Chain Indexing and LISA

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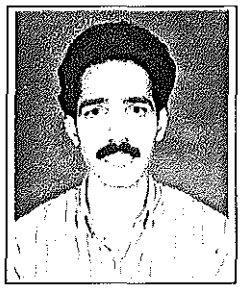

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ABSTRACT: Ranganathan's Chain indexing technique is devised as a complementary and supplementary tool to classification schemes. However, due to the efficiency and economy, this technique can effectively be made use of in deriving alphabetical subject indexes for any indexing/abstracting services. The authors have made a close analysis of Library and Information Science Abstracts (LISA) to elucidate the extent of the impact of chain indexing in it. Some of the problems found in the application of chain procedure in alphabetical subject indexing are identified and the solution found in LISA has been explained.

1. Introduction

Chain indexing means indexing by chains of headings or making use of a chain in deriving the subject headings (Ranganathan, 1938). According to S.R. Ranganathan, Chain may be understood as a subsequently subordinate sequence of subject headings progressing from broader to narrower class or general to specific subject (1964, p.285-286). This is a precoordinate indexing technique adopted to provide alphabetical approach to the subject of the document. Chain indexing is based on Ranganathan's principle of facet analysis and decreasing concreteness (1967, p.441, 174) and adopted as an efficient technique for deriving alphabetical subject headings to the specific subject of the document from a class number.

Chain indexing, due to its efficiency and economy in deriving alphabetical subject headings with any classificatory language, has been utilized in the monthly abstracting service LISA (Library and Information Science Abstracts) now published by Bowker & Saur.

2. Subject Indexing in LISA

LISA started publication originally in 1950 as a quarterly under the name "Library Science Abstracts" (LSA) by the Library Association. However, later the publication augmented its scope to include information science also by arrangement with Aslib. The Aslib library staff agreed to provide abstracts for the information science part. Thus Library and Information Science Abstracts with the acronym LISA started with the Jan-Feb. 1969 issue.

The prime objective of this service is to provide abstracts of about 120-150 words each concerning the subject field of librarianship and information work, information retrieval, information technology and allied fields. LISA has adopted a controlled list of terms on which to base the arrangement of entries, and also an alphabetical subject indexing for achieving efficiency in searches. The abstracts had been arranged according to Classification Research Group (CRG) Classification which was a faceted scheme. However, from January, 1993 issue onwards, LISA abandoned the CRG Scheme and adopted a scheme involving broad subject headings as a means of arranging abstracts. For reasons of economy LISA still uses the Chain indexing technique for compiling the alphabetical subject index entries.

The principle of LISA's indexing is that an alphabetical index need not duplicate the grouping and association of one topic with another. This principle decides the degree of permutation of the terms in compound headings (Edwards, 1975). This is achieved

by Chain indexing which provides term association and word orders that are different from those of the classified arrangement of abstracts.

3. Chain indexing in LISA

Chain indexing is exploited to derive the alphabetical subject index of LISA. In LISA the specific entry for each abstract is made only at one point in the index. For each succeeding entry, the lead term in the previous entry or link from the abstract file is dropped. This results in a highly economical index.

Example:
Online Union Catalogue of University Libraries in Denmark
Denmark: University libraries: Online Union catalogue.
University Libraries: Online Union catalogue
Online Union catalogue
Union catalogue
Catalogue.

3.1. References

Apart from the basic chain indexing there is a further level of indexing procedure in LISA i.e. references are made for synonyms, compound terms, related entry points, initials of organizations, full forms of commonly recognized acronyms etc.

Examples:
Bibliobuses
See Mobile libraries [Synonym reference]
Indexing: Subject
See Subject indexing [Compound term]
Artificial intelligence
See also Knowledge based systems [Related entry points]
OSTI
See Office of Scientific and Technical Information
[Reference from initials of organization]
Information services in Physics, Electrotechnology. Computers and control.
*See*INSPEC
[Reference from full form of acronym]

In addition to the different kinds of references, the alphabetical subject index of LISA lists/displays narrower terms corresponding to the broader terms in the alphabetical sequence.

Example:
Computer application
narrower term Computer assisted instruction
Educational technology
Information technology
Library technoloy
Robotics

Further the use of chain procedure achieves tremendous economy since subject index entries can be consolidated under broader terms.

Example
Cooperation
Acquisitions *337
Maps
Acquisitions *335
Periodicals
Acquisitions *334
Acquisitions *333-352
(* The numbers given in the index are the serial number of the abstract entries)

3.2 Chain Indexing Made Simple

"**Keep it Simple**" being the philosophy of LISA, some modifications have been made to the chain indexing method so as to make a more acceptable representation of the subjects (Edwards, 1975). Since chain indexing is based on the reversal of the term order, the alphabetical index does not provide the specific subject entry in the same sequence of terms of the subject heading in the classified abstract.

As an example abstracts concerning "Public library conference" are entered in the classified sequence by forward rendering i.e" Public libraries: Conferences."

However, in the alphabetical index part the order is reversed by a backward rendering chain procedure which results in the following entries.

Conferences: Public libraries
Public libraries
Libraries

If the searcher is looking for the specific subject under Public libraries following the strict forward rendering he would find no entry in the alphabetical index. In order to solve this problem, in such two element cases, LISA has adopted rotated indexing apart from the rigid chain technique and an entry for "Public libraries: Conferences" is made.

3.3 Problems of Language and Terminology

Sometimes ambiguity by using unit terms is resolved by adding qualifying terms and prepositions.

An article on "library staff" is distinguished from an article on a "library of the library staff" in the following way.

Library Staff
Staff:Libraries
Library of library staff
Staff:Libraries (Types of library)

Prepositions are also used to remove ambiguity.

Library statistics
Statistics: (Library statistics)
Statistics: (Library statistics): of Library stock
Statistics: Library stock by type of material published

The canon of currency (use of current term) and the canon of reticence (avoid critical terms) are two canons introduced by Ranganathan (1967, p.214,216) for work in the verbal plane in classification. These canons have their implications on the use of terminology in subject indexing as well. The term "Red Indians" has been changed to "American Indians." The term "Afro-American" has been suggested in lieu of "Blacks" (Edwards, 1975).

4. Summary

Chain procedure emerged as a supplementary device For classification schemes. The efficiency and economy of this subject indexing technique is exploited in the alphabetical subject index of LISA. Further „See" and „See also" references contribute substantially to the efficiency of the subject index. However, alphabetical chain index of LISA is flexible enough to satisfy the multiple approaches of the users, at the same time maintaining its economy.

References

Edwards, Tom (1975). Indexing LISA: Chains, KISS and bold approach. *The Indexer* 9(4), 133-144.

Ranganathan, S.R. (1938). *Theory of Library Catalogue*. Madras; London: Madras Library Association Publication series; 7. 393 p.

Ranganathan, S.R. (1964). Classified Catalogue code with additional rutes for dictionary catalogue code. Assisted by A. Neelameghan. 5th ed. London. Ranganathan series in Library Science; 2. 644 p.

Ranganathan, S.R. (1967) Prolegomena to Library classification. Assisted by M.A. Gopinath. (3rd ed., Vol.I), London. Ranganathan series in Library Science; 20. 640 p.

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