

ALURI, Rao; D. Alasdair KEMP; John I. BOLL. Subject Analysis in Online Catalogs. Englewood, CO: Libraries Unlimited 1991. xii+303p. ISBN 0-87287-670-5

This volume intends to identify and discuss the components that together form a subject access system. In their preface the authors indicate that "the book is addressed to librarians (...)" and also to "those who have to learn about subject cataloging and information retrieval methods *ab initio*." This is a contradiction (librarians must be aware of much of the material presented here), and I believe that the authors have failed in addressing their text to a clearly defined target group. In fact, many parts of this interesting book seem to be written for systems designers and other non-librarians involved in the setting up of online catalogues, whereas other parts may be too basic for computer people.

After a brief introduction the book starts with a chapter on "*The Database*", the biggest part of which is devoted to the structure of the MARC format. The authors present a general description of MARC and then identify and thoroughly discuss the fields for subject information, all illustrated by examples. The European reader will notice that no other formats besides MARC are mentioned; similarly, as the chapter proceeds with an explanation of authority files only the Library of Congress Subject Headings are discussed. Finally, the inverted file is described and briefly explained as the third file in an online catalogue database.

The next four or five chapters will possibly frustrate those among the readers who are impatiently waiting for information about online catalogues. Nevertheless, these chapters can be seen as a very acceptable introduction into several basic concepts of information science and as a general prerequisite for the understanding of subject access in online catalogues. In "*Language in Information Retrieval*" we read about syntax and semantics, vocabulary control versus uncontrolled vocabulary, indexing studies, pre- and post-coordination (with useful examples). Short descriptions of major indexing systems (including PRECIS) and of the use of Boolean operators in post-coordinate searching are also given here. Most of "*Subject Indexing Process and Policy*" deals with the factors that affect indexing quality, i.e. accuracy, consistency, exhaustivity (summative subject cataloguing in libraries vs. comprehensive indexing) and specificity of indexing. "*Subject Heading Systems*" provides an overview of the LC Subject Headings and the various problems of that system. As a contrast, the National Library of Medicine's "Medical Subject Headings" are described (including tree structures and permuted headings). "*Keyword Subject Access and Citation Indexing*" is mainly a discussion of title keyword access, but has also short passages on keyword access to subject headings,

abstracts, back-of-the-book indexes and tables of contents. The statement that "abstracts are never employed in online catalogs" (p. 108) sounds a bit too restrictive.

"Bibliographic Classification", the following chapter, is another introduction to basic concepts but at least provides a final part on online catalogues. It starts, however, with an examination of the nature of classification schemes, pointing out the differences between classification and subject headings, and explaining the components of classification schemes, hierarchies and characteristics of division. Enumerative and faceted schemes are nicely contrasted by means of examples taken from biology. The text then dwells on the purposes of classification (shelf-arrangement vs. bibliographies) and finally arrives at a general discussion of classification in machine-readable systems, dealing mostly with the consequences of the notation (symbols, length, etc.) for online retrieval. Quite surprisingly, a sub-chapter on *"Commands, menus and classification in online catalogs"* follows. Now we are finally (p. 147) in *medias res* as the authors discuss various options of presenting classification systems in menu-driven online systems, both in the contexts of hierarchical and faceted schemes. The next chapter is titled *"Dewey Decimal and Library of Congress Classifications and Online Catalogs"*. It starts, however, with a general appraisal of the role of classification systems in online systems, also making reference to the research projects on the DDC and the LCC. This introduction concludes with a useful checklist (or, as the authors call it, a "wish list") of features that online classed retrieval systems ideally should provide. The rest of this rather lengthy chapter introduces into the DDC and the LCC and thoroughly examines the advantages and disadvantages of both systems for online catalogues.

A short chapter on *"Users and User Needs"* then takes us back to internal processes (perception, conceptualization etc.) and shows how factors such as education and previous environments affect user behaviour. Search strategy and search tactics are mentioned in a very condensed form. Finally, the users of online catalogues are categorized into experienced, naive and casual users. The chapter on *"User-System Interaction"* that follows deals with the design of interactive systems for users with different levels of abilities. First, the authors look at the concept of a user-friendly dialogue which is described as a complex and dynamic notion. Then, a list of eight basic subject access objectives is established (e.g. "..., the user should be able to formulate complex queries consisting of Boolean operators, multi-index terms, and free-text and vocabulary terms"). The features that online catalogue systems provide in order to achieve these objectives are subsequently discussed both in the contexts of menu-driven and command-driven systems. In addition, there is a more general discussion of various features for searching subject headings, authority files, keywords from titles and other fields, and ranges of call numbers. The rest of this chapter covers other user-friendly features that may affect subject access in the online catalogue (online help facilities and error messages, saving of search results, display of retrieved records in a variety of formats, and

many more). However, this discussion partly goes far beyond the scope of the book (e.g. p. 266: "The minimal level of furniture a user needs is a comfortable chair, ...").

Finally, a chapter on "*Evaluation of Subject Retrieval in Online Catalogs*" gives a useful introduction to evaluation measures such as recall/precision and user effort (e.g. search commands used, number of descriptors selected, Boolean operators employed) and reports on the evaluation measures that were used by a number of relevant studies. It concludes with a short outline of evaluation methods such as transaction log analysis, observation and interview, questionnaires, simulation etc.

It is rather difficult to give a final judgement on this volume. As mentioned in the first paragraph of this review, this book is certainly an interesting one. Subject access in the online environment is a fascinating topic, and this volume touches many facets of that topic. Much of the material is well presented, also in a typographical sense (the book is almost free of typing errors). The book also contains a multitude of references to the literature (not all of them up-to-date) and a subject index (which I found not detailed enough; there is, for example, no entry for *citation order*, cf. p. 151 f.) On the other hand, this volume is probably not *the* comprehensive treatise on subject access in online catalogues that one would have liked to see. Although the authors have made the attempt to develop an integrative point-of-view their work does not show the degree of cohesiveness that is called for in the preface (p. xi). Furthermore, there is the problem with the target groups that was mentioned above. This book is surely too sophisticated for absolute beginners, but many qualified librarians could be bored with the amount of familiar material in it. Nevertheless, one can certainly recommend *Subject Analysis in Online Catalogs* as a textbook for library and information science classes. Library schools in German speaking countries should keep in mind that this book focuses exclusively on the bibliographic and subject access tools of the Anglo-American world.

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