Indeed the value of the code diminished the least even to this day. The chief merit of the code lies in the pragmatism applied by the author in the making of the rules and in setting forth "what might be called a set of first principles" to govern the creation of rules and their practical application. Although, generally, many cite three principles as having been articulated by Cutter, he indeed postulated more than three. The first principle may be called the 'principle of convenience of the public.' Cutter declared that "cataloguing is an art, not a science. No rules can take the place of experience and good judgment but some of the results of experience may best be indicated by rules." His emphasis was on pragmatism, i.e., practical experience and proper judgment. According to Cutter, the convenience of the public is always to be set before the ease of the cataloguer. In most cases, they may coincide. A plain rule without exceptions is not only easy for us to carry out but easy for the public to understand and work by. But strict consistency in a rule and uniformity in application sometimes lead to practices which clash with the public's habitual way of looking at things. When the habits are general and deeply rooted, it is unwise for the cataloguer to ignore them, even if they demand a sacrifice of system and simplicity." He favoured, therefore, wherever needed, flexibility of rules and sensitivity to user's requirements. He was opposed to Jewett's legalistic approach (i.e., a cataloguing rule for every cataloguing problem), insistence on strict application of rules and adherence to consistency. Consistency, no doubt, is a virtue but it cannot be an absolute and inviolable principle. The second principle is the 'principle of collocation.' Cutter, however, did not use the term, collocation. He meant it by stating that the catalogue should facilitate location of all books of an author (i.e., entries for all books of an author) by bringing them together in one place. For, he believed that catalogue was something more than a mere finding list "for a given book by an author. "The third principle relates to subject entry/heading. This may be called the 'principle of specific and consistent subject entry. „Besides these three principles, a couple of principles may also be inferred and added. The fourth one may be termed as the 'principle of adequate description.' Cutter did not name it. A library could accordingly, adopt the rules in a code wholly or partially (i.e., unvarying degrees of details) depending upon the nature and size of the collection as well as the objectives of the library; A further principle which can also be surmised is the 'principle

of probable association. „The choice of entry (from among possible alternative methods), Cutter started, "choose that entry that will probably be 'first looked under by the class of people who use the library. Structurally, it is a well laid comprehensive code, the rules covering the whole of cataloguing procedures. It is organised in three parts. The first part constitutes the preliminaries or prefatory notes. Cutter discussed in this part some basic issues, such as objects of catalogue, the means and the Library Catalogue Codes methods to attain them, definitions (of cataloguing terms) including a note on classification of particular value is the statement of objects, means and methods. Some claim this too as a set of empirical principles. It is as follows:

“Objects: 1. to enable a person to find a book of which either (a) the author, (b) the title, (c) the subject is known. 2. To show what the library has (d) by a given author, (e) on a given subject, (f) in a given kind of literature. 3. To assist in the choice of a book (g) as to its edition (bibliographically) (h) to its character (literary or topical). Means: Author entry with the necessary reference (for a and d). 2. Title entry or title reference (for b.) 3. Subject entry, cross reference, and classed subject table (for c and e) 4. Form entry and language entry (for f) 5. Giving edition and imprint, with notes when necessary (for g). 6. Notes (for h) Reasons for choice: Among the several possible methods of attaining the objects other things being equal, choose that entry, (1) that will probably be first looked under by the class of people who use the library; (2.) that is consistent with other entries so that one principle can cover all; (3) that will mass entries least, in places where it is difficult to so arrange them` that they can be readily found, as under names of nations and cities.

“Although it is said that Cutter's code found refuge in tradition it certainly helped a codification of policies needed by American Libraries. Many issues raised by him became the subject of intensive debate in later period. Akers' observation that after 1876, "there has been no further development in principles although an enormous amount of work has been done in amplifying, codifying, and clarifying rules, which has contributed to a needed uniformity of practice", is a comment indeed on the positive as well as the negative sides of the influence that Cutter's code exerted on the subsequent efforts of code making. This aspect will be revealing itself as we progress in studying the later codes.

AA Code of 1908:

Cataloguing rules: author and title entries / compiled by Committees of the Library Association and the American Library Association. - English edition. - London: Library

Association, 1908. - American edition: Chicago: American Library Association, 1908. At the turn of the, present century there were divergent codes in application among the libraries both in America and in England. American libraries were using various codes such as Cutter's rules, ALA rules, Dewey's rules, etc. In addition, the introduction of printed card distribution by the Library of Congress made many libraries to adhere to the LC's practice. In England, the BM rules, LA rules, Bodleian rules, etc. were in use among the libraries. There was a renewed debate over the need for a sound philosophy of cataloguing to find better solutions to the problems of bibliographic organisation and to establish cooperative and centralised systems for ensuring greater uniformity and economy in cataloguing practices. The aim was to meet the "requirements of larger libraries of a scholarly character". This set the precedent so that the subsequent codes were similarly aimed at and were largely drawn up primarily oriented to the needs of large research libraries. On account of practical considerations; the code had to work out compromise between the differing practices of the LC and other American research libraries. Next, because the two collaborating American and British groups could not reach full agreement on all details, alternative rules were made to accommodate the British and American preferences that differed. As a result the code was published in two somewhat differing texts (American and English texts). The code created a labyrinth of corporate entry and made the dubious distinction as between society and association on one hand and institution (restricted to permanent establishments) on the other hand. However, it laid emphasis on and wide application of authorship principle. It presented a slightly better definition of author over the one given by Cutter. It was an incomplete code without rules for description, subject cataloguing and filing, But it came into wide use in the libraries in both the countries including a few other nations where English was the library language.

Prussian Instructions:

The Prussian instructions. Rules for the alphabetical catalogues of the Prussian libraries translated from the 2nd edition, authorized, 1908; with an introduction and notes by Andrew D Osborn. _ Ann Arbor Mich: University of Michigan Press, 1938. A committee was appointed to study the Royal Library Code (i.e., the modified Instructions of Dziatzko) to make improvements in the matter of bibliographical description. This resulted in the Prussian Instructions, i.e., Instruktionen für die Alphabetischen catalogue der Prussian Bibliotheken, published in 1899. Its English translation rendered by A D Osborn was published in 1938. This code represented the German practice which differed from the Anglo-American

tradition, at least in two aspects. It prescribed grammatical rather than mechanical title. In title entry, the first grammatically independent word instead of first word (other than article) as opposed to Anglo-American practice, was prescribed. The second major difference was that the code did not accept the concept of corporate authorship. It treated corporate publications as a class of anonymous publications.

Vatican Rules:

Vatican Library. Rules for the Catalogue of Printed Books I translated from the 2nd Italian edition 1938, by the very Rev. Thomas J. Shanahan, Victor A. Shaefer, Constantine T. Vesselowsky; Wyllis E. Wright, editor. -- Chicago: American Library Association, 1948. - 3rd Italian edition published in 1949. The code was the result of a decision taken in 1927 to prepare a new catalogue of the printed books in the Vatican Library (Rome) which was in the process of reorganisation. Since the catalogue of the Original collection prepared at the end of the 17th century was incomplete and also outmoded, a new up-to-date catalogue was contemplated. Because of the involvement of the American experts and of American trained personnel, the code reflected American bias. Wyllis E. Wright, who wrote the foreword to the English translation of the code claimed it as "the most complete statement of American cataloguing practice. "Next to Cutter's rules, this was the other code that was a complete and comprehensive code, covering all the aspects of cataloguing. It provided for entry (author, title entries), description, subject headings and filing. The rules for subject cataloguing stated general principles and included instructions on forms and specific areas of application. It is also claimed as an international code.

Classified Catalogue Code:

Ranganathan (Shiyali Ramamrita) (1892-1972). Classified Catalogue Code with Additional Rules for Dictionary Catalogue Code. Ed 5. Assisted by A Neelameghan. The first edition appeared in 1934 and was continued through five editions, the last (i.e., the 5th edition) coming in 1964. Each later edition was an improvement on the earlier one, the revision, addition or improvement made on the basis of practical application and critical examination supported by teaching and reasoning. This empirical, analytical and critical approach shaped the code progressively. The second edition (1945) demonstrated the symbiotic relationship between classification and cataloguing and evolved chain procedure for subject cataloguing/indexing. Rules for style of writing and alphabetisation correlating the two through Gestalt theory of alphabetisation were other added features of this edition.

Ranganathan's comparative study of classified and dictionary, catalogues and evaluation of Cutter's rules helped him publish his Dictionary Catalogue Code in 1945. The third edition (1951) added rules for compiling union catalogue of periodical publications, abstracting periodical and incorporating as well, a glossary of English Sanskrit terms to be helpful for developing cognate terminology in other Indian languages. The fourth edition (1955) implemented the lay-out for a catalogue code (in the light of Heading and Canons), added supplementary rules for national bibliography, rearranged the rules for determination of authorship, choice of heading and rendering the heading. It also incorporated further additional rules for style of writing effecting corresponding changes in the rules for alphabetisation. This edition, as a result of his comparative study of five codes (Heading and Canons published in 1955) made necessary further corrections and alterations which eliminated the need for a separate dictionary catalogue code. The fifth edition Library Catalogue Codes on (1964) included new chapters on Law of parsimony, physical form, centralized cataloguing, homonyms in class index entries and feature headings, and nonconventional documents. Typographical and other simple errors were corrected, a little rewording was done and better examples were added. While the codes for alphabetical, author and dictionary catalogues are quite large in number, the codes oriented to classified catalogue are few in number. Ranganathan's Classified Catalogue code (CCC) is one prominent code of these few. After Cutter's rules and Vatican code, the CCC is the only other code which is complete to cover all the cataloguing procedures and to provide rules for entry, description, subject cataloguing/indexing and filing. Before Ranganathan, there were no catalogue codes ever produced in India. Neither was there an established bibliographic/cataloguing tradition. The code (CCC) is the first and the only code designed in India. It was mostly an intuitive effort but applying scientific method to ensure precision and correctness. This however, does not go to say that the code was entirely a product of pristine mind. Ranganathan, educated in England had the benefit of exposure to western thought and practice, which definitely provided the needed background to work out independently. There are, therefore, many influences. Yet the code is distinctively Ranganathan's own. What is his own adds to the merit, and what is not to its weakness. Structurally, it is a well laid code. The code can be divided into three units. The first 9 parts/chapters (A to H and D form the approach. Many basic issues, more importantly, canons and normative principles; parts and physical forms of catalogue, centralised cataloguing; recording, style, language and script, arrangement of entries; conflict of authorship and resolution (determination of authorship); name of person, (i.e., structure, element, etc.) are dealt with. The next 11 chapters (K to N, P

to V) constitute the substantial part, i.e., rules for rendering names (persons, corporate bodies, geographical entities); preparation of class Index entries; main and book index entries for different categories of books and periodicals; additional rules for compilation of union catalogues of books and periodical publications; National bibliography; indexing periodical; abstracting periodical; and cataloguing of incunabula and non-book materials. The last part (W) constitutes end matter (glossary of terms, bibliographic references and index). The rules are marked for their simplicity, clarity and brevity. The code draws a distinction between a library catalogue and a bibliography. Elaborate description is a necessity in bibliography and not in a library catalogue. Therefore, CCC does not prescribe recording of imprint, collation, many details in notes, statement of responsibility in the title section, etc. The rules for determining authorship are based on a set of problems explained as conflicts of authorship. The rules relating to rendering of names/headings for persons, corporate bodies and geographic entities are based on language, nationality and cultural preferences which are postulated through principles. The empirical approach and application of normative principles in drafting and arranging the rules have CCC a model code. The fact that it does not cover the entire range of various types of material makes it a less comprehensive code. No code can be perfect in all details. CCC is no exception. It needs revision and rethinking so as to capture and respond to the many changes that have come about after its publication in 1964.

ALA Rules:

American Library Association. ALA catalogue Rules: Author and Title Entries. - Prel 2nd ed.- Chicago: American Library Association, 1941. Within two decades of implementation of the joint code of 1908, libraries in America as well as in England began voicing dissatisfaction. In America, libraries which received the LC printed cards (introduced in 1901) revised their existing catalogues to conform to the LC practice. Large research libraries found it difficult to apply the 1908 code to new classes of materials acquired by them because of lack of rules covering such items. So, to respond to the demands of the libraries further revision or recodification of rules had to be taken up. The rules were organised in two parts, viz., entry and heading, and description. The code followed the existing practices than prescribing the ideal and the right. The attempt to render all the bibliographic variations into something like a statute law was stated as the principal fault of this draft code. The professional opposition to the size and the complexity of the code first manifested in the area

of descriptive cataloguing and next, of course, in the rules for author and title entries. Further improvement (revision work) on part 2 (description) was therefore deferred or given up.

LC Descriptive Rules:

Library of Congress. Rules for Descriptive cataloguing at the Library of Congress Adopted by the American Library Association. - Washington, D.C.: Library of Congress, 1949. As evident from the title, it was adopted and given official recognition by the American Library Association as the standard for descriptive cataloguing. As a natural consequence, it replaced the second part (i.e., descriptive rules) in 1949 ALA rules, 2nd definitive edition which was also published by the ALA in the same year.

ALA Rules (2nd definitive edition):

American Library Association. ALA cataloguing rules for author and title entries. - 2nd ed. / Clara Beetle, editor. - Chicago: American Library Association, 1949. The criticism of the 1941 draft code of ALA rules faulted the code in general and the descriptive rules part more in particular. The code needed revision, recasting and finalisation. This code (1949. ALA 2nd ed.) was limited to rules for entry and heading only. It represented somewhat an expansion and elaboration of the 1908 code. It did not state and apply any guiding principles. The code proved exceedingly complicated to use. For about a decade and a half (i.e., until the AACR I appeared) the arrangement of using the twin codes (the 1949 ALA 2nd ed. and the 1949 LC rules) in conjunction as the American standards for cataloguing continued. But cataloguers always found it tedious and inconvenient to have to refer to one code for entry and heading work and another for description. Since the LC code of descriptive rules covered printed material only, it required the use of other aids by standards for describing other non-print items (e.g., LC's Motion pictures and film strips, Phonorecords, and Picture designs and other two-dimensional representations - three separate booklets). Like the earlier preliminary draft second edition, the definitive second edition too was targeted for criticism. While the LC descriptive rules looked forward, the ALA code looked backward. A more coherent and unified code therefore was demanded.

AACR 1(1967):

Anglo-American cataloguing rules / prepared by the American Library Association, the Library of Congress, the Library Association, and the Canadian Library Association. - North American ext. - Chicago : American library Association, 1967. - Reprinted in 1970 with

supplement of additions and changes. - British text published: London Library Association, 1967. At this time, the long cherished goal of international code renewed itself and appeared a possibility. The International Conference on Cataloguing Principles convened in Paris in October 1961, adopted and accepted a statement of principles in whole or part by delegations from 53 countries and 12 international organisations. The Report of the International Conference was issued in 1963. It drew upon Lubetzky's 1960 code and restated the objectives of both Lubetzky and Cutter. The statement of principles rested on the objectives and were expressed in specific terms. The importance of this report lies in its endorsement of corporate entry and establishment of natural rather than grammatical order of arrangement of title, thus, removing the major differences between the Anglo-American and Germanic traditions of cataloguing. Following the International Conference on Cataloguing Principles many other national catalogue codes were revised or developed, e.g., the German Code (Regeln für die alphabetische Katalogisierung, the Swedish code, the Danish code, etc.), levelling the differences between national practices. The new code (known as AACR 1) appeared in 1967 and was received by the profession with, a mixed reaction. The rules in the code were organised in 2 parts, part 1 dealing with entry and heading consisting of four chapters, and part 2 covering description presented in 10 chapters. The code applied re-evaluation of the existing practices. It was seen as a better code in terms of its more logical grouping of the rules with emphasis on conditions of authorship rather than on classes of authors (married women, princes of blood, etc) and kinds of publications (Anna, dictionaries, encyclopaedias, etc). It corresponded, more than the earlier codes to the patterns of intelligent users instead of blindly ruling preparation of entries, which may be precise, consistent and technically correct. It gave preference to the form of name preferred or used by the author than his real/official name. Title page of the item catalogued was prescribed as the source of information for cataloguing against the old practice of deriving details from outside sources. Similarly, in the case of change of names of corporate bodies, entry was required under the changed/new name. The code, further emphasised the function of assembling bibliographic units by providing uniform title entry more widely. But some of the vestiges of old practices remained. For example, the authorial status to editors" and compilers, entry under place names for certain corporate bodies continued. On this and certain other points since the American and British Committees could not reach agreement, the code was published in two slightly differing texts like the 1908 code. When work on AACR 1 began, books and periodicals were the basic and popular materials. Card catalogue was the norm. But when the code appeared in 1967 the situation changed vastly. As a result of technology, a variety of

new media (non-book materials) found their way into libraries. Computer manipulation of data made possible other forms of catalogue. The need to integrate the descriptive records (catalogue entries) of different forms of material (book and non-book items) necessitated studies to find analogies between their characteristics). IFLA brought out a document entitled International Standard Bibliographic Description (for single and multi-volume monographic publications) in 1971. This was later improved/revised and published in 1974 as ISBD (M): International Standard Bibliographic Description for Monographic Publications, 1st standard ed. along with it another standard for serials, viz., ISBD(S) International Standard Bibliographic Description for Serials was also published. The AACR I incorporated these documents and revised chapter 6 (separately published monographs) in 1974 followed by chapter 12 (for audio-visual media and special instructional materials) in 1975 and chapter 14 (for sound recordings) in 1976. IFLA's International standards for other kinds of material including a general one followed in succession. This piecemeal revision was found unsatisfactory. It needed development of overall principles and integration of descriptive rules for various media. The expanded cooperation between the cataloguing agencies in Great Britain, America and other countries as well as the increase in the use of UKMARC and LCMARC brought about agreement for a single unified text of code, the ambiguities and differences resolved.

AACR 2 (1978):

Anglo-American cataloguing rules/ Prepared by the American Library Association, the British Library, the Canadian Committee on Cataloguing, the Library Association, the Library of Congress; edited by Michael Gorman and Paul W. Winkler. 2nd ed. - London: Library Association; Chicago: American Library Association, 1978. This second edition proved superior revealing basic principles that provided the edifice of the code. It followed "the sequence of cataloguers' operations in most present-day libraries and bibliographic agencies," i.e., first examining the item and describing it and then determining the access points. The code therefore, presented the descriptive rules in part 1 followed by rules for determining and establishing headings/access points in part 2. Part 1 begins with a general chapter which can be applied to all materials in general followed by chapters on specific media which are elaborations of the provisions of the general chapter. These rules were also based on ISBDs (the general and specific ones). In the description the code permitted alternative rules and options to suit the needs of the libraries and cataloguing agencies. In the rules for access points, it worked out many terminological improvements to remove

conceptual irritants, eg, statement of responsibility in place of statement of authorship, corporate entry, instead of corporate author, etc. It standardized punctuation to conform to the pattern established in ISBDs.

AACR 2, 1988 revised:

Anglo-American cataloguing rules/ prepared under the direction of the Joint Steering Committee for Revision of AACR, a committee of the American Library Association, the Australian Committee on Cataloguing, the British Library, the Canadian Committee on Cataloguing the Library Association, the Library of Congress; edited by Michael Gorman and Paul W. Winkler. - 2nd ed., 1988 revision. - Ottawa: Canadian Library Association; London: Library Association Publishing Limited; Chicago: American Library Association, 1988. The implementation of AACR 2 (1978) code was begun by the Library of Congress in Jan 1981. Like the earlier edition (AACR1), the second edition too appeared at a time when there were rapid developments taking place. More important and of greater immediate relevance was the emergence of many new forms of material which were still in shaping. Although the code (AACR2) resolved the problems of authorship more satisfactorily, the rules were found inadequate in dealing with new media. In course of implementation of the code, some rules presented themselves as confusing, insufficient and complicated. This gave rise to differences in interpretation. Therefore, attempts were made to clarify, expand or alter rules in necessary cases. The Library of Congress notified the interpretations and modifications in its Cataloguing service bulletin. Three sets of revisions of AACR 2 comprising of Geographical corrections, Textual amendments, and altered and additional rules were issued in 1982, 1984 and 1986. These were followed also by a draft revision of chapter .9 for computer files. The code too came into wider use and found translations in many languages (e.g., Arabic, Bahasa, Malaysia, Chinese, Danish, Finnish, French, Italian, Japanese, Norwegian, Portuguese, Spanish, Swedish, Turkish, Urdu and possibly others) In view of the changes and additions that were brought out and the growing popularity and use of the code, it was decided to revise it. The revised code, it was further decided, to be named as AACR 2, 1988 revision and not as 3rd edition. The revision sought to incorporate the additions and modifications already made as well as further revisions contemplated, viz., description of material for the blind (tactile), rethinking of the concept of separate bibliographical identities, treatment of titles, author headings, geographic names and corporate bodies, corrections, rewording and addition of new examples. The revision, therefore, did not result either in the change of basic concepts, principles or structure. While the prominent changes applied to computer files, other changes

related to the material for the blind, sound recordings, music, etc. In order to achieve greater conformity in establishing headings, a few rules were changed. These changes include redetermining of title proper, redesignation of GMD in a few instances, addition of distinctions in the rules for choice of pseudonyms, deletion of option to qualify place names (by adding larger areas/ jurisdictions), addition of geographical identifiers to identical corporate bodies, redefining the type 3 subordinate corporate body, recasting of uniform titles, entry additionally under corporate name (other than publisher, distributor, etc.) in the case of some cartographic material, etc. The rules are presented in two parts (as was the case also in the 2nd ed). Part one consists of descriptive rules in 13 chapters. Chapter 1 has the general rules which provide the general frame within which descriptive rules for specific classes of material follow. Chapter 13 also contains general rules for analysis of specific types. These are as follows Part 1 Description:

Chapters 1. General rules of description, 2. Books, Pamphlets and Monographs; 3. Cartographic Materials, 4 Manuscripts (including manuscript collections), 5. Music (Published music), 6. Sound Recordings, 7. Motion Pictures and Video Recordings, 8. Cartographic Materials, 9. Computer Files, 10. Three-dimensional Artifacts and Realia, 11. Microform, 12. Serials and 13. Analysis Part 2. Headings, uniform titles and references: Chapters 21. Choice .of Access Points, 22. Headings for Persons, 23. Geographic Names, 24. Headings for Corporate Bodies, 25. Uniform Titles, and 26. References. The third part constitutes the end matter.

It consists of Appendixes, A. Capitalization, B. Abbreviations, C. Numerals, and D. Glossary, and an Index. Each part has one introductory chapter.

The rules in the 12 chapters of part 1(Description) have mnemonic numbering to facilitate to and fro reference to rules applying to appropriate areas. The descriptive rules are presented first, obviously because cataloguing begins with description, then follow the tasks of determination and establishment of headings. So, rules for access points, choice of forms of headings are given in the second part. In both parts the rules follow the order of general to specific. The code has provision for optional rules and alternative rules- to accommodate the varying requirements of libraries. The preface states that "cat Library Catalogue Codes a logging rules cannot be static, they must be allowed to respond to changing needs". What is meant by this is that revision does not stop at any time. It goes on. Further revisions become

necessary. So, for the present, AACR 2, 1988 revision is the latest in the Anglo-American family of codes. All the earlier ones stand superseded.

Physical forms of catalogue:

The library catalogue is available in many physical forms. A large number of catalogues have emerged so far as their physical appearance is concerned, for example, punch form, rotadex, magnetic tape form, microfiche/microfilm form, book form, sheaf form, card form and now the electronic form. However, the book form, sheaf form, and card form registered the long lasting popularity. Let us learn about some popular physical forms of the catalogue. But it is to be remembered that the most popular form of the library catalogue is the card form. Some of the physical forms of catalogue are:

- Printed book catalogue
- Sheaf catalogue
- Card catalogue
- Shelf list
- Computerized Catalogue

Printed Book Catalogue:

As the name suggests, it resembles a book or a register in appearance. The entries are printed on separate sheets as per desired arrangement and the sheets are then bound together to form a book or register. It is easy to prepare, however, it lacks flexibility. Entries for newly coming books cannot be accommodated at proper places, hence, it requires frequent revisions. As such it is not economical to keep it up-to-date. Moreover, it cannot be used by more than one user simultaneously. Only a single user can use it at a time. However, it has the advantage of portability. Its use is not subject to the availability of electricity and is free from any machinery fault.

The Sheaf Catalogue:

This form consists of separate sheets, preferably of Manila paper, on which a couple of entries are printed. The sheets in turn are punched at one side and loosely bound either with a spiral thread or a comb spine. This form resembles the book form, as it shares most of the advantages of the book form. It is a bit superior to the book form in the sense that it partly overcomes the non-flexibility problem faced by the former. However, it becomes much

voluminous and has a disadvantage as the flimsy paper of the catalogue entries make insertion and withdrawal less convenient.

The Card Catalogue:

The non-flexibility problem faced by the previous physical forms of the catalogue was gravely felt. In order to eradicate it fully, stiff paper cards of the dimension of 12.5 X 7.5 cm (3 x 5 in.) size and 0.25 mm thickness are used to prepare different catalogue entries discussed earlier. One card is used for every individual entry, main or the added. The card has a small hole in the lower middle part, so that each card can be inserted into a steel rod. The cards held together by the steel rod are arranged as per the desired sequence in wooden trays. The wooden trays are then placed in the pigeon holes of the catalogue cabinet. Each tray, on its outer face is marked by an appropriate label in alphabetical or classified sequence, the sequence in which the cards are arranged inside. Entries for newly coming books can be accommodated at proper places. It does not require frequent revisions. As such, it is economical to keep it up-to-date. Moreover, it can be used by more than one user simultaneously; each user can use one or the other tray at a particular time. Its use is not subject to the availability of electricity. It is free from any machinery fault. However, such catalogue is voluminous and lacks portability. Generally, it is said that to browse the cards is more cumbersome than the book or sheaf form of catalogue.

Shelf list:

It is a catalogue of books and represents the order in which they stand on the shelves. Here each document title is represented by a card with all the bibliographical details as in the case of the catalogue card. The shelf list is very useful tool for stock taking process in the library, as for each document there is a card exactly depicting its location on the shelf.

Computerized catalogue:

The problems faced by the previous forms of catalogue have been overcome to a great extent by the computers. With the advent of computers, the library activities ranging from acquisition to withdrawal of books from the library records can be automated. Same is the fate of cataloguing. The process not only helps in preparation of different catalogue entries, but also, in generation of book type or card type printouts. In addition, it has revolutionized the storage and retrieval mechanism of the libraries through its electronic version. As a matter of fact, OPAC (On line Public Access Catalogues) are nowadays available in libraries. The

OPAC can, not only be used on a stand-alone computer, but can also be put on the INTRA or INTERNET. This makes it possible for a library to extend its services not only to its clientele but to the interested / needy persons of the locality, region, nation or the entire world. OPAC or computerised catalogue is very dynamic in the sense that it is highly flexible, easy and economical to maintain and capable of meeting almost every possible approach of the user. The searching capability is very fast and accurate. A number of libraries in our country are computerizing their catalogue and the list of library materials is displayed on the screen. Although rather expensive, it has the advantage of updation, no wear-tear in use and multiple storing of the catalogue. A printed copy of the whole catalogue can also be produced through a printer connected to the computer.

Inner forms of catalogue:

As mentioned earlier, a catalogue is a list of materials in a library or collection. The entries in the list are arranged by some systematic order. This order, or mode of arrangement, determines the inner form of the catalogue. There are many inner forms of catalogue as given below:

- 1) **Author catalogue:** a formal catalogue, sorted alphabetically according to the authors' or editors' names of the entries.
- 2) **Title catalogue:** a formal catalogue, sorted alphabetically according to the title of the entries.
- 3) **Dictionary catalogue:** a catalogue in which all entries (author, title, subject, and series) are interfiled in a single alphabetical order. This was the primary form of card catalogue in North American libraries just prior to the introduction of the computer-based catalogue.
- 4) **Keyword catalogue:** a subject catalogue, sorted alphabetically according to some system of keywords.
- 5) **Mixed alphabetic catalogue form:** sometimes, one finds a mixed author/title, or an author / title / keyword catalogue.
- 6) **Classified catalogue:** a subject catalogue, sorted according to some systematic subdivision of subjects. Also called a Systematic catalogue.
- 7) **Subject catalogue:** The subject catalogue is a catalogue in which the headings on the entries designate the subject matter of the document and the entries are arranged

systematically to enable subject identification and retrieval. If the headings are arranged alphabetically, the catalogue is an alphabetic subject catalogue. On the other hand, if the headings are classified symbols arranged according to a classification scheme, the catalogue is then known as a classified subject catalogue.

8) Shelf list catalogue: a formal catalogue with entries sorted in the same order as bibliographic items are shelved. This catalogue may also serve as the primary inventory for the library.

Types of catalogue:

Bound Register Form:

In this form, the entries of documents of a library are written in hand in a bound register or ledger. The information about each document like author, edition, accession number, number of copies and class number is provided and separate registers for author, title and subject can also be prepared.

Advantages:

- i) The ease with which readers can use this catalogue is unquestionable
- ii) Xerox copies of the catalogue can be placed at different locations in libraries facilitating the readers to consult the catalogue in any corner of the library so that at a time more number of readers can use it because it has the quality of portability.
- iii) Several entries that can a reader see on a page at a time without the necessity of turning one card after another is definitely an added advantage which saves precious time of the readers. Sometimes a card may be skipped up while consulting hurriedly.
- iv) It needs neither much space nor special equipment for its display due to its compactness.
- v) Since the readers are in the habit of reading and consulting the books from childhood, they feel it much more convenient to consult being like a book.

Disadvantages

- i) It does not possess the quality of flexibility hence when new books are added, entries cannot be filed in their appropriate places as the left out space is filled soon. Hence such books will be entered at the end of the register or a supplementary catalogue is prepared

which is a delaying process. Addition of books is an inherent feature of a library this catalogue is unable to keep good company as one is fast, the other is slow.

ii) It cannot be kept up to date.

iii) The quality of paper is not thick as the card catalogue; hence its durability is less and cannot withstand constant use by the readers.

iv) In case of stolen, damaged, torn out, mutilated and outdated books are to be discarded, then immediately the relevant entries are to be deleted from the catalogue which looks confusing and indecent. It is a catalogue of books and other reading materials available in a library bound in a volume or volumes where entries are printed on pages. It is also known as printed page catalogue or bound book catalogue. These are prepared in conformity with standard principles and rules of cataloguing. Some of the big libraries like British Library, the Library of Congress, National Library, Kolkata, Glasgow and Liverpool Catalogue printed their catalogues in the book form. To keep the catalogue updated, they regularly issued supplements to these catalogues.

Advantages

a) Since this catalogue resembles the printed reading materials, it creates less psychological barrier to the readers for use as they are familiar with the conventional printed books.

b) Speed of search is fast as compared to other form of catalogues.

c) Multiple copies of this catalogue can be made on demand and can be sold so that readers can consult the catalogue at home and hostels comfortably.

d) No thoughtless and careless reader can make any alteration in the pagination or in the order of arrangement of entries. The volumes of it can be kept on a table without any special equipment and easy to handle. In this context, Gellar has said that, "the printed book catalogue are an active, positive salesman for its service, an effective display window for its merchandise and as an instrument by which it has been able to improve professional service to the public. Experience shows that the printed book catalogue is attractive psychologically to the public, and that it is easy, simple and conventional to use. There are no long trays to pull out and pull back."

e) In small libraries, it is considered economical to use this catalogue as in such libraries, books are added in small numbers. Subsequent, supplementary catalogues can be prepared.

- f) Easy to consult as a reader can have a glance of many entries on one page.
- g) It does not occupy much space.
- h) Can be segmented to various sections and can also be issued subject wise to satisfy the needs of different subject groups of users.

Disadvantages

- i) Insertions and withdrawal of entries or deletion is not possible as it is not flexible.
- ii) It is high expensive for its production, issue of supplements takes much time hence it cannot be kept up to date.
- iii) Printing of the catalogue consumes a lot of time and in the meantime new books are acquired by the library whose entries cannot be included, as a result, the information about such books cannot be brought to the notice of the readers. As such the catalogue cannot indicate the complete collection.

Sheaf form:

Sheaf form of library catalogue is also known as loose-leaf form. A sheaf form of catalogue is one in which slips of paper are put into a loose-leaf binder and bound by some mechanical device into a volume. This is a loose-leaf binder format, which provides the convenience of handling a book. In the sheaf form, each entry is made on a separate slip. But, there may also be more than one entry on each slip or page. The entries are either handwritten or typed. New slips can be inserted in appropriate places without disturbing the existing order of arrangement of entries. It is also possible to remove entries for specific documents in case such documents are withdrawn from the library stock. Roughly, each volume of a sheaf catalogue may contain about 500 to 600 leaves. The volumes so constituted may be displayed on special shelves with appropriate labels on their spines, indicating the order (either alphabetical or classified) of arrangement. At one time this form of catalogue became somewhat popular in countries like England and other European countries.

Advantages:

- i) It combines certain advantages of book form catalogue like portability, familiarity and certain good features of card catalogue like up-to-datedness, infinite expanding capacity and freedom of manipulation of entries.

ii) It is possible to bring like entries together i.e. books by the same author and on a specific subject.

iii) Easy to consult and can be referred inside and outside the library.

iv) Most economical to produce and can be kept in a small wooden/ steel rack resulting into occupying less space due to its compact nature.

v) A mobile library collection may be entered in a sheaf catalogue and it can be carried in a van.

vi) Duplicate entries can be made easily.

Disadvantages:

□ Since the size of slip is 7- 3/4 by 4 inches/ the particulars of one document may be recorded resulting into wastage of space.

□ The entries be struck off as and when the relevant document is lost, damaged or withdrawn. Otherwise, again the whole slip is to be re-written or retyped on the entire page.

□ The filing and fixing of sheaves into loose leaf binder is a time consuming and tedious process as it involves unlocking and locking time and again. Hence it creates problems in proper maintenance of the catalogue.

□ Those libraries that follow this catalogue cannot conveniently participate in any cooperative venture where unit cards are used for entries.

Card Form:

Library catalogue in the card form is by far the most popular physical form. It is widely prevalent in libraries throughout the world including India. In this form the bibliographical elements of every document are recorded on a single card. This method of representing every document on a single card is known as the unit card principle. These cards stand in card-trays or cabinets with a punched hole of about half a centimetre from the bottom for inserting a locking rod. This locking system keeps the cards from falling out and also prevents unauthorised persons from removing any card from the tray. Because of its wide usage all over the world, many aspects pertaining to the card catalogue are standardised. For example, 12.5×7.5cm or 5×3inches is the universally adopted size for a catalogue card. Similarly, the

sizes of cabinets, trays for a card catalogue are all of uniform standard. Consequently, most of these items of furniture could be obtained readily from commercial vendors.

Advantages:

Some of salient features, which made the card catalogue quite popular are:

- a) It is flexible in keeping it constantly updated with the quality of expansion and withdrawal of entries.
- b) The users and the library staff can handle it with ease.
- c) Possible to bring together entries with the same heading.
- d) The cards are single, self-contained units. This feature permits additional approach points and cross reference in the catalogue.
- e) The entries for lost books can be withdrawn and like entries can be filed together.
- f) The library using the card catalogue can participate in central and cooperative cataloguing scheme. This reduces the burden of the staff.
- g) The cards are hard and tough, so its durability is longer than that of other catalogues. In fact, the unit card principle is one of the most beneficial outcomes of the card catalogue. This principle paved the way for centralised cataloguing of documents at central place. The printed unit cards can be multiplied and distributed to other libraries at a fairly low price. The Library of Congress, USA, was the pioneer in starting this card service and many libraries in the United States and other countries use this service. The well-known commercial bibliographic publisher, H.W Wilson and Co. also provides printed catalogue card service to libraries, for selected items. Cooperation in compiling bibliographic records is another extension of centralised cataloguing. Libraries participating in cooperative cataloguing provide catalogue entries to the Library of Congress of those documents that are not available at the Library of Congress. The Library of Congress gets them printed for distribution, as part of its catalogue card service. The British National Bibliographic (now incorporated with the British Library) from its very inception in 1950, assumed responsibility as a national cataloguing agency. Besides, it's printed weekly and monthly edition and other accumulations, a printed card service was also made available on subscription to individual libraries. Now new records can be downloaded from its site.

Cataloguing-in-Publication (CIP):

Centralised cataloguing led to the logical step of publishing bibliographic entries of documents in the publication itself, on the reverse side of the title page. Ranganathan called it “prenatal cataloguing”. This facility enabled libraries to use the bibliographical data available on the book for the preparation of their catalogues. The Library of Congress was the pioneer in this enterprise. The British National Bibliography has also been participating in the CIP Programme from January 1977. Such facilities are yet to develop in countries like India.

Disadvantages:

Though the card form of library catalogue is universally accepted. It also suffers from some disadvantages. Which stated as under:

- a) The card catalogue occupies large space in libraries. The problem of space is very acute in large libraries located in metropolitan cities. Libraries with a massive collection running into lakhs of documents with an annual addition of 10,000 volumes would need enormous space for its card catalogue. The cost of space is prohibitive in metropolitan cities and this has been a deterrent against continuing with the card catalogue in such libraries.
- b) The growth and complexity associated with the card catalogue call for greater maintenance cost and administratively unmanageable. Difficult to detect the lost card taken out by some careless and thoughtless reader.
- c) Due to inherent defects associate with the structure of a card catalogue, it is possible for a single person to monopolise a considerable number of trays at a time, precluding its use simultaneously by other users.
- d) It is not portable and hence the users has to go to the library for consulting it. This naturally leads to wastage of time of time, particularly if the library does not possess the documents of his interest.
- e) Speed of search is slower as compared with book form and sheaf form of catalogue.

Review questions:

1. Define library catalogue.
2. Write a note on British Museum cataloguing rule.
3. What are the physical forms of catalogue?

4. What is card form?

S. No	Questions	LOCF Mapping
Small Questions		
1.	Define a library catalogue.	K1
2.	What are the three main purposes of a library catalogue according to Cutter?	K1
3.	Name three physical forms of a library catalogue.	K1
4.	Differentiate between a dictionary catalogue and a classified catalogue.	K2
5.	What is the main contribution of Panizzi's 91 Rules?	K2
S. No	Questions	LOCF Mapping
Big Questions		
1.	Discuss the objectives, purposes, and functions of a library catalogue.	K2, K4
2.	Trace the history and development of library catalogue codes from the British Museum Rules to AACR-2.	K2, K4
3.	Explain the various physical forms of catalogues, highlighting their advantages and disadvantages.	K2, K4
4.	Compare and contrast Cutter's Rules with the Prussian Instructions.	K4
5.	Evaluate the significance of Ranganathan's Classified Catalogue Code (CCC) in the context of Indian librarianship.	K4, K5

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Rowley, Jennifer E. Computers for Libraries. 3rd ed. London: Library Association, 1993.245-246. Print.

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Unit - II: Types of Catalogue Entries

Content:

This unit focuses on the different kinds of entries in a library catalogue. It explains the concepts of main entry, added entry, reference entry, and analytical entry. The unit describes the data elements and parts of a main entry according to AACR-2 and CCC. It also covers the filing of entries in classified and alphabetical catalogues, including the history and principles of filing.

UNIT – 2

TYPES OF CATALOGUE ENTRIES

Objectives:

- To learn more about catalogue entries
- To gain knowledge about their data elements
- To learn in depth about filing of entries

Introduction:

We provide multiple entries for document in a library catalogue. The various approaches of a user to find a document, like trying to find out a document of a known author; or, of a known title or, seeking documents on a subject of interest are some of the reasons why we provide several entries in a library Catalogue. Of the several entries we provide, the basic entry (known as the Main Entry) provides maximum data or information about a document and all other entries are known as Added Entries. Added entries need not necessarily give the information that is given in a Main Entry.

However, in a system known as Unit Card System, Added Entries also carry all the details of a book as in a Main Entry. To make the catalogue more meaningful and effective as a search tool that can 'save the time of the user' several other types of entries like 'References' and

`Analytical Entries „are provided in a catalogue. Such entries are also explained in this Unit. As seen in Block 1 Unit 3 of this course there are two prominent inner forms of catalogues known as Classified Catalogue and Dictionary Catalogue. The kinds of entries that are given in these two types of catalogues are discussed and illustrated in this Unit. With the advent of Information Technology (IT) machine-readable catalogues are prepared now. Block 2, Unit-9 deals with the machine formats of cataloguing. This Unit describes the basic elements of different types of catalogue entries with illustrations. The next Unit deals with information that is provided in the Catalogue and the structure/format of entries in Dictionary and Classified catalogues. Read the two units together. This will give you a fairly good idea of catalogue entries.

Catalogue entry:

You will frequently come across the use of the word `Entry' in cataloguing. The art and science of cataloguing lies in the preparation of what are known as entries of several kinds for the various documents that we acquire for the library. An entry is a record of information for a specific purpose. This information is entered into a ' kind of a record. Suppose you have the habit of recording in a diary details of your daily study then as you finish reading this Unit on a particular day you will make an entry in your diary about your completion of the unit that day. Or, again as a householder you keep a memo of your expenditure every month; then, you make an entry in a record about the amount spent on a particular item on a particular day. Similarly, if you make note of a book that you added to the stock of your library you are making an entry in the „Accession Register“. Information provided in an entry can be very brief as in the case of an entry in an attendance register in a school or a factory, or it can be fairly descriptive as in the case of an entry in a diary. The amount of information to be provided in an entry depends upon the nature of the entry and its purpose.

In the case of a library catalogue you are providing information about a document that exists in the library. This means you are preparing an entry for the document. S.R.Ranganathan defined an entry as `ultimate unit record in a catalogue or documentation list“. In a library catalogue entry the information provided may be elaborate or very brief what information is to be given, how much of it should be given, and how the information is to be given are decided according to the need and purpose of a particular catalogue entry.

Need for catalogue entries:

Entries are needed as records of information. They help us to describe an item. Entries are also helpful sometimes to find out the items that are inter-related. Library catalogues are not only useful as search tools for users but they also serve as inventories for the stock of documents acquired and added to the library.

User Approaches:

In Unit 1 of this course, we have seen the purpose and functions of a catalogue. By using a library catalogue we can find out the various documents available in the library, without physically going through every rack and stack of the library collection. We can know

- 1) Whether a book or document whose title is known to us is available in the library. This is called 'title approach' of the user.
- 2) Whether a book or document written by a particular author is available or not. This is called 'author approach' of the user.
- 3) The available literature on a particular subject of our interest in the library. This is called 'subject approach'.

Yet, there is another approach known as 'series approach'. In brief, separate items of documents related to one another and having a common collective title in addition to their own titles are said to belong to a series. Again, each of two or more volumes of lectures, essays, articles or other writings which are similar in character and issued in a sequence also comprise a series. Reputed publishers bring out standard books, monographs and reports in a series. They are valuable for their continuity, authority, and usefulness. A user may be very anxious to read a new document published in a series the moment it is acquired by the library. This approach of the user is known as 'series approach'.

Examples of Series are:

- 1) McGraw-Hill Series of Science and Technology
- 2) Sarada Ranganathan Endowment Lectures

You know that the library catalogue not only takes care of the different approaches of the users but also provides all possible information about a document to the user. It takes care of even possible variations in spelling and usage of personal names of authors. As you go further into the lessons you will appreciate the ways in which cataloguing practice visualizes and anticipates the problems from the point of view of a library user.

Catalogue as a search Tool:

Remember that not often can we recollect all particulars of a document like author, title, subject, series, etc., when we search for it. Further, when we are interested in a particular subject or a publication belonging to a series we would like to know what the new title is or who is its author. At such times either some staff member in the library or some tool like the library catalogue comes to our rescue. A library catalogue recognizes the various approaches, which are also known as access points of the users. Therefore, the catalogue provides information about a document under all the possible access points. A library catalogue is a useful search tool for the effective use of library. Once a user knows that a catalogue is available in the library and he is familiar with its use, he will feel confident that the catalogue can meet many of his requirements. It acts as a good guide and a finding tool.

From a library catalogue we can find the availability or otherwise of a document from any of its access points. We can get maximum possible description of the document. We can find about related documents. Above all we can find the location number (the Call Number) of a document. Thus, library catalogue is a very effective search tool.

Need for Several Entries;

A library catalogue can just meet any one type of user's approach like author approach, title approach, etc. We can also prepare catalogues, which can meet two or more of these user needs. Say, for example, author and title approach; or title and subject approach and so on. In a Dictionary Catalogue information is provided usually under the three approaches namely; author, title and subject. Sometimes in addition, series approach may also be provided for. To meet the requirements of each one of these approaches we provide an entry under that particular heading or caption in a library catalogue. Thus, a single book may have to be provided with a minimum of three entries when we wish to help a user find the book under any one of the possible approaches of author, title, and subject.

Dictionary and Classified Catalogues:

For library catalogue both its outer or physical form and the inner form are equally important. The outer forms of a library catalogue comprise a bound or loose-leaf catalogue; a printed catalogue; a catalogue in machine-readable form and the like. The inner form decides what particulars go into the entry and how the inner format of the entry is to be arranged. It also decides which one of the several access points is to be considered 'prime' or 'important' or

'main'. For example, in a Dictionary Catalogue the author of a work is given importance. The main entry is given under the author. But in a Classified Catalogue the class to which the book belongs is considered important. What is meant by "a class" you have learnt in course BLIS 03. To recapitulate; "a class" is a group of items which have some characteristics in common. The class to which a book belongs can be indicated by a letter or Roman alphabet or by a number or other symbols called notation. On Example 1 we have taken the book with the title.

ECONOMICS IN ONE LESSON

This book belongs to the class ECONOMICS. Its class notation according to Dewey Decimal Classification (DDC 19th ed.) is 330 and in Ranganathan's Colon Classification (CC 6th ed.) is X.

So, when subject approach or class approach is considered as the main access element the book can be entered under the following heading.

ECONOMICS

330 When the book is classified according to DDC

X When the book is classified according to CC

Thus, for the same book the Main Entry is given under the author Henry Hazlitt, (in actual practice the entry starts with the surname. The heading will be Hazlitt, Henry) in a Dictionary Catalogue, and under the notation 330 or X in a Classified Catalogue.

Entries in a Dictionary Catalogue:

In a Dictionary Catalogue we normally provide.

- 1) Main Entries (under the author or title; if the author is not known; authorship is diffused; or if the item is produced under editorial direction that item will be entered under the heading for the title of the book)
- 2) Collaborator Added Entries (for persons or institutions, or organizations or societies, etc., associated with the creation of the work).
- 3) Subject Added Entries (for the subject or subjects dealt with in. the document).

4) Title Added Entries (for title of the work and also for alternate title if there is one). Sometimes added entry is also provided for a sub-title of the work if there is a subtitle and it is so distinct that an added entry for it may be helpful.

In addition to these types of entries `Reference Entries' and `Analytical Entries' are also provided in a Dictionary Catalogue. Particularly Reference Entries are very useful.

Though we say that in a Dictionary Catalogue we give the Main Entry under the author we may find it difficult to decide the heading or entry element for the Main Entry. For example, instead of a single person writing a book, two, three or sometimes several persons may jointly write a book. Or, the book may be a collection of works of different persons. Short, stories or essays or poetry of different persons may be published together in the form of what are known as anthologies. How to give the Main Entry in such cases may be a problem. An organisation, institution, a government body, a society, an association or similar others is known as a corporate body. Such corporate bodies bring out publications. In such cases again we are confronted with the problem of giving the Main Entry. The choice of the access point for the Heading Section in an entry (either main or added entry) is known as `Choice of Heading'. The particular catalogue code that we follow in our library will give us the prescription for the above questions. It also tells us what to do in doubtful cases. For example; the second part of AACR-2 offers the guidelines for choice of the headings in the form of rules. Usually a catalogue code envisages the problem of choice of heading and provides the answers. Block 3 of this course tells you more about all these issues and their solutions. Once we make the main entry under the name of a person or corporate body as per the guidance given by the catalogue code, we must also provide additional entries for the other possible headings. Only then the catalogue can help a user. Similarly, added entries are provided for persons or bodies associated with the creation of the work.

Entries in a classified catalogue:

In Ranaganathan's Classified Catalogue we find the following entries:

- 1) Main Entry
- 2) Cross Reference Entries
- 3) Class Index Entries
- 4) Book Index Entries

5) Cross Reference Index Entries

First two of the above are entries with call or class numbers in their leading section. The other entries are word entries with alphabetical words in the heading section. Ranganathan's Classified Catalogue, thus basically, consists of two parts. They are known as Classified Part comprising of Main and Cross Reference Entries and Alphabetical Part consisting of the alphabetical index entries, namely, Class Index, Book Index and Cross Reference Index Entries. Of these entries, Main Entry, Cross Reference Entry and Class Index Entry are entries given under subjects. In other words, they are called subject entries. You may feel that in Classified Catalogue of Ranganathan there are many new terms and that you need some more clarity to understand the terms. Definitions of these terms as given by Ranganathan are given below. Study them carefully.

Main Entry Defined:

"Specific Entry giving maximum information about the whole of a document. All the other entries: specific or general relating to the document, are normally derived from the Main Entry". In the above statement Ranganathan used the terms specific and general entries. You will have to note that according to Ranganathan when a catalogue entry mentions a specific document it is a specific entry. But if the entry does not mention any specific document it is called general entry. Ranganathan divides added entries into two broad groups as General Added Entries and Specific Added Entries.

Cross Reference Entry:

"A Cross Reference Entry enters a document under one or other of the classes other than the dominant focus or class. For example, suppose the book is a Text Book of Physics and in this book the subject of Electronics is also presented. Then the dominant focus or class is physics but we can help the user by providing a Cross Reference Entry for the class Electronics: Such entries in a dictionary catalogue are known as Subject Analytical Entries. In the classified catalogue the Cross Reference is given under the class number for the other classes for which entries are to be given.

Class Index Entry:

Class Index Entries direct the user to the Classified Part of the catalogue where materials on different subjects are arranged in a filiation sequence with an indication of the relevant Class Number. The Class Index Entries are derived from the Class Number through the 'Chain Procedure' method. This method is described in Unit 17 of Block 4 of this course. For example, for the Classified Catalogue Code by Ranganathan Class Index Entries are provided thus:

CLASSIFIED CATALOGUE CODE 2:55 N3

CLASSIFIED CATALOGUE 2:55

CATALOGUE, LIBRARY SCIENCE 2:5

LIBRARY SCIENCE 2

All Class Index Entries carry the statement "For documents* in this Class and its Subdivisions, see the Classified Part of the catalogue under the Class Number".

Book Index Entries:

Book Index Entries are specific Added Word Entries provided for a document. These entries are given under the names of authors, editors, translators etc., under the name of series and in certain cases under the title. In the case of titles, added entries are given in the Classified Catalogue as per CCC only if the title of the book

- 1) is fanciful
- 2) Contains a proper noun or
- 3) Is treated in usage as a proper noun

Further, the title (a) should not have been used as the Heading of the Main Entry; or (b) it is not as such eligible to be used as the Main Heading of a Class Index Entry of the book. These two conditions are to avoid duplication of entries.

Cross Reference Index Entry:

Ranganathan in his Classified Catalogue Code uses the term, Cross Reference Index Entry for the type of entry that "usually directs the reader's attention from one heading to another synonymous one in the Alphabetical Part". "The purpose of Cross Reference Index Entry is to invite the attention of a reader from the term he brings up to the catalogue to its equivalent

term or some other term under which he can find his information. This is because the catalogue uses in all Specific Entries only the term found on the title page and its overflow of the document catalogued".

In the Classified Catalogue, a Cross Reference Index Entry may be one of the following five types:

1. Alternative Name Entry
2. Variant-Form-of-Word Entry
3. Pseudonym-Real-Name Entry
4. Editor-of-Series Entry and
5. Generic-Name Entry

As stated earlier Ranganathan prefers to use the term Cross Reference Index Entry for an entry provided for one or other of the classes dealt with by a document other than the dominant focus or class.

Reference Entries:

In a Library where a Dictionary Catalogue is maintained we see entries of the type known as 'References' and also of the type known as 'Analytical Entries'. A library catalogue tries to help the user to the maximum extent possible as a search tool. So, any difficulty we can visualise on the part of the user is to be countered by some kind of an entry in the catalogue. Similarly, any additional information found necessary and useful is to be provided by appropriate entries. Uniformity is an essential feature in library cataloguing. Therefore, when there are several variations in the spelling of a name of a person or corporate body or when a term used as heading is having two or more synonymous terms there is a need to accept one particular form of the name or heading uniformly throughout the catalogue. On such occasions, to help the user, we will have to provide a reference.

Analytical Entries:

Sometimes we may wish to draw the attention of a library user to a part or parts of a book which we feel may otherwise escape the attention of the user. A catalogue entry can help in such situations. On such occasions we are analysing the contents of the work. Analysis, AACR-2 observes, "is the process of preparing a bibliographic record that describes a part or parts of a larger item". And, glossary in AACR-2 defines an Analytical Entry as "An entry for a part of an item for which a comprehensive entry has been made".

Data elements:

In a catalogue we provide data about the document. Actually different elements constitute the data about a document. Information about the authorship of the work, about the title, about the publisher, the year in which the work is published, the number of volumes or the number of pages of the work and such other information which is considered useful to a user to identify and access a document are provided in a catalogue entry. Knowledge and information is stored not only in books and periodicals but also in other types of materials like sound recordings, video tapes, computer tapes and the like. Some of these items need description of a different kind. Say, for example, a gramophone record when described needs a mention of the speed of the record in addition to other information about it. Therefore, you should be familiar with the various areas of description, which are common in a catalogue entry. On the basis of an understanding between the International Federation of Library Associations and Institutions (IFLA) and the committee that revised the Anglo American Cataloguing Rules, a standard bibliographic description, known as International Standard Bibliographic Description (ISBD) is adopted in AACR-2. However, depending upon the nature and the size of the library-small, medium or large and also on the nature of the document, we may have to decide whether to give all the areas of description and the total description in each area or to limit the description and also omit some areas. AACR-2R prescribes three levels of description for this purpose. In Ranganathan's Classified Catalogue Code, the nature of description is different. Ranganathan feels that a catalogue entry need not give information about the place of publication, name of publisher, etc. Similarly, there is no need for physical description of the kind number of pages, illustrations in the work, size of the work, etc. In this Unit you will learn about these aspects of description of a document in a catalogue entry both according to AACR-2 and also according to CCC of Ranganathan. The different parts of a Main Entry in these two types of catalogues and their identification are presented.

In catalogue entries we not only provide for access points to meet the variety of user needs to find a document but also information about the document. The information we give in the main entry will help the user form an idea as to the nature and the contents of the document. Users will, thus, be able to decide the usefulness or otherwise of a document in the particular context of their requirements. At the same time we cannot overdo in providing information by giving every possible detail. Therefore, a catalogue code speaks of the extent of information to be given in a catalogue entry - main or added. It names the various parts of the

entries and the type of information given in each part. Each part contains certain elements of information. For example, the part known as 'Title and Responsibility' part contains information on the title of the work; its sub-title if there is a sub-title; alternative title when the work is in a different language. Similarly, this part also gives information about the author or authors and other collaborators responsible for the work. The different elements that provide information about the document in the catalogue entry are the data elements. A group of data elements arranged in a prescribed order constitutes an area of description. In a part of a main entry sometimes there may be two or more areas of description.

Areas of Description:

Standardization is a necessity in modern large scale production and manufacture. It therefore, penetrates into several areas of human activity. The advantages of standardization are indeed many. First and foremost, it brings universality and economy. In cataloguing practice also there has been a continuous concern for following commonly acceptable practices. The International Conference on Cataloguing Principles held in 1971 in Paris discussed this aspect of standardization. Though there was no agreement on many of the aspects in this conference, the Conference felt the need for accepting a standard practice in so far as descriptive cataloguing of a document is concerned. With the introduction of the Machine Readable Catalogue (MARC) project, such a standard practice was felt all the more necessary. At the International Meeting of Cataloguing Experts (IMCE) held at Copenhagen in 1969, a working group was appointed to study this problem. The final text of its recommendations came out as International Standard Bibliographic Description (ISBD) in 1971. This was issued by the IFLA Committee on Cataloguing. The ISBD specifies the elements in a catalogue entry and their order and style of writing for a bibliographical description. The purpose and scope of ISBD were defined as follows: "It is designed primarily as an instrument for the International Communication of Bibliographical Information. By specifying the elements which should comprise a bibliographical description and by prescribing the order in which they should be presented and the punctuation by which they should be demarcated, it aims at three objectives; to "make records from different sources interchangeable, to facilitate their interpretation across language barriers and to facilitate the conversion of such records to machine readable form". The International Standard Bibliographic Description (ISBD) identified the following eight areas for the description of a document:

1. Title and statement of responsibility area
2. Edition area
3. Material(or type of publication) specific details area
4. Physical description area
5. Series area
6. Note area
7. Standard number and terms of availability area

The International Federation of Library Associations and Institutions (IFLA) which is responsible for ISBD and the Joint Steering Committee for Revising of AACR agreed that the rules for description in AACR-2 be based on the general framework for the description of library material as provided in the General International Standard Bibliographic Description ISBD (G). However, in so far as terminology is concerned AACR not necessarily follows the ISBD (G).General Rule "1.OB Organization of the description" of AACR-2 in conformity with the said agreement says that the description of a document is divided into the above eight areas. A number of elements as set out in the rules of the code comprise each of these areas. Throughout AACR-2 some "optional" rules are provided which allow adding or deleting information in certain cases which allow alternative methods of providing information.

Levels of Description:

Even though AACR-2 provides for the eight areas of description and for certain elements of information in each area, it is not necessary that every document catalogued should be provided with all the areas of description. Nor is it necessary to provide all the data elements in any area of description. The statement at 0.26 of introduction to AACR-2 makes the point clear. It states "Although the rules for description are based upon a standard - the ISBD (G), it is recognized that certain materials do not require every element of that standard. For this reason there are differences between the treatment of some materials and some others. For example, the physical description area is called the "extent of file area "in dealing with machine-readable data files. Again, the place of publication, etc., and the name of publisher, etc., "elements are not used for manuscripts, some art originals, and some three-dimensional objects and artifacts".AACR-2 specifies three levels of description at Rule 1.0D. According to the needs of a particular document or according to the needs of a particular library, the different levels of description will have to be used. "Libraries may choose to use the three

levels of description: either a) by choosing a level of description for all items catalogued in that library or b) drawing up guidelines for the use of all three levels in one catalogue depending on the type of item being described". "Each of these levels is to be considered as a minimum in that, where appropriate further information may be added to the required set of data. The three levels of description allow libraries flexibility in their cataloguing policy, because they prescribe an entry that is in conformity with bibliographic standards and yet allow some materials to be described in more detail than others". The three levels of description are detailed thus:

First Level of Description: For the first level of description the following elements are the minimum. Guidance is to be taken from the General rules 1.IB, 1.IF, 1.2B, 1.3, 1.4D, 1.4F, 1.5B, 1.7 and 1.8B for this purpose. Title proper/first statement of responsibility, if different from main entry heading in form or number or if there is no main entry heading. - Edition statement. -Material (or type of publication) specific details. - First publisher, etc., date of publication, etc. - Extent of item.-Note(s). - Standard number.

Second Level of Description:

For the second level of description the following is the schematic illustration of the minimum elements: Title proper (general material designation) = parallel title: other title information/first statement of responsibility. - Edition statement/first statement of responsibility relating to the edition.-Material (or type of publication) specific details. First place of publication, etc.: first publisher, etc., data of publication, etc. Extent of item: other physical details: dimensions. - (title proper of series/statement of responsibility relating to series, ISSN of series: numbering within the series. Title of sub-series, ISSN* of sub-series; numbering within sub-series). - Note(s). Standard number. (*ISSN =International Standard Serial Number).Let us see what Wynar's book Introduction to Cataloguing and Classification has to say on this level. He says "The third level includes every possible element set out in the rules and is likely to be used only in cataloguing such things .as rare items".

Third Level of Description: In this level of description all elements set out in the rules of AACR-2 which are applicable to the particular item that is being catalogued are to be included.

Data elements in a dictionary catalogue:

The data entries in general and also with particular reference to skeleton entries which may be necessary in some service libraries, are also dealt with in this section. All these aspects are discussed in the following five sections:

1. Parts of a main entry
2. Purpose of the parts
3. Identification of parts
4. Data elements in added entries
5. Skeleton entries for a dictionary catalogue

Parts of a Main Entry:

In a usual catalogue entry, in addition to the elements of description covered by these areas, we will provide:

- 1) The CALL NUMBER which is a symbolic notation for the document used to achieve logical order for the arrangement of the document in the total library collection and also to identify and locate the document in the collection.
- 2) The HEADING is the access element under which it is likely that a user may search for the document in the catalogue; namely, name of the author, title of the work, series, etc.
- 3) The TRACING which gives information about the additional entries that are provided for the document.
- 4) The ACCESSION NUMBER: The eight areas of description and these items - the Call Number, the Heading, the Tracings and the Accession Number together can be grouped as parts or sections of a Main Entry.

The various parts are presented in different paragraphs as detailed below. But, remember, every main entry need not necessarily carry all the paragraphs and parts. The paragraphs, parts and the elements in them observe a sequence and punctuation prescribed by the concerned catalogue code. In our present discussion it is AACR-2R. The purpose of prescribing a definite sequence and a set of punctuation marks for the sections and the elements inside a paragraph is to achieve uniformity and standardisation in cataloguing practice. It is therefore, necessary that you must be familiar with the parts, their sequence and the punctuations used. The structure of a Main Entry with the eight parts and the paragraphs

and elements therein is described by Wynar as under:

I. HEADING

A. Author or other person or Corporate Body chosen as main entry.

Title, if (A) cannot be ascribed.

II BODY OF THE ENTRY (first paragraph).

A) Title and statement of responsibility area

1. Title proper (including alternative title, if any).
2. General Material Designation (GMD).
3. Parallel title(s), other title information, if any.
4. Statement (s) of responsibility

B) Edition area

- 1) Edition statement (named, numbered, or a combination of the two).
- 2) Statements of responsibility relating to the edition, but not to all editions.

C) Material (or type of publication) specific details area

- 1) For cartographic materials, statements of scale and projection.
- 2) For serial publications, numerical and/or alphabetical designation.

(e.g., No.1-) and/or chronological designation (e.g., 1967-).

D) Publication, distribution etc., area

- 1) Place of publication, distribution, etc.
- 2) Name of publisher, distributor, etc.
- 3) Statement of function of publisher, distributor, etc., (e.g., production company) when necessary for clarity.
- 4) Date of publication, distribution, etc., including copyright date, if necessary.
- 5) Place of manufacture, name of manufacturer, date of manufacture, if name of publisher is unknown.

III) PHYSICAL DESCRIPTION AREA (second paragraph)

- 1) Extent of item (e.g., number of pages, volumes, discs, frames, etc.)
- 2) Other physical details (e.g. illustrative material, playing speed, material of which made).
- 3) Dimensions ((e.g., height, diameter).
- 4) Accompanying material (e.g., teacher's guide, separate maps).

IV) SERIES AREA, if any (following physical description area as continuation of second paragraph).

- 1) Title proper of series, parallel title(s), and other title information.
- 2) Statement(s) of responsibility relating to series.
- 3) ISSN of series.
- 4) Numbering within series.
- 5) Sub-series.
- 6) Second and following series, each in its own set of parentheses.

V) NOTE AREA (each note is a separate paragraph). Necessary data that can not be incorporated in the above parts of the record.

VI) STANDARD NUMBER AND TERMS OF AVAILABILITY AREA (paragraph following last note).

- 1) Standard number (e.g., ISBN, ISSN)
- 2) Key-title of a serial
- 3) Terms of availability (e.g., price, or for whom available).

VII) TRACING (Separate paragraph)

Subject heading(s).

Added entries for joint authors, editors etc.

Title added entry or entries.

Series added -entry or entries.

VIII) CALL NUMBER (formatted in upper left corner of entry or on line following tracing)

- 1) Classification number.
- 2) Cutter number and work mark, if any.

The first four areas of ISBD listed earlier are brought into a single paragraph into part-II Body of the Entry here.

Accession Number can also be included as a part of the Main Entry in which case in all there will be 9 parts in a Main Entry.

The above list covers almost all the data elements that provide information about the document catalogued. Since AACR-2R covers not only books and serials but also other non-conventional or non-book materials, these units cover such type of documents also. Some elements in the list are therefore appropriate only to particular types of documents like sound recordings, maps and cartographic materials etc.

Purpose of the Parts:

The Main Entry for a document describes the document in such a way that even without physically looking at the document the user may be able to know the details about the author, title, edition, publisher, price, year of publication, etc. It is difficult to decide how much description is needed. That is one reason why different levels of description are prescribed by AACR-2R. The different parts of a Main Entry and the units within each part have specific purpose. We shall now consider their purpose.

Heading:

The Heading is the essence of a catalogue entry. It is the main 'access point for document. For a document, we decide first the heading under which the description can be given. It facilitates the use of the catalogue with ease. Catalogue codes provide the rules relating to the choice and rendering of headings for different types of documents. The options for the choice mainly lie between the author (person or corporate body) and the title. In order to achieve uniformity in rendering the names of persons or corporate bodies, catalogue codes provide norms for rendering the names; for example, whether surname or forename is to be given first in the heading, etc.

Body of the entry:

Body of the Main Entry consists of several parts or units. This constitutes the first paragraph of the Main Entry. There is a sequence prescribed for the units within the paragraph. As noted earlier this paragraph consists of four areas; namely,

- a) Title and statement of responsibility area;
- b) Edition area,
- c) Material or type of publication specific details area and
- d) Publication, distribution etc., area.

The first area gives information about the sub-titles and alternative title, if any, and the statement of authorship of the work. This area also describes a parallel title if the document carries titles in two or more languages. The purpose of this area is to give information on the title or titles of the work and the responsibility attributed to the creation of the work. The second area of the first paragraph is the edition area wherein the statement of the edition of the work is given. When a work runs into several editions the user should be informed which particular edition or editions of the work does the library possess. Edition statement and the year of publication will help the user to decide the usefulness about currency of the document.

Since AACR-2R provides cataloguing rules for books as well as non-books materials like maps, sound recordings, motion pictures, video-recordings, etc., therefore, entries are also provided for all these different types of recorded materials. Hence, it will be better if a brief indication is given in the catalogue entry as to the type of material that is being catalogued. The third area of the first paragraph covers this requirement by giving the designation of material. The term GMD means General Material Designation. Publication, distribution, etc., area gives information about the name of the publisher, place(s) where the document is published, the name of the distributor, etc. Information on place of publication, name of the publisher and the year of publication is known as 'Imprint'. This information is given in that sequence only, i.e., place of publication, name of the publisher and the year of publication.

Physical description of the document constitutes the second paragraph. This area gives information on the number of volumes if the document is multi-volume work. In the case of a single volume book it gives information on the number of preliminary pages and the pages of the text. Other details like the illustrations in the work and the speed of the disc if it is a sound recording, etc., are also given. Physical description also includes the size of the

document height or diameter and other information about the accompanying material like maps on separate sheets at the end in a pocket or a teacher's guide for the use of the contents of the work, etc.

Such a useful description of the document gives an idea of the document even before the user actually goes to the shelf and picks it up. Indication about the illustrative matter, etc., will help the user decide whether to consult that particular document or not. For example, suppose the work is on building designs for domestic houses. If the book contains illustrations like plans and photos of the various designs then it will be useful. Otherwise, however good the description may be, the book will not give a clear picture about the several types of building designs. Physical description about a document in a catalogue entry is called 'collation'. Ranganathan feels that collation just like imprint is not so important for users in a modern service library because of open access to the documents. He observes in his Classified Catalogue Code that "It will be noticed that two sections which are still lingering in Catalogue Codes are omitted, viz., collation and imprint".

He further observes that "The persistence of these two sections is really due to the tradition of the printed catalogue. But in a modern open-access service library, which is rightly compared to a workshop rather than a museum and which replaces the printed catalogue by the manuscript or type-written card catalogue, it is felt that the information contained in these two sections is seldom sought by the majority of readers and therefore is to be regarded as unnecessarily over-crowding the card. For the few that do want them, the published trade bibliographies or the Accession Register of the library may be made to furnish the requisite information".

But, the AACR-2R advocates to include this information in the main entry of the catalogue card. Included in the second paragraph is the information about the series if the work belongs to a series. This information is given in parentheses (i.e., circular brackets) following the physical description leaving two letter spaces after it. As discussed earlier there may be works belonging to a sub-series of a major series also. All this including the number of the document in the series is given in this section. A user's approach may be sometimes a series approach. If a series is that of a reputed publisher or if a renowned person is the editor of a series then the works published in the series assume prominence. Users may then look in the library catalogue for works published in the series. Information about a series, therefore, must find place in a catalogue entry.

Notes area:

The Notes area gives any additional useful information about the document. Observe the words additional useful information. The information given in the note area should not be repetitive in nature. Information that is given in any form in other areas of the main entry should not again find place in this area. The second important point about notes is that only very useful information which cannot find place in the various data elements of the main entry is to be provided. There may be several items of useful information about a document. So it will be better if different items are given as different paragraphs. However, Rule 1.7 A1 of AACR-2R gives the option of separating each such item by a full stop, space, dash, space within the same paragraph. While giving notes, we should be brief in our statements since elaborate sentences overcrowd the entry. A note should be brief enough at the same time it should convey the information. If necessary telegraphic language can be used.

Examples:

Bound together with...

Published earlier as...

Merged with....

Rule 21.7 and its sub-divisions of AACR-2R illustrate the different types of notes and the manner in which they can be given. Note area serves the important purpose of providing vital information which cannot be provided in any of the other areas or parts of the main entry. Since the main entry attempts to give a picture of the document even without physically looking at it, the Note area helps the user in formulating an idea about the document by 'looking' at the entry itself.

Standard Number and Terms of Availability Area:

International Standard Book Number (ISBN) and International Standard Serial Number (ISSN) are numbers given to each individual book and to each individual serial title respectively. These are numbers internationally agreed upon. The Standard Number and Terms of Availability Area is a separate paragraph given after the last paragraph in the Note or Notes Area. It serves the purpose of identifying the document in terms of an internationally accepted code number ISBN, ISSN or any other international code number. This helps unique identification of document for various purposes. This area also includes information on terms

of availability and price, etc., within the same area. Earlier, price of a document used to be recorded only in the Accession Register and the Shelf-list. Now the price of the document will be given in this area when a document is fully described. This information is helpful when the entry is prepared for national bibliographic record. This makes the description of the document complete.

Tracing:

Tracing is a separate paragraph. This is the last paragraph in the Main Entry of a Dictionary Catalogue., This part traces the additional entries that are provided for the document. Added entries may be needed for a book for all the four approaches author, title, subject and series. Since in a dictionary catalogue main entry itself is an author entry except in the case of the Title Main Entry, the author entries indicated in the tracing are entries for collaborators like joint authors, editors, compilers, translators, illustrators, commentators, etc. A Tracing paragraph is broadly divided as consisting of two parts with different number sequence. In the first unit, subject headings are given in Arabic Numerals. Remember a subject heading may be a single word or word group or it may have a sub-heading also. In the second part collaborators, title or titles and the series are given in a sequence numbered in Roman numerals. In this sequence series is always the last item. If there is no series then title is the last item. The nature of the document catalogued „decides the subject headings to be given and the other added entries needed including title added entries and series added entries. If you compare the illustrations given earlier in this Unit, you can understand how different documents give scope for different number of added entries, and also the way in which tracings are recorded as a paragraph in the tracing section. Opinions again differ regarding the need for the tracing section in a catalogue entry. Tracing section actually is useful to the staff in the library, who will prepare the relevant added entries from the main entry. The user, as such, is not benefited much by looking at the tracing section. Some people therefore, say that the tracing section can conveniently be given up. But while preparing a catalogue slip or when the unit record system is observed for entries in the print form or the near print form then tracing section is helpful for the library, if not for the user. Ranganathan feels that tracing section is mainly for the library staff. At the time of preparing additional entries or at the time of weeding out of books from the stock the tracing section will help in updating and rectifying the catalogue. Even in a dictionary catalogue, if a book is weeded out of the library stock or if it is lost and not replaced then the relevant entries for that book in the catalogue should be deleted. Tracing section helps in such situations. In the Classified Catalogue Code

Ranganathan suggests that the tracing section should be given only on the reverse of the catalogue entry of Main Entry Card. The tracing section cannot be immediately seen by the user.

Call Number:

Call number is the notational symbol given to a document to individualise and identify it. It consists of the classification number and the author number. Sometimes a call number may include the collection number and very often the work number. Class number is given according to the scheme of classification followed in the particular library. Author number is generally based on Cutter's Author Tables. For the collection numbers and work numbers symbols are used according to certain set rules by the library. In course BLIS-03, Block 4 Unit 10 these aspects of the call numbers are discussed. A catalogue entry in a library catalogue cannot serve its purposes unless the call number of the document is provided in the entry. After looking into the catalogue, once the user feels like consulting a document or borrowing it the user can pick up the document from the shelf only by means of this identification number; namely, the call number. Call number thus completes the purpose for which the catalogue entry is given. In a catalogue entry, the call number can be given either at the upper left corner of the entry or at the lower most position of the entry immediately after the entry details at the right corner.

Data Elements in Added Entries:

When Unit Card System is followed, the added entries also carry the same data elements as in the main entry. But in addition, the added entry element is given at the top starting from the second indentation. Added entry element is the access point under which the additional entry is provided to meet the exigency of the user approaching the document under that particular access point. In the case of a brief version of an added entry when Unit Card System is not followed, the information given in it consists of

1. Call number,
2. Added entry element,
3. Main entry heading,
4. Title,
5. Edition, and
6. Year of Publication.

As can be seen, this is the minimum possible information about the document. In some practices, the data elements are reduced further by avoiding even the edition statement and the year of publication also.

Skeleton Entries for a Dictionary Catalogue:

One of the meanings for the word “skeleton” is a frame or an outline. In that sense, we now try to see the frame of a main Entry and an Added Entry for a dictionary catalogue according to AACR – 2R, making a provision for the various data elements and the relevant punctuation. . The main entry heading can be for a person or author or corporate body or sometimes for a title according to the rules prescribed for different types of works in AACR-2R. When it is the name of a person we give the name as follows: Surname, other names, year of birth-year of death. If the main line is not sufficient to record this information we will continue the main entry heading after leaving two letter spaces from the second indentation. This imaginary line which is 16 spaces from left margin (edge) of the card is known as third indentation (see the illustration below). This line is not shown in a catalogue card drawn with indentions. In the tracing section, in between the items numbered in Arabic numerals and in Roman numerals two letter spaces are to be left.

Title main Entry:

In cases, where the Main Entry is to be provided under the title of the work as per the Rules of AACR-2R, the skeleton entry looks slightly different. The Title statement commences on the Main Line and continues from the second indentation till the completion of the body of the entry. That is to say till the completion of the Imprint. From the second line onwards the body of the entry `hangs on' to the second indentation. This type of indentation is known as `hanging indentation'. In such an entry the physical description area, series area, note area, tracing, and call number are provided in the same way as in any other main entry. Since the Main Entry is given under the title itself you need not give an added entry again for the title. So, in the Tracing Section, title is not mentioned. But when there is an alternative title, or a distinctive sub-title, or in some cases where there is a parallel title you may have to give added entries for them.

Data elements in classified catalogue code of Ranganathan:

The main entry, its parts and different types of added entries that are derived from it, vary in a classified catalogue, according to the Classified Catalogue Code of Ranganathan. In this

section, these are discussed in three subsections, dealing with main entry and its parts, identifying the parts with an illustrative example, and the data elements that go into added entries; the three subsection are given below.

Main entry and its parts,

Identification of parts, and

Data elements in added entries.

Main Entry and Its Parts:

In the classified catalogue prepared according to Ranganathan's Classified Catalogue Code (CCC) the data elements look different. Ranganathan gives a very simple definition for the section of an entry. In Chapter FQ of CCC section of an entry is defined thus: "That which is prescribed to be a separate paragraph in an entry in a card catalogue". This definition is further clarified by the statement when an entry occurs in a catalogue in book-form all its sections may occur as separate sentences of a single paragraph":

The sections of the Main Entry in the Classified Catalogue are listed at Chapter MB thus;

1. Leading Section:
2. Heading;
3. Title Section;
4. Note Section, if any;
5. Accession Number; and
6. Tracing Section.

Each of these sections or Parts of the Main Entry contains certain units of information.

Leading Section:

In the Main Entry the very first section is known as the Leading Section. This section leads the total information given in the entry. It is given on the Main Line. Hence the Main Line is sometimes called the Leading Line. In a Main Entry in the Classified Catalogue the Leading Section is occupied by the Call Number of a document or by Class Number, if it is the Main Entry for a periodical publication.

Heading Section:

Heading Section in the CCC is that section which records authorship or its substitute element. Thus, CCC says that the Heading is

- 1) Leading Section of Word Entry.
- 2) Section 2 of a Call Number Entry of a book or a Class Number Entry of a periodical publication, i.e., of a Main Entry in Classified Catalogue.
- 3) Section 3 of a see also Subject Entry.
- 4) Section 3 of a Cross Reference Index Entry".

Word Entry means "Entry beginning with a word, or in rare cases, with a symbol given in the author-statement of a document as a substitute for name of author".

Title Section:

Title Section gives the title of the work. This section includes information about the edition and information regarding collaborators. As stated earlier Ranganathan feels imprint particulars are not necessary in catalogue entries.

Note Section:

The various kinds of notes that are likely to occur in the classified catalogue prepared according to CCC are listed by Ranganathan at MFO in CCC as under

1. Series note;
2. Multiple series note;
3. Extract note;
4. Change of title note;
5. Extraction note; and
6. Associated book note.

"If two or more kinds of Notes are admitted by a document, they should be written as separate sections in the sequence given in Section MFO. If you remember what you have learnt earlier, AACR-2R gives the option of writing different kinds of notes as different paragraphs or writing them in the same paragraph. In the classified catalogue according to CCC each type of note is to be written separately as a separate paragraph. Further in AACR-2R series and multiple series notes are given immediately after Physical Description Area in circular brackets separating the two by a hyphen. But in CCC series note starts as anew

paragraph from second includes the series note of course, is written in circular brackets as in AACR-2R.

Accession Number Section:

Besides the Class Number or Call Number every document catalogued in a library bears an Accession Number: Accession Number is the number given in a serial order to the document acquired by a library. The document may be acquired either by purchase, gift or exchange or under law as a legal deposit. CCC at Section 45 of Chapter ED says that "the Accession Number Section is to begin at the First vertical of the bottom-most line". We do not find any such rule provision on Accession Number in AACR-2.

Tracing Section:

Tracing Section is given on the reverse of Main Entry card. "It must be remembered that in passing from the front side to the backside, the card is to be turned through two right angles with the bottom edge as the axis". The space on the reverse is imagined to be divided vertically into two halves first. Then the right half is again divided into 3 parts by two imaginary horizontal lines. In the left half on the card the Cross Reference Entries that can be given for the document are listed and in the right half Class Index Entries; Book Index Entries and Cross Reference Index Entries are listed.

Data Elements in Added Entries:

All other entries other than the Main Entry are Added Entries, The other types of entries are:

- 1) Cross Reference Entries
- 2) Class Index Entries
- 3) Book Index Entries
- 4) Cross Reference Index Entries

Now we shall see what data is provided in each of these different types of entries.

Cross Reference Entry:

Sections in a Cross Reference Entry of a Simple Book according to CCC area:

- 1) Leading Section
- 2) Second Section: and 3 to 5 Locus Section.

The Locus Section as such consists of the following sections:

Call Number of the book:

Heading of the Main. Entry of the Book; and

Title of the book and place of occurrence

The Additional Entries discussed in this Section are the broad general additional entries. In CCC you will find many more types of Additional Entries, However, all these types fall under the broad categories Cross Reference, Class Index, Book Index and Cross Reference Index Entries which we have discussed here.

Class Index Entry:

A Class Index Entry consists successively,

- 1, Leading Section,
2. Second section followed by the Index Number.

The Leading Section is occupied by the Class Index Heading appropriate to the Class Index Entry. The Class Index Headings for a document are derived by the Chain Procedure prescribed in the CCC. The Second Section of a Class Index Entry consists of the following words (See Ranganathan's Cataloguing Practice Rule KR 2, Page 474)"For documents in this Class and its Subdivisions, see the Classified Part of the Catalogue under the Class Number",

Book index entry:

Book Index Entries are given under the name of authors, editors, translators etc." and under the name of series and in certain cases under the title,

A Book Index Entry consists of the following sections:

1. Leading Section,
2. Second Section,
3. Index Number Section
4. Note Section, if any,

The entry element of the Leading section in a Book Index Entry is derived from the Heading Section. Title and Notes Sections of the Main Entry are given for the document. Chapter MK of CCC mentions the different possibilities and gives examples for the entries.

Cross Reference Index Entry:

This entry consists of the following sections successively;

1. Leading Section;
2. Second Section; and
3. Referred-To Heading

The Leading Section is the Referred-from Heading concerned. "A Referred-From Heading consists of the word or word-group, which is usually an alternative name of the person, the geographical entity, the series, or the document respectively, mentioned in the Referred-To Heading". "Referred-To Heading is usually that name of a person, a geographical entity, a series, or a document, which has been preferred for use in the Main Entry or Book Index Entry concerned".

Filing:

"A place for everything and everything in its place" is an old saying. We are aware of the implications of this saying in our daily life. If everything in our house or office is not in its place, then it creates utter chaos and confusion. Similarly, there must be a proper place for the things we have. If we dump them together for one reason or the other, then every time we need particular- item we will have the ordeal of searching them among all the other things. Hence the need to put things in proper places arises.

Meaning and Purpose:

We use the worst filing in our day-to-day life when we arrange related things in an order - for example, filing of papers on a topic, Webster's Dictionary defines filing as: "to arrange in order for preservation or reference", Hunter and Bakewell in their work on cataloguing define a file as "a collection of related and usually similarly constructed records treated as a unit, e.g., the catalogue of a library. "Filing helps to find a place for everything and also helps in bringing order among things. Thus, filing serves both the purposes of preservation and ready use of things preserved through a logical approach. It saves time in using a collection and also brings together closely related things when filing is done scientifically.

Need for Filing of Catalogue Entries:

The word catalogue has been derived from a Greek phrase Katy Logos. "Kate means "by" or "according to" and "Logos" has different meanings like "word" or "order" or "reason". Thus,

this definition of a catalogue implies arranging entries according to some definite plan. Therefore, filing of entries assumes significance in a catalogue. Earlier in Unit 3 of this course you learnt about various physical forms of catalogues. Whatever be the physical or inner form, the entries are to be arranged in a catalogue according to some plan, and that is to say, filing of entries on the basis of certain principles, is a must.

A good system of filing of entries in a catalogue will

1. save the time of filing of the people who use it;
2. bring together related entries at one place,
3. expose the items about which the user may not know till the time of the search; and
4. Facilitate manipulation and handling of the catalogue with ease, once the logic behind the arrangement is known.

Further, an entry misfiled is an entry lost. The user may miss the entry and thereby the details of the document for which the entry is misfiled. The user may think that the particular document is not available in the library. Nature of Entries to be Filed We have noted that catalogue entries are either word entries or notational entries. In a dictionary catalogue they are word entries. In a classified catalogue they are both word entries and entries under Class Number or Call Number notation. Ranganathan's Classified Catalogue consists of two parts- alphabetical and classified. The alphabetical part is the word entry part and the classified part is the notation entry part. Even in the alphabetical part of a classified catalogue or in a dictionary catalogue, sometimes, we come across numbers or symbols as entry element, For example, the name of the author may be given in symbols like.

7 0 7

etc., or the title of the work may not be in words but may be in numerals or symbols

Eg. 100 Most Important People

Y2K Problem

Further, the shelf-list of a library is generally filed in the sequence in which the books are arranged on the shelves according to their call number Therefore, it is also in classified order, Filing of catalogue entries would therefore mean filing entries in a

Shelf list;

Classified Catalogue; and

Dictionary Catalogue.

Filing of word entries is known as „Alphabetization“ and filing of numerical and/or symbol entries is known as classified arrangement.

History of Filing:

The history of filing systems can be traced back to the history of libraries because basically man prefers order and early librarians, therefore, would have thought of orderly arrangement. Orderly arrangement of a library collection, however, laid the foundations for the schemes of library classification. Filing systems for catalogue entries evolved over a period of time, such entries were prepared for a large library collection. When the number of documents is limited, filing of entries is not much of a problem. Only when the number of documents increases, the need for a good and effective filing system becomes necessary. Some of the catalogue codes like Cutter's Rules for a Dictionary Catalogue and the „Vatican Code' have included filing rules also in their cataloguing rules. Let us briefly learn about a few filing systems that have evolved over time.

Berghoefffer System:

Towards the end of the 19th century Christian W. Berghoefffer introduced an interesting filing system for the Frankfurter Sammelkatalog. This system suggests the division of the catalogue into three sections as-a personal section, a geographical section, and a title section. In the personal section, only the surnames of the authors are taken into consideration ignoring forenames and initials. Titles are arranged in alphabetical sequence under each surname. This system is very useful for union catalogues.

ALA Filing Rules:

The American Library Association published in 1942 the A.L.A. Rules for Filing Catalogue Cards. This code for filing entries “is based on a comparative study of filing rules which have appeared in printed codes and in manuals of library science, and also of the practices in a number of large and medium-sized public and university libraries". The revised version of the code appeared as a new set of rules under the title ALA Filing Rules in 1968. These Rules appeared in two formats-a full text, and an abridged paperback edition. The 1968 rule is related to the provision of AACR-2. The Committees responsible for AACR-2 and for 1968 rule on Filing Rules worked in co-operation. The structured uniform titles recommended by AACR-2 is an effort towards a better scheme of filing the entries in some cases.

Library of Congress Filing Rules:

For the Library of Congress the rules that were in practice, namely; Filing Rules Pr the Dictionary Catalogues in the Library of Congress (1956) and the subsequent provisional Filing Arrangement in the Library of Congress Catalogues by John C Rather (1971) were replaced by the Library,-of Congress Filing Rules published in1980. These rules are more elaborate than the ALA Filing Rules. Emphasis in these rules is on the practical adaptability of the rules for computer processing of the entries:

Computer Filing:

Computers can relieve the burden of laborious filing of entries. They can do the job quickly and automatically. Computers are now being used in library operations and in bibliographic control. But there are certain drawbacks in computer filing also because they cannot think like human beings. Suppose you give the instruction to a computer saying ignore the initial articles like "A" "An" The "while filing. Then for a title like ABC of Atomic Physics the computer will file the title as BC of Atomic Physics, which is rather unhelpful filing. However, with proper programming instructions some of the problems can be solved. The first code to deal specifically with computer filing was published in 1966 by Theodore C. Hines and Jessica L. Harris under the title Computer Filing of Index Bibliographic and Catalogue Records.

BLAISE Filing Rules:

Automated information service provided by the British Library is known under acronym BLAISE (British Library Automated Information Service). "The BLAISE filing rules had their origins in the report of a Working Party on Computer Filing setup by the Library Association Cataloguing and Indexing Group". These rules for computer filing were prepared on the basis of the principles developed by the International Organisation for Standardization (ISO).

Ranganathan's Principles:

Earlier you were told that in Ranganathan's Classified Catalogue there are two parts classified part and alphabetical part. In the Classified part we come across Class Numbers and Call Numbers as entries to be filed. A class number or call number includes numerals, letters, punctuation marks and symbols or characters like etc. Ranganathan uses the word `digits' for these characters used by him as notation. In his Colon Classification he has assigned values

for these digits which will guide us in filing entries in classified part. Further his Classified Catalogue Code Ed. 5 Chapter EG and EH deal with the filing of entries in Classified Part and in Alphabetical Part respectively. We will discuss them at the appropriate places in the coming sections of this Unit.

Review questions:

1. What is a catalogue entry?
2. What is the need for a catalogue entry?
3. Define data elements.
4. Explain the data elements in added entries.
5. Write a short note on filing.

S. No	Questions	LOCF Mapping
Small Questions		
1.	What is a main entry?	K1
2.	What is the purpose of an added entry?	K1
3.	Define a reference entry.	K1
4.	What are the main sections of a main entry in AACR-2?	K2
5.	What is the purpose of a tracing section in a catalogue entry?	K2

S. No	Questions	LOCF Mapping
Big Questions		
1.	Explain the different kinds of entries in a library catalogue with suitable examples.	K2, K3
2.	Describe the data elements and parts of a main entry in a dictionary catalogue according to AACR-2.	K2, K3
3.	Discuss the structure of a main entry in Ranganathan's Classified Catalogue Code (CCC).	K2, K3
4.	Explain the need and purpose of filing of catalogue entries. What are the principles of filing in alphabetical catalogues?	K2, K4
5.	Compare and contrast the filing of entries in classified and alphabetical catalogues.	K4

Reference:

ALA Filing Rules. (1980). Chicago: The American Library Association.

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Needham, C.D. (1977). *Organising Knowledge in Libraries: An Introduction to Information Retrieval*. 2nd rev. ed. London: Andre Deutsch. Chapter 16.

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Dictionary Catalogue Code. 5th ed. Bombay: Asia Publishing House, (Chapters ED,EG and EH).

Unit - III: Choice and Rendering of Headings (AACR-2)

Content:

This unit deals with the rules for choice and rendering of headings according to AACR-2. It covers the treatment of personal authors, including Western and Indic names. The unit explains the concept of corporate bodies and the rules for entering various types of corporate bodies (societies, institutions, governments, conferences, etc.). It also covers the handling of pseudonymous and anonymous works, the concept of uniform titles, and the cataloguing of non-print resources.

UNIT – 3

CHOICE AND RENDERING OF HEADINGS AACR2

Objectives:

- To learn about personal authors
- To learn in depth about corporate bodies
- To gain knowledge about non print sources

Introduction:

Once a document is in your hands you have to study the title page, which is the main source of information for cataloguing purpose. The title page provides you the name of the author, other collaborators if there are any, the title of the book, the place of publication, the name of the publishers, ISBN number, etc. In a few cases, you may have to go beyond the title page to look for other information, e.g., series are usually given in other pages. The author who is responsible for the thought content of the document is important for cataloguing purposes. Books are written by one author or more than one author or by corporate bodies. In this Unit we are going to discuss books written by a single personal author. Author's name becomes the heading of a main entry or it is an access point for search in the catalogue. In this Unit we are going to discuss about how to render the names of personal authors and corporate bodies as a heading and also the other headings in added entries.

Personal authors:

Books are identified with their authors or titles. Author is mainly responsible for the thought content of the book. The author may be personal or corporate. In this Unit, we will be discussing about, personal author. The AACR-2R defines a personal author as the one who is "chiefly responsible for the creation of the intellectual or artistic content of a work". For example, "writers of books and composers of music are the authors of the works they create;

cartographers are the authors of their maps; and artists and photographers are the authors of the works they create". The main entry in the catalogue is made under the name of the personal author when it is so established. The source to find the name of the personal authors is the title page, which is called the chief source of information. In a dictionary catalogue the main entry is made in the name of the personal author, or corporate author or by "the title depending on the nature of publication. The first part in the catalogue is the heading. A heading can be the name of a person, or a single word or a phrase, which is placed at the head of a catalogue entry to provide an access point in the catalogue. As we are going to discuss about the personal author in this Unit, our task is to establish under which part of the name of the author the entry is to be made. Let us see how different names are to be established. General rule for AACR-2R (Rule 21.1 A 2) states that "enter a work by one or more persons

under the heading for the personal author, the principal personal author or the probable personal author", Rule 2] AA 1 which concerns works of single personal authorship, states that "enter a work, a collection of work or a selections from a work or works under the heading for that person.

Heading for Personal Authors:

Chapter no. 22 of AACR-2R deals with the choice of names of persons. The rule states to choose the name "by which he or she is commonly known. This may be the person's real name, pseudonym, and title of nobility, nickname, initials or other appellation. "This is a general rule. Problem arises when we want to find the commonly-known name. Names vary from country to country. Cultural background, language, tradition, etc., govern the patterns of names. Origins and history of names is monumental and it is not possible to discuss them here. Only few basics which Indian libraries commonly confront will be discussed in this Unit.

Western Names:

Western names have usually two or three parts. The last part is called the family name or surname. In cataloguing, the surname is to be made the heading. It is called the entry element. Below are given a few names and the part of the name that is underlined is the entry element.

- i) George Bernard Shaw
- ii) Bertrand Russell
- iii) Ralph W.A. Eliot
- iv) Sir Arthur Conan Doyle
- v) Arabella Mc N air-Wilson
- vi) Norman Del Mar
- vii) Thomas De Quincy
- viii) Le Corbusier

The first three names are entered under the last part of the name, which is the surname.

The fourth name includes the British title of honour and in such cases, the honorific title has to be added to the name if the term commonly appears along with the name. Fifth name is a

compound surname, Compound surnames also exist without a hyphen and the sixth name is such an example. Surnames also appear with an article or. Prepositions or combination of the two and in such cases, the entry element is to be made under the prefixes as in examples seven and eight above.

Indian Names:

The entry element for Indian authors is not uniform. It varies from region to region. The AACR -2R prescribes some broad rules (Rule No. 22.25). The rules direct us to enter under the first word of the personal name in cases -of authors born before the middle of the 19th century, like Panini, Aryabhata, Asvaghosa, Bhattoji Diksita, etc., and for the later Northern Indian authors under the surname e.g., Kapoor, Raj;Khurana, Rakesh, etc. Southern Indian authors are usually entered under their forenames e.g., Jagannathan, VR. Rama Rao, C, etc. However, there are many exceptions in both the cases. There is one full chapter in Ranganathan's book Classified Catalogue Code on Indie names. You are advised to study that chapter to know more about Indian names.

Corporate bodies:

The AACR-2R defines corporate body as an organisation or a group of persons that is identified by a particular name and that acts, or may act, as an entity. The AACR2R lists associations, institutions, business firms, non-profit enterprises, governments, government agencies, projects and programmes, religious bodies and conferences as typical examples of corporate bodies. Some Corporate bodies are subordinate to other bodies. Ad hoc events like athletic meets, exhibitions, expeditions and fairs and festivals are also corporate bodies. All these corporate bodies bring out publications of a wide variety, taking upon themselves the responsibility for the contents of these publications. In cataloguing, a problem arises in identifying the author of such works and of forming an appropriate heading. Only an appropriate heading is likely to match with the catalogue-user's request and search for a publication. It is, thus, profitable for a prospective cataloguer to study how AACR-2R handles this problem of corporate authorship - choice of their name as the basis of heading as well as the form of heading. Let us first see when a work is entered under the corporate body from which it emanates. A corporate body is chosen as author for the following categories of Works:

- a) All works of an administrative nature dealing with the corporate body itself its policies, procedures and/or operations;

Its finances;

Its staff; and

Its resources like catalogues, inventories and directories.

b) Legal and governmental works like laws; decrees having the force of law; treaties; court decisions; and legislative hearings.

c) Works recording the collective thought of the corporate body, e.g., reports of commissions and committees and official statements of position on external policies.

d) Works reporting the collective activity of a conference; e.g., proceedings, collected papers, etc., of an expedition, e.g., exploration, investigation, etc.; or of an event, e.g., exhibition, fair, festival, etc.

Shared Responsibility:

A work which is the result of the responsibility shared by two or more corporate bodies should be entered under the body for which principal responsibility is attributed by the wording or the layout of the chief source of information. If the principal responsibility is attributed to two or three bodies the entry shall be under the first named. If in such a shared responsibility between two or three corporate bodies the responsibility is not attributed to any one of them, the entry shall be under the first named. If the responsibility is shared among more than three corporate bodies and the responsibility is not attributed to any one, two or three, enter under the title. These rules for shared responsibility are also, applicable to persons sharing responsibility for a work. A work of a subordinate unit of a corporate body is entered under the subordinate unit, if its name is prominently stated in the work.

Governments and Government Agencies:

A government is entered under its conventional name, unless the official name is in common use. The conventional name of a government is the geographic name of the area (country, state, county, municipality, etc.) over which the government exercises jurisdiction (political and administrative authority).

Conventional

Official

United Kingdom

United Kingdom of Great Britain and Northern Ireland

United States Unites States of America
Massachusetts Commonwealth of Massachusetts
Nottinghamshire County of Nottinghamshire

However, if the official name of the government is in common use, it should be used as it is:

Greater London Council

Pune Municipal Corporation

A government consists of, or creates, several bodies and agencies. Some of these are major executive agencies, like for example, ministries or departments or offices having no other agency above them,. As against these, there are bodies or agencies subordinate to higher agencies. Besides, there are legislative bodies, constitutional conventions, courts, armed forces, government officials and embassies and consulates. There are separate rules in AACR-2R for entering all these various bodies and agencies. Only the principal ones are discussed here.

The first of these relates to bodies created and controlled by a government. Such bodies are entered directly under their own name when they are predominantly so identified. They are, therefore, not entered under the government creating them. For example:

Arts Council of Great Britain

Canadian National Railways

Bombay Port Trust

Indian Council of Agricultural Research

Indian Bureau of Mines

Indian Military Academy

Government bodies or agencies entered subordinately:

The next rule concerns government bodies or agencies that are entered subordinately, meaning, under the name of the government creating it. The AACR-2R lists eleven types of such bodies.

Type – 1:

An agency with a name containing a term such as department, division, section, branch, etc., which implies subordination, is entered under the name of the government of which it is a part. Thus:

India. Department of Atomic Energy

India. Department of Science and Technology

United Kingdom. Department of Education and Science

United States. Office of Commerce

United States. Division of Wildlife Service

Agencies subordinate to bodies such as the above are entered directly under the name of the government and not under the departments to which they are attached. If, however, there exist agencies with identical names, indirect sub-headings are formed as shown below.

Direct Sub-headings:

India. Nuclear Power Board not India. Department of Atomic Energy. Nuclear Power Board
India. National Atlas and Thematic Mapping Organisation not India. Department of Science and Technology. National Atlas and Thematic Mapping Organisation. In the above examples, the two subordinate agencies are entered directly under the name of the government, as it is possible to identify them without the names of their parent departments.

Indirect Sub-heading:

India. Department of Expenditure. Staff Inspection unit.

United Kingdom. Department of Employment. Solicitors Office.

In these cases, Staff Inspection Unit and Solicitors Office are entered indirectly in order to avoid possible confusion with other subordinate agencies of the same name. In indirect sub-headings, the name of the next superior body is added between the name of the government and the name of the subordinate agency concerned, as above.

Type – 2:

An agency with a name containing a word that implies administrative subordination, e.g. committee or commission, is entered under the name of the government creating it. The name of the government is necessary for identification of the agency.

India. Atomic Energy Commission

India. Union Public Service Commission

India. University Grants Commission.

United Kingdom. Royal Commission on the Press

United States. Commission on Civil Rights.

However, if identification of a body is possible without indicating administrative subordination, it is entered directly under its name. Thus: Maharashtra Public Service Commission

Type – 3:

An agency with a name that is general in nature or that does no more than indicate a geographic, chronological, or numbered or lettered sub-division of the government or of one of its agencies entered subordinately.

United States. Public Health Service. Region XI (Name: Region XI)

Malaysia. Royal Customs and Excise Department. Sabah Region (Name: Sabah Region).

Type – 4:

An agency with a name that does not convey the idea of a corporate body and does not contain the name of the government.

Canada. Ocean and Aquatic Sciences

(Name: Ocean and Aquatic Sciences)

India. Geological Survey

(Name: Geological Survey of India)

Type – 5:

An agency that is a ministry or similar executive agency is entered under the government of which it is a part. Thus:

India. Ministry of Human Resource Development

India. Ministry of Labour

United Kingdom. Home Office

United Kingdom. Ministry of Defence

United Kingdom. Board of Trade

Type – 6:

When a legislature has more than one chamber, enter each as a sub-heading of the heading for the legislature.

India. Parliament. Rajya Sabha

India. Parliament. Lok Sabha

Maharashtra. Legislature. Council

Maharashtra. Legislature. Assembly

United Kingdom. Parliament. House of Lords.

United Kingdom. Parliament. House of Commons

United States. Congress. Senate

United States. Congress. House of Representatives

A legislature always creates committees and subcommittees. Enter committees as sub-headings of the legislature, or of a particular chamber, as appropriate.

India. Parliament. Public Accounts Committee

(members are drawn from both Lok Sabha and Rajya Sabha)

United States. Congress. Joint Committee on the Library but India. Parliament. Lok Sabha. Estimates Committee (Members are drawn from Lok Sabha only)

Enter a legislative subcommittee as a sub-heading of the committee to which it is subordinate:

United States. Congress. Senate. Committee on Foreign Relations. Sub committee on Canadian Affairs.

If legislatures are numbered consecutively, add the ordinal number and the years to the heading for the particular legislatures.

India. Parliament. Lok Sabha (7th: 1980-1984)

United States. Congress (87th: 1961-1962)

Constitutional conventions are entered directly under the heading for the government. India. Constituent Assembly (1947-1949)

Type – 7:

Courts are entered under their jurisdiction.

India. Supreme Court

United States: Federal Court

Bombay. High Court

Madhya Pradesh. High Court

Maharashtra. Sessions Court (Pune)

Maharashtra. Sessions Court (Wardha)

In the last two cases, the name of the district is added to distinguish one from the other.

Type – 8:

Armed forces. A service of the armed forces of a government is entered as a direct sub-heading of the name of the government.

India. Air Force

United Kingdom. Royal Navy

United States. Marine Corps.

A component unit of a service is entered as a direct sub-heading of the heading for the service;

India. Army. Madras Sappers and Miners

India. Army. Mahratta Light Infantry

United Kingdom. Royal Navy. Sea Cadet Corps.

Type – 9:

Chiefs of states and heads of governments are entered under the heading for the area of their jurisdiction;

India. President

Bihar. Governor

For more than one incumbent. For a head of state (sovereign, president, governor or other head of state) the subheading insists of the title of the office, the inclusive years (the beginning and the end of office) of region or office and the name of the person in a brief form. Thus

India. President (1950-1962: Rajendra Prasad)

Maharashtra. Governor (1986-1987: S.D.Sharma)

United Kingdom. Sovereign (1952-: Elizabeth)

United States. President (1953-1961: Eisenhower)

Heads of governments and international inter-governmental bodies:

Andhra Pradesh. Chief Minister

France. Premier Minister

India. Prime Minister

United Nations. Secretary General;

Other officials. The sub-heading for any other official is that of the agency that the official represents, e.g.

United States. General Accounting Office not United States. Comptroller General

However, if the official is not part of a ministry and is identified only by the title, the sub-heading consists of that title. Thus,

India. Auditor and Comptroller General

India. Chief Election Commissioner.

Type – 10:

Embassies and Consulates;

(1) The order of elements in the heading for an embassy or consulate the name of the country represented,

(2) The term embassy or consulate, and

(3) The name of the country or city where located.

India. High Commission (United Kingdom)

India. Embassy (France)

United Kingdom. Deputy High Commission (Bombay)

United States. Consulate (Madras)

Type – 11:

Delegations to international and intergovernmental bodies. These are entered, as subheadings of the headings for the countries represented. For Example:

India. Delegation to the United Nations.

United States. Mission to the United Nations

Inter - governmental Corporate Bodies

The name of an international intergovernmental body should be entered in the

English form, if given on the items issued by it. Thus,

Arab League not Union des etas Arabes

European Economic Community not Communauté Economique Européenne

If variant forms of the name of an inter-governmental body appear in the chief sources of information, use the predominant form. If there is no predominant form, use a brief form,

E.g. EURATOM not European Atomic Energy Community

SAARC not South Asian Association for Regional Cooperation

UNESCO not United Nations Educational, Scientific and Cultural Organisation.

Societies:

Societies include, besides those commonly so named, such bodies as political parties, firms and associations. Very often there is confusion between a society and an institution, as there are societies whose names include the term institute or institution. The basic rule in the case of societies is to enter them directly under the name, omitting an article and a term indicating incorporation, if any.

American Ethnological Society

(Without inc.)

American Philosophical Society

Library Association

(Without The)

Linguistic Society of India

Royal Society

Servants of India Society.

A term of incorporation is not omitted when it is an integral part of the name and is needed to make it clear that the name is that of a corporate body:

Larsen Toubro Limited

Peter Davies Limited

Richardson Cruddas Limited

If the name of a society consists of initials, omit or include full stops according to the predominant usage of the body:

Aslib

IFLA

but R.R. Bowker Company

W.H. Ross Foundation for the Study of Prevention of Blindness

If the name of a society appears in different languages, use the form in the official language of the body;

Society Historique Franco-Americaine

not Franco-American Historical Society

If there is more than one official language and one of these is English, use the English form.

United Nations.

not Nations Unies

Canadian Committee on Cataloguing

not Comite Canadien de Catalogage

Also, if the name of an international body appears in English on the items issued by it, use the English form.

International Federation of Library Associations and Institutions.

(Neither French, nor German, nor Russian forms)

Nordic Association for American Studies

(Neither Danish, nor Swedish, nor Norwegian forms)

In the case of religious societies, use the best-known form of the name.

Franciscans

not Order of St. Francis

Jesuits

not Society of Jesus

Divine Consciousness Light Society

not Hare Krishna Society

Political parties are entered directly under their official names with the name of the country added, if necessary.

Labour Party (Great Britain)

but Indian National Congress

Subordinate Bodies: Societies may have subordinate bodies under them. These subordinate bodies are entered as sub-headings of the societies.

International Council on Social Welfare. Canadian Committee.

International Federation of Library Associations and Institutions. Section on Cataloguing.

A subordinate body may have a subordinate unit under it. For identification of this unit, it is necessary to add the name of the subordinate body between the name of the society and the name of the unit. e.g.

American Library Association. Cataloguing and Classification Section.

Policy and Research Committee.

Institutions:

AACR-2R does not make a distinction between societies and institutions. Therefore, the basic rule for societies applies to institutions as well. Institutions are entered directly under their official name:

University of Oxford

Yale University

Pennsylvania State University

Nagpur University

Osmania University

University of Poona

Indian Institute of Science

Central Institute of Indian Languages

Tata Institute of Fundamental Research

Royal College of Surgeons

There are institutions with more than one campus. Add the name of the campus after the name of the institution to distinguish it from another:

University of California (Berkeley)

University of Delhi (South Campus)

Similarly, to distinguish institutions of the same name located at different places, add the name of the place:

Indian Institute of Technology (Poway)

Indian Institute of Technology (Kanpur)

Indian Institute of Management (Ahmedabad)

Indian Institute of Management (Calcutta)

Subordinate Bodies under Institutions:

A subordinate body is entered as a subheading, if it is a department, college or school.

Stanford University. Department of Civil Engineering

Syracuse University. College of Medicine

University of London. School of Pharmacy

University of Poona. Faculty of Ayurvedic Medicine.

When the name of a subordinate body includes the entire name of the institution, the subordinate body is entered as a sub-heading of the institution:

University of Southampton. Mathematical Society

Name: Mathematical Society of the University of Southampton.

Yale University. Library

Name: Yale University Library.

However, a subordinate body is entered directly under its own name when it is commonly so identified;

Harvard Law School.

Refer from Harvard University. Law School

Bodleian Library

Refer from University of Oxford. Bodleian Library

Bajaj Institute of Management

Refer from University of Bombay. Bajaj Institute of Management.

Conferences, Congresses, Meetings, etc.:

Since conferences etc. are regarded as corporate bodies, they are entered directly under the name by which they are predominantly identified.

World Methodist Conference

Symposium on Cognition

When the name of an international conference is firmly established in an English form in English language usage, use this English form for entering it.

Casablanca Conference

Paris Peace Conference

Omit from the name of a conference, words that denote its number, frequency or year of convocation.

Louisiana Cancer Conference not Biennial Louisiana Cancer Conference

Conference on Coordination of Galactic Research not Second Conference on Coordination of Galactic Research

Add to the name of a conference the number, the year and the place in which it was held, if it was in a series of meetings.

Indo-US Joint Business Council. Meeting (10th: 1986: New Delhi)

International Marketing Congress (14th: 1987: New Delhi)

Louisiana Cancer Conference (2nd: 1958: New Orleans)

Indian Science Congress (75th: 1988: Pune)

If it was a single meeting, add only the year of meeting:

Conference on Library Services (1965)

Add the name of the place or institution:

Conference on Machinability (1965: London)

Symposium on Glaucoma (1966: New Orleans)

Regional Conference on Mental Measurement of the Blind

(1st: 1951: Perkins Institution)

International. Conference on the Biology of Whales

(1971: Shenandoah National Park)

Conference on Cancer Public Education (1973: Dulles Airport)

Do not add the name of the place, if the heading is for a series of conferences;

Hybrid Corn Industry Research Conference

If the place is part of the name of the conference, do not repeat and add it to the heading again.

Arden House Conference on Medicine and Anthropology (1961)

Paris Symposium on Radio Astronomy (1958)

If the sessions of a conference were held in two places, add both:

World Peace Congress (1st: 1949: Paris and Prague)

If the sessions of a conference were held in three or more places, add the first named place followed by etc.

International Geological Congress (15th: 1929: Pretoria, etc)

Conferences of Political parties are entered under the name of the party:

Labour Party (Great Britain) Conference (72nd:1972: Blackpool)

Exhibitions, Fairs and Festivals:

a) Enter exhibitions, fairs and festivals directly under their names by which they are known.

b) Omit from the name a word or words that denote their number.

c) Add to the heading the number, the year and the place. But do not add the year and/or place, if they are integral parts of the name.

Delhi Exhibition (1902-1903: India)

Expo 67 (Montreal)

Festival of India (1986: United States)

Festival of the USSR (1987: India)

International Indian Ocean Expedition

World Book Fair (9th; 1988: New Delhi)

Religious Bodies:

In Sub-Section 11.3.2 we saw how religious societies are entered, e.g., Franciscans

Jesuits, etc. In this sub-section, we will see how religious denominations and their provinces or dioceses are entered.

Religious denominations are entered directly under their names:

Catholic Church

Church of England

Coptic Church

United Methodist Church

Evangelical and Reformed Church

Protestant Episcopal Church

Church of South India etc.

Enter provinces, dioceses, etc. as sub-headings under the heading for the religious body:

Catholic Church. Diocese of Bombay

American Marathi Mission. Ahmednagar

Evangelical and Reformed Church. Reading Synod

Church of England. Archdeaconry of Surrey

Pseudonyms:

Pseudonym, according to AACR-2R is a name assumed by an author to conceal or obscure his or her identity. Pseudonymous works exist in all literatures of the world. AACR-2R identifies four basic kinds of pseudonymous works. A cataloguer is, thus, likely to come across:

- i) works of a person known predominantly by a single pseudonym;
- ii) works of a person using two or more pseudonyms;
- iii) works of a person intermittently using his real name as well as a pseudonym; and
- iv) works of two or more persons jointly using a single pseudonym.

Treatment in AACR-2R:

Having then identified the kinds of pseudonymous works let us see how the problems are resolved in AACR-2R.

- i) If all works by a person appear under one pseudonym, or if the person is predominantly identified in reference sources by one pseudonym, choose the pseudonym for heading. If necessary, make a reference from the real name to the pseudonym. Thus:

George Eliot (Pseudonym) Eliot, George

not Mary Ann Crossborn Evans (Real name)

George Orwell (Pseudonym) - Orwell, George

not Eric Arthur Blair (Real name)

Mark Twain (Pseudonym) - Twain, Mark

not Samuel ;Longhorn Clemens (Real Name)

The above authors are predominantly known by their assumed names and are identified by these names in reference sources. They should, therefore, be entered under the pseudonym.

Refer from a name used by a person, or found in reference sources, that is different from that used in the heading for that person:

From Pseudonym to heading (author's real name used for the heading)

Saint-Aubin, Horace de (Pseudonym)

see Balzac, Honore'de (Heading)

From real name to Pseudonym (heading)

Munro, Hector Hugh (Real Name)

see Said (Pseudonym – heading)

Rusell, George William

see A.E.

Duplin, Amandine-Lucile-Aurore, baronne Dudevant

see Sand, George

Dudevant, Amandine-Lucile-Aurore Duplin, baronne

see Sand, George

From Phrase-like pseudonym to heading

See Sassoon, Siegfried

Memoirs of a fox-hunting man, Author of

see Sassoon, Siegfried

ii) If the works of a person appear under several pseudonyms, choose the one by which the person has come to be identified predominantly in later editions of his or her works, in critical works, or in reference sources, in that order. Make references from the other names:

Charlotte Bronte (predominant)

Currer Bell (Another Pseudonym)

Lewis Carroll

Charles Lutwidge Dodgson

Earle Stanley Gardner

Refer from A.A. Fair

Sandhal

Refer from Alceste

Marie-Henri Beyle

Refer from Louis-Alexandre-Cesar Bombet

iii) If a person is intermittently using his or her real name and one or more pseudonym and is not known predominantly by one name, choose for each item the name appearing in it. Make references to connect the names:

John Creasey

(Real name in some works)

Gordon Ashe Michael Halliday

J.J. Manic

Anthony Morton

Jeremy York (All Pseudonyms of John Creasey)

John Creasey has used different names in different editions of the same work and also more than one name in the same edition. In such a case, therefore, the name appearing in an item should be chosen as the basis of heading. Further, as prescribed by the rule, all names have to be connected using 'see also' references, e.g.

Creasey, John

see also Ashe, Gordon

Halliday, Michael Marris, J.J.

Morton Anthony

York, Jeremy

Successively, for all his names, 'see also' references will have to be provided.

Following is another way of connecting all names of an author:

Paine, Luran

For works of this author written under

Pseudonyms, see

Andrews, A.A.

Benton, Will

Bosworth, Frank

Bradley, Concho

And then Andrews, A.A.

For works of this author written under his real name, see Paine, Luran

And For works written under other

Pseudonyms, see Benton, Will

Bosworth, Frank etc.

Anonymous works:

An anonymous work is of uncertain or unknown authorship, or by an unnamed group. Most of the sacred books and many old and medieval texts are anonymous works; meaning they cannot be ascribed anonymous works under five different situations.

Treatment in AACR-2R:

i) If a work is of unknown or uncertain personal authorship, or if it emanates from a body that lacks a name, enter it under title:

Personal

The secret expedition: a force (in two acts) as it has been represented upon the political, theatre of Europe

(Author unknown. Entered under the title)

Corporate

A memorial to Congress against an increase of duties on importations. (By citizens of Boston and vicinity)

Orthogonal expansions and their continuous analogues: proceedings of a conference held at Southern Illinois University;

Edwardsville. April 27-29, 1967 (edited by Deborah Tapper Haino)

ii) If such a work has been attributed to one or more persons or corporate bodies, enter it under title and make added entries under the headings for these persons or bodies:

The law of serutiny; or, Attornies' guide

Works and Uniform Titles

(variously attributed to Andrew Carmichael and William Noreott)

Main entry under the title and added entries under

Carmichael, Andrew

Noreott, William,

La Capucisere, or, Le bijan enleve a la course, poem

(Possibly by Pierre-Francois Tissot, erroneously attributed to PierraJean Baptiste Nougaret)

Main entry under title as above

Added entries

Tissot, Pierre-Francois

Nougaret, Pierre-Jean-Baptiste

iii) If reference sources indicate that a person is the probable author of such a work, enter it under the heading for that person; and make an added entry under title:

A true character of Mr Pope

(Author uncertain; generally attributed to John Dennis)

Dennis, John (Main Entry)

Added entry under title as above

Portrait of Andrew Jackson

(Once attributed to Mathew Brady, but generally thought to be by Edward Anthony)

Anthony, Edward (Main entry)

Added entries under Brady, and title as

Brady, Mathew

Portrait of Andrew Jackson

iv) If the name of a personal author is unknown and the only indication of authorship is the appearance in the chief source of information of a characterising word or phrase or of a phrase naming another work by the person, enter it under that word or phrase; and make an added entry under title:

Memoir of Bowman Hendry by a Physician

Enter under the Physician

Physician

Memoir of Bowman Hendry

Added entry under title Memoir of Bowman Hendry

The unveiled heart: a simple story by the author of early impressions

Enter under the phrase

Author of Early impression

Early impressions, Author of

Added entry under title

The Unveiled heart: a simple story

v) If the only indication of authorship is a predominantly non-alphabetic and nonnumeric device, enter it under title. Do not make an added entry under the device:

Angry thoughts\by x!x!x!

Enter under title as,

Angry thoughts

Enter anonymous works in scripts other than Greek or Roman, under their established titles in English.

Arabian Nights

Book of the Dead

When an anonymous work is known to be written by a particular author, enter it under the name of the author;

A Tale of a Tub

(Published anonymously by Jonathan Swift)

Enter under Jonathan Swift as,

Swift, Jonathan

Added, entry under title

A Tale of a Tub

Uniform titles:

In AACR-2R, the term uniform title is used in respect of two kinds of works. A uniform title is the particular title by which a work that has appeared under varying titles is to be identified for cataloguing purposes. It is also a conventional collective title used to collocate (bring together in a catalogue) entries for publications of an author, or corporate body, containing several works, or extracts from several works, e.g. complete works in a particular literary form. So, the purpose of using uniform titles is very clear. It is to avoid dispersal in a catalogue of the entries of the various editions of the same work due to their varying titles. -It is also the purpose of uniform titles to collocate the entries of publications of an author containing several works in a particular literary form. It is then the means for bringing together all the catalogue entries for a work when various editions and other manifestations of it have appeared under, various titles. Uniform titles also facilitate identification of a work when the title by which it is known differs from the title proper of the item being catalogued.

Use of uniform titles depends upon:

- how well the work is known;
- how many manifestations (editions, translations, etc.) of the work are involved;
- whether another work with the same title proper has been identified; a whether the main entry is under the title;
- whether the original work was in another language; and
- the extent to which the catalogue is used for research purposes.

Treatment in AACR-2R:

The basic rule about uniform titles in AACR-2R prescribes selection of one title of a work, if its manifestations have appeared under several titles. The uniform title is to be enclosed in square brackets and given before the title proper. Thus,

Dickens, Charles

[Martin Chuzzlewit]

The life and adventures of Martin Chuzzlewit... 1868

Dickens, Charles

Martin Chuzzlewit ...1899

Dickens, Charles

[Martin Chuzzlewit]

Martin Chuzzlewit's life and adventures. 1910,

In the above example, we find three different editions of Charles Dickens' *Martin Chuzzlewit* appearing under three different titles (titles proper). This work is popularly known as *Martin Chuzzlewit* which title, then, is used as the uniform title for the work. The uniform title chosen for the cataloguing purpose and the title proper of the 1899 edition of the work are identical and so the title is not enclosed in square brackets in that case. Where the two are different, the uniform title is enclosed in square brackets and is followed by the title proper, as in the case of the two editions of 1868 and 1910 in the above example. The uniform title used here serves the purpose of bringing together all editions of *Martin Chuzzlewit* under the heading for Dickens. The uniform title in this example is not used as main entry heading. In the following example, the uniform title is used as heading:

Blind date

Chance meeting

(Motion picture issued in Britain as: Chance meeting

Later issued in the U.S. as Blind date).

Thus, the two manifestations of the same work—in this case, *Blind date*—are brought together under the uniform title. When a work is entered under a uniform title, it is necessary to make an added entry under the title proper of the item being catalogued. Thus, in the above case,

Chance meeting see Blind date

If a work is entered under a personal or corporate heading and a uniform heading is used, make a name-title (author's name and title) reference from variants of the title;

Dickens, Charles

The life and adventures of Martin Chuzzlewit:. 1868

see Dickens, Charles

Martin Chuzzlewit...

If a later manifestation of a work is a revision or updating of the original work, a uniform title is not to be used. Instead, on the entry for the revision or updating a note should be provided, giving the title of the earlier edition. For example,

Scott, Franklin D

The United States and Scandinavia-1950

Scott, Franklin D.

Scandinavia... Rev. & enl. ed...1975

Note previous ed. published in 1950 as: The United States and Scandinavia

Richards George

A treatise on the law of insurance 1892

Richards, George _

Richards on the law of insurance, 5th ed/by Warren

Freedman...1952 (Fifth revision)

Note: First-3rd eds. Published as: A treatise on the law of insurance.

Works after 1500

While cataloguing works created from 1501 A.D., the title of a work in the original language by which it has become known through use in its manifestations is to be used. For, example, Jonathan Swift's Travels into several remote nations of the world by Lemuel Gulliver has become known as Gulliver's travels, and An almana for the year of our Lord has become

known as Whitaker's almanac. Thus, Gulliver travels and Whitaker's almanac become uniform titles respectively.

Swift, Jonathan

[Gulliver's travels]

Travels into several remote nations of the world by

Lemuel Gulliver...1726

Whitaker's almanac

An almanac for the year of our Lord...

If no one title of the several titles of a work is best known, use the title proper of the original edition, omitting introductory phrases and articles:

Wodehouse, P.G.

[Ring for Jeeves] (The title of the original ed)

The Return of Jeeves....

Treatyse of a galaunt

Here begynneth a treatyse of a galaunt

(Introductory phrase, begynneth, is omitted)

If a work is published simultaneously in the same language under two different titles, use the title of the edition published in the home country where the cataloguing is being done. If it is not published in the home country, use the title of the edition received first in the library.

For a cataloguing agency in the United Kingdom:

Joesten, Joachim

Denmark's Day of Doom.-London...1939

Joesten, Joachim

[Denmark's Day of Doom]

Rats in the Larder: the story of the Nazi influence in Denmark -New York...1939

In the above case; the title of the British edition became the uniform title. In an agency in the United States, Rats in th4 Larder would be the uniform title.

Works before 1501

Use the title, or form of title in the original language by which a work created before 1501 is identified in modern reference sources:

Chaucer, Geoiffrey

(Troilus and Criseyde)

Use as well-established English title for a work originally written in classical Greek. If there is not English title, use the Latin title. If neither exists, use the Greek title:

English:

Aristophanes

[Birds]

not Aves

not Ornithes

Homer

[Iliad]

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Works and Uniform Titles

not Ilias

Homer

[Odyssey]

not Odyssea

not Odysseia

Plato

[Republic]

not Republica

not Politeia

Additions to Uniform Titles

Add in brackets an explanatory word, brief phrase, or other designation to distinguish between two identical uniform titles:

Genesis (Anglo-Saxon poem)

Genesis (Book of the Bible) France

[Constitution (1946)]

France

[Constitution (1958)]

Translations

If the item being catalogued is a translation, add the name of the language of the item to the uniform title:

Goncourt, Edmond de

[Les freres Zemganno, English]

The Zemganno brother...

(An English translation of a French novel)

If the item being catalogued is in two languages, name both. If one of the languages is the original language, name it second:

Caesar, Julius

[De bellow Gallico. French & Latin]

If the item is in three or more languages, use the term Polyglot, unless it is originally in three or more languages in which case name all languages;

United States

[The Declaration of Independence. Polyglot]

The Declaration of Independence of the United States in ten languages.

Parts of a Work

If a separately catalogued part of a work has a title of its own, use the title of the part by itself as the uniform title. Make a `see reference from the heading for the whole work.

Make an explanatory reference, when necessary. Thus:

Tolkien, J.R.R.

(The Two Towers)

see reference: Tolkien, J.R.R.

The Lord of the Rings. 2. The Two Towers

see Tolkien, J.R.R.

(The Two Towers)

(Sindbad the Sailor)

explanatory ref: Arabian Nights

For separately published stories from this collection, see

Ali Baba

Sindbad the Sailor [etc.]

Non print sources:

In 1976 British Standards Institution identified general terms included non-book materials and its synonyms, Audio-Visual materials and Meta book; Non-book media and its synonym non-print media; Multimedia and its synonym non-print materials. Audio-visual as examined by William Peters is “an umbrella term covering practically all nonpoint materials which find their way into a library. Such non-print materials form, special collections in a library. In this present study an attempt is made to study the organization and use of non-print materials in university libraries of Andhra Pradesh.

Analysis of data:

One state university library i.e Dr.B.R. Ambedkar Open University Library, Hyderabad mentioned that budget allotted for non-print materials is sufficient. Acharya N.G.Ranaga Agricultural University mentioned that budget allotted for non-print materials is not sufficient. Most of the university libraries mentioned that a separate budget for non- print materials is required. A question is asked to know whether any selection committee for non-print materials in university libraries is existing. All the librarians replied that there is no selection committee for non-print materials. Majority of the university libraries are selecting non-print materials through librarian on recommendations of subject specialists, followed by departmental library committee and library advisory committee. Most of the university libraries are procuring non-print materials through distributors/agents Majority of the university libraries are not maintaining separate accession register for non-print materials. They are following specific methods like making note in the remarks column of accession register, specifying the type of material in brackets, noting down the kind of material in the accession register, Karen mentioning the kind of material against title, prefixing the serial number with initials of type of material. Less number of university libraries are getting reading materials like encyclopaedias and journals in CD-ROM formats. Five state university libraries are classifying and cataloguing non-print materials. Those who are doing classification and cataloguing are following Dewey decimal classification and Anglo-American Cataloguing Rules-II respectively. The forms of catalogue are card form(2) Computerised form(2) book form(1). One state university library i.e Dr.B.R. Ambedkar Open University library is following keyword indexing technique for information retrieval in addition to classification and cataloguing. Most of the university libraries are following closed access system for non-print materials. Jawaharlal Nehru Technological university and Potti Sreeramulu Telugu university are following open access system where as S.V.University Library is following open and closed access for non-print materials. Most of the university libraries have no separate section for non-print materials. Those libraries which are not having separate section, the responsibility of non-print materials are kept under the control of reference section. Four state university libraries i.e. Osmania University library, Acharya N.G. Ranga Agricultural University library, Dr.B.R.Ambedkar Open University library and Jawaharlal Nehru technological university library are lending non-print materials to their users, i.e faculty and research scholars. Two state university libraries i.e Osmania University library and Dr. B.R. Ambedkar Open university library are lending films, videocassettes to study centres through inter library loan. Less number of university libraries have separate reading rooms for non-print materials. Those libraries which are having

separate room are not satisfied with facilities like acoustical treatment, and humidity control and cooling system. Most of the university libraries are not participating in cooperative activities mentioned reasons like lack of sufficient non-print materials and not necessary. Most of the university libraries are providing orientation for proper handling of non-print materials through different methods like lecture, library tour, library guides etc. Majority of the university libraries are publicizing non print materials through various methods like displaying periodic list of new arrivals, circulating catalogue of the collection and list of arrivals, displaying latest arrivals separately. Most of the university libraries mentioned that absence of sufficient equipment and materials, lack of awareness about non-print materials are the hindrances for better utilization of non-print materials. Most of the university libraries are not verifying the non-print material stock. The various reasons expressed by the libraries are less use of non-print materials, lack of time and lack of man power. Most of the university libraries are having internet facility. The internet access is allowed to users only in three state university libraries. The reason for less utilization is that it is not open to users in some university libraries. Most of the university libraries mentioned that assessment of user needs is necessary. They are following different methods like survey, questionnaire and observation methods respectively to assess the needs of users.

Recommendations:

The following measures are suggested for better organization and utilization of non-print materials in university libraries.

- Separate allocation of funds exclusively to acquire and maintain non-print materials must be provided to university libraries.
- A selection committee for selection of non-print materials in university libraries must be appointed consisting of chief librarian, representatives from Arts and Sciences faculties, research scholars and students and library staff.
- Proper care and interest must be taken by the university library authorities to build up the
- Non-print material collection to meet the changing information requirement of their users to satisfy their demands relating to teaching and research.
- A full time, qualified and skilled person must be appointed for the care, maintenance and to provide assistance with regard to non-print materials. This will enable better utilization of non-print materials.

- Though many of the university libraries are publicizing their non-print materials, they are not reaching their target group properly. Hence better methods, like sending the existing non-print materials and also latest additional lists to the concerned departments can be followed.

- One time grant may be provided by UGC for the establishment of independent sections for non-print material in university libraries and recurring financial assistance may be provided for maintenance of the same. The efforts of UGC, which established INFLIBNET, in this regard are to be appreciated.

- Periodic training courses, on the campus and off the campus, for the library professionals/personnel in knowing the existing non-print material and in handling them, are to be organized by individual libraries and associations. These efforts will enrich the ability of information, providing skills of the library professionals/personnel.

- Orientation is necessary for the optimum use of non-print materials, short term orientation programmes can be organized by the libraries to create awareness among the users, about the available non-print materials and minimum techniques to use those materials.

- The educators have also their role to play for the better utilization of non-print materials by adopting library oriented teaching methods and using non-print materials in their teaching.

- The provision and use of non-print materials can be expected to increase steadily in university libraries.

In addition, the trend towards more compact formats is likely to continue and libraries will need to reasons positively to new technological developments in order to maintain the progress achieved during the past few years.

Review questions:

1. Define pseudonyms.
2. What are corporate bodies? Give examples.
3. Define Indian names.
4. Explain in detail about non print materials.

S. No	Questions	LOCF Mapping
Small Questions		
1.	Define a personal author according to AACR-2.	K1
2.	What is a corporate body? Give an example.	K1

3.	How are Western personal names generally rendered in AACR-2?	K1
4.	What is a pseudonym?	K2
5.	What is the purpose of a uniform title?	K2
S. No	Questions	LOCF Mapping
Big Questions		
1.	Discuss the rules for rendering the names of personal authors in AACR-2, with special reference to Indian names.	K2, K3
2.	Explain the concept of corporate authorship. How does AACR-2 handle different types of corporate bodies?	K2, K4
3.	Elaborate on the treatment of pseudonymous and anonymous works in AACR-2 with suitable examples.	K2, K3
4.	Discuss the concept and use of uniform titles in AACR-2.	K2, K4
5.	Explain the challenges and procedures for cataloguing non-print resources.	K2, K3

References:

Rout (RK) and Choudhary (BK). A Practical manual AACR-2 1998 revision: A text book of advanced cataloguing practice recommended for M.L.I.Sc 1997. Reliance Publishing house, Delhi. P.4-5.

Fothergill (Richard) Butchart (Ian). Non-Book materials in libraries: A practical guide.1990.clive bingley, London, P.3

William (Peters). Audio-Visual materials in the public library. LIBRARY TRENDS, 16: 1996: 241.

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Unit - IV: Subject Cataloguing

Content:

This unit covers the theory and practice of subject cataloguing. It explains the concept, purpose, and problems of subject cataloguing. The unit discusses the alphabetical subject approach and the challenges of synonyms, homographs, and multi-word concepts. It introduces the concepts of natural, free, and controlled indexing languages. The unit provides a detailed explanation of chain indexing, its mechanism, steps, advantages, and limitations. It also discusses subject heading lists, focusing on the Library of Congress Subject Headings (LCSH) and the Sears List of Subject Headings (SLSH).

UNIT – 4

SUBJECT CATALOGUING

Objectives:

- Introduction to subject cataloguing
- To learn about the concept and purpose of subject cataloguing
- To get an idea about chain indexing

Introduction:

The primary function of any library is to make available the information it possesses (documentary as well as other types), to the/users on their request. To fulfil this objective, each library maintains a properly organised catalogue. The catalogue is to be constructed on sound principles. You are in a position to construct a suitable catalogue to meet the needs of your library. For a person in need of information on a specific topic (i.e. specific subject), the library catalogue has to provide the facility of subject approach to library contents. If this facility is provided in the catalogue, the library user, on his own, will be able to find the items which are available in the library on a given subject as well as items related to the subject of his interest. During the process of cataloguing, the cataloguer must take into account the dual manifestation of the items added to the, library collection. That is to say, that these items are both intellectual as well as physical entities. In descriptive cataloguing, the physical description pertains to the physical entity (document), while subject catalogue provides access to the intellectual content of the entity. In practical terms, subject catalogue is designed to provide subject access to the library contents. Inquirers, who need information on a certain subject will approach the catalogue with some questions formulated with their own terminology. These terms must be translated into the pre-determined access categories of the cataloguing. Certainly, such communication between the inquirer and the catalogue usually

takes place with the assistance of the librarian.

The library catalogue constitutes a complete record of the library's collection of documents. Also, you have learnt that the essential functions of a catalogue and the principles upon which it is constructed are not affected by the physical form. Even so, the card catalogue has become by far the most popular form of a library catalogue. In the card catalogue, it is possible for a document to have a number of representations, though practical considerations limit this number. Each document representation (substitute) is in the form of

a catalogue card, known as an entry. Each entry indicates some characteristics of the document, such as authorship or subject content. In other words, multiple access points are provided for a document in a catalogue. The entries that indicate the inclusion of documents in classes defined by subject content are known as 'subject entries'. The process of preparing subject entries for documents and organising them for subsequent retrieval is known as Subject Cataloguing.

Meaning and purpose:

Since an entry in the catalogue serves as a document substitute, it is necessary to provide relevant information for individualising it so that the document can be retrieved or located from amongst the others belonging to the same subject category. This job is usually accomplished with the help of a call number assigned to the document. In addition to entries for individual documents, the catalogue also contains directions which refer the searcher from one heading to another heading under which potentially relevant information in the form of document entries can be found. Such entries in the catalogue are known as references. These references also help the searcher in locating information about the related subjects to the subjects of his interest. "The assigning of headings and references, with retrieval of documents through the medium of a catalogue, in response to request for information on specific subjects is generally defined as subject cataloguing". Subject cataloguing forms an integral part of the total process. Therefore, there is little need to emphasise on the important role of subject cataloguing in libraries. The potential use of library materials cannot be exploited without it, especially in large libraries. Also, the vast increase in the number of documents in every sphere of human activity, clubbed with the increased complexity of the pattern of knowledge, calls for a foolproof method of access to records on any subject. Thus, subject cataloguing is concerned with subject description of documents.

Objectives of Subject Cataloguing:

All forms of subject catalogues have a two-fold objective: first to enable an enquirer to identify documents on a given subject and second, to make known the presence of material on allied or related subjects. Shera and Egan (1956) summarise the objectives of subject cataloguing as follows:

- To provide access by subject to all relevant material;

- To provide subject access to materials through all suitable principles of subject organisation such as matter and applications;
- To bring together references to materials, which treat substantially the same subject regardless of differences among groups of subject specialists, and/or from the changing nature of the concepts with the discipline itself,
- To show such affiliations among subject fields, which may depend upon use or application of knowledge;
- To provide entry through any vocabulary common to a considerable group of users, specialists or laymen;
- To provide formal description of the subject content of any bibliographic unit in the most precise, or specific terms possible: whether the description is in the form of a class, number or symbol; and
- To provide means to the users to make a selection from among all terms in any particular category, according to any chosen set of criteria such as, most thorough, most recent, etc

Subject approaches:

Most of the users approach information sources not with names of who might have been responsible for their creation, but with a question that requires an answer on a or a topic for study. Users seek documents or information on a particular subject. In order to make provision for this common approach, it is necessary to arrange documents on the shelf and entries in catalogues in such a way that items on a specific subject can be retrieved. In other words, it may be said that subject approach is very important in the access to and exploitation of documents in a library. Before we actually discuss the methods developed by librarians and information workers to meet this requirement, let us consider the question " What is a subject?" While talking about a subject we normally refer to a given area of knowledge, or the contents of a document of a given scope. A subject may be defined by

- a) An area of interest,
- b) An area in which an individual researcher or professional works,
- c) An area in which an individual writes, and

d) An area of knowledge being studied

Let us consider a well-known area such as Physics. To understand this subject, let us first ask a student studying this subject, as to what constitutes this subject. Also, let us find out the definition of physics from a few dictionaries and encyclopaedias. We may come across different definitions and different boundaries for this subject area alone. We may also find that different users and separate pieces of literature hold different perspectives on one subject. The points of divergence in perspective can be categorised into two types:

Different labels (names) that are used for a subject, and

Different concepts about scope and associations with other subjects that are evident. Essentially, these factors form the basis of problems in identifying a satisfactory subject approach and the need to have a vast array of tools to explain the subject approach to knowledge. It is possible and convenient to select a particular view point on the scope, associations and labels for subjects which coincides with the way in which subjects are handled in the literature. In libraries, most devices for the organisation of knowledge concern themselves primarily with organising documents, based on literary warrant. This approach is known as pragmatic approach. The main limitation of the approach is the time and collection dependency of the resulting tool. There is an alternative method for the design subject retrieval devices, and that is to build schemes, which depend upon theoretical views about the nature and structure of knowledge. This theoretical approach is important in determining the nature of subject devices required for the organisation of knowledge. A subject device normally seeks to fulfil two functions

a) To show what a library or information centre has on a particular subject; and

b) To show what a library or information centre has on related subjects.

Different devices for the organisation of knowledge place different emphasis based on the relative importance of these two functions. However, the two functions are interdependent and neither can be excluded without impairing the effectiveness of the other. A user who starts a search with a specific subject in mind may, in fact, be seeking a specific subject which does not quite match his requirements. For example, a user might start looking for "growing of tomatoes". A document on 'vegetable gardening' may contain equally valuable information on 'growing tomatoes' but generally he will not try to notice it because he believes that the more specific subject - 'growing tomatoes,' will not be covered in the

document 'vegetable growing'. Later, on examining the document, he may discover that the information, he is looking for, is available in the document on 'vegetable growing'. Thus, broader subjects may help the user even with a specific search. Classification schemes as well as alphabetical indexing systems attempt to fulfil both the basic functions mentioned earlier. The distinction arises from different emphasis. Classification schemes specialise in showing network of subjects and displaying relationships between subjects while alphabetical indexing systems specialise in establishing specific labels for subjects and providing direct access to individual subjects. Also, it may be stated here that author and title catalogues enable the user to locate documents of which the user knows either the name of the author or title of the documents, while subject catalogues enable him to find out documents of his interest even without knowing any of these items of information.

Alphabetical Subject Approach:

There are different means of providing alphabetical subject approach to documents and information. But, all these methods are confronted with some common problems. These problems are mainly concerned with the label (name) that is given to a subject in an alphabetical subject catalogue. Therefore, the basic problem pertains to the naming of a subject. It is generally agreed that a user-oriented approach should be followed in subject catalogues in naming the subjects. In order to achieve this objective, the various approaches of different users must be taken into consideration. If a subject has more than one name, a library catalogue must bring all material on that subject together (within the limitations of the scope of the collection) under those names. Specific problems encountered in this connection are:

a) synonyms, b) homographs, c) singular and plural forms, d) multiword concepts, and e) complex subjects.

It is rather important to understand as to how the above mentioned aspects present problems to the subject cataloguer. First of all, let us briefly discuss about them.

a) Synonyms are terms with the same or similar meanings. Such terms are present in every subject. Near synonyms are most common. True synonyms which mean exactly the same thing and which are used precisely in the same context, are rather- unusual. However, even near synonyms are regarded as equivalent for some purposes. Some situations in which synonyms arise are:

i. In case of some subjects which have one stem and several derivatives. For example: steriliser, sterilising, sterilised, or computing, computed, computation. Sometimes, it is acceptable to treat such words as equivalent to one another, and at other times it is important to differentiate between them.

ii. Some of the subjects might have both common and technical names, and these must be recognised for the purpose of subject cataloguing so that depending upon the clientele for whom the catalogue is meant, these are reflected in the catalogue. Examples are 'Sodium Chloride' and 'Salt', 'radish' and 'raphanus sativus', etc.

iii. Use patterns of terms also present problems to the cataloguer. The cataloguer should try to keep pace with changes in normal usage.

iv. Some concepts are defined differently in different versions of one language. American and English are examples of such differences in usage for example, lift and elevator. In all such cases, the user should be guided from the heading that is not chosen to the one that is chosen (preferred) in the catalogue.

The merging of synonyms carries implications for the effectiveness of a library catalogue as a retrieval tool.

b. Homographs means words which have the same spelling but different meanings. In normal language usage, the meaning of such homonyms is established by the context in which the term is used. But, in a catalogue the term is used as heading and therefore, it will be difficult to establish the interpretation to be placed on the homograph. In such cases, qualifying terms must be used to provide proper connotation to the homonyms in the catalogue. Once this is resorted to, then there might not be any ambiguity. Examples: 1) Pitch (Cricket), Pitch (Music), 2) Tank (Military vehicle), Tank (Water tank), etc

c. Use of Plural and Singular forms: Generally, the plural and singular forms of the same noun are regarded as an equivalent, but there are some situations, when it is necessary to treat them distinct. In case, only one form of heading is permitted in the catalogue, then it is common practice to adopt the plural form. However specific rules are provided for the usage of singular or plural form

d. Multi-word Concept: Some subjects cannot adequately be described by one word, and require two or more words to specify them fully. Examples are: Information Retrieval, Country Walks, Underwater Colour Photography, etc: In such cases, no matter which word

(in the term) is used as the main approach point in the catalogue, the user might choose to seek the subject under the second or third word (in the multiterm) first. Therefore, it is advantageous to provide access via all significant words in a multi-word concept. In a multi-word concept, sometimes the terms are presented in direct order; at other times, the inversion of terms is also resorted to, for example, Military Hospitals can find a direct entry in a catalogue which treats Military Hospitals as a unitary concept or it may be found in the inverted form as Hospitals, Military. Sometimes inversion may lead to grouping of like subjects. For example, inversion to Hospitals, Military will cause this heading to be filed along other headings starting with the word Hospitals. The primary disadvantage of inversion method is that the user of the catalogue might not be in a position to predict the terms of a multi-word concept that may be inverted. Also, the word order in a multi-word concept may also create some problems of uncertainty to the users.

e. Complex Subjects: Complex subject contains more than one unit concept in them and a number of terms may be used to fully describe these concepts. -Each of these concepts might form a potential search key in a catalogue. With complex subjects, citation order becomes important. By citation 'History of Science' is not the same as 'Science of History'. The same two terms 'History' and 'Science' serve to describe two subjects and it is only the order in which they are cited that determines the meaning; in the natural language, the connecting word 'is/are' distinguishes statements of the two subjects. The occurrence of a variety of concepts in the statement of one subject area is referred to as syntactic relationship. The syntactic relationships and the ways they can be handled are the distinguishing features between pre-coordinate and post-coordinate indexing systems

Display of Subject Relationships:

The vital problem concerned with the alphabetical, subject approach is the naming (labelling) of subjects. However, any tool such as the library catalogue used for the organisation of knowledge, must also take into account the different relationships existing between the subjects. There are two main categories of relationships between subjects. These are known as the syntactic relationships and semantic relationships. For example, in a topic such as 'Sugar and Health', the concept 'Sugar' and 'Health' are drawn-together in a specific context. Obviously any of these concepts may also be present in other context, where the existence of relationships defined for the purpose may be irrelevant. On the other hand, semantic relationships show aspects of genus-species relationships and are expected to reflect

widely accepted subject relations. Entries should be made in the catalogue for linking such related subjects. This is normally achieved by means of references and other devices such as, alternative entries. These are some of the significant issues which cause problems in subject cataloguing and the cataloguer must take these into account and try to provide suitable solutions by which these problems might be minimised, if not totally eliminated.

Alphabetical indexing languages:

In this section let us look at the concept of indexing language, its categories and functional use. Let us begin with the meaning of 'indexing language'. It is the language used to describe a subject or other aspects of information in an index or in a library catalogue. The generally accepted difference between a library catalogue and an index is that an index entry merely locates a subject or a concept, whereas a catalogue entry includes some descriptive specification of a document containing the subject. But the line of demarcation is not, in practice, hard and fast. The indexing language can be an alphabetical language or may be a classification scheme. But, our emphasis would be on alphabetical indexing languages. There are three main categories of indexing languages. They are: a) natural indexing languages; b) free indexing languages; and c) controlled indexing languages.

Natural Indexing Language:

One of the greatest hurdles in discussing natural indexing language is that it is not easy to identify or know as to what exactly constitutes a natural indexing language. We do not generally come across lists of natural indexing languages. Obviously, a natural indexing language is the language of the documents that are indexed or catalogued for a library. Hence, it could be static as long as the document collection remains static. As soon as a new batch of documents is added to the library, the terms of the indexing language are changed to accommodate the new terms contained in the new set of documents. Each system will have a different indexing language even if the documents cover the same subject area. Also, since the indexing language is derived from the documents, added to the library or input into the system of different records, even if they represent the same documents, they generate a different indexing language. These variations affect the consistency associated with the library catalogue and so, present many problems. Most of the natural indexing languages are based upon the language of title, abstract and other text of documents. There is a debate going on as to the effective use of natural languages for indexing and subject cataloguing purposes. One school of thought believes that full exploitation of the opportunities offered by computer

systems could only be done taking recourse to natural indexing language, whereas the other school holds the view that controlled indexing language is the only proper way to index documents. However, it may be mentioned that controlled indexing language is extremely time consuming, costly and uneconomic. One of the applications of natural language indexing is the production of indexes based on words in titles of documents such as, Key Word In Context (KWIC) indexes.

Free Indexing Language:

It is the nature of free indexing that any word or term-that suits the subject may be assigned as a subject heading in catalogue or as an indexing term. The terms may be human assigned or computer assigned although free language indexing is -commonly used in the computer produced subject catalogues or indexes. The computer generates the list, by indexing under every word which is provided, unless if is instructed not to do so.

Controlled Indexing Language:

In the foregoing paragraphs we have discussed the concept of an indexing language as also, the categories into which it falls. In the process, we have learnt the meaning of natural indexing and free indexing languages. Let us now learn some facts regarding controlled indexing languages and their use in subject cataloguing and indexing. Control is necessary in respect of terms used as subject identifiers in a catalogue or index, because of the variety of natural languages. Such control may involve barring of certain terms from use as headings or access points in a library catalogue or an index. The term which are to be used are specified and the synonyms recognised and as far as possible are eliminated. Preferred word forms are noted. The list of terms, thus, prepared constitutes what is called controlled indexing language. One of the methods by which such a language is formed, is to list or store the acceptable terms in a vocabulary. Such lists contain specific decisions relating to the preferred words, and also decisions regarding the form of words to be used; for example, singular or plural, nouns or adjectives. There are mainly two types of controlled indexing languages in verbal plane. They are: subject heading lists and thesauri. These two types of controlled indexing languages have the following functions:

- to control the terminology used in subject catalogues and indexes; and
- to control the display of relationships in catalogues and indexes.

Subject heading lists are lists of index terms normally arranged in alphabetical order, which can be used to determine the terms to be used in a catalogue for describing subjects (i.e., as subject headings) by cataloguers: These lists attempt to solve some of the problems concerning alphabetical subject approach. They serve as guides to the cataloguer and aid him in the task of subject cataloguing. The basic functions of a subject headings list may be stated in the following terms:

The list records terms which shall be used in a catalogue or database, and also indicates the form in which they shall be shown. It acts as an authority list for index terms and their form.

The list makes recommendations about the use of references for the display of relationships in a catalogue in order to guide the users to distinguish associated terms.

'Sear's List of Subject Headings and 'Library of Congress List of Subject Headings' are examples of popular list of subject headings. These two lists have been the basis for discussion in respect of alphabetical subject catalogues or in other words, for the theory and practice of subject cataloguing. We shall be learning more about these two lists in Unit 15 of this course. It was mentioned earlier that controlled indexing languages are of two types. In the foregoing paragraphs we have discussed one of these two types namely 'Subject Headings'. Let us now try to understand the second type namely 'Thesauri'.

Thesauri:

The dictionary meaning of the word 'thesaurus' is "a collection of words put in groups together according to likenesses in their meaning rather than an alphabetical list." However, in library and information science parlance the word thesaurus means an authoritative list showing terms which may and sometimes may not be used in a catalogue or index to describe concepts. Technically, a 'thesaurus' could be defined as "a compilation of words and phrases showing synonymous, hierarchical, and other relationships and dependencies, the function of which is to provide a standard vocabulary for information storage and retrieval systems" In a thesaurus, each term is usually given together with terms; which are related to it in a number of ways. The primary purpose of thesaurus is to exert terminology control in choosing proper headings in subject cataloguing and indexing. This concept is being extensively used since the 1950s in, many information retrieval systems and a variety of bibliographical tools. A number of standards have come into existence to provide guidance in the construction of thesauri. 'Root Thesaurus' published by the British Standards Institution is one of the best models. Apart from this, there are a number of thesauri such as TEST (Thesaurus of

Engineering, Scientific and Technical Terms), and others concerned with INIS, INSPEC, AGRIS, etc., which are being used in information storage and retrieval systems.

Indexing systems:

The preparation of a series of entries for inclusion in a subject catalogue or in a printed index is known as indexing. An entry is a basic unit of a subject catalogue or an index. It consists of (a) a means of identifying an item in, or a concept derived from the collection (i.e. the documents of a particular library), and (b) a means of locating the item or material relating to the concept. Indexing is a technique for providing service operation and an index or a subject catalogue is a tool. It is a means to an end, never an end in itself. In other words, it is a communication link between a collection (of a library) and those who intend to obtain some information from it. The process of indexing calls for sensitivity to users' approaches, intuition to select appropriate terms and skill to identify the terms and their relationship, on the part of the indexer. The indexing process also requires the creation and recognition of pattern and rule conscientious and adherence to them, as also accuracy and precision. In other words, the process involves the application of a model indexing system.

Definition of an Indexing System:

Let us now look at some of the definitions available in the literature of Library and Information Science. One such definition states that "an indexing system is a set of prescribed procedures for organizing the contents of records of knowledge or documents for the purposes of retrieval and dissemination." Another definition reads that "an indexing system is the means whereby an indexing language can be applied to make an index." It appears that both these definitions have common roots. The only difference is that the first definition is somewhat broader in scope. It may be stated that the need for an indexing system stems out of the work of devising index headings. These index headings mainly relate to documents dealing with compound or multi subjects although, elementary one-concept subjects are not excluded from the purview of an indexing system. For convenience, indexing systems could be divided into two basic groups: the pre-coordinate systems and post-coordinate systems. On the basis of experience, it may be stated that not every index necessarily exhibits all the features of either of these two types of indexing - systems, both types of indexing systems. However, this division is useful in understanding these two categories of indexing systems. A brief description of the pre-coordinate as well as post-coordinate indexing systems is provided in the following sections.

Pre-Coordinate Indexing Systems:

Pre-coordinate indexing systems are conventional systems mostly found in printed indexes. In this type of system, a document is represented in the index by a heading or headings comprising of a chain or string of terms. These terms taken together are expected to define the subject content of the document. The leading term determines the position of the entry in the catalogue or index, while the other (qualifying) terms are subordinated to it. Let us consider the title of a document "Use of Computers in Library and Information Activities". It might be represented by headings such as:

LIBRARY ACTIVITIES: Use of Computers

COMPUTERS: Use in Library Activities

Since the coordination of terms in the index description is decided before any particular request is made, the index is known as pre-coordinate index. One of the characteristics associated with a pre-coordinate index is that the headings in the index are relatively specific compared to one-concept headings such as LIBRARIES or COMPUTERS. Pre coordinate indexes are mostly prevalent as printed-indexes. For example, the indexes to abstracting and indexing journals, national bibliographies and subject indexes to library catalogues apply principles of pre-coordinate indexing in varying measures. Such indexes are compiled both manually as well as with the help of a computer. Two aspects are of great significance in relation to pre-coordinate indexes. The first aspect concerns the consistent description of subjects. In case of subject headings describing many concepts, consistency should be introduced into the terms used to represent individual concepts that constitute the multiple-concept heading. Also, the order in which the individual terms representing the unit concepts of a multiple-concept stated must be consistent. Some basic principles have to be evolved and followed regarding an acceptable citation order of the terms. There must be a theoretical basis by which consistent citation orders could be achieved. Use of such theoretical principles may result in the derivation of a structured system of headings with consistent citation order between similar, yet distinct subjects. The citation order is less likely to be overlooked if some rationale determines such citation order which is to be followed. The second significant aspect that requires the attention of subject cataloguers" or indexers, is the need to provide access for those users who approach the subject under consideration from one of the secondary concepts. Since only one term can appear in the primary position in the prescribed citation order, the preferred citation order should be the one, which caters to a majority of

users. In this context, it may be stated that the same citation order, however well founded it is, will not prove suitable to every searcher. To obviate this problem, references or added entries should be provided in the catalogue or index. At least, one added entry is usually provided for each of the secondary concepts contained in the preferred citation order. Generally, there is some pattern by which such references could be generated to an acceptable level: Both these aspects arise because of the fact that pre-coordinate indexing systems are basically one-place-systems. That is to say, that these systems normally provide one main entry for each document and are mostly suitable for catalogues and bibliographies. These are very helpful to the searcher since a number of searches can be conducted simultaneously by tracing entries under similar headings. Pre-coordinate systems find their application in printed indexes and library catalogues. In summary, it may be stated that in all pre-coordinate indexes, the subject description is composed of a set of terms, which constitutes a summarization of the subject. Also, the assumption is that subject description reflects the most likely way in which the information concerned will be asked for. Thus, when a user asks for information on a particular compound (multi-concept) subject, the combination of the concepts involved will be easily matched in the index against an entry for the same combination. Because this method of indexing coordinates the elements of compound subjects before any particular request is placed for information on that particular compound subject, it is known as pre-coordinate indexing.

Post-Coordinate Indexing Systems:

These systems are also called coordinate indexing systems. As in the pre-coordinate systems, the starting point, here too, is the identification of multi-concept subjects and their compound concepts from the documents to be indexed. Once the multi-concept subject is analyzed into its elementary compound concepts, entries are prepared under terms, which represent elementary concepts. In other words, by this method only simple subject concepts are indexed. These concepts are not Subject Cataloguing - Problems coordinated at the time of preparation of catalogue or index. Since the coordination of concepts does not take place till such time a request is made by user for information about a particular compound subject, this method of indexing is called post-coordinate or sometimes simply, coordinate indexing. In its early stages, post-coordinate indexing employed subject concepts as they were expressed in the document for index description of the document. Although, indexing can thus be done in 'natural language' (i.e., by using significant words taken directly from the document) but in many cases, post-coordinate indexing language employees terms which mostly represent

isolate concepts and are not in the form of compound subject headings. For example, if we have a document dealing with the compound subject "Computer Cataloguing in Libraries", the subject analysis of the document may consist of three simple concepts namely,

COMPUTERS

CATALOGUING

LIBRARIES

The document is indexed under each of these simple concepts and index entries are prepared. Thus, the compound subject of the document receives an index description consisting of their concepts entered individually in the index. If a user is interested only in documents dealing with the compound subject then he has to coordinate all these terms at the search stage and retrieve the documents dealing with the compound subject. This is accomplished by retrieving documents containing common document numbers under individual component concepts. Let us, consider another document representing the subject 'Torsion in the Reinforced Concrete in

Service Cores in Tall Buildings'. This multi-concept subject may be analyzed into the following unit or elementary concepts:

Torsion

Reinforced Concrete

Service Cores

Tall Buildings

If it is intended to prepare post-coordinate index for this example, we may have to prepare entries under the following index headings:

Buildings, Tall

Concrete, Reinforced

Service Cores

Torsion

Online public access catalogue:

By late 1970s, libraries began to use computers for cataloguing purpose and the idea of making the catalogue of a library available to its users online began to be accepted and has been implemented in a number of libraries. This computerised online catalogue, which can be searched by the users directly for the retrieval of records without the assistance of a trained intermediary is commonly known as Online Public Access Catalogue (OPAC).

MARC and the Subject Approach:

The concept of MARC (Machine Readable Catalogue) has brought in a new era in the field of library and information services. MARC stimulated the development of library automation and information networks. Planning for MARC – I begun in 1966 and concluded in 1968. For forms of materials other than books, Library of Congress (LC) published formats for serials and maps in 1970, films in 1971 and manuscripts in 1973. Designing of MARC – II was based on the experiences gained during the evaluation of MARC - I format. The idea behind MARC - II was to develop one common format structure capable of containing bibliographic information for all forms of documents. Not all the information in the MARC record is relevant to the subject of a document, but certain fields are likely to be more productive than others in providing a range of subject descriptions. Some fields are related specifically to notation/class number derived from different schemes of library classification, such as those of LCC, UDC, DDC and NLM; and others are related to alphabetical subject headings, such as those drawn from LCSH, PRECIS, and other alphabetical systems.

Subject Access to OPAC:

The typical OPAC interaction process requires the matching or crude translation of user vocabulary to system vocabulary. It became apparent that the amount of subject information included in standard MARC records is not adequate to meet the users „subject approach to the OPAC. Online capabilities offer many possibilities for improved subject access. Two important search devices used in OPACs are discussed below:

Boolean Search:

Boolean search is the process of searching where the search terms are combined through Boolean Operators (AND, OR, NOT) Logical Product AND' Here two or more terms are combined by logical "AND "in order to formulate the search statement. If we formulate the search statement as A and B, we require that matching for both A and B in the index record to take place. Thus, a search for 'Electronic Scanner' seeks to formulate the search statement as

'Electronic AND Scanner', Logical Sum 'OR': Here two or more terms are combined by logical 'OR'. Thus, a search for 'Electronic Scanner' or 'Electronic Searcher' seeks to formulate the search statement as 'Electronic AND (Scanner OR Searcher)'. Logical Difference 'NOT': Here, terms are combined by logical 'NOT'. If we formulate the search statement as A NOT B, we require that, for matching, A must be present in the index, record but B must be absent. Thus a search statement '(Automation AND Library) NOT Circulation' will retrieve all index records concerning 'Library automation' except 'Circulation'. In this connection, it is to be noted that different OPACs have their own symbols used to indicate the Boolean operators (AND, OR, NOT) while formulating the search statement. The Boolean search method is also explained in BLIS - 06 and BLIS - 07 courses.

Truncation:

It is not necessary to specify complete words. The system may allow for 'term truncation', where a fragment can be specified and the computer will pick up any term containing that fragment. This device is also known as 'Word fragment search'. Fragments may be truncated at either or both ends or at the middle. As for example: Type of Truncation Term Words captured by term

Right truncation LIBR * Library, Librarians, etc.

Left truncation *OLOGY Zoology, Geology, etc.

Infix truncation P*DIATRICS Paediatrics, Paediatrics

Right-left truncation *Electric * Electricity, Electric conductivity,

Hydroelectricity, etc.

The sign '*' is used to indicate truncation. The sign may vary from one system to another system.

Aids to Searching:

Subject searching in OPAC creates certain problems for the users. Several OPACs have been developed to ease vocabulary selection and aid in searching. When the user is having trouble in finding the correct controlled vocabulary term to use for searching, a resulting display of records with the message that the retrieved records have the subject words in their titles and their headings' will be useful in the search. Subject headings on the records help to find controlled vocabulary for the desired topic. Thus, OPACs offer the opportunity in guiding the

users from natural language terms in titles to the controlled vocabulary used in subject headings.

Problems of subject cataloguing:

C.A. Cutter (1837-1903) first provided systematic guidelines for subject cataloguing in his famous work, *Rules for a Dictionary Catalogue* (1876, 3rd ed. 1903). Apart from that, pioneers like Julius Otto Kaiser (1868-1927) also formulated basic but simple rules for subject indexing. To bring uniformity and consistency in subject cataloguing some readymade lists of standardised subject headings were prepared. The pioneer among them are ALA List of Subject Headings and the voluminous Library of Congress Subject Headings (LCSH) for big and research libraries and then came the Sears List of Subject Headings (SLSH) in 1923. The latter two lists are still popular. But it has been observed that no authoritative and consensual rules have been formulated for subject cataloguing to overcome the problems it usually poses. Subject cataloguing, being a highly intellectual work, is a field full of uncertainties. J. Mills (1992, p.307) aptly writes “The failure of cataloguers to develop a consistent and coherent theory of alphabetical subject cataloguing is a notable feature in the history of cataloguing...”. Here there are no concrete and unambiguous rules like the rules given in AACR 2. It is a work of flair at best. Indeed, it is a work of skill and intelligence. Many librarians find it difficult to design subject catalogue due to lack of expertise. Ranganathan considered the subject headings in dictionary catalogues illogical and quite ineffective, and saw no justification in continuing the use of headings that way. The subject headings lists give us only choice among synonymous terms, and some current concepts are always missing, as if by default. But such lists do not present any uniform rule nor help in selecting more specific headings. No help is provided in eliminating the wrong headings. Identical materials may get entered under different headings and the users/cataloguers are led to different paths. Moreover, all such lists are heavily biased towards the country and culture of their origin. The indexers in other countries have to make many adaptations and additions to use them. Hence, there is a widespread dissatisfaction with the subject headings on account of numerous drawbacks. In many cases the cataloguers will not be certain as to under which headings the user would approach. See and See also references make the catalogue bulky, thus increasing the cost of cataloguing, especially in manual catalogues.

Chain indexing:

In his Theory of Library Catalogue (1938) Ranganathan introduced Chain Procedure to derive subject headings for alphabetical part of a classified catalogue. From a hit or miss method, assignment of subject headings became a sure and almost mechanical method. It is an economic, cleverly simple, but ingenious method of mechanically deriving subject headings from the class number of the document itself. It completely eliminates the endless permutation of components of a heading in cyclic methods. Ranganathan claims in his (CC 5th ed, p. 30) that its advantages due to economy are being appreciated all over the world. British National Bibliography (BNB) and the Indian National Bibliography (INB) have been its major users.

Mechanism of chain indexing:

A hierarchical class number consists of linked digits which can be unravelled in a chain of verbal terms to show back each link. In this context a chain may be defined as a hierarchical string of terms obtained by retranslating the meaning of each digit of the class number into a natural language. It is the reverse process of reverting back to the verbal plane from the notational plane. In the unravelling of the chain we proceed from general to specific, i.e. in the PMEST order if using the CC. But the corresponding component terms get automatically arranged from specific to general to maintain the context. Each step in the unravelling of the chain is called a Link. So there are as many links in the chain as the number of digits in the class number. A digit is any distinct symbol, whether semantic or indicative of the facet or phrase. For example 500.2Physical Science (DDC-19th edition) has five digits in all. The first digit makes the First Link. The first two digits make the Second Link. The Last Link is the closing link of the chain which emanates from the full class number. These are:

False Link:

A link which emanates from a non-semantic digit that is an indicator digit. This is either a punctuation mark (in the CC) or the digit 0(zero) or a . (dot). Such a link does not represent a subject but is indicator of the type of facet to follow. Ranganathan also designates the Time Facet as a False Link as it may not correspond to some verbal heading (CCC-5th ed., Rule KB Number 5, p. 288).In context of the DDC the statutory filler zeroes, to make the number of digits to a minimum of three digits, will also be considered False Links. The dot after the third digit and the initial zero in a standard subdivision are false links. For example, take the following chain for the Class Number 500.2

5 = Natural Science

50 = False Link

500 = False Link

500. = False Link

500.2 = Physical Science

But the two most important links of practical use are: Unsought and Sought Links.

Unsought Link:

It is a substantive heading on which either there is no published material or a user is unlikely to ask or look for material on that subject in the library. But it is not anything absolute and may differ from library to library. It may depend upon the factors listed in the CCC itself (KB3, p. 288). To simply summarise, it varies on the local situation depending upon:

- a) Library users' interests and needs, and
- b) Level and kind of services provided by the library.

Hence each library has to make a policy on what and how to define and designate Unsought Links.

Tips for Students:

The sorting out of Sought or Unsought Links requires experience and knowledge of the subject. It needs flair, too. However, for students like you there is a simple mantra to decide the issue: put a question to yourself "Is any library user likely to ask material on this topic?". If the answer is yes, then treat it a Sought Link; if no, it might be an Unsought Heading. Some cases may be on the fence seemingly belonging to both sides. In such cases give the benefit of doubt and treat that as a Sought Link. Anyhow, this sort of judgement can only be learned with error and trial, which takes time.

Sought Link:

It is a link which is neither false nor unsought. Some library user is most likely to ask some material on it. The first link is always a sought heading. The last link too is a sought heading if it does not end with a Time Facet. A link from the Time Facet is a False Link. Each Sought Heading generates one Class Index Entry. Thus, the number of class index entries depends upon the number of sought headings in the chain.

Upper Link:

It could be any link other than the last link. It is relative like the broader/narrower terms. An upper link for one may be lower link for other. For example:

Class	Number	Subject
	954	= History of India
	900	= History
	950	= Asia, History
	954	= India, History

Here, 950 is the Lower Link for 900, while for 954 it is the Upper Link.

Lower Link:

A link next to its upper link. In the above example 950 is the lower link of 900 while 954 is an upper link of 950. The last link has no lower link.

Missing Link:

It is a bypassed link which occurs in an un-modulated chain. It is an invisible link without its rightful upper link.

Step by Step Method:

Chain indexing was devised to prepare class index entries for a classified catalogue. According to Rules KSD (CCC, Ed 5, pp. 327-334) subject heading for a dictionary catalogue can also be derived by Chain Indexing. According to Professor G. Bhattacharyya (1936-2006) a close associate of Ranganathan, there are eleven steps in deriving subject headings from a class number and subsequently preparing class index entries. But these eleven steps also include the steps for synthesising the class number from a Raw Title. Here, we will only learn to derive class index entries from a given class number. The chain indexing was designed for CCC (first published in 1934) and the classification used for this purpose was CC (first published in 1933). Later especially in 1950 it was found that chain indexing can also work with any hierarchical classification system. We will make use of DDC, 19th edition (1979) to illustrate the working of chain indexing.

Chain Indexing for a Dictionary Catalogue:

A dictionary catalogue is unipartite and all the entries and references are arranged in one single A/S order. Here apart from a few see and see also references all are bibliographic entries which specify a document in the library. The subject headings are also given to a specific book rather than to a class of subjects. After lot of experience and wide discussion Ranganathan discovered that chain indexing could be applied with certain modifications to derive subject headings for a dictionary catalogue (Rule KSD, CCC-5, 1964). As back as 1953 Ranganathan was told by A J Wells and Eric J Coates (both of the BNB) that those who use the dictionary catalogue would like to have benefits of SHs derived mechanically and consistently from class numbers and also retains the benefits of a list of subject headings. He found the chain indexing versatile enough to produce SHs for a dictionary catalogue with some modifications in rules.

Advantages of Chain Indexing:

During the 1950s and 1960s, Chain Indexing became very popular and was lauded as Ranganathan's ingenious contribution to subject indexing. Its use was popularised in Great Britain by B I Palmer, A J Wells, Eric J Coates and D.W. Langridge. It was used by the BNB for about two decades till it was replaced in early 1970s by PRECIS designed by Derik Austin (1921-2001) to suit the computerised production of the BNB. Its advantages over other indexing systems prevalent then are as follows:

- 1) It serves as an alphabetical subject key to the main part of the classified catalogue.
- 2) No separate list of subject headings like the SLSH or the LCSH is required. Lists are costly publications and are too frequently revised to incorporate new subjects. The SHs are derived from the class number of the document already assigned by the classifier
- 3) It mechanises to a large extent the choice and rendering of subject headings.
- 4) It is thus simple and speedy.
- 5) It helps in avoiding arbitrary decisions.
- 6) Its terminology being drawn from a classification schedule it ensures coordination and correspondence between the class number and the subject headings. This coordination is not possible by using a separate subject headings list.

7) It brings out symbiosis between classifications and cataloguing hitherto considered two parallel techniques.

8) A single subject heading is rarely co-extensive with the subject of the book in case of the use of subject headings lists. Usually a large number of subject added entries are prepared for a single book.

9) It brings economy in the number of subject index entries especially in case of classified catalogue. As the library grows the need for preparation of new CIEs for new documents decreases. If two or more books share the same class number (as it usually happens) there is no need to prepare CIEs for the books other than the first.

10) Even a single class number, say having four semantic digits will require only four Class Index Entries an initio, while a permuted subject index would require $(4 \times 3 \times 2 \times 1 =)$ 24 headings. Huge saving is obvious. The percentage of saving goes on increasing as a class numbers grows in length.

11) It works as a subject index to the main entries and retrieves many numbers of books for a library user to make a choice.

12) If the classification schedule is available in electronic format then the chain indexing can be made bit more automatic.

13) It is also used to prepare indexes to classification schedules. It is believed that Ranganathan got the idea of chain indexing from the Dewey's Relative Index. Melvil Dewey used this method without giving it any proper name. He did not delve deep into it to make it a mature and objective science.

14) It can be used to derive feature headings for classified catalogue and bibliographies, and also for shelf guides in stacks.

Limitations and Problems of Chain Indexing:

1) It needs logical and hierarchical scheme of classification. Chain indexing cannot be better than the scheme on which it is based.

2) It may not be easy to work with a classification system like the DDC which only broadly groups documents on the shelves.

- 3) It works only well with rigorous systems like the CC which aspire to individualise every document on the shelves.
- 4.) Any error in assigning a class number is more likely to be carried over into subject headings.
- 5) It is not mechanical as assumed. Human intervention and experience is needed for
 - (1) Selection of sought headings and
 - (2) editing of SHs to remove unnecessary contexts.
- 6) It provides no guidance in discovering synonyms.
- 7.) Ranganathan allows the replacement of derived headings by an axiomatic heading or proper name, if it exists (KD3, CCC-5, p. 300). It requires knowledge of the subject and the language.
- 8) Dividing line between sought and unsought headings is thin and hazy and requires lot of discretion. Further an unsought heading for one library may not be unsought for another. Moreover, today's unsought may become tomorrow's sought headings and vice versa.
- 9) As the headings broaden the context goes on vanishing.
- 10) There is a problem of missing links to be provided by the indexer.
- 11) In case of classified catalogue there is no sufficient guidance for see and see also cross references.
- 12) It does not retrieve any specific document. Choice is a two stage process, as said earlier. Only the last link, if it is a sought one, refers to a specific subject of the document without naming it specifically by author and title.
- 13) It does not refer to collateral entries in the form of related subjects.

Subject heading list:

Subject heading has been defined as a word or group of words indicating a subject under which all materials dealing with same theme is entered in a catalogue or bibliography, or is arranged in a file. Credit should go to Crestadoro who, for the first time in his book *The Art of Making Catalogues* published in 1856, could realize that the cataloguer should provide a standardized guide to the subject content of a book by giving it a heading. In 1895, the first standard list of subject headings appeared. The 'List of Subject Headings for Use in Dictionary Catalogues', produced by a committee of the American Library Association

(ALA) of which C.A. Cutter was a prominent member, was based on Cutter's principles. It went through three editions (1895, 1898, and 1911). In 1910-1914, when Library of Congress (LC) began publishing its list under the title "Subject Headings Used in the Dictionary Catalogues of the Library of Congress", it was found unnecessary to continue the ALA list. A printed list of subject headings incorporates the thought and experience of many librarians of various types of libraries.

Meaning:

A vocabulary control device depends on a master list of terms that can be assigned to documents. Such a master list of terms is called 'List of Subject Headings'. A list of subject headings list contains the subject access terms (preferred terms) to be used in the cataloguing or indexing operation at hand. When there are synonymous terms for a given subject, these terms are included in the list as these direct the searcher to the preferred terms for the subject. The links from non-preferred terms are called "see" references, and the links to related terms are called "see also" references. This is accomplished through a control system, called 'subject authority system', which, for each term, documents the basis for decisions on the term and on what links connect it with other terms.

List of Subject Headings - General Principles:

The rules for subject headings in a dictionary catalogue were formulated by Charles

Ammi Cutter in 1876 in his 'Rules for a Dictionary Catalog'. These rules formed the basis of subject headings in American libraries for years to come and are a strong force even today. In respect of subject cataloguing, Cutter stated two objectives:

- a) To enable a person to find a book of which the subject is known, and
- b) To show what the library has on ' a given subject.

The first objective refers to the need to locate individual items, and the second refers to the need to collocate materials on the same subject. It was on the basis of these needs that Cutter set forth his basic principles of subject entry. They are important because the impact of his principles on construction and maintenance of subject headings is still discernible today. Both, the LCSH and the SLSH adopted the Cutter's principles in assigning subject headings for a document. The general principles that guide the indexers in the choice and rendering of

subject headings from the standard lists of subject headings are discussed in the following sub-sections.

Specific and Direct Entry:

The principles of specific and direct entry require that a document be assigned directly under most specific subject heading that accurately and precisely represents its subject content. If a document is about penguins, it should be entered directly under the most specific heading, that is 'Penguins', it should not be entered under the heading 'Birds' or even under 'Water Birds'. If the name of a specific subject is not available in the list of subject headings, a broader or more general heading may be used. In such cases, the broader heading is the most specific authorized heading in the hierarchy that covers the content of the work. In many cases, several headings may be assigned in order to cover different aspects of a subject.

Common Usage:

This principle states that the word(s) used to express a subject must represent common usage. This means that current American spelling and terminology 'Labour', 'Elevators' not 'Lifts' are to be used. In British libraries these choices would be reversed. According to popular principle, subject headings are to be chosen keeping in mind the needs of the users who are likely to use the catalogue. The popular or common name may be best suited to the readers of a small public library, but in a research or special library, scientific or technical name as heading might be more appropriate: After deciding on the name of heading, the cataloguer should make a reference from the unused heading to the form used. Such references will be discussed later under Cross References.

Uniformity:

The principle of uniform heading is adopted in order to show what the library collection has on a given subject. One uniform term must be selected from several synonyms, and this term must be applied consistently to all documents on the topic. The heading chosen must also be unambiguous and familiar to all users of the catalogue. Similarly, if there are variant spellings of the same term (e.g. pediatric/paediatric) or different possible forms of the same heading (e.g. air pollution/ pollution/pollution of air), only one is used as the heading. If several meanings are attached to one term, that term must be qualified so that it will be clear to the users for which the meaning is intended. As for example, Crane (Bird)/Crane (Lifting equipment).

Consistent and Current Terminology:

It follows from what has been said regarding the justifications for uniform headings that the terminology in headings should be both consistent and current. Two problems are particularly important here: choice among synonyms and change in usage. By principle, common usage prevails when there is a problem of choices among synonymous terms. Standard lists of subject headings designed for general collections prefer a popular term rather than scientific one. In such a situation, a research or special library having specialized library collection and clientele can make extensive modifications of standard lists. Changes in usage also present many practical difficulties. A term chosen on the basis of common usage may become obsolete with the passage of time. Subsequently, a list of subject headings may incorporate current terminology as long as entries pose a problem because of the large number of entries listed under the existing subject headings. In such a situation a subject authority file is to be maintained. Once a heading is changed, every record that was linked to the old heading can be linked to the new heading and this decision is recorded in the subject authority file.

Form Heading:

In addition to the subject headings, there are form headings that have the same appearance as topical subject headings but refer to the literary or artistic form (e.g. Essays, Poetry, Fiction, etc.). Libraries that want to provide access to these kinds of materials may assign appropriate form headings to individual works as well as to, collections and materials about the form. Apart from literary works there are also many kinds of library materials about literary forms that require subject headings. For a document on how to write an essay, the heading "Essay" represents a subject and subject headings and form headings can be made by using the singular form for the topical subject heading and plural for the form heading (e.g., Short story, Short stories). In addition to the literary form headings, there are some other form headings that are determined by the general format and purpose of the documents, such as Almanacs, Encyclopaedias, Dictionaries, and Gazetteers.

Cross Reference:

Cross-references direct the user from terms not used as headings to the term that is used, and from broader and related topics to the one chosen to represent a given subject. Three types of cross-references are used in the subject headings structure. These are discussed below:

See (or USE) references:

These references guide users from terms that are not used as headings to the authorized headings for the subject in question. `See' or `USE' references ensure that in spite of different names for (or different forms of the name of) a given subject a user shall still be able to locate materials on it.

See also (including BT, NT, and RT) references:

These references guide users to the headings that are related either hierarchically or associatively and are used as entries in the catalogue. By connecting related headings, the `see also' (RT, for related term) references draw the user's attention to material related to his interest. By linking hierarchically related headings, `see also' (BT, for broader term; NT, for narrower term) references help the user to search specific deviations or aspects of his subject of interest.

General references:

General references direct the user to a group or category of headings instead of individual headings. It is sometimes called a `blanket reference'. The provision of general references in the standard list of subject headings obviates the need to make long lists of specific references and thus ensure economy of space.

Library of congress subject headings:

The Library of Congress Subject Headings (LCSH) is perhaps the most widely adopted subject indexing language in the world, has been translated into many languages. This subject heading list was developed by the Library of Congress and is intended for larger libraries with fairly comprehensive collections. LCSH has been actively maintained since 1898 to catalogue materials held at the Library of Congress. Proposals for additions and changes are reviewed regularly at staff meetings in the Policy and Standards Division (PSD) and an approved list is published. The Library of Congress list is much more detailed and tends to use more complex terminology in describing subjects. It takes up 5 very large volumes, and provides more ways of listing topics that are interrelated.

Sears list of subject headings:

It was first designed in 1923 by Minnie Earl Sears (1873-1933) to fulfil the demands of small American libraries for broader subject headings (SHs) for use in their dictionary catalogues. These libraries found Library of Congress Subject Headings List (LCSH) too big and

specialised. Since then the Sears List has always been published by the H.W. Wilson Company, New York (Now the Company has been taken over by Ebsco) who are its proprietors and copyright holders. Its editor is an employee of the company. Its new editions are produced regularly to:

- incorporate new subjects;
- restructure the form of old headings based on the changing information needs and information seeking behaviour of the users;
- give new terms to old subject headings based on current usage;
- delete the obsolete subjects; and
- discover new relations between subjects.

Orientation to the online electronic environment started with the 13th edition (1986). It was the first edition to be created as an online database for editorial use. It started changes in the form of de-inverting the inverted headings to suit searching OPACs and online databases. It was believed that majority of the library users search subjects in an electronic database under natural form of their names. For example, “Library, Public” was changed to “Public library”, similarly “Chemistry, organic” was changed to “Organic chemistry”. In the 15th edition (1994) edited by Dr Joseph Miller de-inversion process was completed.

Another important change introduced since its 15th edition is its thesaurus format of listing subject headings using standard thesaural abbreviations, i.e. NT, BT, RT, USE and SA instead of the earlier x, xx and SA codes. Thesaurus format conforms to the ANSI/NISO (American Standards Institution) (1993). Nevertheless, Sears still remains a list of subject headings. It is not a thesaurus. The 18th edition (2004) has been edited by Joseph Miller in association with Ms Joan Goodsell. Dr Miller retired in December 2012 after successfully editing six editions from 15th (1994) to 20th (2010). Its current editor is Ms Eve Miller who has brought out the 21st edition in May 2014.

Review questions:

1. What do you mean by subject cataloguing?
2. What are the problems of subject cataloguing?
3. Define chain indexing.

4. Define LCSH.

5. Explain in detail about SLSH.

S. No	Questions	LOCF Mapping
Small Questions		
1.	Define subject cataloguing.	K1
2.	What is chain indexing?	K1
3.	What is a controlled indexing language?	K1
4.	Differentiate between a sought link and an unsought link in chain indexing.	K2
5.	Name two standard subject heading lists.	K1
S. No	Questions	LOCF Mapping
Big Questions		
1.	Discuss the purpose and problems of subject cataloguing.	K2, K4
2.	Explain the mechanism of chain indexing with a suitable example. What are its advantages and limitations?	K2, K3
3.	Differentiate between natural, free, and controlled indexing languages.	K2, K4
4.	Describe the structure and principles of the Library of Congress Subject Headings (LCSH).	K2, K4
5.	Compare and contrast LCSH and SLSH in terms of scope, structure, and intended users.	K4, K5

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Unit - V: Trends in Library Cataloguing

Content:

This unit explores the recent trends and developments in library cataloguing. It explains the concepts of centralized and cooperative cataloguing, their definitions, objectives, advantages, and forms. The unit discusses bibliographic standards for record formats, including the International Standard Bibliographic Description (ISBD), Machine Readable Catalogue (MARC), and Common Communication Format (CCF). It also covers the International Standard Book Number (ISBN) and International Standard Serial Number (ISSN), including their definition, structure, significance, and the procedure for obtaining them.

UNIT – 5

TRENDS IN LIBRARY CATALOGUING

Objectives:

- Go get to know about the recent trends in library cataloguing.
- To learn about centralized and cooperative cataloguing.
- To get introduced on terms like ISBN, ISSN and learn about them.

Introduction:

The history, trends and developments in library classification can be traced from the epoch making year of 1876 when Melvil Dewey published Decimal Classification. During the past twelve decades (1876-1996) developments have taken place in the field of library classification. During the period many general as well as special schemes have been published. Some of the major general schemes, viz., Dewey Decimal Classification, Universal Decimal Classification and Colon Classification have witnessed major developments. Many national and international organisations and eminent classificationists took the cause of library classification. Several international, regional and national conferences were held to discuss various aspects of classification. The output of literature covering various facets of library classification in terms of both macro and microdocuments is very impressive. The following sections briefly deal with trends and developments especially during the last five decades.

Three distinct periods:

While tracing the trends and developments during the hundred years of classification, Ranganathan recognised three distinct periods, viz., 1. Pre-facet Period (1876-1896); 2. Transition to Facet Period (1897-1932); and 3. Facet Period (1933-1972). In Prefacet Period Melvil, Dewey's Decimal Classification (1876) and C.A. Cutter's expansive Classification (1879) were published. In the Transition to Facet Period Universal Decimal Classification

(1897-1905) and Library of Congress Classification (1902) were published. The Facet Period witnessed the publication of Ranganathan's Colon Classification (1933), ILE. Bliss's Bibliographic Classification (1935), Library Bibliographic Classification (1960) and Fernmont Rider's Rider's International Classification (1961). Some of these classifications have an organisation or an institution to take up the responsibility for their revision, development, maintenance and application. In the following sections major trends and developments that have taken place in DDC, UDC and CC are briefly presented.

Development in DDC:

Until the publication of the 16th edition of Dewey Decimal Classification (DDC) in 1958, different editions were published at infrequent intervals. The 16th edition was edited by Benjamin Custer who set the pattern of a seven-year cycle. In this edition, an attempt was made to reconcile the conflicting aims of integrity of notation and provision of new topics. The 17th edition was published in 1965 in two volumes, viz.,

V.1. Tables; V.2. Area Table and the Relative Index. This edition showed a trend towards more synthesis than earlier editions. The main thrust of the 17th edition was to remove certain anomalies that have crept in between the use of form divisions with zero and division of subjects with the help. of zero.

18th and 19th Editions:

The 18th edition published in 1976 was in 3 volumes, viz., V.1. Tables; V.2.Schedules and V.3. Index. For the first time five more auxiliary tables, viz., T3.Subdivisions of Individual Literatures, T4. Subdivision of Individual Languages, T5.Racial, Ethnic and National Groups, T6. Languages, and T7. Persons were added. These were in addition to the existing T1. Standard Subdivisions and T2. Aims. The 19th edition was published in 1979 in 3 volumes. The policy that was initiated in the 17th edition was also carried out in this edition. The important features we can notice in this edition are: 1. A diagram showing how hierarchical classification proceeds from the general to the specific in DDC; 2. A practical guide to the use of classification; and 3. A very detailed step-by-step instructions for building numbers in the main class .800 Literature.

20th and 21st Editions:

The 20th edition was published in 1989 in 4 volumes and edited by John P Comaromiet al: V.1. Introduction and Tables; V.2. Schedules (000-500), V.3. Schedules (600-900) and V.4. Relative Index and Manual. The main objectives of this edition are: user convenience, clear instructions, more explanations, greater accessibility through expanded summaries and elimination of duplicate provisions for classifying single subjects. The 21st edition was published in 1996 in 4 volumes and edited by Joan S. Mitchellet al. The thrust of this volume is users' convenience, which includes: 1. More information located strategically to guide the classifier; 2. Numerous captions have been rewritten to eliminate vague headings; 3. 'Example' and 'Contain notes' were replaced with 'including notes'; 4. The relative index has more entries than the index to the 20th edition* 5 Expanded manual; and 6. Special attention has been given to reduction of U.S. and Christian bias.

Computerisation of DDC:

In July 1988 Forest Press, hitherto the publishers of DDC, became a division of Online Computer Library Centre (OCLC). With this change DDC joined the computer generation.. Forest Press has been the publisher of DDC since 1911, when Melvil Dewey first used the name as imprint. Until 1988, Forest Press was a part of Lake Placid Educational Foundation, also founded by Dewey. Edition 19 of DDC had been printed from the computer tape in 1979. The following years witnessed the emergence of a sophisticated computer-based editorial support, system and database used to produce DDC 20 and 21 editions. DDC 21 appeared in two formats:

1. In print; and 2. Dewey for Windows, a Microsoft Windows TM-based version (released in August 1996) (CD version). Dewey home page contains current information on the Dewey decimal classification.

Developments in UDC:

As we have discussed in earlier units, Universal Decimal Classification (UDC) was developed on the basis of Decimal Classification .and was first published in 1905 entitled Classification Decimale Universalle. The scheme is revised and updated from time to time by the-International Federation for Information and Documentation (FID).In response to a demand from several quarters for comprehensive short editions in English, abridged editions are being brought out by the British Standards Institution (BSI), the official agency. The abridged edition.BS1000A was first published in 1948.The second abridged edition with radical revision was brought out in 1957. The third abridged edition was brought out in 1961.

IME 1985 and 1993:

The International Medium Edition (IME) was published with more extensive divisions to replace abridged English editions. The IME, English Text comprises of two parts, Part I - Systematic Tables published in 1985 and Part II - Alphabetical Subject Index published in 1988. This edition contains about a third of the material in the full editions brought out in English, French and German. In addition to various signs and symbols already provided in Abridged English Editions (ABE), two more new symbols: -4(the arrow) meaning "see also", e.g., 159.9 Psychology --4 (301.151;591.51; 621.821; 616.89, and = (parallel divisions) meaning "subdivision as" have been introduced.

e.g. 611.3 Digestive system. Alimentary canal

611.3 a (616.3, e.g., 611.31 Oral cavity)

Another IME in English was published in 1993 in two parts. The digit 4 used for Linguistics has been frozen and the Linguistics divisions have been shifted to class 8.15.4.2 UDC in Computer-Based Information Retrieval Systems It was suggested as far as back as 1934 that UDC was suitable for `mechanical sorting'. The Royal Society's Scientific Information Conference held in 1948 noted the need to explore the potentialities of UDC in mechanised retrieval. The research programmes carried out in the USA, Britain, Germany, Denmark and Switzerland in the sixties helped UDC to be usable as an indexing language for computerised control and processing of information in the fields of knowledge. The most significant

research work in this respect was the American Institute of Physics UDC Project under Freeman and Atherton. Other experiments carried out during the late sixties in using UDC for special mechanical applications include, the indexing of Geo-Science Abstracts and the maintenance of user profiles in the metallurgic fields.

UDC and UNISIST:

FID thought of making UDC a 'Roof Scheme' under which it could be hung the relevant special classifications, thesauri or descriptor lists as well as the more detailed DC divisions themselves for those who prefer a homogeneous UDC-based system. The concept received encouragement in the efforts to make UDC adopted as the switching language for UNISIST (United Nations World Science Information System), a joint project of ICSU/JUNESCO. An ASLIB study for UNISIST stated that UDC was found 'least unsatisfactory' of the major existing schemes.

Computerisation of UDC:

For more than three decades UDC has been used advantageously in computerised bibliographical and abstracting services not only for the production of subject indexes but also for information retrieval and SDI. In the forefront of UDC mechanisation has been Rigby who, as early as 1964, showed in the Conference at Elsinore the printouts of Meteorological and Geostrophysical Titles that had started the use of the computer for author and subject indexing. A more comprehensive survey on the use of computers with the UDC was compiled by Rigby with the description of more than sixty experimental or operational systems in fifteen countries and four international projects.

Developments in CC:

You are aware that the first edition of Colon Classification (CC) designed by S.R.Ranganathan was published in 1933. It remained a Rigidly Faceted Scheme until 1952. The first attempt at breaking the rigidity of a pre-determined facet formula was made in 1950. Thereafter, CC appeared as an Almost-Freely Faceted Scheme for Classification in Edition 4 (1952). Developments in CC since 1950s were more and more towards a scientific method. The feature of analytico-syntheticity increased in each edition especially after the 4th edition. The major structure of CC is its Basic Subject Schedules and the Schedules of Isolates. The schedule more special to a basic subject is the schedule of Personality Facet.

Publication of 7th Edition:

The 7th edition of CC was published in 1987. It was proposed to be brought out in 3 volumes, viz., V.1 Schedules for Classification; and 3 Index and Worked-out Examples. But only MI Schedules for Classification was brought out in 1987. The other two volumes have not seen the light of day. In this edition, in addition to existing indicator digits in the 6th edition (1960), a few more indicator digits, viz., & (ampersand), + (plus), = (equals), * (asterisk) and ° (double inverted comma) have been added. The fundamental category Matter [M] has been transformed into Matter Method (MM), Matter Property (MP) and Matter Material (MMO). This edition also provided for environmental divisions (chapter DD). The schedules of Basic Subjects have been greatly expanded. It also provides for Common Matter Property Isolates. The schedules for Language, Time and Space have been greatly expanded.

Computerisation of CC:

Developments in Case Western Reserve University, Ohio, indicate the influence of facet analysis. Dr Fugman (ISKO, Germany) used facet analysis in his chemical analysis system. Facet analysis is also used for shelving purposes in online information search, Syracuse University, New York, was using PMEST in their computer-generated indexes. In India, DRTC in 1967 wrote some computer programmes based on facet analysis and tried to experiment with the use of CC in computers to construct class numbers. CC was also used in computer programming for SDI services and for chain indexing and cyclic indexing. The Western Ontario (Canada) School of Library and Information Science used CC schedules for developing a thesaurus. In 1968, DRTC initiated experiments to determine the feasibility of using general purpose computers in a document – finding system based on a classified catalogues system using a freely-faceted version of CC.

International conferences:

As mentioned already, in the past twelve decades major developments and trends have taken place in library classification giving it an international perspective when compared to other traditional branches of library science such as cataloguing, indexing and abstracting. During the past four decades, to be more specific since 1957, a number of international conferences have been held on library classification/knowledge organisation organised by FID/CR and the International Society for Knowledge Organisation (ISKO). These are briefly presented in the following subsections. 15.6.1 FIDICR - International Study Conferences on Classification Research (ISCCR) since 1957, FID/CR has organised six International Study Conferences on Classification Research (ISCCR). The first ISCCR was held at Dorking, England, during

May 13-17, 1957. Ranganathan, in his opening address, dwelt upon "Library Classification as a Discipline".

The recommendations of this conference dealt with: 1. Scope of classification; 2. Schemes of classification; 3. Need for research; 4. Use of classification schemes; 5. Differences between systems; 6. Construction and application of schemes; 7. Notation for such visually scanned systems as the card catalogue; 8. Machine systems; 9. Research projects; 10. A general scheme for classification; 11. Development of classification schemes; and 12. Furtherance of Research.

The second ISCCR was held at Elsinore, Denmark, during September 14-18, 1964. Ranganathan delivered the presidential address entitled "Library Classification through a Century". The papers presented to this conference were grouped into five areas: 1. General theory of classification; 2. Research in mechanised classification; 3. Selected and special schemes; 4. Evaluation techniques; and 5. Directions for future works.

The third ISCCR was held at Bombay during January 6-11; 1975. The commendations of this conference cantered on; 1. General aspects of designing ordering systems for global information networks; 2. Use of empirical methods and theoretical models for designing ordering systems for global information networks; 3. Systems evaluation; 4. Interdisciplinary contents; 5. Education; 6. Needs and problems of developing countries.

The fourth ISCCR was held at Augsburg, Germany, during June 28 - July 2, 1982. The theme of the conference was "Universal Classification, Subject Analysis and Ordering Systems". The fifth ISCCR was held at Toronto, Canada during June 24-28, 1991. The theme of the conference was "Classification Research for Knowledge Representation and Organization". The papers presented to this conference fall into three broad categories: 1. General Principles and Policies; 2. Structure and Logic Classification; and 3. Empiri

The sixth ISCCR was held at University College, London, on June 16-19, 1997 on the topic "Knowledge Organisation for Information Retrieval". The University College, London, ASLIB, Classification Research Group (CRG) and International Society for Knowledge Organisation (ISKO) sponsored this conference. The themes discussed in this conference were: 1. Role of classification in information management; 2. Classification research for retrieval of information published electronically; 3. Automatic methods of classification; 4. Researcher and the real-world; 5. Tools for classification and classification as a tool; and 6. Data modelling.

ISKO International Conferences:

The International Society for Knowledge Organisation (ISKO), founded in 1989, has organised four international conferences on knowledge organisation. The summary of these conferences, deliberations is presented in the following paragraphs. The first International ISKO Conference was held at Darmstadt, Technical University, Germany, on August 15-17, 1990. The topic chosen was `Tools for Knowledge Organisation and Human Interface'. The papers presented to this conference covered the following areas:

1. General issues pertaining to knowledge organisation;
2. Algorithmic text analysis;
3. Terminology;
4. Knowledge organisation in universal systems;
5. Thesaurus issues;
6. Online retrieval;
7. Knowledge organisation in special schemes;
8. Retrieval from universal systems;
9. Retrieval technologies and indexing.

The second International ISKO Conference was held at Madras on August 26-28, 1992.

The theme of the conference was `Cognitive Paradigms in Knowledge Organisation'. The papers presented at this conference were grouped into the following areas:

1. Knowledge and knowledge organisation;
2. Knowledge seeking in libraries;
3. Knowledge seeking in information retrieval;
4. Knowledge seeking in problem solving;
5. Taxonomic approach to knowledge organisation
6. Analytico-Synthetic approaches to knowledge organisation;
7. Cognitive paradigms and their application
8. Cognitive paradigms in knowledge bases.

The third International ISKO Conference was held at the Royal School of Librarianship, Copenhagen, Denmark, on June 21-24, 1994. The theme of the conference was `Knowledge Organisation and Quality Management'. The papers presented to this conference were grouped under:

1. Quality in knowledge organisation
2. Theory of knowledge organisation

3. Future prospects for classification schemes and thesauri;
4. Knowledge organisation in specific domains
5. Concept representation in systems design
6. Linguistics in knowledge organisation

Communication and knowledge organisation; and 8 new technologies and knowledge organisation. The fourth International ISKO Conference was held at James Madison Memorial Building, Library of Congress, Washington, on July 15-19, 1996. The main theme of the conference was 'Knowledge Organisation and Change'. The sub-themes on which papers were presented were:

- I. Library of Congress Classification
2. Management of change in knowledge organisation
3. Knowledge organisation in online environment;
4. Impact of technologies on bibliographic elements
5. Users' focus in knowledge organisation
6. Inter-disciplinary approaches to knowledge organisation
7. Natural language processing.
8. Dewey decimal classification.

Organisations, societies and research groups:

During the past five decades, not only individuals but many organisations, societies and research groups have taken up the cause of library classification. They have carried on various research activities to give a new direction to library classification and to transform it into an effective tool not only for shelf arrangement but also knowledge organisation. The activities of these institutions are briefly presented in the following subsections.

Library Research Circle (LRC):

This was founded in Delhi by S.R. Ranganathan in 1951. This circle used to meet on Sundays at Ranganathan's residence to pursue research on various aspects of classification, especially relating to Colon Classification. Its members concentrated on fundamental categories,

indicator digits, rounds and levels of manifestation, zone analysis and on requirements for depth classification. The work entitled Depth Classification, published by the Indian Library Association, 1953, provides ample testimony to the contributions made by members of LRC. Its activities withered away from 1954

FID/DCR:

On the initiative of Ranganathan, FID formed a Committee on Classification Theory (FID/CA) in 1950. Later in 1961, FID/CA was renamed as the Committee on Classification Research (FID/CR). This Committee has been stimulating classification research. The activities of FID/CR are communicated through a serial publication entitled FID/CR Newsletter, published four times a year listing classification research projects in progress. FID/CR has so far organised six international conferences already referred to in section 15.6.1. The present chairman of FID/CR is Dr I. C. McIlwaine.

Classification Research Group (CRG):

This Group was formed in London in 1952. The early work of members of CRG is reflected in Saver's Memorial Volume (London, Library Association, 1961). CRG as a whole published a brief outline of its views on faceted classification in 1953 and later issued a memorandum entitled 'The need for faceted classification as the basis of all methods of information retrieval' in 1955. From 1952 to 1960 members of CRG turned their attention to the design of special schemes of library classification. CRG was of the opinion that no general classification existed which was suitable for computer retrieval. Therefore it was decided to develop a general classification scheme in association with the MARC Project for an automated retrieval system. Since the 1970s, CRG has been actively engaged in the following areas:

1. Revision of Bibliographic Classification of I LE. Bliss, by 3. Mills;
2. Formulation of Broad System of Ordering (BSO);
3. Classification Scheme on LIS;
4. PRECIS

Centralized Cataloguing:

In a library system, where there is a Central Library having some branch libraries, many activities are performed repeatedly. The same book acquired at different branches will have

to be classified and catalogued simultaneously. It is merely a wastage of time and manpower. If a central library takes of this work on behalf of its branches, the qualitative work can be done economically and uniformly. If the same book is purchased in several libraries, all the libraries will have to process them. If book itself gives the catalogue entry or publisher supplies the catalogue entry along with book, the burden of classifying and cataloguing will be reduced to a large extent. This is possible through Centralized Cataloguing.

Definitions:

Harrod's Librarian's Glossary

- (a) The cataloguing of books by some central bureau, and the distribution there from of entries.
- (b) The cataloguing at one library of all the books of a library system comprising more than one library, thus achieving uniformity throughout the system.

ALA Glossary of Library Terms

- (a) The preparation in one library or a central agency of catalogues for all the libraries of a system.
- (b) The preparation of catalogue cards by one library or other agency which distributes them to libraries.

Needham, C. D.

The cataloguing of documents by some central organization such as BNB, its main purpose, from a cataloguing point of view, being to save duplication of effort in cataloguing departments of numerous independent libraries.

Encyclopaedia of Librarianship

The cataloguing, by one library or cataloguing office within a system of libraries, of all books acquired by all those libraries so that the results of such cataloguing are used by the individual libraries.

Objectives:

The objectives of Centralized cataloguing according to Morsch are:

- (a) Avoid duplications of work;

- (b) To make the most effective use of the cataloguing personnel;
- (c) To reduce the cost of cataloguing;
- (d) To promote the uniformity of cataloguing and catalogues;
- (e) To raise the overall level of the quality of cataloguing.

Advantages:

The advantages of Centralized cataloguing are many. For example:

- (a) Duplication of work can be avoided;
- (b) Cost of cataloguing can be minimized;
- (c) Uniform and standard cataloguing practices can be adopted;
- (d) Cataloguing can be qualitatively improved;
- (e) Some of the professional staff who are relieved of cataloguing work can be utilized for other useful professional service;
- (f) Preparation of union catalogue will become easy;
- (g) Promptness in service is possible; and
- (h) Use of sophisticated equipment for preparing entries is possible.
- (i) Printed catalogue cards are more legible and give neat appearance.

Disadvantages:

There are some drawbacks and disadvantages in Centralized cataloguing.

They are:

- (a) Pooling up the necessary funds to opt for centralized cataloguing may be difficult for some libraries.
- (b) Because of local variations, it may be difficult to go in for centralized cataloguing.
- (c) Sometime centralized cataloguing system may cause delay as compared to local cataloguing.

Forms of Centralized Cataloguing:

Some of the forms of Centralized cataloguing are as follows:-

- (a) Card (or sheaf) service
- (b) MARC (Machine-Readable Cataloguing) service
- (c) Information service
- (d) Cataloguing-in-Source
- (e) Cataloguing-in-Publication
- (f) Pre-natal cataloguing

Card (or sheaf) service:

This is a type of Centralized cataloguing where the unit entries are prepared on cards (or sheaf) by a Central organization. Individual libraries can buy these cards in multiple numbers and after adding the appropriate headings to the basic unit, these cards are filed in catalogues. The BNB and the Library of Congress are rendering this type of service. There are many commercial firms as well providing commercial cataloguing services viz H.W. Wilson Company, U.S. Reprint Service and Xerox Bibliographies all of which supply sets of cards. Micrographic Cataloguing Retrieval System is a microfiche service, from which cards can be produced by reader see copy printer. Library of Congress also distribute proofs sheets, one each of all its cards. With the help of prop sheets, a typist can type out single cards and prepare other cards without much problem. The serial number of Library of Congress given to every item catalogued are carried in US trade bibliographies Wilson Cumulative Book Index, Bowker's Publisher's Weekly and Book Publishing Record and by using these numbers libraries can order card set to Library of Congress simultaneously ordering the titles to the booksellers. BNB had adopted Standard Book Numbering System.

MARC (Machine-Readable Catalogue) service:

In this service, a central organization produces entries in a machine-readable form, such as magnetic type etc, by using a computer, from the magnetic tapes. Member libraries can either directly search the information from the tapes or use the service for the creation of conventional forms of catalogues and bibliographies. This service is receiving increasing acceptance all over the world. (MARC project has been separately discussed at the end of this module).

Information service:

In this service, a bibliography is produced by a central organization, from which libraries can produce their catalogues either by cutting out the entries from the one sided printed bibliography and pasting them on cards etc. or using the information for their own cataloguing. The bibliography itself can also be used as a substitute for a catalogue. British National Bibliography and Indian National Bibliography comes under this service.

Cataloguing-in-Source:

To have every published book bearing on the verso of its title page an authoritative catalogue entry and tracings may be something of a cataloguer's dream, but it became reality in January 1958 when Library of Congress started notable experiment with the initial grant by the Council of Library Resources for including the cataloguing information for a book in the book itself. Under this venture, the central organization received page proofs of books from the publishers. These were given rush cataloguing and returned to the publishers along with a catalogue card within the same day on which they were received. When the book was finally published it was compared with the catalogue information prepared for it. From June 1958 to February 1959, the Library of Congress catalogued 1203 publications of 157 publishers. The average cost of cataloguing came of \$25 per publication. The entry generally appeared on the verso of the title page in the form of a more or less accurate facsimile of a Library of Congress card. The catalogue entries thus prepared were called Cataloguing-in-Source. However this experiment could not be continued due to financial and technical problems.

Cataloguing-in-Publication:

Despite of discontinuity of Cataloguing-in-Source experiment, there was an over increasing awareness of the great advantages of such a system and the economies that it could achieve. The Cataloguing-in-Publication programme was started in 1971. The Library of Congress received \$200,000 as grants from the National Endowment for the Humanities and the Council on Library Resources for this programme for an experimental period of 2 years. Though this was a resurrection of the Cataloguing-in-Source, but it was given a new name as Cataloguing-in Publication to show the difference between this project and the earlier experiment. This project was to include all forms of publications, motion pictures, maps and books. While CIS was an experimental project, CIP programme was intended to be a continuous programme. Earlier under this scheme the entries are prepared at Library of Congress from gallery proofs and data returned to publishers within 10 working days. Sub-

title, imprint and collations are omitted, but a complete record with the exception of collation is entered in MARC. The MARC is made available before four to six months of the publication of the book. This programme has processed over 28,958 titles during 1978 and later 1783 American publishers were collaborating in this scheme. This programme covered 73 per cent of total USA publications of book titles in 1978. Being influenced by Library of Congress CIP programme, the British CIP programme began in 1975 and about 20 publishers were invited to participate initially. In 1983, 855 publishers took part in this programme. This meant about 43% of the publishers took active part in the programme. In 1999 Electronic CIP Programme (ECIP) was introduced resifting wide speed partnerships become a possibility. With the development of ECIP in 2000, National Library of Medicine (USA) followed by Cornell University and Northwest University in 2005 became the first members of ECIP Cataloguing Programme. Presently 21 libraries across the United States are members of this programme ECIP participating libraries act as virtual Library of Congress cataloguing sections to catalogue forthcoming titles published by an affiliated university press, selected independent publishers or in specific subject areas.

Pre-Natal Cataloguing:

Ranganathan has for many years urged the inclusion of a catalogue entry and a class number in each book on publication. He named it as the Pre-natal cataloguing. It involves completion of technical work by the National Central Library of a country on each book before its release by the publisher. Either a master stencil of the catalogue cards is prepared for each book before its release and its number is noted on the back of the title or a standard entry, including tracing for added entries is printed in the book itself, usually on the back of the title page. Ranganathan has estimated that „there will be a saving of 79 per cent in the technical manpower of a national library system by the adoption of pre-natal classification and cataloguing of all home produced books by the National Central Library of a country. S R Ranganathan has enumerated the following purposes of Pre-natal cataloguing:-

- (i) Faster availability of publications to readers through the quick processing and cataloguing.
- (ii) Cutting down of cost on cataloguing processes.
- (iii) Facilitation of standardization and easier identification of publications where ever they are quoted.

Cooperative Cataloguing:

Cooperative or centralized processing in one form or another is not a new idea, but it is an old one. Panizzi, William D Cooley and Charles C Jewett are the pioneers who advocated the need of cooperative cataloguing in 1850s. Through cooperative cataloguing, cooperating libraries share and avoid the wasteful duplication of cataloguing processes at individual libraries in producing a catalogue for their mutual benefit and also for the benefit of other libraries.

Definitions:

The various authorities of library science have defined Cooperative Cataloguing. Some definitions are as follows:

Harrods's Librarian's Glossary

„The sharing by a number of libraries of cost and / or labour of cataloguing to avoid the duplication of effort common to each“.

ALA Glossary of Library Terms

„The production of catalogue entries through the joint action of several libraries, in order to avoid duplication of effort, particularly the plan by which cooperating libraries prepare copies of catalogue cards to be printed by the Library of Congress“.

Needham, C. D.:

„Cooperative cataloguing refer to a situation where a number of independent libraries share the work of producing a catalogue for their mutual benefit“. Cooperative cataloguing may operate at local level, between two or more adjacent library systems, at regional level, as in the compilation of regional union catalogues or at national level. National cooperative cataloguing is often combined with national centralized cataloguing so that the widest possible coverage of publications is represented by catalogue entries available to any library.

Objectives:

S.M. Tripathi has enumerated the objectives or cooperative cataloguing as under:-

1) The basic object of cooperative cataloguing is to effect economy in the cost of cataloguing which the cooperating libraries share and to obviate the wasteful duplication of cataloguing processes of the participating libraries.

2) The union catalogue produced in this way will assist in the location and selection of documents which cannot be easily known in its absence.

3) The most important object of the cooperative cataloguing is to reveal the total resources of a region which enables the readers to select the desired materials.

Need and Purpose:

Need for cooperative cataloguing was felt long back. In 1850 Royal

Commission on British Museum asked Panzzi to prepare a catalogue of British

Museum as well as a Union catalogue of works published in English in Great

British or its colonies. C.C. Jewett and William D. Cooley advocated for the need of centralized and cooperative cataloguing long back. Due to literature explosion, acquisition rate of publications in libraries is increasing. A general review of the book stock of public and university libraries shows that there are several books, which are common to all these collections. If the collection of each library is separately catalogued, there will be huge wastage of money, manpower and machinery. If this work is done by a central agency, 60 per cent of the books in university libraries and 90 per cent of the books in public libraries can be provided with readymade catalogue cards. The remaining stock can be catalogued by individual libraries.

Advantages:

Some of the advantages of cooperative cataloguing are enumerated below:

1. Efficient and adequate catalogue entries are available.
2. Delay in cataloguing is reduced.
3. There will be saving of labour and time of the staff and their services can be devoted for readers advisory services, reference service, library extension activity etc.
4. There will be huge economy as printed cards will be cheaper.

Disadvantages:

There will be some disadvantages of cooperative cataloguing:

1. Catalogue cards for certain titles of books cannot be supplied by cooperative catalogue agency.

2. It will decrease the number of skilled cataloguers to be employed by different libraries resulting unemployment of professional staff.

3. In case, cataloguing agency does not enjoy the copyright, books will have to be sent to the cataloguing agency by participating libraries which will be difficult process.

Forms of Cooperative Cataloguing:

a) The Library of Congress is continuing a cooperative cataloguing programme. In this programme, other libraries are expected to contribute catalogue card copies for printing. Each copy is edited by the Library of Congress so as to correlate it with other entries provided on the LC Cards. These edited copies are printed and distributed to subscribers.

b) Since 1965, the Library of Congress has established a global network of national and regional offices for international cooperation. These offices supply bibliographical data which serves as a basis for cataloguing by the Library of Congress.

c) A good example of cooperative cataloguing is the possibilities of the creation of a union catalogued on the basis of data supplied by the individual libraries.

Centralized Cataloguing Vs. Cooperative Cataloguing:

Though both the terms seem synonymous, but there is quite difference. While Centralized cataloguing reduces cataloguing effort by providing centralized services, in Cooperative cataloguing participating libraries cooperate in cataloguing work. According to Morsch „Centralized and Cooperative cataloguing are often confused, partly because a cooperative project involving more than two libraries needs a central office to coordinate the work and distribute the production. Nevertheless, it should be kept in mind that Centralized cataloguing is that which is done by a number of libraries. Cooperative cataloguing is done in 2 or more libraries for the benefit of each participant and may be made available to others. Centralized cataloguing need not be cooperative. In one sense, the cataloguing done in the main building of a public library system, for use there are in branch catalogue as well, is centralized, though not, strictly speaking cooperative. The Printed catalogue card service of Library of Congress is centralized, since it is done centrally and, through the Card Division of the Library is made available to thousands of libraries to be used in their catalogues. It is not cooperative since it is done by one library primarily for its own use, the cost being borne by that library out of funds provided for the purpose of preparing a catalogue of its own. Centralized cataloguing is

preferred over cooperative cataloguing done to increased uniformity, more prompt availability of cards, and economy.

Bibliographic standards:

Computerised bibliographic information system consists of records that stores bibliographic details of an information source. When compared to the traditional situation a record is same as an entry in catalogue, bibliography or documentation list. In automated system, it refers to a single multipurpose record from which added entries can be generated. Fields are equal to sections or areas in the catalogue entry. A field may consist of several sub-fields, for example, the imprint field is made up of place, publishers and date. As different from the manual systems, and fields are differentiated into fixed fields and variable fields in mechanised systems. The length of the fixed field is predetermined and so it cannot accommodate characters more than the number specified earlier. On the contrary, in variable fields the length of the field can be extended to the required extent to accommodate lengthy data. The beginning of each field in this case is to be indicated by markers or tags. A tag is a label used to identify a variable field. A record may be collection of either fixed fields or variable fields or a combination of both. Format is concerned with arrangement for presentation of data in the record. In specific terms, it refers to the structure, content and coding of the record. Structure provides the framework for incorporating field of both types in the record. It must be suited to machine processing. It must also be efficient for information transfer. Content refers to the data contained in the record in the different fields and sub-fields. Coding is the digital representation of the characters.

Standards for bibliographic record format:

Standardisation of the record format implies the standardisation of the above mentioned three aspects at national, regional and international levels. Design and implementation of a standard record format ensure uniformity which is acceptable to all bibliographic agencies involved in information transfer which is very essential.

Background

Standardisation of the record format in manually prepared bibliographic lists started to be a matter of international concern from 1960s. The International Conference on Cataloguing Principles (ICCP) held in Paris in 1961 set up the standards for the heading of the author and title records in catalogues and bibliographies. The conference was sponsored by IFLA with the intention of evolving a set of basic principles to serve as guidelines in the design of

catalogue codes all over the world. Paris principle could make some impact on certain national codes. However, differences in heading continued to exist in various catalogues and bibliographies and they stood in the way of interchange of information. The major effort for standardisation of record formats started from the development of ISBD.

International Standard Bibliographic Description (ISBD):

Starting from the first ISBD on monographs, a number of ISBDs have been developed including ISBD (G). The details of these developments have been discussed in Unit 7 of this course. In 1973 the ISBD (M) text had been adopted by a number of national bibliographies and, translations of the original English text into several other languages had been done. By then it was realised that the printed word is not the only means of documentary transmission through which the communication needs of individuals and institutions are met. And that there was need for a standardised descriptive structure for documentary materials other than books. Consequently, the ISBD (NBM) International Standard Bibliographic Description for Non-Book Materials was published in 1977. "This ISBD contained provisions covering machine-readable data files. However, when the ISBD (NBM) was being reviewed, together with the ISBD (CM), ISBD (M), and ISBD(S), by the ISBD Review Committee formed by IFLA in 1981, it was decided that special consideration should be given to the rapidly increasing need for a separate ISBD for computer files [ISBD (ER), 1997]." With the development of programs and data files for smaller computers, the nature of the medium became more complex; in addition, this change resulted in physical items roughly comparable to other library materials to be more widely added to library collections. Hence bibliographic control was needed for them. As a result, the ISBD (CF) Working Group was established in 1986. In 1990, the first edition of ISBD (CF) was formally brought out. With the emergence of interactive multimedia, development of optical technology availability of remote electronic resources on the Internet and World Wide Web, and reproductions of electronic resources, it was felt that ISBD (CF) should address the bibliographic implication of such developments. A Working Group was formed in 1994. In 1995, the Second Edition of the draft was prepared and distributed for worldwide review from individual readers, library associations and national libraries. As a result, many improvements were made, including recognition of the need for a new term to characterise the material under discussion. Thus, the more appropriate term „electronic resource“ was chosen.

Purpose of ISBD:

The primary purpose of the ISBDs is to provide the stipulations for compatible descriptive cataloguing worldwide in order to aid the international exchange of bibliographic records between national bibliographic agencies and throughout the international library and information community. By specifying the elements which comprise a bibliographic description and by prescribing the order in which those elements should be presented and the punctuation by which they should be demarcated, the ISBDs aim to: 1 make records from different sources interchangeable, so that records produced in one country can be easily accepted in library catalogues or other bibliographic lists in any other country; assist in the interpretation of records across language barriers, so that records produced for users of one language can be interpreted by users of other languages; and assist in the conversion of bibliographic records to electronic form.

Machine readable record format:

Library of Congress (LC) was the first to design and experiment on a Machine-readable Catalogue (MARC) record format for the purpose of communicating bibliographic information to large number of libraries. When MARC-I commenced as a pilot project in 1966 in LC, there were no established MARC formats available. Library professionals had reached no consensus as to what all access points were required for taking full advantage of an automated catalogue. The pilot project known as MARC-I began in the year 1965 with the main aim of creation and distribution of machine-readable cataloguing data to other libraries with Library of Congress (LC) as the distributing point. MARC-I only dealt with books. The development of MARC-II started in 1968. It was planned to cover all types of materials including books and monographs. During 1970-1973 documentation was issued for other materials, i.e., in 1972 films records were issued, 1973 for serials, maps and French books and by 1975 records for German, Spanish, and Portuguese material [Simmons and Hopkinson, 1988]. In the year 1999, USMARC and CAN/MARC were harmonized and named as MARC21 [McCallum 1989]. The MARC21 bibliographic format, as well as all official MARC21 documentation, is maintained by the Library of Congress and by Canadian National Library [MARBI, 1996]. Recently UKMARC is also being merged with MARC21 and British Library is shifting from UKMARC to MARC21. The Library of Congress and the National Library of Canada serve as the maintenance agency for the MARC21 formats for bibliographic, authority, holdings, classification, and community information data.

MARC Format:

A MARC record involves three elements: the record structure, the content designation, and the data content of the record [MARBI, 1996]. Structure: MARC records is typical of Information Interchange Format (ANSI Z39.2) and Format for Information Exchange (ISO 2709). Content designators: By definition “the codes and conventions established to identify explicitly and characterise further the data elements within a record and to support the manipulation of those data”. Anything that establishes the kind of data is a Content Designator, for example, there are three kinds of content designators— tags, indicators, and subfield codes. Content: This is the actual data that is stored in the data fields. Often most of the data elements are defined by standards outside the formats. For example, Anglo-American Cataloguing Rules, Library of Congress Subject Headings, National Library of Medicine Classification. In MARC21, formats are defined for five types of data: bibliographic, holdings, authority, classification, and community information.

MARC Record Structure:

A typical MARC record consists of three main sections: the leader, the directory, and the variable fields [MARBI, 1996]. The leader consists of data elements that contain coded values and are identified by relative character position. It is also called as Record label in CCF and UNIMARC. Data elements in this section define parameters for processing the record. It is fixed in length (24 characters) and occurs at the beginning of each MARC record. The directory contains the tag, starting location, and length of each field within the record. The length of the directory entry is defined in the entry map elements in Leader/20-23. In the MARC21 formats, the length of a directory entry is 12 characters, while in CCF it is 14 characters where character 13th and 14th are Segment Identifier and Occurrence Identifier. The directory ends with a field terminator characters. The data content of a record is divided into variable fields. The MARC21 format distinguishes two types of variable fields: variable control fields and variable data fields.

Common communication format (CCF):

UNESCO was concerned in the late 1970s about the lack of developments in the field of scientific information, especially in systems for the sharing of information on journal articles. Especially in the light that secondary services such as abstracting and information services were being automated. UNESCO sponsored an international symposium in 1978 to look at the problems caused by this sector having many different formats and recommended developing a switching format taking into account the need to be compatible with MARC via

UNIMARC, and the secondary services. Those experts who had developed ISO 2709 also attended the meeting since the format required more sophisticated linking features in order to be able to link records of articles and the journals and issues containing them. The symposium set up the UNESCO Ad-hoc Group on a Common Communication Format and the CCF was developed. This was mainly used by the secondary services in the science and technological sectors by UN agencies and more generally in India [Hopkinson, 1989].

ISBN and ISSN:

An ISSN is an international standard serial number which is unique international identifier for serial publications. ISSN are assigned since the 1970s and universally accepted within the print publishing world as a means of identifying the serials. Consequently, and from the end of the 1990s, ISSN are also assigned to electronic serials (online, CD-ROM, DVD etc.) and to electronic “ongoing integrating resources” like websites and databases. The ISSN is an eight digit number which identifies periodical publications as such including electronic serials. The ISSN is a numeric code which issued as an identifier. The ISSN text the form of acronym ISSN followed by two groups of four digits separated by a hyphen. The eighth character is a control digit calculated according to a modulo eleven algorithm on the basis of this seven preceding digits. This eighth control character may be an “X” if the result of the computing is equal to “10”, in order to avoid any ambiguity. The ISSN is linked to a standardized form of the title of the identified serial, known as the “key title”, which repeats the title of the publication, qualifying it with additional elements in order to distinguish it from other publications having identical titles. If the title of the publication changes in any significant way, a new ISSN must be assigned in order to correspond to this new form of title. To avoid any confusion, a serial publication whose title is modified several times in the course of its existences will be assigned each time a new ISSN, thus allowing precise identification of each form of the title. In fact it is then considered that they are different publications even if there is a logical link between them. Contrary to other types of publications, the world of serial publications is particularly changeable and complex. The lifetime of the title may be extremely short. Thus as many publications may be a part of the complex set of relationship which had necessitated the introduction of the ISSN.

Significance of ISSN:

There is no any connection between the ISSN and the copyright. The procedure of the both is different with different significance as the latter is an identifier of serial publications. ISSN is

generally printed in prominent place, such as at the top right hand corner of the front cover, near the title on every issue. The number of copies produced is not relevant to the ISSN assignment. Publications that are intended to be continued indefinitely on either a regular or irregular basis require an ISSN for example Annual reports, Quarterly reports, Biannual reports, Bulletins, Newsletters, Journals, proceedings etc. The ISSN identifies the title of the serial publications. As long as the title remains the same you can use the name ISSN. There will be change in ISSN only if name is changed of the publication. One ISSN is assigned to all internet formats and qualified with „online“. However, other types of electronic formats, such as DVD"s and CD-ROM"s are assigned their own ISSN. Separate ISSN is required for the same publication in different language; means one ISSN to each language.

There is no expiry date for ISSN. If title is changed it is mandatory to inform ISSN office for the same. Also it is applicable for the case if you are not going to publish the upcoming issues.

How to get ISSN:

ISSN numbers can be issued in advance of publication via the application form which can be completed and sent online, or print and faxed / posted to the ISSN international authority for international publication and ISSN national authority of the respective country. The website for all details is <http://www.issn.org>. The form is also available in PDF format which can be emailed to the concerned authority. It is not possible to assign ISSN over the telephone.

The basic information required is,

1. Proposed title (working titles / project titles are not sufficient)
2. Frequency of publication
3. Proposed start date (month / year)
4. Publisher name and address.

The Centre will also need to receive a copy of the first issue on publication in order to validate the records. This copy will be passed through to the Legal Deposit Office and subsequent issues can be sent directly to them. In the case of ISSN requests made for existing serials, authority will need to receive an application form completed with the information as above, together with,

1. For print publications, a copy of a recent issue;

2. For on-line journals, either the URL or any passwords required (as requested on the form); or a printout of the title screen, and any screens giving publisher information (company name and the place of publication).

3. For CD-ROM or diskette journals, a sample copy or a printout of the title screen together with copies of the labelling, documentation and packaging.

Sample ISSN numbers of the publications:

ISSN 0027-9633 (online)

ISSN 0027-9634 (print)

ISBN (International Standard Book Number):

Introduction:

In 1965, W. H. Smith (the largest single book retailer in Great Britain) announced its plans to move to a computerized warehouse in 1967 and wanted a standard numbering system for books it carried. They hired consultants to work on behalf of their interest, the British Publishers Association's Distribution and Methods Committee and other experts in the U.K. book trade. They devised the Standard Book Numbering (SBN) system in 1966 and it was implemented in 1967. At the same time, the International Organization for Standardization (ISO) Technical Committee on Documentation (TC 46) set up a working party to investigate the possibility of adapting the British SBN for international use. A meeting was held in London in 1968 with representatives from Denmark, France, Germany, Eire, Netherlands, Norway, United Kingdom, United States of America and an observer from UNESCO. Other countries contributed written suggestions and expressions of interest. A report of the meeting was circulated to all ISO member countries. Comments on this report and subsequent proposals were considered at meetings of the working party held in Berlin and Stockholm in 1969. As a result of the thinking at all of these meetings, the International Standard Book Number (ISBN) was approved as an ISO standard in 1970, and became ISO 2108. That original standard has been revised as book and book-like content appeared in new forms of media, but the basic structure of the ISBN as defined in that standard has not changed and is in use today in more than 150 countries. Today the ISBN Agencies around the world are administered by the International ISBN Agency, located in London, UK. The International Standard Book Number (ISBN) is a 13-digit number that uniquely identifies books and book-like products published internationally. The purpose of the ISBN is to establish and identify

one title or edition of a title from one specific publisher and is unique to that edition, allowing for more efficient marketing of products by booksellers, libraries, universities, wholesalers and distributors. Every ISBN consists of thirteen digits and whenever it is printed it is preceded by the letters ISBN. The thirteen-digit number is divided into four parts of variable length, each part separated by a hyphen. The four parts of an ISBN are as follows,

1. Group or country identifier which identifies a national or geographic grouping of publishers;
2. Publisher identifier which identifies a particular publisher within a group;
3. Title identifier which identifies a particular title or edition of a title;
4. Check digit is the single digit at the end of the ISBN which validates the ISBN.

Significance of ISBN:

The ISBN is a unique international identifier for monographic publications assigning a number replaces the handling of long bibliographic descriptive records, thereby saving time and staff costs and reducing copying errors. Correct use of the ISBN allows different product forms and editions of a book, whether printed or digital, to be clearly differentiated, ensuring that customers receive the version that they require. The ISBN facilitates compilation and updating of book-trade directories and bibliographic databases, such as catalogues of books-in print. Information on available books can be found easily. Ordering and distribution of books is mainly executed by ISBN. This is a fast and efficient method which avoids mistakes. The ISBN is machine-readable in the form of a 13-digit EAN-13 bar code. The ISBN is required for the running of electronic point-of-sale systems in bookshops. Many publishing and supply chain systems are based on ISBN. The accumulation of sales data is done by the ISBN. This enables the varying successes of different product forms and editions of publications to be monitored, as well as enabling comparisons between different subject areas and even different publishing houses. The national lending right in some countries is based on the ISBN. Such schemes enable authors and illustrators to receive payments proportionate to the number of times that their books are lent out by public libraries.

How to get ISBN:

ISBN numbers issued by ISBN international authority for international publication and ISBN national authority of the respective country in advance of publication via the application form

which can be completed and sent online, or print and faxed / posted to the ISBN international authority for international publication and ISBN national authority of the respective country. The form is also available in PDF format which can be mailed to the concerned authority. It is not possible to assign ISSN over the telephone.

The basic information required is,

1. Proposed title (working titles / project titles are not sufficient);
2. Proposed start date (month / year);
3. Publisher name and address.⁵

Sample ISBN numbers as examples:

ISBN 978-951-45-9693-3 (hardback)

ISBN 978-951-45-9694-0 (paperback)

ISBN 978-951-45-9695-7 (PDF)

ISBN 978-951-45-9696-4 (EPUB without DRM)

ISBN 978-951-45-9999-5 (EPUB with ACS4
DRM)

Difference between ISSN and ISBN:

The ISSN identifies the title of a serial and stays the same from issue to issue unless the title changes, at which point a new ISSN needs to be assigned. The ISBN (International Standard Book Number) represents a single volume such as a novel, a monograph, a specific title within a monographic series or a specific issue of an annual or yearbook. ISBN is issued by the UKISBN Agency. The two systems are complementary and can be used together on the same publication. On an annual, for example, the ISBN will identify a specific volume (e.g. 1996 edition, 1997 edition) whilst the ISSN identifies the title and stays the same each year. ISBN should not be assigned to specific issues of periodicals and should not usually be assigned to any title published more frequently than once a year. A fundamental difference between the two systems / numbers is that the stem of the ISBN identifies the publisher whereas the ISSN contains no publisher identifier. The ISSN is a purely arbitrary number that remains linked to the serial even when the responsibility for the serial passes from one publisher to another.

An ISSN is an international standard serial number which is unique international identifier for serial publications. Publications that are intended to be continued indefinitely on either a regular or irregular basis require an ISSN for example Annual reports, Quarterly reports, Biannual reports, Bulletins, Newsletters, Journals, proceedings etc. The International Standard Book Number (ISBN) is a 13-digit number that uniquely identifies books and book-like products published internationally. The ISBN is assigned for a single or separate book, and ISSN is assigned for a series of books.

“ISBN” is “International Standard Book Number” and “ISSN” is “International Standard Serial Number.” Both ISBN and ISSN are codes that are used by publishers for numbering or serialising their publications.

One of the main differences between ISBN and ISSN is that the former one identifies the publisher whereas the latter one does not identify the publisher.

International Standard Book Number is given for monographs or books whereas the International Standard Serial Number is given to a series of monographs or books. In simple words, the ISBN is assigned for a single or separate book, and ISSN is assigned for a series of books. When ISBN identifies the specific volume or issue, the ISSN only identifies the series of the volume or issue.

In the case of the ISSN, it is only optional, which means that the publisher is not legally bound to use it. On the other hand, the ISBN is obligatory if the book falls under the ISBN application.

Unlike the ISBN, the ISSN will be the same in all the volumes or issues of a single series. On the other hand, ISBN is different for each volume and issue.

The International Standard Book Number is a 13-digit standard code. It was Gordon Foster who created for the first time a nine-digit ISBN code. Later the International Organization for Standardization developed the ten-digit standard number code. After 2007, the ISBN has a 13-digit number standard code. The International Standard Serial Number is an eight-digit standard number. It is the number given to one set of the series, and once the series changes, another ISSN code is allotted. It was in 1971 that the ISSN system was first drafted. The ISSN standard number codes are assigned by the ISSN National Centers and are coordinated by the ISSN International Center that is based in Paris.

Review questions:

1. What do you know about the recent trends in library cataloguing?
2. What is the difference between centralized and cooperative cataloguing?
3. Define the bibliographic standards of records.
4. Abbreviate ISBN and ISSN.
5. Differentiate between ISSN and ISBN.

P

S. No	Questions	LOCF Mapping
Small Questions		
1.	Define centralized cataloguing.	K1
2.	What is cooperative cataloguing?	K1
3.	What does ISBD stand for?	K1
4.	What is the purpose of MARC?	K1
5.	Differentiate between ISBN and ISSN.	K2
S. No	Questions	LOCF Mapping
Big Questions		
1.	Discuss the concepts of centralized and cooperative cataloguing, highlighting their objectives, advantages, and forms.	K2, K4
2.	Compare and contrast centralized cataloguing with cooperative cataloguing.	K4
3.	Explain the importance of bibliographic standards. Describe the structure and purpose of ISBD.	K2, K4
4.	Elaborate on the MARC record structure and its significance in library automation and resource sharing.	K2, K4
5.	Describe the structure, significance, and procedure for obtaining ISBN and ISSN for publications.	K2, K3

COURSE OUTCOMES:**At the end of the course the student will be able to:**

CO1	Recall and explain the fundamental concepts, objectives, and functions of a library catalogue, and trace the history of catalogue codes.	K1, K2
CO2	Analyze the different types of catalogue entries and apply the principles of filing in alphabetical and classified catalogues.	K4, K3
CO3	Apply the rules of AACR-2 for the choice and rendering of headings for personal authors, corporate bodies, and other entities.	K3, K4
CO4	Analyze the principles and methods of subject cataloguing, including chain indexing and the use of subject heading lists.	K4
CO5	Evaluate the trends in library cataloguing, including centralized/cooperative cataloguing, bibliographic standards (ISBD, MARC), and the role of ISBN/ISSN.	K4, K5

K1-Remember; K2-- Understand; K3-Apply; K4-Analyze; K5-- Evaluate**References:**

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Philip Bradley. Book numbering: the importance of the ISBN. The Indexer, 18 (1992) 25-26.