Library of Congress Classification

**Classification**

- The intellectual process by which things or concepts are organized to have likeness or unity and by this likeness or unity are set in relation to one another. The sorting and grouping of things
- Purpose is to bring related items together in a helpful sequence from the general to the specific
- Classification as a shelving device has two objectives:
  - To help the user identify and locate a work through call number (“mark it and park it”)
  - To group all works of a kind together

Library of Congress Classification (LCC)

- In 1897 it was decided to devise a new classification on the occasion of LC's moving into its new building. The approach was to be unified so as to unify the collection, but diverse enough to allow the subject specialists in each division to generate appropriate categories for their literatures.
- Dewey's Decimal Classification and Cutter's Expansive Classification, were examined and rejected. DDC was rejected because of Dewey's inflexibility. He would not make changes that would disrupt the 100 libraries using it.

Library of Congress Classification (LCC)

- Cutter's Outline of Classes was accepted, and reworked by James Hanson, Head of Cataloguing and Charles Martel, Chief Classifier. The only change they made was to place the arts between the social sciences and the sciences (Cutter had placed them at the end). The resulting outline is still in use.
- LCC originally designed and developed for use by LC only. Designed only to classify books of LC collection
- LCC based on literary warrant (reflecting LC's holdings), not classification of knowledge in the abstract (based on literary warrant of 19th and early 20th centuries, but kept up-to-date with revisions)

Library of Congress Classification (LCC)

- Schedules are disciplinary, just like DDC.
- Enumerative
- Built piecemeal by different people. Each schedule was developed by a subject specialist consulting published bibliographies, comprehensive histories, and their own collections. Specialists worked on subclasses independently with an editor in charge of each schedule and Martel in charge of the whole thing.
- Each class stands alone
- No overall index (indexes to individual classes)

History

- 1901: Class E-F (History: America) = first to be published
- others followed one by one, complete (except K) by 1948
- 1969: K began publication, only KB (theocratic legal systems) remains
- no fixed timetable for revision, each schedule revised as needed
- no overall index to entire scheme (ct. DDC)
### Order of publication of the original editions of the LC schedules

- 1901 E-F History: America
- 1902 Z Bibliography
- 1904 M Music
- 1905 Q Science
- 1910 B-Bf Philosophy, Psychology
  
  - G Geography, Anthropology, etc.
  - H Social science
  - J Political science
  - N Fine Arts
  - R Medicine
  - T Technology
  - U Military science
  - V Naval science

- 1911 A General works
- 1915 C Auxiliary sciences of history
- 1916 D History: general and old world
- 1927 BL-BX Religion
- 1928 P-PA General philology and linguistics
- 1933 PH-PH Modern European languages
- 1935 PJ-PM Languages and literatures of Asia, etc.

- 1936 P-PM suppl. Index to languages, etc.
- 1937 PQ (part 1) French literature
- 1937 PQ (part 2) Italian, Spanish, etc.
- 1938 PT (part 1) German literature
- 1942 PA suppl. Byzantine, etc.
- 1942 PT (part 2) Dutch, etc.
- 1948 PG Russian literature
- 1969 KF Law of US
- 1973 KD Law of UK and Ireland
- 1976 KE Law of Canada

### Tools

- Print schedules
- Classification Web
- SCM: Classification; SCM: Shelflisting; SCM: Subject Headings
- Weekly List
- CSB: Cataloging Service Bulletin
- Chan’s Guide to the Library of Congress Classification

### Outline of LCC—Structure of Classification

- Using Cutter’s Expansive classification as a model, the structure of classification evolved to 4 parts:
  
  **I.** A General works. Polygraphy
  
  **II.** B-P Humanistic Disciplines and the Social Sciences
  
  **III.** Q-V Natural Sciences and Technology
  
  **IV.** Z Bibliography and Library Science
Rationale for main classes/sub-classes

• Charles Martel:
  – 1. Class A—General works
  – 2. Class B—Theories of man concerning the universe
  – 3-6. Class C-F—History and auxiliary sciences
  – 7. Class G—Geography and anthropology
  – 8-9. Class H-J—Economic and social evolution of man
  – 10. Class K—Law
  – 11. Class L—Education,
  – 12. Class M—Music
  – 13. Class N—Fine Arts
  – 14. Class P—Language and Literature
  – Classes B-P form the group of the Philosophico-historical and philological sciences.

Rationale for main classes/sub-classes

• Bibliography, which in many libraries is distributed through the different classes, is kept together in the LC and forms together with Library science (21. Class Z).

Schedules

• 4 parts:
  – A : General works
  – B-P : Humanities and social sciences
  – Q-M : Natural sciences and technology
  – Z : Bibliography and library science

Library of Congress Classification Outline

• M -- MUSIC AND BOOKS ON MUSIC
• N -- FINE ARTS
• P -- LANGUAGE AND LITERATURE
• Q -- SCIENCE
• R -- MEDICINE
• S -- AGRICULTURE
• T -- TECHNOLOGY
• U -- MILITARY SCIENCE
• V -- NAVAL SCIENCE
• Z -- BIBLIOGRAPHY. LIBRARY SCIENCE. INFORMATION RESOURCES (GENERAL)

Notation

• Mixed system: using letters in the Roman alphabet and Arabic numbers
• Main classes are denoted by single capital letters with double or triple letters used for subclasses.
• Within each main class or subclass, the integers 1-9999 are used for subdivisions, with many breaks (unused numbers) left for future needs.
• After the 1st set of letter(s) and number(s), another set follows. The latter is called a Cutter number, always preceded by a period (or full stop), and may be used as an extension of the class number or as an item number.
Comparison with DDC: similarities

- It's a classification scheme:
  - Offers systematic approach to documents through (i) shelf arrangement, (ii) classed catalog
- It's universal:
  - Covers all areas of human knowledge
- It's disciplinary:
  - Universe is divided into 21 main classes: correspond largely to academic disciplines
  - Classes divided into subclasses: branches of disciplines
  - Subclasses divided into subdivisions: by form, place, time, subject

Comparison with DDC: similarities

- It's hierarchical:
  - Order within classes is general to specific
- It's enumerative:
  - Complex subjects are explicitly listed in the schedules
- It uses auxiliary tables:
  - Allowing increased specificity
- But it has little notational synthesis
  - Numbers from tables are not attached to the main number (as they are in Dewey)
  - Tables are used to pinpoint specific numbers within ranges of numbers provided in the schedules themselves
  - Schedules are therefore longer -- but numbers shorter

LC: Basic Characteristics

- Not a philosophical division of knowledge
  - Designed for purely practical purposes
  - “The system devised has not sought to follow strictly the scientific order of subjects. It has sought rather convenient sequence of the various groups, considering them as groups of books, not as groups of mere subjects.” [Putnam 1901]
- Based on literary warrant
  - Designed for LC’s own collection, taking into account its existing scope, its probable use, its expected growth
  - Primary purpose = legislative reference, and other use by gov't depts
  - So, e.g., history (C-G) and social sciences (H-L) emphasized more than natural sciences and technology (Q-V)
  - Sort of a special classification with unusually wide scope

LC: Basic Characteristics

- Not originally intended for use by other libraries
  - But now used widely
    - Mainly for shelf/catalog arrangement in academic/research libraries
    - Also by several directories of Web resources, e.g., Scout Report
  - LC makes call numbers easily available to outsiders
    - MARC records through OCLC, LC Online Catalog, serve as cataloging copy for most libraries in the country
    - Libraries can suggest new numbers for the scheme through the Program for Cooperative Cataloging SACO program

Techniques Used in LCC

- Classification number represents the subject of a document. It is composed of from one to three uppercase letters and an arabic whole number of up to four digits (1-9999). This number may also have decimal extensions
Techniques Used in LCC

- Call numbers for LCC generally consist of three elements: the classification number (using both letters of the alphabet and arabic numerals), one or two cutter numbers and a date.
  
  SB 435.52 .N6 S3 1989

Basic notation and cutting

- Call number consists of two principal elements: a class number derived from the schedules and an item number to distinguish among items under the same class number.
- Basic notation
- Basic cutting

Basic notation and cutting

Class number:

<table>
<thead>
<tr>
<th>Capital letters</th>
<th>Whole number</th>
<th>Decimal extension</th>
<th>Item (Cutter) number</th>
<th>Year of publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>PN</td>
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<td>.5</td>
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Alphabetical Arrangements in LCC

UB 30-351 Culture of individual vegetables or types of vegetables
SB325 Asparagus
SB327 Beans, common bean
SB329 Beans
SB331 Cabbage
SB333 Cauliflower
SB335 Celery
SB337 Cucumber
SB339 Greens, Leafy vegetables
SB341 Onions
SB343 Peas
SB345 Rhubarb
SB347 Squash, Pumpkin
SB349 Tomatoes

LCC Structure

| Q    | Science (general) |
| QA   | Mathematics       |
| QB   | Astronomy         |
| QC   | Physics           |
| QD   | Chemistry         |
|      | 23-3-26.5 Alchemy  |
|      | 71-142 Analytical chemistry |
|      | 146-197 Inorganic chemistry |
|      | 241-441 Organic chemistry |
|      | 450-731 Physical and theoretical chemistry |
| QE   | Geology           |
Common Features of Each Schedule

• characteristics common to all schedules
  – preface
  – broad outline, showing subclasses
  – detailed outline, showing 3-level hierarchical structure
  – schedule itself
  – auxiliary tables
  – index (to the individual schedule)

Broad outline: B-BJ as an example

• Outline
  – B PHILOSOPHY (GENERAL)
  – BC LOGIC
  – BD SPECULATIVE PHILOSOPHY
  – BF PSYCHOLOGY. PARAPSYCHOLOGY. OCCULT SCIENCES
  – BH AESTHETICS
  – BJ ETHICS. SOCIAL USAGES. ETIQUETTE

Detailed outline: B as an example

• Outline
  – B 1-5802 Philosophy (General)
  – 69-99 General works
  – 108-5902 By Period
    Including individual philosophers and schools of philosophy
    108-708 Ancient
    720-765 Medieval
    770-785 Renaissance
    790-5802 Modern
    808-849 Special topics and schools of philosophy
  – 850-5739 By region or country
  – 5800-5802 By religion

Main portion of the schedule: B

• A general philosophy periodical in the German language:
  – B PHILOSPHY (GENERAL)
  – 1.A1-A3 Polyglot
  – 1.A4-Z English and American
  – 2 French and Belgian
  – 3 German
  – 4 Italian
  – 5 Spanish and Portuguese
  – 6 Russian and other Slavic

Common Features of Each Schedule

• Martel's Seven Points; The general pattern of arrangement of each division within a class. Not always followed.
  – General form divisions: Periodicals, Societies, Collections, Dictionaries, etc.
  – Theory, Philosophy
  – History
  – Treatises, General Works
  – Law, Regulation
  – Study and teaching
  – Special subjects and subdivisions, progressing from the more general to the specific and as far as possible in logical order

Cutter Numbers

• Following the class number is a cutter number or book number.
• Cutter number usually represents the first non-article word of the main entry, although LCC does utilize cutter numbers to further represent the subject of a book. These are called "double cutters".
• The cutter number provides for the alphabetical subarrangement of works within a class and enables a library to develop a unique call number for each work.
• A cutter number consists of a single letter of the alphabet preceded by a decimal point. The alphabetical character is followed by one or more arabic numerals.
• When a second cutter is used, only the first cutter is preceded by a decimal point.
LC Cutter Table

(1) After initial vowels for the second letter: b d l m p r w y
use number: 2 4 6 7 8 9
(2) After initial letter S for the second letter: a ch e h i m p t u w z
use number: 2 3 4 5 6 7 8 9
(3) After initial letters Qu for the second letter: a e i o r t y
use number: 3 4 5 6 7 8 9
For initial letters Qu-Qt, use: 2-29
(4) After other initial consonants for the second letter: a e i o r u y
use number: 3 4 5 6 7 8 9
(5) For expansion:
for the letter: a e h l m o p r t v w y
use number: 3 4 5 6 7 8 9
For authors or titles starting with Arabic numbers use A 12-19.

LC Cutter Table: Example

Catton .C37
Cecil .C4
Cheever .C44
Cicco .C5
Clint .C55
Corson .C6
Cox .C69
Crane .C7
Crider .C75
Cronin .C76
Cullen .C8
Cyert .C9

LCC Call Number: Date

• LC adds date to call number. Generally the date used is the date of publication, but there are exceptions:
  – Conference main entry: use date of conference
  – Photocopy: date of original plus work letter “a”
  – Looseleaf publications: no date used

Strengths of LCC

• Practical
• Based on materials at LC, similar to collections in many academic & research libraries
• Enumerative system, do not have to synthesize
• Schedules developed by subject experts
• Notation is compact and hospitable
• Frequent updates that are published
• Need for reclassification is kept to a minimum; few structural changes

Weaknesses of LCC

• Scope notes inferior to DDC
• US bias in emphasis and terminology
• Too few subjects are treated as compounds
• Alphabetical arrangement used instead of hierarchical
• No clear and predictable basis for subject analysis based on class

Weaknesses of LCC

• As a result of maintaining stability, parts of the classification are obsolete -- like photography is under technology; cookery is in engineering
• Keeping an up - to - date set of all the schedules is expensive
• Table structure more arcane than DDC
General Steps for LCC Use

• Because of disciplinary aspects of LCC, first check for appropriate schedule to match subject of item in hand and then determine the best class number within the selected schedule.
• Class item in hand with similar works:
  – Consult existing records
  – Consult class numbers mapped from assigned LCSH
  – Consult LCC outlines
• After call number is complete, check shelflist:
  – Will item in hand reside amongst other like works?
  – Is call number unique?

General Principles of Classification

• Choosing a classification number: General guidelines
  – Consider usefulness: when a work can be classed in more than one number, consider where it will be most useful to the readers
  – Subject is usually prior to form: class by subject, then by form, except in literature, where subject is secondary to form
  – Use the most specific number: class the work in the most specific number that will contain it rather than with the general topic
  – Do not classify from the index alone: always check number from index in main schedule

General Principles of Classification

• Choosing a classification number: Multi-topical works
  – Class with dominant subject
  – Class under first subject if dominant subject cannot be determined
  – Class under broader subject if work deals with three or more subjects which are subdivisions of a broader subject
• Use number for Chemistry for a work on Analytical, organic, inorganic and physical chemistry

SCM F 10: General principles

1. Class works according to their subject matter.
2. Unless specific instructions, class a work by its specific subject, not by its form under a broader topic. If no number for the specific form of the work being cataloged has been established in the schedules, see F195, sec.4
3. Classify by the subject, rather than by place if a choice must be made between these two.
   – Under the topical caption:
     • Class works limited to a specific geographic area in […]
     – Under the caption "By region or country."
     • Including specific topics
4. Use the most specific number available. Use a broader number only if no specific number is available.

SCM F 10: General principles

5. Where several subjects are discussed in a work, choose the classification number according to the most appropriate of the following guidelines:
   – Class according to instructions printed in the schedules
   – Class according to dominant subject
   – If no subject is dominant, class under the first one mentioned in the work being cataloged.
   – Class with a broader subject, if the work deals with several subjects that, taken together, constitute a major part of a larger subject.
6. In problematic cases where several numbers appear satisfactory, class according to the intent of the author or where it appears that the work would be most usefully located.
7. Unless instructions in the schedules or past practice dictate otherwise, class works on the influence of one subject on another with the subject influenced.
8. For the relationship between the order of subject headings and the class number, see H80.
How to find a number

- General principle: by its subject matter in the most specific number available
- 2nd principle: to class the work in hand with similar works in the collection
  - Consulting existing records in the catalog
  - Consulting class numbers in LCSH
  - Consulting the outline of the whole classification to locate the possible schedule
- Select the appropriate main class and sub-class, determine the number, then verify the number with shelf-list to ascertain

LCC Examples

- Topical Cutter
- Tables
- Author numbers
- MARC Field
  - 050 $a class number $b cutter number and date

GO FORTH AND CLASSIFY

And it came to pass that when Kutta the Book God had made the first library she saw that it was good. She called the librarians together and divided them as a herder divides the sheep and goats. To the first group she spoke, saying, 'You shall dwell in the light and serve the readers, and your glory shall be great.' Then she turned to the second group and spoke, saying, 'You shall dwell in darkness. Secret shall be your ways and hidden your practices. You shall not know the public, neither shall any reader know you. Go forth and classify.'

Michael Gorman (1979)