Reviews

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Patrick Lambe, Organising Organising Knowledge: Knowledge: Taxonomies, Knowledge and Organisational Effectiveness (Chandos Publishing, Oxford, England, 2007) www.organising knowledge.com



Taxonomies have apparently become a hot new field of business, but there are still not many books on the subject. Variously defined, taxonomies are essentially the application of controlled vocabularies or thesauri, previously used only in document retrieval for business and corporate uses such as corporate websites and intranets, online retailing, enterprise content management systems, etc. In this less academic environment, most of the information on taxonomies currently exists in online discussion group archives, blogs, wikis, conference presentations, white papers and reports (the latter at quite a premium price), but not much yet in easily accessible books. A search on Amazon.com on "taxonomies" yields numerous books of specific taxonomies, but very few on the art of creating taxonomies in general. Even the books page on Taxonomy Community of Practice Wikispace (taxocop. wikispaces.com) lists no other book, other than a high-priced research report, completely dedicated to taxonomies. So, when a new book with "taxonomies" in its title comes out, those of us with an interest in the field take notice.

Organising Knowledge actually has taxonomies in its subtitle; so although the book is definitely about taxonomies, it is about more than that. It presents a broader view of the field of knowledge organization whether

by classification schemes or organized in other methods, both new and historical. As such, it's not a merely a "how to" book, even though it does present practical advice on how to create taxonomies in its later chapters. Yet despite its thorough coverage of the field of knowledge organization and its analysis of various ideas and previous literature on the subject, including its citations and a lengthy bibliography, it is not a purely academic book either. Its author, Patrick Lambe, is a Singapore-based consultant in the field of knowledge management who can base his ideas on his own business experience. Yet Lambe also has the academic credentials of an information scientist, a Master's degree in Information Studies and Librarianship and experience teaching as an adjunct professor. Thus, he is qualified to bridge both sides of taxonomies, the traditional library science side and the newer corporate knowledge management side, although it is the latter that is the subject of this book. What I appreciate in this book is that Lambe writes based on both his research and his experience, and based on these he has developed a number of his own ideas.

Taxonomies are difficult to define, and in fact there is no standard, agreed-upon definition. The opening chapter, "Defining our terms," presents descriptions, rather than definitions of the two concepts of knowledge organization and taxonomies. It makes many analogies, and explains the differences between scientific, such as biological, taxonomies and information taxonomies. The author's main point is that categories are not always neat and simple, and the scientific categorization is often not practical. The descriptions are enlightening, but the reader does not come away with a clear-cut definition of what a taxonomy is. Instead the reader obtains a better understanding of and appreciation for what is meant by the term "taxonomies." This trend continues in the next chapter on the many forms of taxonomies. The forms that Lambe presents are: lists, trees, hierarchies, polyhierarchies, matrices, facets, and system maps, with a detailed explanation of each. While other definitions

of taxonomies limit them to hierarchies, Lambe prefers a broader definition of taxonomies. Alternatively, one could have a broader definition of hierarchies, which even Lambe acknowledges. While I had previously considered facets as kinds of taxonomies, I would not have considered matrices as taxonomies, but Lambe sufficiently explains how they are related to facets.

The function of facets, by the way, receives considerable explanation in this chapter, including when they are most suitable, and what their advantages and drawbacks are. Various examples of general facets are also presented. These days the term "facet" is sometimes used interchangeably to describe any top-level category of a taxonomy, but Lambe thoroughly explains the distinct features of facets as fundamental types of something.

The application of taxonomies to organizations, whether business, nonprofit, or government, rather than the mere cataloging or indexing of documents is Lambe's focus. He makes a distinction between information management, which is the collection and organization of data, and organizing knowledge (knowledge management), which is the sharing of information and how to use it to support tasks and decisions among different people or groups. The latter has much greater implications for an organization. Specifically, chapter three, "Taxonomies and infrastructure for organisational effectiveness" discusses how organizations fail to be effective due to failures in what he calls knowledge articulation infrastructure. It's interesting to note that this book belongs to its publisher Chandos House's "Knowledge Management" series and not its "Library studies and information management series." Knowledge management involves the bigger picture of how knowledge in an organization (including processes and procedures) is managed, not merely the organization of its data content.

The notion of knowledge management also comes up in distinguishing different kinds of taxonomies. Lambe explains that among publicly shared taxonomies there are three kinds: (1) objective taxonomies usually of physical

things (biological species, books), (2) "embedded" taxonomies of how an organization has always done things and taken for granted, and (3) negotiated taxonomies based on stakeholder agreement or social negotiation. According to Lambe, it is on this negotiated taxonomy type that a knowledge management taxonomy is based. This means that since the taxonomy is for supporting the sharing of knowledge, the taxonomy's development is also done through sharing and collaboration. Lambe takes a broader view of how a taxonomy fits into an organization's knowledge management needs, by describing taxonomies as part of an organization's "information and knowledge infrastructure."

Organising Knowledge presents quite a number of real world examples, scenarios, and case studies of the application of taxonomies in their broadest sense. These include the Department of Homeland Security's need to develop a digital library to support policy makers, the medical community's need to update the disease taxonomy with the SARS outbreak, automated voicemail menu system taxonomy trees, Unilever's decision to update its product taxonomy by eliminating unnecessary brands, and Club Med's segmentation (categorization) of its market to better target different customer types. These examples illustrate the wide range of uses for taxonomies. Specifically in the area of business activity, Lambe says that taxonomies can support the areas of risk recognition and response, cost control, customer and market management, and innovation. At the conclusion of the chapter "Taxonomies and activities," the author points out: "Taken together, it becomes clear that taxonomy work holds a wider range of application and use than simply as a tool of information retrieval." (p. 95)

In fact, stretching the definition and boundaries of what taxonomies are and can do is a central theme of *Organising Knowledge*. "One of the main objectives of the first five chapters of this book has been to break down the limited traditional view of what taxonomies are and of what comprises taxonomy work," (p. 123). Even examples of how society categorizes people comes into the discussion of taxonomies. Lambe also introduces the comparison between traditional information taxonomies and what are called "taskonomies," which are for the arrangement of things for use.

Lambe does not simply describe taxonomies and their uses. In this in-depth book he discusses their varied roles, how they are understood, and trends in their implementation. Lambe explains how taxonomies have been used for information management findability, then later for content management with metadata, and finally for the broader sense of knowledge management. With a model he developed, Lambe presents taxonomies as serving a core information management role, supplemented by possible roles in human expertise knowledge management, collaborative communities, and corporate culture. Lambe describes how different kinds of taxonomies can (1) structure and organize (both things and processes), (2) establish common ground, (3) span boundaries between groups, (4) help in sense-making, or (5) aid in the discovery of risk and opportunity.

Chapters 6 through 9 of the 10-chapter book turn to the practical steps of preparing, designing, and implementing a taxonomy project. Lambe breaks out the process into ten steps, the first six of which are all still part of the preparation stage. Among the topics presented in the preparation phase are taking technology into consideration and communicating well with the taxonomy sponsor and stakeholders. While it is appreciated that technology/computer systems are mentioned, I would have liked to learn more about this. Interspersed between the steps, Lambe presents case studies from actual taxonomy projects that his consultancy has worked on, explaining the various problems, issues, and decisions made in each case. It becomes quite evident that different situations require different approaches and different kinds of taxonomies, such as the types Lambe describes in earlier chapters. My only point of disagreement here is the continual distinction between tree taxonomies and faceted taxonomies, since taxonomies often exhibit characteristics of both at the same time. Chapter 9 additionally goes further into the discussion of integrating taxonomies and information architecture to support usability, and also takes up the issue of integrating records management.

Even if you have not read much literature on taxonomies, you can discern that Lambe's approach is not always conventional. In suggesting the determination of which kinds of taxonomy to implement, Lambe proposes following another discipline's model, that of organizational behavior. Specifically, he makes use of the Cynefin sense-making framework (David Snowden), which describes situations as either known, knowable, complex, or chaotic. Yet Lambe's tendency to classify different kinds of situations for different kinds of taxonomies is certainly appropriate for a taxonomist!

For what can be considered a developing field, Organising Knowledge is also very upto-date with its examples, cited sources, and discussion of hot topics. Another book recommended on taxonomies (from the bibliography of *Fred Leise's* ASI pre-conference workshop on taxonomies in Philadelphia), Thesaurus Construction and Use: A Practical Manual, by Jean Aitchison, et al, in its 4th edition by 2000 and originally published in 1972, definitely seems to need more updating. Organising Knowledge, on the other hand, quotes currently practicing taxonomists, such as Seth Earley and Jean Graef (who have presented at recent ASI conferences), cites articles and web pages from as recent as 2006, refers to statements on the Taxonomy Community of Practice Yahoo group, and discusses current hot topics such as folksonomies, ontologies, Dublin Core metadata standards, and personas/archetypes. The final chapter on the future of taxonomy work compares taxonomies with folksonomies/social tagging (unstructured tagging by users without a controlled vocabulary). As for the future, Lambe states that taxonomy work will continue, if broadly defined, in order to connect people to knowledge.

The book is well written and relatively easy to follow, but it is not a "light" read. The topic, after all, is somewhat complex. It has a number of helpful tables and diagrams. Particularly useful is the table (two and half pages long) comparing the uses and issues for each of the seven forms of taxonomies: lists, trees, hierarchies, polyhierarchies, matrices, facets, and system maps. There is also a detailed table of seven key decision factors in choosing a taxonomy design approach and another nine-point

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table listing key criteria for taxonomy validation.

The index, unfortunately, leaves much to be desired. It's only five pages long (compared with 10 pages for the bibliography) for indexable content of 261 pages. Most significantly though, it lacks subentries! The entry "facets," for example, has 37 undifferentiated locators, and several other entries have close to that number. There also appear to be no true double-posted entries, only a few See references. Finally, while the topics explicitly mentioned in the text are included in the index, implied or thematically grouped topics are absent from the index. For example, there are no entries for computers, consultants/consulting, digital, electronic, enterprise, interviews, management, mapping, software, taxonomists, workshops, etc.

Although this book may not be of interest to all indexers, I do highly recommend it to anyone who works on taxonomies or is interested in working on taxonomies. The intended audience of the book is indeed limited to knowledge management and taxonomy professionals. Even those with considerable experience working in taxonomies will find this book informative and enlightening. At \$69.95 (Amazon.com), those merely curious about the field may hesitate to purchase this book, which so far is only available in a few select academic libraries. However, if taxonomy is your specialty, this book is definitely worth the price.

After reading *Organising Knowledge*, I am no longer surprised at the lack of other comprehensive books on this topic. It appears that taxonomies are quite difficult to describe and thorough taxonomy work is quite involved to explain. So, while there might be a growing number of people practicing as taxonomists, most do not feel up to the task of writing about it. I was quite impressed with the breadth and depth of this book, and I compliment Patrick Lambe on a job well done in writing what I expect will become a valuable source for the field of taxonomies. - *Review by Heather Hedden*