# Bibliography of the British Technology Index

Compiled by Keiichi Kawamura, PhD

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This bibliography lists about 320 references to BTI ranging from 1958 to the present. Eight languages are concerned with the bibliography: English, Finnish, French, German, Hungarian, Japanese, Spanish and Swedish. Every item has an English abstract or annotation. Items are arranged in systematic order, and cross-references among related items as well as author and language indexes complement the systematic arrangement. A title list of E.J. Coates' BTI-related works arranged in chronological order is appended.

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Cover: Reproduced from the *British Technology Index. Annual volume 1976*, by courtesy of CILIP, London.

Typeset and design by BERTH Office, Japan. Printed and bound in Japan by Kurashiki Printing Co., Ltd. Undoubtedly the most important contribution to the theory of alphabetical subject headings for many years is the work of E.J. Coates. ... He has also had the challenge of putting his ideas into practice on a large scale in the *British Technology Index*, of which he has been editor since its inception – an opportunity of a kind which rarely presents itself to the theorist.

(A.C. Foskett, 1977)

The essential difference between relational and facet analysis is that in the latter case it is the terms in a syntactic string which are themselves considered, while in the former case one considers the linkages between the terms. (E.J. Coates, 1974)

The staff are encouraged to deal with subject heading problems in classificatory terms.

(E.J. Coates, 1962)

I was certainly not the only technical librarian who must have provided a much less satisfactory service but for BTI. (K.G.B. Bakewell, 1982)

I hope therefore that the BTI will be supported by British special librarians not only on account of the various ways in which it may be immediately helpful, but also because it is a step in the right direction – towards wider bibliographical control, which we all desire to see extended to technical literature originating in all parts of the world. (E.J. Coates, 1962)

#### Preface and Acknowledgements

Do you know the *British Technology Index* or BTI? I would like to ask anyone who is concerned with alphabetical subject indexing of information.

BTI was commenced by the Library Association (LA), London, in February 1962. It was a monthly and annual subject guide to articles in about 400 British technical journals. There had been two commercial efforts to provide a technical indexing service in the United Kingdom (UK) in the 1950s, both of which had failed. BTI was a venture of the LA and was full of drama. As of 1976 A.C. Foskett described BTI as follows:

"British Technology Index was launched in 1962, and immediately set out to provide a detailed indexing service for current scanning, in which production time was kept to a minimum. It has never had a large staff, yet it has continued to work to a very tight schedule while maintaining a high standard of indexing. The theories involved have stood up to the searching test of mechanisation and come through with flying colours. ... The subject headings used have been criticised, particularly in the early years, but perhaps the best answer to that is the fact that BTI has, despite unfavourable omens and without access to substantial resources, established itself as a reference tool of international standing. The effectiveness of the indexing system has been the basis of this success."

BTI was held in high repute among the user community. However, the drama still continued. The editor, E.J. Coates, was appointed in September 1974 as one of the three-man panel of the FID/BSO (Broad System of Ordering) in the UNISIST programme and he later became Rapporteur of the FID/BSO Panel. He resigned the editorship of BTI in the spring of 1977, and several events affecting BTI followed in succession. The final and unexpected event was the change of title, which was accompanied by a somewhat different format. BTI was changed to CTI (Current Technology Index) in 1981, and the title was changed again to ANTE (Abstracts in New Technologies and Engineering) in 1997.

The indexing system of BTI had a sound theoretical basis. Prior to the commencement of BTI, Coates' main book "Subject catalogues: headings and structure" was published by the LA in 1960. In this book he summarized succinctly previous approaches to alphabetical subject cataloguing, such as those of Cutter, Kaiser, Ranganathan and Farradane, and put forward his own theory. Two years later he took an opportunity to put his theory into practice in BTI. Coates argued that all forms of subject catalogue have a two-fold objective: identifying a specific subject and browsing related subjects. A feature of BTI was the 'block structure' under the same main subject heading, while keeping strictly alphabetical form. This was realized by creating logically articulated subject headings based on relationships between concepts and by a chain procedure for generating cross-references from these

subject headings.

As one of the original members of the Classification Research Group (CRG) in London, Coates was influenced by Ranganathan. He inherited Ranganathan's thought of 'the unity of subject indication' which embraces all kinds of classification and subject indexing. He was convinced that alphabetical subject indexing systems possess, or should possess, some form of classificatory correlation. Coates also advanced relational analysis, which was first propounded by Farradane, in the light of classification. This is definitely worth studying.

BTI introduced new techniques which differed from those traditionally used. Societies of professional indexers regarded BTI as 'an indexing masterpiece' in the field of science and technology, and Coates was called 'the genius of subject index.' His main book was reissued by the same publisher in 1988 at an interval of 28 years. I think that it is time to reappraise BTI as a global standard. The bibliography is compiled for this purpose.

Acknowledgement is due to Dr. Leonard Will, of Willpower Information, Enfield, UK, for helping with some references and for reviewing the preface and introduction. I am grateful to Prof. Naoki Takubo, of Kindai University, Osaka, Japan, for his valuable counsel and encouragement. I should like to thank those who supplied abstracts of the non-English literature: Prof. Agnes Hajdu Barat, of the University of Szeged, Hungary; Mrs. Karin Ekstrom, of the library of the University of Boras, Sweden; Ms. Ika Mantani, of Dokkyo University and Mr. Akira Ueda, Japan. I thank Ms. Hiromi Okada, a librarian at Dokkyo Medical University, for technical assistance. I wish to express my gratitude to Mr. Eiichi Otsuka, president of Jusonbo Co. Ltd., for undertaking to publish the work.

With regard to the kind permission to reproduce materials from copyrighted publications, special thanks are due to: the Chartered Institute of Library and Information Professionals (CILIP), London, UK, who inherited the copyrights to the former Library Association's publications, such as *Annual report of the Council of the Association, Library Association Record, Liaison, Library Science Abstracts* (LSA), and so on; ProQuest, Ann Arbor, Michigan, USA, who hold the copyright to *Library and Information Science Abstracts* (LISA); and the editor of *The Indexer* which is an organ of the Society of Indexers, Sheffield, UK, for a number of articles that appeared in the journal.

Finally I wish to dedicate the work to my wife, Eriko Kawamura, who has supported me all these many years until her passing on the 20th of November, 2014.

Keiichi Kawamura 18th June 2015

### **Table of Contents**

reface and acknowledgements	5
ntroduction	9
Systematic arrangement	11
00 "Subject catalogues: headings and structure"	12
00.10 Bibliographic information on the original edition, reprints and reissue, 00.20	
Summary and recommendations, 00.30 Partial reprints in USA, 00.40 Reviews of	
the original edition published in 1960, 00.50 Reviews of the reissue published in	
1988, 00.60 References made to Coates' theory of subject catalogues	
10 Prenatal stage and early years of BTI	27
10.10 Prospects for a new subject index to British technical journals, 10.20	
Scepticism and controversy, 10.30 Reviews of monthly issue, 10.40 Reviews of	
annual volumes	
20 Aspects of BTI	43
20.10 General description, 20.20 Coverage, 20.30 Currency (Time-lag), 20.40	
Promotion and subscription rates, 20.50 Number of subscriptions, 20.60 Change	
of size, 20.70 Use of magnetic tape, 20.80 Microfiche form, 20.90 Others	
30 Indexing system	55
30.10 General description, 30.20 Relational analysis and citation order, 30.30	
Handling of compound terms, 30.40 Vocabulary control, 30.50 Chain procedure	
for generating cross-references from subject headings, 30.60 References made to	
BTI with other systems	
40 Computerization	69
40.10 Overview, 40.20 Announcements and news items, 40.30 Reports by the	
project director and the programmer, 40.40 Hardware and software	
50 User-oriented education and training	84
50.10 Discussion meetings, lectures and workshops on BTI indexing system,	
50.20 Instruction in use of bibliographic tools including BTI	
60 User study and laboratory evaluation	88
60.10 Editor's opinion on index evaluation, 60.20 INSPEC, 60.30 EPSILON	
70 Events following the resignation of the first editor	93
80 Applications of BTI system including trials and discussions	99
80.10 CTI, 80.20 ASSIA, 80.30 NRPRA, 80.40 Metal Box Ltd., 80.50 SEA project,	
80.60 STIR project, 80.70 Decentralized indexing in a centralized system using	
classification, 80.80 Recommendation for the index form in standards	
90 References made to BTI in connection with Ranganathan and CRG	109
Author index	115
anguage index	121
Appendix: Title list of Coates' BTI-related works arranged in chronological order	123

#### Introduction

#### **Outline**

This bibliography lists about 320 references to BTI ranging from 1958 to the present. The largest and most important section of the bibliography is a single sequence of entries arranged in systematic order. Every item has an English abstract or annotation.

#### Coverage and selection

The bibliography aims at comprehensiveness as far as possible. It covers: (1) journal articles, (2) conference papers, (3) reports, (4) monograph chapters or sections, (5) seminar works, (6) announcements, (7) news items, (8) letters, (9) book reviews, and so on. No attempt has been made to list items that are not primarily concerned with BTI. However, some items on other topics have been included if they are thought to provide supplementary information on BTI, either relating to features of the system which are considered noteworthy or if they deal with new aspects of the system.

#### Arrangement

Schedules for the systematic arrangement of items constitute a large part of the table of contents. The schedules consist of 10 main classes. In the first class (00) items dealing with Coates' main book "Subject catalogues: headings and structure" are collected. They give information on the original edition, reprints and reissue of the book, and on reviews of these. In the remaining classes (10 to 90) BTI publications and related items are listed. The purpose of systematic arrangement is to group related materials. Therefore, for instance, book reviews are listed with the publication that they discuss and the item number of each book review is accompanied by that of the publication in brackets.

#### **Entries**

Each entry consists of: (1) item number, (2) bibliographic description, and (3) abstract or annotation. In the case of journal articles, which constitute the majority of items included, the following bibliographic elements are given in order: (1) original English title or English translation of title in boldface, (2) author(s) if any, (3) journal title in italics together with an ISSN in brackets, (4) volume number, (5) issue or part number in brackets, (6) month or season, (7) year of publication, and (8) inclusive pagination. Titles in English are given as they appear in the literature. Titles in other European languages using the Roman alphabet are given in both translated and original forms. Other titles using non-Roman-alphabet are the results of translation from English, these are given in both transliterated and original English forms. Author names are also given as they appear in the literature. As a matter of convenience all diacritical marks are omitted in this bibliography.

#### **Abstracts**

Abstracts used in entries are taken from various sources: (1) original abstracts, (2) abstracts supplied by the compiler's colleagues for a book chapter in German and book reviews in Hungarian, Spanish and Swedish, and (3) abstracts of secondary information services. Below is a list of secondary information services in which abstracts are looked up.

LSA – Library Science Abstracts, 1950-68 (UK)

LISA – Library and Information Science Abstracts, 1969-present (UK)

DA – Documentation Abstracts, 1966-68 (USA)

ISA – Information Science Abstracts, 1969-2002 (USA)

AJI – Abstract Journal. Informatics, 1970-76 (USSR)

IA – Informatics Abstracts, 1977-91 (USSR)

The abstract chosen for an entry depends upon the judgement of the compiler. The source is indicated in brackets at the end of abstract. Where an abstract or annotation was written by the compiler, his initials (KK) are indicated in brackets.

#### **Indexes**

The bibliography provides indexes to authors and to languages of texts written in one of the seven non-English languages which are present. Author names in the index are in most cases given in more detail than in the systematic arrangement. Both indexes refer to item numbers.

#### **Appendix**

A title list of Coates' BTI-related works arranged in chronological order is appended at the end of the bibliography.

#### **Omissions**

Though this bibliography aims at comprehensiveness, there may be serious omissions. Information from readers will be appreciated. The address of the compiler is as follows: Keiichi Kawamura, 5-30-5 Midori, Shimotsuke-shi, Tochigi 329-0433, Japan (e-mail: kawamura.bso@gmail.com).

Systematic Arrangement

#### 00 "SUBJECT CATALOGUES: HEADINGS AND STRUCTURE"

#### 00.10 Bibliographic information on the original edition, reprints and reissue

#1 **Subject catalogues: headings and structure** / E.J. Coates – London, Library Association, 1960, 186p. Reprinted in 1963 and 1969, 186p. Reissued with new preface in 1988, 186p. (ISBN 0-85365-678-9). For preface to 1988 reissue, see #312.

The original edition consists of 14 chapters: (I) Terminology; (II) Subject recording and recovery; (III) The two-fold objective; (IV) Towards systematisation; (V) Subject heading theory after Cutter; (VI) Significance and term relationship in compound headings; (VII) The dictionary catalogue since Cutter; (VIII) The contribution of classification; (IX) Chain procedure for subject indexes to classified catalogues; (X) Chain procedure applied to the Decimal Classification; (XI) Chain procedure and the alphabetico-specific catalogue; (XII) Group arrangement in the subject index; (XIII) Use and search strategy; and (XIV) The role of conventional classification schemes. The move of reprints in paperback form was to make the book more available to students. The book had been out of print since the middle of the 1970s. The original edition was reissued with the author's new preface in hardcover form by the same publisher in 1988. "Preface to 1988 reissue" reviewed the aims and motivation of writing the book and the impact of mechanization on subject cataloguing since 1960. (KK)

#### 00.20 Summary and recommendations

#2(#1) [Summary of] Subject catalogues: headings and structure – *Unesco Bulletin for Libraries* (ISSN 0041-5243), 14(4) July-August 1960, p.179.

Little progress has been made in the last half-century towards the achievement of a systematic working rationale in subject cataloguing. This work relates the structural features of the alphabetical and classified forms to each other and to the various types of questions put by inquirers. The contributions of Cutter, Kaiser, and Ranganathan [and Farradane] to alphabetical subject cataloguing are considered. Subject indexes to classification schemes, and to two main varieties of classified catalogues are examined and Ranganathan's chain procedure is outlined. A further chapter discusses the role of classification and chain procedure in alphabetical subject and dictionary cataloguing. Finally, an attempt is made to lay down the elements of search strategy for dealing with inquiries addressed to subject catalogues. (Original abstract)

#3(#1) [Recommendation of] Subject catalogues: headings and structure / A.C. Foskett – In his: *The subject approach to information* – London, Clive Bingley, 1969, p.16 and 53.

One of the few worthwhile books on the alphabetical approach. Not easy, but essential

reading. ... The first six chapters are essential reading. Students should also study carefully at least one of the annual volumes of *British technology index*, to see how Coates' principles are applied in practice. (Excerpt from original text)

#4(#1) [Recommendation of] Subject catalogues: headings and structure / Paul S. Dunkin – In his: *Cataloging U.S.A.* – Chicago, American Library Association, 1969, p.xx.

Although basically British in attitude, this book is of considerable value for its rather logical study of Cutter, its account of what has happened to subject headings since Cutter, and its suggested solutions. (Excerpt from original text)

#### 00.30 Partial reprints in USA

#5(#1) [Chapter VI] Significance and term relationship in compound headings / E.J. Coates – Reprinted in: *Theory of subject analysis: a source book* / ed. Lois Mai Chan, Phyllis A. Richmond and Elaine Svenonius – Littleton, CO, Libraries Unlimited, 1985, p.181-195. (ISBN 0-87287-489-3).

This selection from Coates' *Subject catalogues: headings and structure* proposes the concept "term significance," the word that evokes the clearest mental image used as criterion for determining the entry element in a compound heading. A relationship table that shows how compound subjects are to be classified is given. The problem of classifying phrases and names of localities in headings are also discussed. Coates theory was put into practice in compiling the *British Technology Index* from 1961 [sic] to 1977 [sic]. (ISA 85-11726)

#6(#1) **Library of Congress practice** / Eric James Coates – Reprinted in: *Improving LCSH for use in online catalogs: exercises for self-help with a selection of background readings* / Pauline A. Cochrane – Littleton, CO, Libraries Unlimited, 1986, p.140-147. (ISBN 0-87287-484-2).

This part is a section of Chapter VII: The dictionary catalogue since Cutter. Describes that the Library of Congress list has modeled broadly on the basis provided by Cutter, but with a continuous series of modifications to meet new circumstances. Little or no attempt has been made to keep theory abreast of the developing practice. Stresses that there is a relationship between the system of connective references and the manner in which compound subjects are handled. Points out that underlying ambiguities in both lurks the hesitancy in applying the principle of specific subject entry, which results in confusing inconsistencies. Says that there seem to be two distinct and separate layers of relational references in the LC list, and that a connective reference system based on classification alone does not suffice for a dictionary catalogue. The part had been preceded by Coates' review article entitled "Alphabetical subject catalogues", *Journal of Documentation* (ISSN 0022-0418), 9(1)March 1953, p.58-63. (KK)

#### 00.40 Reviews of the original edition published in 1960

#7(#1) [Review of] Subject catalogues: headings and structure / S.J. Butcher – Assistant Librarian (ISSN 0004-5152), 53(7) July 1960, p.149-151.

Coates is wise enough to recognize that any attempt to evaluate one form of subject catalogue against the other is fruitless and raises issues of subordinate importance. After describing and evaluating the contributions of Cutter, Kaiser, Ranganathan and Farradane to the theory of subject work, Coates examines the value of classification as a determinant of component order. From here, a large proportion of the work is devoted to an outline of Ranganathan's chain procedure. Of particular interest is the chapter dealing with the application of the method to DDC. Coates reveals that one important reason for the adoption of chain indexing by BNB was the need for exceptional speed of decision in subject indexing. He admits the common difficulty of the incomplete modulation of terms in DDC. It is obvious that chain indexing cannot be better than the scheme to which it is applied. This is not an easy book to read, but the author has achieved no means success in describing and discussing technical aspects of subject cataloguing. This is really a book for the specialist and not a primer for the students. (KK)

## #8(#1) [Review of] Subject catalogues: headings and structure / D.J. Foskett – *Library Association Record* (ISSN 0024-2195), 62(6) June 1960, p.201-202.

The book is reviewed, together with John Metcalfe's *Subject classifying and indexing of libraries and literature* (1950). Says that Coates made no resounding claims in contrast with Metcalfe. But the book is a *tour de force*. Like Metcalfe, Coates starts with a statement of objectives, and follows this with a historical account of the development of systematic structure in cataloguing. The reviewer likes the discussions of the comparative structure of three main forms of catalogue and of the different types of relationship between terms and how they should be represented in a heading, both of which are summarized in a tabular form. Concludes that Coates' main theme is that cataloguers and classifiers need a systematic technique for subject analysis. In this respect faceted classification and chain indexing offer such a technique, even though they are not entirely successful with the existing general classification schemes, and there is plenty of evidence to show that this is actually the most promising development in this field for many years. (KK)

## #9(#1) [Review of] Subject catalogues: headings and structure / K.C. Harrison – *Library World* (ISSN 0024-2616), 61(719)May 1960, p.237.

Those who have read the occasional articles and know the other work of Eric Coates are convinced that what he writes will be competent. This will be said of this work. He devotes the first chapter to terminology, but he has not overduly created new terms or new meanings for old ones. The work is comprehensive and practical, and to the person

川村敬一(かわむら・けいいち)

1948 青森市に生まれる

1972 神奈川大学経済学部卒業

1976 図書館短期大学別科修了

職歷 前獨協医科大学

大正大学司書講習講師, 淑徳大学兼任講師, 英国 BSO 委員会編集顧問などを兼任

学位 博士(創造都市) 大阪市立大学

著書 『BSO, あるいはCRGの新一般分類表-仮説と論証』博士論文, 2013

『情報資源組織演習』(分担) 樹村房, 2013

『BSO - Broad System of Ordering: an international bibliography』 University of Arizona, 2011

「Ranganathan and after: Coates' practice and theory」『Advances in knowledge organization, 9』 2004

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