telescope, will always be connected with "impact desired", the year "> 1998", the country "Chile" and the continent "South-America". In the searching system, the what-descriptors and the place-descriptors are connected to broader and narrower descriptors.

The thesaurus itself is multilingual, including terms in English, French, Spanish and German. There are six relations between the terms in the thesaurus: in addition to the equivalence relation they are: generic/ abstract, partitive, geographical, beneficial and detrimental. A few simple examples: *Overfertilization* is detrimental to *Biotopes*; *Automatic translation* is a part of *Computer linguistics*.

It is of interest to note that Schmitz-Esser has already published several papers in relation to this thesaurus model. At the 2000 ISKO Conference, in Toronto, Canada, he presented a thesaurus for describing dynamism in the world with partly different relations[1]. The Expo thesaurus does not include the *instrumental* relation that is present in the author's other projects. In the Expo thesaurus, the *instrumental relation* appears to be included as a partitive relationship, as in *Salk vaccination* which is a part of the *Fight against poliomyelitis*. This example from the book shows a weakness in the use of these relations. Why would this be a "is part of" relation rather than a "beneficial for" relation?

The book is interesting and, in my opinion, also important. It gives a sketch of a complete information system built for a clearly defined user group. The thesaurus and the automated search system are developed as an integrated whole. The extra search possibilities that computers can offer for information systems with controlled vocabularies are used in an intelligent way. It is regrettable that this project could not be put in application; it would have been interesting to be able to evaluate the experiences of the users.

Notes

1. Schmitz-Esser, W. (2000). How to cope with dynamism in ontologies. *Dynamism and Stability in Knowledge Organization : Proceedings of the Sixth International ISKO Conference 10 – 13 July 2000. Toronto, Canada.*, 83-89.Würzburg, Germany : Ergon Verlag.

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WRIGHT, Sue Ellen, and BUDIN, Gerhard, eds. **Handbook of Terminology Management : Vol.2 Applications-oriented Terminology Management**. Amsterdam, The Netherlands : John Benjamins, 2001. 549 p (pp. 371-920). ISBN 9-0272-2155-3.

1.Overview

The second volume, under review, has taken four years to materialise after its announcement when the first volume appeared in 1997. Little wonder that the actual presentation has taken some liberty with what had been projected. Time takes its toll and, more pertinently, the situation depicted of terminology management (TM) applications, as the compilers emphasize, is one of permanent change, so that this second volume, by presenting as it were, "*a kind of snapshot of the topic(s) in question, reflecting the conditions at a particular moment in time*" (p.371), takes the risk of quicker obsolescence than the first volume which covered more durable issues. The risk is well taken, since despite the suspenseful state of some fields, like exchange formats, and the resultant expectancy, the general impression is one of coherent validity, mainly on account of the compilers' talents for evening odds up. However, the website offered for updating the information provided (http://appling.kent.edu) leaves the curious in the lurch. Not even the present volume is presented, but the site is said to be "revamped" along with expected updates. The persevering reader, when reverting to the print document, will be rewarded for his persistence by an informative collection of articles made available by the compilers.

The present volume keeps to the layout announced of three additional chapters on
(6) Information Management,
(7) Commercial & Industrial Applications, and
(8) Computer Applications for Terminology.

Even though these topics are liable to suffer under the endemic blast of change of the computer world ruffling the terminological scene, the main features of that scene are steadfast enough to warrant an inventory at any time. The three chapters will be evaluated in more detail later.

The natural evolution of the discipline has justified the reshuffling of appendices and the excellent infoboxes, as well as other minor manipulations of the projected volume. It is frustrating, however, to find that the additional selected bibliography promised for Volume 2 appears to have vanished.

2. Evaluation

A good part of the book's *Introduction* repeats what had been said under that title in the first volume. It is tempting to consider repetitions fastidious, but they may be justified by the compilers' concern to make both ends meet: that of user-friendliness with that of efficiency.

The good idea of setting keywords in the margin of the text throughout has continued to be implemented, facilitating easier referencing and permitting the intended hypertextual usage of the information presented. This layout favours only the odd pages; the setting of keywords in the inner right margin of the even pages does not offer the same degree of facility for rapid hypertextual navigation and takes some practice.

The index serves only for this volume. There is no general index for the whole handbook, nor are there separate ones for authors and subject-matter respectively. This is regrettable since the 1st volume index was already considered scanty. It is true that the many hypertext-like links by keywords included in the text compensate partly for this weakness, although not all keywords are found in the index.

Chapter 6 – Information Management – starts with a description of computer-assisted thesaurus management, yet there is no definition of information; the relation of information to thesauri is hard to guess from the presentation. Even the three attempts at defining a thesaurus are a non-starter. First a thesaurus *is a documentary language,* then it is *a list of terms semantically structured*, and six pages later it ends up being *a system of data sets and relations*. The reader required for sorting out this sort of statements would find it degrading to waste his time on such an exercise, when, in addition, he is reading under "computer assistance" that thesauri *are paper-hungry.* Maybe he would be relieved to learn that the "*facets*" of ISO 5964 are not covered by the article, whatever they are. The discussion of tools for thesaurus construction and maintenance with a view to choosing the right solution (for whom?) skips the main concern of terminologists, namely the vital link between their daily bread, that is, terms, and the appropriate structuring of their findings. This poses the more general question of who is supposed to be the target reader. It seems that a method showing just a possible end to reach without mapping out the way thereto is not very helpful.

Terminology and indexing for information retrieval are the two next subsections soberly presented by the same author, Strehlow, providing a brief introduction to standard indexing practice, and exploring the critical principles of precision and recall of randomly accessible information. It appears that terminology, by its succinct technicality, facilitates topical location of information, whereas Zipf's rule refines its occurrence; both constitute ready tools for the indexer's job. However, finding that the FAQs quoted do not relate to indexing, and, since the question, "*when is my data saved?*" (p.423) appears twice, this raises the suspicion that precision may have been overrated. On the other hand, the ISO standards quoted in the bibliographical lists of both subsections do not show up in the standards listed in Appendix II, which seems to show that its frame is too narrow to allow coherence of main normative reference quotes within the handbook. After all, *"terminology managers in their daily work"* might find it frustrating to come across lacunae of this sort, quite apart from consistency. To make standards work at an operative level, they need to be listed in a manual like this, to quote the compiler, but it may not be the best idea to relegate the whole of them to an index.

Chapter 7 – Commercial & Industrial Applications – starts off with terminology in technical document production, like user manuals, specifications, design protocols etc., where terminology is dedicated more to instruction, skill acquisition and action than to information. The many examples given disperse the reader's main interest in how terminology actually functions in technical writing. The action verb focus as opposed to the noun predominance of most terminologies just shows the marginality of this type of TM. On the other hand, the insistence on definition is a nudge with a barge pole. It again raises the general question of the target readership of the collection, and the sad experience of seminar attendance is confirmed to the effect that many a contributor feels like starting from scratch, taking the patient audience as hostages in a vain hold-up exercise.

The subsection on Industrial Management sets out first "Terminology as an Organisational principle in Computer Integrated Manufacturing (CIM) Environments". The author and co-compiler S.E.Wright describes the central function of terminology as a driving force behind the assignment of data element names, although the role of terminology in CIM is somewhat curtailed by the well perceived compartmentalisation characterising large industrial corporations. Rare are the firms that have understood the need for streamlining the internal flow of information and adopting a firm-wide uniform terminology, and even fewer have been able to pacify the departmental trenches and vanquish resistance in order to debug knowledge circulation. So the situation envisaged by the author pictures a rather

idealistic frame of integrated corporate data exchange systems with a core terminology management difficult to implement. The question remains of how practicable the principles and models exposed in a handbook should be to help the reader on his way. Typically, the references mostly include standards, norms, and guidelines which are either abstruse or self-evident, though they figure a convention which a handbook has, indeed, to record. On the other hand, it could be argued that the theoretical interest is great for computer applications in the so-called knowledge engineering drive of modern management techniques. But then the fundamental question arises about the role of terminology as envisaged in chapter 7, especially in hightech industrial applications. If the claim is that "*the conventional* (object) *numbering techniques can no longer keep pace with the increasing complexity of modern products and the growing stream of technical information*" (p.480) and that terminology is to fill the gap, the question immediately arises as to the limit, the purpose, and, above all, the content of the term. If identification is the main concern, numbers beat terms. The infinity of objects/concepts stands against the boundaries of language, but can, indeed, be matched by the infinity of numbers. In addition, the computer with its numerical approach reduces all input, including terms, to its binary code. Terminology, like people's names, is of little concern to it. The man-machine relations require relics like terminology for man. The machine functions with numbers only. This should be borne in mind when implicating terminology in computer-assisted management systems. It is true that linking coherent numbering systems to consistent terminology streamlines information management and facilitates understanding of ultra-thin technicalities, like the 21-thousandth shade of the deep blue sea. A number will easily permit identification of this object. Language usage does not cut as thin, and terms are semantically relatively cumbersome, thick items. A code may be the answer, because even terms can be coded, and codes are numbers. So it is an illusion to have both terms and numbers, since all boils down to 0-1. Take the Unicode standard! It clearly evidences by its comprehensiveness, requiring for all data objects not only terms but also all other identifying attributes to "meaningfully" identify such objects, the superiority of number coding. We leave the object world, when we embark on meaning. And what's worth an opinion on whether a code is still a term or not? Use and usage will finally clinch the matter.

The trouble with papers like *Knowledge engineering in enterprises*, by Düsterbeck and Hesser, is that they throw up a misleading title and then report on a very specific project, in this particular case, stock control in a specific company. It is indeed hard to see why a specially designed system, which may have its casual merits, should deserve general interest in a handbook meant to provide a systematic overview of terminology management practice. One cannot but sympathetically nod at the compilers' disclaimer that their work does *not merely represent yet another collection of potentially unrelated or uncoordinated articles selected at random by their authors* (p.377). Examples are always welcome if they illustrate some general principle and are linked to it not only by a vague title.

The following article on *Total Quality Management* by the co-compiler S.E. Wright leaves a better impression, since it develops a scenario *designed to demonstrate how terminology management practices provide quality assurance support for multilingual document generation* (p.501), and thus provides an example to follow, which, alas, remained unheeded by many other contributors.

Case studies like that reported in *Project-integrated terminology management for technical writing & translation* document again specifics as presented hotchpotch at seminars and which are not even controversial for lack of general interest. What is the point then of pointing out that the proposed four text types for categorisation are no text types at all or that anecdotes are generally more amusing to the teller than to the reader? And there is no point either in remarking that a search on terms is vain if it ignores the concept-level.

Terminological localisation of computer software, which is the topic of the last article of chapter 7, is a particularly hot issue in the wake of globalisation. It reflects the readiness of target markets to import a new product with its foreign name or, on the contrary, to reject the name while adopting the product under an acceptable local designation. The generalisation of PCs has borne out the varying sensitiveness of nations with regard to their language feeling. In Europe, German-speaking countries have shown a relative insensitivity towards importing US terminology, (the present Chancellor buttonholing "*unsere amerikanischen Freunde*"), whereas the French and Spanish-speaking world has risen in arms against the invasion, led by those (Quebec and Cuba), who live nearest to the US-German friends, since a neighbour rarely is a friend. The localisation issue impersonates the well-perceived "implied user" in a target culture. The form and format of localising is only casually attended to, since "*there are* [software] *tools available for a variety of budgets and purposes*" (p.533), and, indeed, the dominant Windows interface tends to reduce that variety to nominal. As regards the contents, that is the cultural implication, some good examples

highlight the principles that should underlie any search for acceptability both in word and image.

Chapter 8 – Computer applications for terminology – occupies over 70 percent of this 2nd volume with 15 contributions, which virtually all document a reversed relation, namely terminology in a computer environment. Both terminology and computers are ancillary to knowledge organisation and management, so that databases, data categories, entry structures, data extraction & retrieval, interchange, compilation, and information handling & structuring, which all are competently and informatively discussed here, clearly bear out what they actually sub-serve, and that terminology is part & parcel of a bigger deal, that of knowledge engineering. The technicalities presented highlight particular concerns of terminologists, localizers, and information specialists working in the language industry, while the last contribution on TM in artificial intelligence and knowledge acquisition (Khurshid Ahmad) strides a wider area and fills the register.

3. Conclusion

It is always hard to assess the merits of information. Bias is a feature which, in scientific publications, cannot afford to come out as clearly as in publicity, but it is well known that, like in journalism, selection, rejection, and presentation of data forms opinion and creates followers. When confronted with a fuller picture including further information or with information based on a different arrangement of facts or terms, the first impression will have to be revised. This is what is bound to happen after reading this outstanding second volume, and hopefully, the opinion gained from using this manual will brave it out. The reader has plenty of nodes of hypertext to joggle off on. It is up to him to enjoy the game or disagree with ontology as pictured naively on p.888. Since hypertext allows no conclusion, no exit, he should bridle his curiosity and look out for the first stop to take a return ticket, as Alice was advised.

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SMIRAGLIA, Richard P. **The nature of "a work": Implications for the organization of knowledge**. Lanham, MD : Scarecrow Press, 2001. ISBN 0-8103-4037-5.

As any cataloguer knows, the concept of "the work," which is central to bibliographic description, receives almost no overt treatment in our cataloguing codes. Richard Smiraglia has therefore produced a timely contribution: the first book-length exploration of the concept of the work in bibliographic description. Smiraglia poses three questions: What is the nature of a work? What is a work? And who is concerned about the nature of works? The author attempts to provide preliminary answers to these questions by summarizing previous research, by embedding the work concept in a theoretical context, and by providing empirical evidence of the presence of works and of bibliographic relationships in catalogues.

Smiraglia begins with an analysis of the work as it figures in the primary writings on Anglo-American cataloguing. Using an effective conceptual frame that originates in Patrick Wilson's concept of the bibliographic universe, he surveys the chief writings on bibliographic description in a comprehensive and methodical fashion, beginning with Hyde and following through such important names as Panizzi, Jewett, Cutter, Pettee, and Lubetzky. He covers the Paris Principles, and moves on to the work of Domanovsky, Tanselle, Wilson, Carpenter, and the IFLA Report on the Functional Requirements of Bibliographic Records. He then goes on to survey the work of Tillet, Smiraglia, Leazer, Yee, Velluci and Carlyle on bibliographic relationships.

From these scholars, Smiraglia extracts some general points of consensus on the work: primarily that it is an abstract concept that can sustain a variety of physical manifestations. He separates intellectual content into "ideational" and "semantic" content, and argues that a significant change in ideational content, semantic content or both, results in the creation of a new work. A taxonomy of bibliographic relationships can be created to chart the growth of new works from a progenitor work.

Smiraglia then moves on to a series of reflections on the social and cultural importance of works, which produces what can only be described as a whirlwind tour of structuralist and post-structuralist theory. He grounds the work concept in linguistics and semiotics, drawing on Saussure, Yngve, and Peirce. He also draws on Barthes and Mark Poster, as well as music theorists Jean-Jacques Nattiez and Lydia Goehr, and uses Fou-