
Reviews

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Vanda Broughton. 2015. *Essential Classification*, 2nd ed. London: Facet Publishing. ISBN 978-1-78330-031-0, £49.95.

Since the late 1980s, library classification has been passing through its second revolution. The first one, which began in the 1950s, waned in the 1970s with the coming of computers and electronic databases. But some brave hearts like S.R. Ranganathan, the Classification Research Group (CRG) members, Jesse Shera, and some others never lost faith in the need and power of classification for information organisation and retrieval in any environment. The worldwide web has not only given it a new lease on life, but also new claws and teeth to bounce back with a vengeance.

The thoughts and fruits culled from this new renaissance are succinctly encapsulated in the second edition of *Essential Classification* (first published in 2004). The professed objective of this book is to describe (1): “some of the systems which people have created for organising information.” Its emphasis is on “how to classify” information as recorded in variant media, including electronic and networked resources. It has 23 chapters, including a brief introduction, a glossary, and a classified bibliography. The table of contents is analytical and enumerates all the sub-topics discussed within a chapter. The entire text can be broadly divided into four sections.

The first section (chapters 1-9) is on the theoretical bearings, need, purpose, and methods of classification in general. However the two-page second chapter on “Need of Classification” is too scanty. There is no act which doesn’t need classification. The third chapter “First Principle of Classification” mostly dwells on the faceted mode rather than the more basic one of genus-species relation and acts of grouping, dividing, ranking, correlating or mapping, which underlie every classification process. The rest of the chapters of this section deal with subject analysis and the features of library classification systems.

The second section (chapters 10-13) dwells on the natural language approach to knowledge organisation and representation for access with controlled vocabulary. It sufficiently explains the *Library of Congress Subject Headings* in two chapters, devoting one each respectively to the underlying principles and practice, with many apt examples

to apply the system. There is no chapter on the *Sears List of Subject Headings* (now in its twenty-first edition, 2014), which is very popular in small- and medium-sized libraries in English- and Spanish-speaking countries. No description of specialised subject headings such as *Medical Subject Headings (MeSH)* or the *Art and Architecture Thesaurus (AAT)* leaves this section somewhat incomplete. Since the natural language approach to knowledge organisation (KO) is considered more complex and sophisticated than the systematic classification for shelf arrangement methods and systems, this section could have better been placed after the virtual section 4 (chapters 14-20) which dwells on the theory and practice of traditional library classification systems mostly employed for shelf arrangement.

In section 4, two chapters each have been apportioned to Library of Congress *Classification (LCC)*, *Dewey Decimal Classification (DDC)*, and Universal Decimal Classification (UDC), discussing the principles in the first and their practice in the second respectively. The emphasis is on how to classify information as recorded in varied media, keeping the theory to the bare minimum only to explain the rationale behind their practice. It aptly states (2): “nobody learned classifying documents by any means other than doing it, and certainly not by reading about the philosophic principles of X or Y classifications.” Indeed you do not plunge into a deep pool to learn swimming only by reading a book. Chapter 14 of this section explains the common anatomical features and functional components of library classification systems. The next chapter dwells on classification administration, discussing topics like the choice of a classification, cost of classification, sources of classification for copy cataloguing or outsourcing classification. It also discusses the question of general versus special classifications, on which the debate is still inconclusive. Chapter 22 is exclusively devoted to the history, features, and methods of faceted classification, which have already been discussed here and there in the preceding text. The book closes with the state of the art chapter on features, prospects, and applications of classification in the digital environment within and outside the library. It concisely discusses online classification systems, classification for online browsing and searches, use of classification for organising the web and topics like information

architecture, visualising tools, ontologies and folksonomies. It is difficult to find at one place description of so many dimensions of classification in the digital environment. Its glossary (275-398), with little less than 250 terms, is very comprehensive, though technical terms are already explained wherever these occur for the first time in the book. Terms included in the glossary are printed in boldface throughout the text of the book. Different meanings of the term, if any, are itemized with numbers 1, 2, 3 etc. For example, “classification” has three such meanings.

The highly select bibliography misses some important references, though journal articles such as Slavic (2008) and Hjørland (2013) are too important to ignore. More than this, omission of Eric Hunter’s *Classification made simple*, which is now in third edition (2009), is an act of negligence, if not ignorance. Hunter’s conceptual and methodological approach is perfectly supplementary to the system approach of Professor Broughton. Also for the *DDC*, it prefers to list old and dated textbooks rather than the current ones. The fourth edition (1967) of Arthur Maltby’s classic textbook is mentioned instead of the fifth (1975/1978).

Each chapter divided into sections with headings provides more than one summary, one each for a major topic discussed. For example, chapter 21 on faceted classification (299-326) has seven skillfully crafted, itemized summaries for recapitulation and comprehension. Also, there are numerous exercises for the students in every chapter whose answers have been given at the end. But there are no references at the end of the chapters except the last chapter. No one has been quoted or cited! It means the book has been written mostly from experience and knowledge. Indeed, it makes the book smoothly readable. Studied with real examples, the titles chosen are apt and recent to illustrate their classification. These have been judiciously selected and fully described bibliographically, sometimes with pictures of the title pages. Quite often concepts have been showcased in boxes for visual effects to enhance the self-learning value of the book. Indeed it is a learning-centered book. Being up to date, it would be eminently useful as a teaching text, too. It has everything an average student of library classification may need to be informed and enlightened, and to get intrigued in the science and art of library classification—which indeed is “the most intellectually stimulating part of the professional curricula” (3).

However, the silver lining of this book has clouds, too. It begins with an axiomatic statement: “Classification is everywhere”—which is only superficially correct. In fact, classification is nowhere—in the aboriginal universe, there is only entropy everywhere. Classification is a human construct to bring order out of chaos (Satija 1998). It is

imposed, and therefore no classification is natural or universal. It is made to serve a purpose. This is what the book mentions later on page 15. Indeed it is needed everywhere for unraveling and simplifying the phenomena, as mentioned on page 13, that a Google search on classification returns more than 360,000,000 sites. The journey of homo sapiens from cave dwellers to space travellers has only been traversed by classifying encountered phenomena and experiences. On factual sides, BSI, London is no longer the publisher of English *UDC* as described on page 242. Open access multi-language *UDC* summaries are not really abridged editions, as mentioned on page 290. About a decade ago, a pocket edition (mentioned on page 309) was published in English and German and that now has been upgraded (or rechristened) as an abridged edition—the English edition of the latter will be published in late 2016.

Further, it seems self-contradictory on the *DDC* citation order by saying that at places “a sort of implicit or unofficial citation order comes into operation” (206). In the *DDC* citation order there is nothing unofficial; the classifier has no choice but only to follow what is instructed or ruled. It of course has clearly been admitted later the author when she suggests (207): “The most important thing to remember with *DDC* is to follow the instructions in the schedule, and not to look for general rules.” However, as a matter of general policy of late, the *DDC* has openly adopted a preferred order, which it calls the “table of last resort” (*DDC* 2011, 1): 1) kinds of things, 2) parts of things, 3) materials, 4) properties of things, 5) processes, 6) operations, and 7) instruments. Evidently it is the one formulated by the CRG and which is also the most popular. More seriously, the definition of the term “array” is quite ambiguous. Simply speaking, an array is a set of equally ranked, predictively arranged, entities having a common genus. By this definition, examples of arrays from *CC* and *UDC* (310) are not strictly arrays, but arrays and chains mixed up.

On page 322 it is wrongly mentioned that the Ranganathan’s *CC* does not follow the inversion principle. It surely does. Facets in the *PMEST* are in concrete to abstract order, but the documents are filed in general to specific order on the shelves. This is done by assigning reversed ordinal value to the indicator digits of the categories. Of the five indicator digits the one for T has the lowest value, while that of P has the highest. For example, on the shelves “Libraries in 20th century” (2’N) files before “Libraries in the US” (2.73), which in turn precedes “Classification in libraries” (2:51). Latter will be followed by “Academic libraries” (23) and “Classification in academic libraries” (23:51) and “Classification in the 20th century academic libraries” (23:51’N) and “Classification in the US academic libraries” (23:51.73).

Despite such minor omissions and commissions, this lucid book of classification knowledge in pellucid prose and engaging style can easily be described as the best one as of today.

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References

- Dewey Decimal Classification and Relative Index: Devised by Melvil Dewey*. 2011. 23rd ed. Vol 1, ed. Joan Mitchell. Dublin, OH: OCLC.
- Hjørland, Birger. 2013. "Facet Analysis: The Logical Approach to Knowledge Organization." *Information Processing and Management* 49: 545-57.
- Satija, M.P. 1998. "Classification: Some Fundamentals, Some Myths." *Knowledge Organization* 25: 32-35.
- Slavic, Aida. 2008. "Faceted Classification: Management and Use." *Axiomathes* 18(2). doi:10.1007/s10516-007-9030-z

Koraljka Golub. 2015. *Subject Access to Information: An Interdisciplinary Approach*. Santa Barbara, Calif.: Libraries Unlimited. ISBN: 978-1-61969-577-0, \$60.00. Also available as an eBook.

One of the hallmarks of a domain is the demonstrable presence of a research front. Usually this is visible through bibliometric analyses that show both the most prolific authors and the most-cited. With any luck, a domain that has intellectual coherence has both, and coherence is demonstrated when the two lists are more or less the same. Another sign of a mature domain is the introduction of textbooks that are created to bring along a new generation of researchers. In this regard, knowledge organization has been rather at a loss for a long time. In 2014 both the domain's founder Ingetraut Dahlberg and I published core texts about the basics of the domain (*Wissenorganisation: Entwicklung, Aufgabe, Anwendung, Zukunft* and *Elements of knowledge organization*). These were artfully reviewed by Kleineberg (2015), who carefully contrasted the different philosophical viewpoints of the two authors. Of course, neither of these books was intended for use as a textbook; rather, each was intended to serve both as a sort of primer for researchers entering the domain from outside, as well as a state-of-the-art summary of basic knowledge organization.

The practice of knowledge organization has a long history, reading back centuries or even millennia depending

on your sources, but let us agree that education for organizing knowledge roughly parallels education for information as a discipline, which began in schools of library economy or documentation in the late nineteenth century and continue today in schools of information. Here there are several textbooks self-identified as appropriate for education for knowledge organization, although in reality there is only a bit of overlap among their content, which is heavily oriented to library practice. Many rely on Arlene Taylor and Daniel Joudrey's 2008 *Organization of Information* 3rd edition, others on Rowley and Hartley's 2008 *Organizing Knowledge*, and yet others on a more recent text produced in the iSchool movement, Glushko's 2013 *The Discipline of Organizing*. It is difficult to criticize any of these texts—all of them are extensively detailed, and all of them are written to serve a particular pedagogical purpose. But none of them is truly a textbook for knowledge organization.

In 2015 a new text by Koraljka Golub titled *Subject access to information: An interdisciplinary approach* appeared. Golub is a member of the International Society for Knowledge Organization (ISKO), the sponsor of this journal, and she also has been a contributor to the journal (2007; 2011). Most recently, she is the lead author of an extensive literature review of automatic classification (Golub et al. 2016), an important approach to knowledge organization that has had little impact so far in the formal literature from ISKO.

Subject Access to Information has five sections: 1) Organizing Information by Subject; 2) Knowledge Organization Systems; 3) Technological Standards; 4) Automated Tools for Subject Information Organization; and 5) Perspectives for the Future. In "Organizing Information by Subject," Golub gives an overview of what is or can be considered to be a "subject," describes how subject indexing takes place, and introduces the distinction among knowledge organization systems (KOS's), automatic indexing, ontologies, etc. The chapter concludes with a section contributed by David Elswiler about user information behavior. It is here that the reader begins to see a distinction between knowledge organization and the use of specific bits of knowledge as information. The definition of a KOS in this chapter's glossary is a "system which can be used for various aspects of organizing information" (34).

Chapter two is by Claudio Gnoli, who is a prominent and active member of ISKO. Gnoli shifts away from the "organization of information" phraseology of the first chapter in favor of "knowledge organization systems." The chapter opens with a paean to knowledge organization as "an encompassing notion" (41). Gnoli carefully distinguishes between the terms "knowledge" and "information" and then lays out the details of both the history of the science of knowledge organization and the

evolution of systems for knowledge organization. This chapter itself could be a primer for beginning students of knowledge organization. Subject headings, thesauri, classifications, and ontologies all are described in understandable terms with plentiful examples. In the summary, Gnoli distinguishes the purpose of knowledge organization systems from the generic organization of the more vaguely conceived “information.”

The rest of the book is adequate, concise, and accurate. The third chapter is about technological standards and has as its focus: XML and RDF; ISO 2709, which is presented as a class of information exchange standards that includes MARC21 and UNIMARC; SKOS and OWL, which are discussed; and the ISO 25964 standard for thesauri and interoperability with other vocabularies. The fourth chapter has selected topics about automated tools for subject information organization, including bibliometrics by Fredrik Åström, automated classification by Ingo Frommholz and Muhammad Kamran Abbasi, and machine-learning by Dunja Mladenčić and Marko Grobelnik. The final chapter is said to include perspectives on the future. In fact, it is a short essay on the relationship between computer science and the science of information.

Each chapter contains a set of review questions that could be used as teaching aids, a glossary of terms, and a bibliography of related literature. It seems questionable whether it might not be more useful if the glossaries and bibliographies were combined and edited both to make them consistent and to allow easier searching. One wonders sometimes whether this is an anthology or a mashup of five different tiny books.

There are unfortunate editorial anomalies, including the confusing mixture of text by the named author and other contributors. The work is attributed to Golub, whose name appears on the title page, but it could as easily be considered to be an edited anthology. There also are other editorial oddities, such as the opening of the summary of the first chapter (31-32):

As part of making sense of the world, people attempt to organize everything around them. The library and information science and profession hold the longest record of organizing information. The first known library catalog comes from the third century BCE and organizes scrolls by authors and subjects.

Following the astonishing historical sweep of this paragraph and the ungrammatical domain attribution, the text continues with the relatively mundane (32) “searching for information on a certain topic is very common.”

In the end the volume is useful, but not critical. It will not serve by itself as a textbook for knowledge organiza-

tion for the simple reason that it does not have a clear definition of knowledge organization—either the science or its application. While Gnoli’s chapter could usefully be separated into the core of a textbook for KO, the rest of the book suffers from a mixed identity crisis of focus placed on organization of the vague “information,” rather than on the science of knowledge organization.

Other volumes have appeared that, similarly, cover aspects of KO more or less indirectly. Patrick Lambe’s 2007 *Organising knowledge: Taxonomies, knowledge and organisational effectiveness* is perhaps first among equals on this list, although it too begins with an essay about how knowledge cannot be organized but information can (exactly the opposite of the theoretical approach taken by Dahlberg and others in KO). It is an extensive analysis of the uses and usefulness of taxonomies for organizational effectiveness, which is the hallmark of knowledge management, a neighboring cousin of KO. Emilia Currás’s 2010 *Ontologies, taxonomies and thesauri in systems science and systematics* is shorter and is situated completely in the realm of computer science. Claudio Gnoli and Carlo Sconomiglio’s 2008 *Ontologia e organizzazione della conoscenza* is a concise treatment of ontology and its applicability to systems for knowledge organization. Alas, KO still needs textbooks that are designed to promulgate its own domain.

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References

- Currás, Emilia. 2010. *Ontologies, Taxonomies and Thesauri in Systems Science and Systematics*. Chandos Information Professional Series. Oxford: Chandos.
- Dahlberg, Ingetraut. 2014. *Wissensorganisation: Entwicklung, Aufgabe, Anwendung, Zukunft*, herausgegeben von der Deutschen Sektion der Internationalen Gesellschaft für Wissensorganisation e.V. (ISKO). Textbooks for Knowledge Organization v. 3. Würzburg: Ergon Verlag.
- Glushko, Robert, ed. 2013. *The Discipline of Organizing*. Cambridge, MA: The MIT Press.
- Gnoli, Claudio and Carlo Sconomiglio. 2008. *Ontologia e organizzazione della conoscenza: introduzione ai fondamenti teorici dell'indicizzazione semantica*, con un'introduzione di Roberto Poli. Lecce: Pensa multimedia.
- Golub, Koralijka. 2011. “Automated Subject Classification of Textual Documents in the Context of Web-Based Hierarchical Browsing.” *Knowledge Organization* 38: 230-44.
- Golub, Koralijka, Thierry Hamon and Anders Ardo. 2007. “Automated Classification of Textual Docu-

- ments based on a Controlled Vocabulary in Engineering.” *Knowledge Organization* 34: 247-63.
- Koraljka Golub, Dagobert Soergel, George Buchanan, Douglas Tudhope, Marianne Lykke and Debra Hiom. 2016. “A Framework for Evaluating Automatic Indexing or Classification in the Context of Retrieval.” *Advances in information science. Journal of the Association for Information Science and Technology* 67: 3-16.
- Kleineberg, Michael. 2015. Review of *Wissenorganisation: Entwicklung, Aufgabe, Anwendung, Zukunft* by Ingetraut Dahlberg, and *The Elements of Knowledge Organization* by Richard P. Smiraglia. *Knowledge Organization* 42: 190-95.
- Lambe, Patrick. 2007. *Organising Knowledge: Taxonomies, Knowledge and Organisational Effectiveness*. Chandos Knowledge Management Series. Oxford: Chandos.
- Rowley, Jennifer and Richard Hartley. 2008. *Organizing Knowledge: An Introduction to Managing Access to Information*. 4th ed. Aldershot: Ashgate.
- Smiraglia, Richard P. 2014. *The Elements of Knowledge Organization* by Richard Smiraglia. Cham: Springer.
- Taylor, Arlene G. and Daniel N. Joudrey. 2008. *The Organization of Information*. 3rd ed. Westport, Conn.: Libraries Unlimited.