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The official call for papers is open.

Theme:
Paradigms and conceptual systems in knowledge organization

The arrangement of any information content using tools like bibliographic classification schemes, subject heading systems, thesauri, taxonomies and ontologies, is collectively studied today under the broader label of knowledge organization (KO). The International Society for Knowledge Organization (ISKO) organizes its biennial international conference to gather scholars and practitioners across the world who are interested in sharing their perspectives and experience in this field.

The next international conference will be held in Rome on February 23rd to 26th, 2010, and will have as its theme “Paradigms and Conceptual Systems in Knowledge Organization”. Recent research presented in KO journals and conferences has emphasized how knowledge organization systems (KOSs) are affected by the social, cultural, and philosophical contexts in which authors and communities produce and use them. As a consequence, a critical way of looking at all forms of KO has spread. Scholars have warned that paradigms hidden in KOS—meant as sets of basic assumptions on which knowledge fields are grounded at a given time and place—should be identified and discussed more explicitly.

Systems have to be developed and described with an increased awareness of their foundations, as well as their still unsolved questions. Critical awareness does not, in fact, eliminate the persisting need for KO. The time may be right to move forward from a critical stage towards a more constructive one, aimed at finding out which paradigms and conceptual systems can best suit the various purposes of contemporary KO.

Although many systems have been designed for the purposes of specific domains and communities, the new situation of interconnected global knowledge means that often we cannot anticipate which users will access our knowledge resources. This poses the question of how to deal with both global and local surroundings and needs, i.e. with a diversity of traditions and special viewpoints (e.g. cultural, disciplinary, or theoretical) within the framework of a global platform.

Papers are welcome on KO topics including:

- Ontological foundations of KO, i.e. ontological categories, levels of reality, principles for analyzing classes into their kinds and parts;
- Epistemological foundations of KO, i.e. psychological, cognitive, linguistic bases, normative or hermeneutical presuppositions incorporated in KOS on what is meant by knowledge;
- Pragmatical foundations and requirements of KO, i.e. viewpoint warrant, cultural warrant, domain analysis, interoperability between different perspectives, both global and local;
- Solutions for management of the interdisciplinarity, transdisciplinarity, and complexity of contemporary knowledge (as remarked in the Léon Manifesto);
- Description and analysis of specific KOS and their conceptual structures.

Instructions for Authors

Please provide by May 4th, 2009, a condensed version of your paper, consisting of 1000 to 1500 words in accurate English, saved as an RTF or TXT or DOC file. Remove authors’ names from the text, using “Author” and year in the bibliography and footnotes, instead of authors’ name, paper title, etc. In
order to submit it, go to the submission Web page: http://www.iskoi.org/ocs/index.php/int/rome2010/about/submissions and create an account, specifying that you are an Author. Then go back to the conference homepage (by clicking on “Paradigms and conceptual systems in KO”) and select “Proposal submission” under the picture or in the menu on the right. Fill the form and upload your paper according to the instructions.

(In case you experience any problem, contact the programme chair at gnoli@aib.it )

Papers will be reviewed by the scientific committee as for their originality and relevance to the conference theme and to knowledge organization in general. You will be able to follow the revision process online, and will be notified on acceptance by end of June.

Authors of accepted papers will be requested to submit a final version of a maximum of 7 pages (~3500 words), which will be published in the printed proceedings, in the “Advances in KO” series, by Ergon Verlag.

Failure to conform to the registration and submission deadlines and to template formats will lead to paper rejection from the proceedings and the program.

Organization

The 11th biennial International ISKO Conference is organized by the Italian Chapter of ISKO and hosted by the Faculty of Philosophy at the Sapienza University of Rome.

Conference chair:
Fulvio Mazzocchi, National Research Council, Italy

Programme chair:
Claudio Gnoli, University of Pavia, Italy

Programme committee:
http://www.iskoi.org/ocs/index.php/int/rome2010/about/organizingTeam


Important Dates

Deadline for condensed paper submission:
May 4th, 2009

Notification about paper acceptance:
June, 2009

Deadline for full camera ready paper:
September 30th, 2009

Conference:
February 23rd-26th (to be confirmed soon), 2010

Contacts

Dr. Fulvio Mazzocchi, National Research Council. Institute for Complex Systems, Montelibretti Section, via Salaria Km 29,300, CP 10, 00015 Monterotondo Stazione (RM), Italy

Dr. Claudio Gnoli, University of Pavia. Science and Technology Library, via Ferrata 1, 27100 Pavia, Italy, email: rome2010@mate.unipv.it Web: http://www.iskoi.org/rome2010/
Preface to Special Issue:

The Philosophy of Classifying Philosophy

Guest Editors

Cristiana Bettella* and Massimiliano Carrara**

* University of Padova. Department of Philosophy. Library
** University of Padova. Department of Philosophy

Most of the articles published in this special issue are a selection of the talks given at the workshop on *Classifying the Human Sciences: The Case of Philosophy* held on February 2, 2007, at the University of Padua (Padua, Italy). The conference has been organized by the Library of the Department of Philosophy (University of Padua), in association with the Italian ISKO Chapter, and sponsored by the University Library System of the University of Padua.

The aim of the workshop was to discuss themes of knowledge organization for philosophy and classification of philosophical data, specifically in libraries of philosophy. For these reasons experts on classification theory, philosophers, and philosophy librarians were invited to the event.

We would like to thank the participants and the organizers of the workshop; special thanks to Prof. Francesca Menegoni and Prof. Luca Illetterati, Directors of the Library of the Department of Philosophy at the University of Padua; Claudio Gnoli, chair of the Italian ISKO Chapter, and Pio Liverotti, Coordinator of the Humanities Libraries at the University of Padua.
Classifications: On Philosophers and Librarians

Cristiana Bettella* and Massimiliano Carrara**

* Department of Philosophy Library, University of Padova, Piazza Capitaniato 3, I-35139, Padova, Italy <cristiana.bettella@unipd.it>

** Department of Philosophy, University of Padova, Piazza Capitaniato 3, I-35139, Padova, Italy <massimiliano.carrara@unipd.it>


ABSTRACT: Consider the following argument: (Premise 1) If a librarian is a classifier and (Premise 2) a librarian classifies (among the other things) the documents of a library, and (Premise 3) to classify documents is equivalent to classifying the objects of a knowledge base, but (Premise 4) to classify the objects of a knowledge base is equivalent to producing an ontology, or is equivalent to doing some ontological engineering, then (Conclusion) a classifier–i.e. a librarian–is an ontologist. The same train of thought can be followed for those disciplinary experts who support librarians in activities like classification. Thus, librarians and experts are classifiers, and if classifiers are ontologists, librarians and experts are ontologists. Here the problem arises: which specific kind of ontology is in the librarian’s mind? Which one in the expert’s mind? We argue that the librarians’ ontology is completely different from the expert’s. Experts’ ontology is a thematic ontology, librarians’ ontology is generalistic. This conclusion is particularly clear in the philosophical case.

1. Introduction

Librarians, in particular those who work in research libraries, such as those who work in the library of a department of philosophy, are often accompanied by disciplinary experts in activities like collection management and classification. It happens that librarians and experts can have different opinions on how to classify books in order, for example, to determine their arrangement on the library’s open shelves. A philosophy library is not, in this respect, an exception. Why? In this introductory work we attempt to give a theoretical answer to this question.

2. Librarians as ontologists

Consider the following argument (A1):

(Premise 1) If a librarian is a classifier, and (Premise 2) a librarian classifies (among the other things) the documents of a library, and
(Premise 3) to classify documents is equivalent to classifying the objects of a knowledge base, but (Premise 4) to classify the objects of a knowledge base is equivalent to producing an ontology, or equivalent to doing some ontological engineering, then

(Conclusion) A classifier – i.e. a librarian – is an ontologist.

Let us first analyse the argument to try to prove that it is sound. We start from (Premise 1):

(Premise 1) If a librarian is a classifier

(Premise 1) seems to trivially follow from an argument like the following one (A2):

(P1) If a classifier classifies and
(P2) to classify is “to arrange, order/organize/sort out in classes” some specific object, and
(P3) a librarian (among the other things) “arranges, orders/organizes/sorts out documents in classes” the documents of a library

(C) A librarian is a classifier.

If (A2) is sound, it seems there is not much to say about the truth of (Premise 1). Among other things, in the second argument (A2) we also used a premise of the first one (Premise 2, with substitution of equivalents), that is, we assumed that:

(P3) A librarian (among other things) “arranges orders/organizes/sorts out documents in classes.”

Even for this second premise it seems there is not much to say. It is a matter of fact that one of the librarian’s activities is to classify, order, organize, etc. In particular it is a librarian’s specific activity to arrange, order, and sort out documents in classes.

Let us to concentrate on (Premise 3) and (Premise 4) of (A1):

(Premise 3) to classify documents is equivalent to classifying the objects of a knowledge base, but (Premise 4) to classify the objects of a knowledge base is equivalent to producing an ontology, or it is the equivalent of doing some ontological engineering.

About (Premise 3): What does it mean that “to classify documents is equivalent to classify objects of a knowledge base?” Consider the following answer. If a knowledge base is a special kind of database for knowledge management giving the means for the computerized collection, organization, and retrieval of knowledge, then a catalogue seems to be a good example of a knowledge base. The objects of a knowledge base are, in the case of a catalogue, the items that concern documents. If the answer to the question formulated above is convincing, even this premise does not seem to present particular difficulties, once one has adopted/accepted the definition of “knowledge base” provided above.

Maybe it is worth staying a bit more on the last premise:

(Premise 4) to classify the objects of a knowledge base is equivalent to producing an ontology.

3. Ontology and knowledge bases

Ontology is, first of all, the part of philosophy designed to answer questions like:

(1) What is it? What exists?

A trivial response to (1) is:

(2) Everything

and by (2) you want to say: everything exists. Certainly, this is an acceptable answer; however, to respond to (1) and (2), even from a philosophical point of view, seems inappropriate to many, although obviously correct. What we want is to characterize this “everything.” We want a list of ontological categories that do not exclude anything that is there. This is a sense in which you can produce an ontology.

Even in the context of the computer and information science, the term “ontology” is often used. In these fields of study it refers to (d):

1. an informal conceptual system
2. a formal semantic description
3. the specification of a “conceptualization”
4. the representation of a conceptual system via/by means of a logical theory:
   4a. characterized by a number of formal properties, or
   4b. characterized by a number of specific purposes
5. the vocabulary used by a logical theory
6. the specification for/at a meta-level of a logical theory (the different meanings have been taken from Guarino and Giaretta 1995).

In the literature of computer and information science, ontologies—whatever the meaning assigned to them—are usually classified according to two dimensions: their level of detail and their level of dependence on a particular task (Uschold and Grüninger 1996). We can distinguish between top-level ontologies—less detailed and independent of a particular task—and domain ontologies—more detailed and specific, relating to a particular task. The first ones are descriptions of the most general concepts such as, for example, entity, material entity, space, time, matter, etc. The second ones deal with a more specific domain like medicine or engineering. An example of a top-level ontology is DOLCE (the Descriptive Ontology for Linguistic and Cognitive Engineering). DOLCE, for example, is a top-level or a foundational ontology of particulars with a clear cognitive bias. Its aim is to capture the ontological categories underlying natural language and human common sense, and the categories introduced in DOLCE are therefore thought of by its developers as “cognitive artefacts ultimately depending on human perception, cultural imprints and social conventions” (Masolo et al. 2003, 17). The categories in DOLCE are based on an analysis of the surface structure of language and cognition. Finally, it has generally become the thesis that the ontologies for computer and information science are special types of knowledge bases. Those who follow this characterization of “ontology” often mean a specification of a conceptualization (Gruber 1993). Even conceiving the ontology as a specification of a conceptualization, we can think of a conceptualization either as a top-level ontology or as a domain ontology.

If we accept the thesis that ontologies for computer and information science are special kinds of knowledge bases, then (A1) seems to be sound and our conclusion

(Conclusion) A classifier — a librarian — is an ontologist

is true.

4. Experts as ontologists

Now, it seems that a similar train of thought can also be followed for experts, because if:

(P1) An expert is someone who classifies.

(Conclusion) Given the conclusion of (A1), an expert is a classifier, then an expert is an ontologist.

Experts and librarians, in their work of classifying, are both ontologists. Why do their classifications differ? Why do they disagree? Answer: Because they refer to different ontologies. Better, because they understand in different ways the meaning of “producing an ontology.” Let us see how in detail.

5. Two senses of “producing an ontology”

We have said that, philosophically speaking, to produce an ontology is to give an articulated answer to the question of “what exists?” or to characterize this “everything.” We want a list of ontological categories that do not exclude anything that is there. This is a first sense in which one can produce an ontology. Let us say that generalist ontologists are those who produce ontologies in this way. It does not seem to be different, at least prima facie, from that definition used in computer and information science.

Now, however, if we look deeper into this way of producing ontologies, we notice that it may be specified in at least two ways. The first one is to produce a system of ontological categories that, in the simplest way, is hierarchically organized like a tree, for example in a Pyrrhonian style. See, for example, the one proposed by Chisholm (1996, 3) in Figure 1.

Let us say that generalist ontologists are those who produce ontologies in this way. An alternative way to produce ontologies is to try to establish what there really is proceeding “on a one-by-one basis to argue for or against allowing certain kinds of things, be they numbers, universals, acts of consciousness, or fictional objects into our ontology” (Thomasson 1999, 115). This way of producing ontologies is very popular among philosophers. As the history of phi-
losophy has taught us, the more usual ontological disputes were, and still are, about whether certain categories are or are not exemplified. For example, philosophers ask:

Are there facts?/Do facts exist?

And even before they asked, and they still continue to ask:

Are there universals?/Do universals exist?

Take, for example, the case of facts. Some claim to possess good arguments to eliminate such entities from the inventory of the world or to reduce them to other entities, considered—for reasons of parsimony or theoretical simplicity—more ontologically basic, such as, for example, individuals, properties and relations; others dispute the same sense of the concept of fact.

Whoever is interested in ontology from this perspective does not want to produce a complete system, but to produce parts which are essential, or at least interesting from a philosophical point of view, or to analyze a particular kind of entity—numbers for example—looking for arguments pro and con the admission of that particular kind of entity in the inventory of the world. It can be said that this way of performing ontology proceeds from themes, and the ontologist who adopts it can be called a thematicist. The thematicist usually has a thrifty attitude toward the types of entities to be accepted.

These two different ways of producing ontologies—the generalist and the thematicist—seem at work also in the case of librarians and experts. Librarians are usually more interested in the first way to produce an ontology; they have a more systemic vision. Experts, for their own role, intend the production of an ontology formulated in the second way above. This brings us to think of the first ones in the catalogue of a library as a top-level ontology, while the second ones are (mostly) a domain ontology.

6. A conclusion

Librarians and experts are classifiers, and if classifiers are ontologists, librarians and experts are ontologists. Here the problem arises: which specific kind of ontology is in the classifier’s mind? Which one is in the expert’s mind? We have argued that the classifier’s ontology is completely different from the expert’s. The expert’s ontology is a thematic ontology; the classifier’s is a generalistic ontology. This conclusion seems to be particularly clear in the philosophical case.

References

Philosophy in Bibliographic Classification Systems

Maria Teresa Biagetti
University of Rome “La Sapienza,” Special School for Archivists and Librarians, viale Regina Elena, 295, I-00161 Rome, Italy <mariateresa.biagetti@uniroma1.it>

ABSTRACT: The article aims to provide an examination of some different arrangements of the Philosophy domain in bibliographic classification systems. It is difficult to organize the scientific field of Human Sciences, because of the richness of perspectives, and of the different cultural orientations that this broad field of science presents. Furthermore, it is really arduous to organize the scientific field of Philosophy using a traditional classification system. It is hard to accommodate philosophical knowledge—elaborated inside different cultures, in many cases not compatible with each other—in a classification system created by a particular cultural system, because it depends on that specific cultural approach. General principles of bibliographic classification and also differences noticed when these are compared with the principles and laws of logical classification, are discussed. In contrast, the fact that library classifications are influenced by ideologies and political orientations, and that they are substantially arbitrary, is pointed out. In the second part of the study, the Dewey Decimal Classification (DDC) and the Bliss Bibliographic Classification second edition (BC2) are analysed, and at last the suggestion of BC2 to consider philosophical problems and topics in connection with cultural tradition, ethical and religious principles, and also political and social structures, is evaluated.

1. Introduction

It is really hard to classify knowledge in the field of Human Sciences, because of the richness of perspectives and orientations, the variety of schools of thought, doctrines, individual standpoints that every discipline or field of research in Human Sciences can present.

Considering now the system of sciences as a whole, it is worth mentioning the point of view of Jean Piaget, one of the most significant scholars of Epistemology in the 20th century, as well as of Psychology, and deeply concerned with problems of sciences organization.

Piaget significantly underlined that within the system of sciences Human Sciences play a crucial role, since they are the sciences of man who develops the other disciplines. Human Sciences are in a particular epistemological situation, because at the same time they are elaborated by human beings and consider human beings and their activities as an object of study (Piaget 1970). In the case of Human Sciences, the object of study has consciousness, thought and communication capability. Therefore, achievement of objective knowledge and application of experimental method are more difficult, since human beings, in the case of Human Sciences, can as well interpret different phenomena that they are analysing, exercising personal influence on the process. Piaget moved beyond the traditional dualism of strict schemas as Rationalism and Empiricism, and considering epistemological connections that exist among different disciplines, assumed a dialectic perspective and emphasized that among different disciplines there are mutual relations and, in substance, interdependence (Piaget 1967, 1173-1182).

Turning now to indexing and classification of knowledge as means of subject access to information, we can acknowledge that in Human and Social Sciences it does not exist only one way to represent
documents, but different ways to index or also to classify the same document. Researchers would like to find wanted books grouped and classified according to their personal perspectives of analysis and research, and to the scientific orientation on which their searches are based.

It is still harder to organize the scientific field of “Philosophy” using a classification system. In fact, libraries that own literature in philosophical domain often avoid indexing and classifying it realizing semantic access points for document retrieval and, on the contrary, enable the researchers to retrieve needed books consulting specialized bibliographies and then authors or titles searching.

Difficulties arise from the fact that literature concerning interdisciplinary connections among branches of Philosophy is particularly frequent. Furthermore, philosophical knowledge elaborated inside different cultures, in many cases not compatible one another, is hard to accommodate in a classification system created by a particular culture. A classification system, of course, depends on the specific cultural approach, and with great difficulty makes it possible to accommodate concepts and intellectual patterns typical of other different cultures.

This paper concerns fundamental problems of knowledge organization in the philosophical field using classification systems, considers classification from a theoretical point of view, and is not involved in problems of classification as tool for arranging books in library shelves. Before discussing the organization of philosophical domain elaborated in two different library classification systems, Decimal Classification (DDC) and Bliss Bibliographic Classification 2nd edition (BC2), there is a need to present principles on which library classification is founded.

2. Main principles of classification

To classify knowledge means to reduce the complexity of reality using categories, which allow to control it easily, and to group and arrange objects and elements of the reality in order to know them in a straightforward way. A class is a group of objects, phaenomena or concepts, which presents one common characteristic, or a common set of characteristics. To group objects of reality in classes, it is obviously required to recognize that these objects own a characteristic in common. Broader is the “intension,” that is the number of characteristics a concept owns, narrower is the “extension,” that is the number of individuals those characteristics can be applied to or, according to the terminology used by the Port-Royal Logic (La Logique ou l’art de penser 1662), respectively “compréhension” and “étendue.” Intensional logic is mainly the ground for realization of classification systems, based on the acknowledgment of specific properties and features of objects.

It is particularly relevant the distinction we can draw between general principles of bibliographic classification and principles and laws of the logical classification. The latter allows to create only two classes, mutually exclusive, and founds the process of classification on dichotomous division per genus et differentiam specificam, that is the division of a genus into species, as it was explained in his commentary on Aristotles’ categories, and in particular on the Substance category, by the Neo-Platonist Greek philosopher Porphyry (234c.-305c.) (Porphirius 1887) and later graphically represented by the “tree of Porphyry.” Porphyry’s work, known through Boetius’ Latin translation, was essential to the development of medieval Logic.

Logical classification, to be rigorous, must be realised according to these particular laws:

- The division of a genus must be carried out using only one characteristic at a time, with the aim of creating only two classes mutually exclusive, that is a class of objects that own the characteristic for subdividing the genus on the one hand, and the class of objects that do not own it, on the other hand. Only two classes–A and not A–are created, mutually exclusive, without content overlapping;
- The division must be exhaustive, that is to complete all the possibilities of division without leaving objects out, which can not be part of one of the two classes;
- The division must be done through gradual steps and it must not contain subdivisions that are unrelated to the characteristic of the class in object. It is not possible to take into account characteristics that are not linked to the aim of the realized classification.

It is necessary to acknowledge that library classifications escape from the laws of logical classification. In that case, in fact, it is impossible to use only one characteristic at a time and only one principle of division at a time to the purpose of creating classes mutually exclusive: a class of books dealing with, for instance, Archaeology and on the other hand all books not dealing with Archaeology.
It is well known that this is the reason why bibliographic and library classifications can not assure the creation of groups or classes which have the same meaning for all human beings. To sum up: every library and bibliographic classification system is substantially arbitrary. William Stanley Jevons, one of the most significant logicians in the XIX century, severely criticized classification of books, defining it “a logical absurdity,” because richness and development of books contents can not be reduced to a unique perspective (Jevons 1877, 715):

Classification by subjects would be an exceedingly useful method if it were practicable, but experience shows it to be a logical absurdity. It is a very difficult matter to classify the sciences, so complicated are the relations between them. But with books the complication is vastly greater, since the same book may treat of different sciences, or it may discuss a problem involving many branches of knowledge.

As it was pointed out by Eric De Grolier (1974, 58; 1979), one of the most important scholars of library taxonomy in the XX century, bibliographic classification systems are more influenced by the society which has elaborated them and by political orientations and ideological views, than by the philosophical classification of sciences. In De Grolier’s opinion, indeed, bibliographical classifications are an “artefact culturel” and should be analysed also from a sociological point of view.

3. Bibliographic classification systems

In this paper it is assumed that the principal aim of bibliographic classification systems is to consider and organize contents of books in order to create semantic access points in catalogues for document retrieval, instead of performing just the function of arranging books in library shelves and retrieving them from physical location.

Knowledge recorded in books and documents shows a multidimensional structure, which reflects the multiplicity of concepts and meanings. On the contrary, traditional and hierarchical library classification systems, generally speaking, force the multiplicity of meanings and the multidimensionality of thought in a monodimensional structure—a set of classes, divisions and subdivisions—which consists of a unique linear dimension.

Traditional bibliographic classification systems present their structure founded on a rigid and hierarchically established sequence of main classes and sub-classes. The system generally begins with few main classes and develops by subsequent subdivisions, through stages which are following a rigid and linear semantic order that has been already established. The traditional, hierarchical and also decimal classification systems, as DDC was till the 17th edition, present a pre-coordinated and enumerative structure, that is, the system lists all the main classes and possible subclasses. The relationships among concepts are already predisposed, all is predictable and there is nearly any possibility of choosing new semantic compound entities.

Till the 17th edition, issued in 1965 (Comaromi 1976) DDC was an almost completely enumerative system: all possible topics were showed in the Tables, also very specific and compound topics; the notation was available and the classifier had only to choose the appropriate one; classifier could realize new compound subjects only using Auxiliary Tables and Standard Subdivisions offered by the scheme.

From the 18th edition (1971), following the developments drawn in particular by the Ranganathan’s faceted classification system (CC), which allows a complete notational synthesis in order to create sub-classes and all needed compound subjects, which the system did not show, DDC was changed, at each new edition, toward a partially synthetic system. Notwithstanding the enumerative basic structure, notational synthesis is used in particular in the classes completely revised. In the 21st and 22nd editions, in fact, some classes, divisions and sections offer the opportunity to build ex novo class numbers using parts of numbers of other classes, only in cases for which a provision is made in Tables and following the Tables instructions, and using notations by Auxiliary Tables and Standard Subdivisions.

One insidious drawback of DDC is the fact that it does not always allow to synthesize notational numbers putting in evidence all aspects of a compound subject. The classifier has to choose among three or four characteristics, which belong to the same section and has to prefer only one aspect and leave in obscurity other aspects of the subject. In some Tables, in fact, DDC presents Orders of Preference.

The dissatisfaction toward traditional classification systems was highly expressed by Shiyali Ramamrita Ranganathan, Professor of Mathematics and Physics at Madras University and Librarian since 1924. Although Ranganathan appreciated the possi-
bility of endless expansion offered by decimal systems, he mainly criticized them because they did not allow to accommodate new topics and emerging sciences appropriately.

The theory elaborated by Ranganathan begins with criticism of pre-coordinate indexes, coordinate terms which describe the subject in anticipation, and in particular with criticism of DDC. Ranganathan suggested an innovative approach: to coordinate the concepts according to different criteria, different from time to time, and to create composite subjects according to whatever necessity.

The system worked out by Ranganathan–Colon Classification—presents a traditional structure at his first stage, with about eighty disciplines or knowledge fields, “main subjects” according to Ranganathan’s terminology, in the 7th edition edited by M.A. Gopinath (Ranganathan 1987), and originally, in the 1st edition in 1933, twenty-five disciplines. Each disciplinary class is subsequently analysed using the facet technique which, from the first formulation provided in the CC, has spread to other classification systems.

According to Ranganathan’s terminology, a facet is a set of “isolate ideas,” that is a set of simple concepts, or basic concepts, which are determined dividing a discipline considering only one characteristic at a time. A facet groups concepts, expressed by terms, which present the same relationship with the “basic subject” (discipline), that is, every concept is part of the “basic subject,” same level member. The “main subject” Architecture, for instance, presents, inter alia, the facet Styles, which groups different styles of buildings. “Isolate ideas” in a facet are always elementary concepts, never compound concepts. In the first step of the facetted classification, every discipline is divided into facets, considering only one characteristic at a time. Ranganathan grouped facets in five categories—Personality, Matter, Energy, Space, Time—which present an order of decreasing concreteness. The second step consists of the creation of composite concepts by synthesis of elements, “foci,” which belong to different facets, according to particular needs.

A significant advancement in library classification systems development was worked out by Henry E. Bliss, librarian at the College of the City of New York since 1902. Bliss elaborated a system of sciences organization, and also a bibliographic and library classification derived from the former and based on theoretical principles earlier established.

The consistency in the organization of main classes is the principal feature of Bliss’ system. The order of classes reflects the principle of gradation by specialities suggested by Auguste Comte (1830–1842) for the sciences organization: special fields must follow fundamental sciences, from which they derive. The system of sciences and special fields was based on what Bliss considered to be the natural and logical order, the “system of the nature,” that is reality and its various forms, including human conceptual activities. In Bliss’ opinion, interconnected disciplines and established continuity among scientific fields would ensure the realization of an effective encyclopaedia of knowledge, fully functional to scientific research.

Besides, Bliss founded the division of sciences on what he defined the principle of “scientific and educational consensus,” that is the scientists agreement on the order and relationships among sciences. This order is reflected in turn on the pedagogical order of fundamental sciences taught in Universities, which guarantees the stability of the system.

Bliss’ attention to the “scientific consensus” can be related to the theory of domain analysis recently drawn by Birger Hjørland (2002), who has suggested considering different fields of knowledge as different “discourse communities” within the society. Each community, in fact, has peculiar languages and forms of communication, specific information systems, citing methods and criteria to establish document’s relevance; each community pursues its own objectives, uses peculiar intercommunication tools among members, and uses a specialized terminology. Unlike Bliss’ orientation, theory of domain analysis takes into account that different knowledge fields can show high level of “scientific consensus” or, on the contrary, different scientific paradigms, which are conflicting. As Hjørland pointed out, to recognize the existence of “scientific communities” seems very similar to Thomas Kuhn’s theory of “scientific paradigms” (Kuhn 1962), that is, of scientific patterns considered as dominant, successful and universally accepted during an historical time. The substitution of a scientific paradigm with another constitutes, in Kuhn’s view, a scientific revolution.

**Bliss Bibliographic Classification (BC)** began with Philosophy, the disciplinary field concerning the essence of knowledge, and went on with Physics and Biology, toward increasing complexity of sciences concerning the human beings: Anthropology, Psychology, Social sciences, Literature, Art and, finally, Bibliology and Documentation.

Under the leadership of Jack Mills, since 1977 BC has been deeply revised according to studies of facet analysis elaborated by the British Classification Re-
search Group, and the revision is still in progress. The Classification Research Group—founded in 1952 and in which participated, among others, Jack Mills, Derek Austin, Ingetraut Dahlberg, Douglas J. Foskett and Eric J Coates, who was also a member of Broad System of Ordering (B.S.O.)—suggested that knowledge could be organized using only two broad categories: Entities and Attributes, without establishing disciplines based classes. Entities were put into order according to the “Theory of integrative levels,” elaborated by J.K. Feibleman, which assumes that reality presents a structure of levels, each developing from the previous level, toward more complex entities. The sequence of Entities was as below: A-General systems; B-Phenomena and energy; C-Matter; D-Mineral systems; E-Life support systems; G-Astronomical universe; H-Earth as environment; J/L-Atmosphere; M-Geocentred living systems; N/R-Viruses, plants, animals; S-Man (Mills 1970, 137-138; Foskett 1978).

The BC second edition has adopted the main class order of the original BC to a great extent, however it has assumed also the “Theory of integrative levels” and the sequence of CRG’s Entities as basis for achieving a consistent order of main classes. Each class has been restructured and the revision led to a fully analytic-synthetic structure, based on division into facets and sub-facets (arrays), and uses an established citation order of facets with the aim of achieving predictability. The main device for a fully synthetic notation in BC2 is the retroactive notation. Notwithstanding BC2 has received significant attention in the world, and actually constitutes the most detailed faceted general classification system, its use is limited to Great Britain.

To rigorously analyze concepts and terms, BC2 applies the categories developed by the British Classification Research Group enlarging the Ranganathan’s PMEST. The latter five categories were put in decreasing concreteness order, and the first cited facet, Personality, presents most concrete concepts, which are easily received by the mind.

The standard categories used in the revision of BC are:


“Entity” is near the “Personality” facet and “Material” is near to “Matter Material” facet in Ranganathan’s view.

Facets are subdivided, if it is necessary, in subclasses (arrays) which make possible to retrieve specific subjects without noise, because the concepts enclosed are really mutually exclusive. (Mills 2004, 553-554).

With the aim of realizing compound subjects, BC2 allows classifiers to combine terms contained in facets or in arrays, according to a defined citation order between facets. Terms will be arranged following the Standard Citation Order, based on the principle of progression from general to special, and according to which the first facet cited should be the one that shows the objective of study, the main interest or the end-product.

It is worth noting that BC2 presents a number of separate classes 2/9 Generalia, Phenomena, Knowledge, Information science & Technology, which have not yet been published. In the Third Outline, with provisional notation, published in BC2 Introduction and auxiliary schedules (Mills & Broughton 1977, 202), classes 2/3 Generalia are dedicated to physical forms of documents and to forms of arrangement and presentations (encyclopaedias, serials), and classes 4/9 have been established with the aim of allowing a multidisciplinary treatment of particular phenomena. Classes 4/9 are concerned with “Universe of knowledge,” “Methods of enquiry,” “Communication,” “Information” and the operations on information, “Data processing,” as well as “Recorded knowledge,” “Library and Information science” and “Archives and records management.” Classes 4/6 are strictly devoted to group Phenomena, divided into “Attributes (e.g. structure, order, symmetry, colour);” “Activities and processes (e.g. organising, planning, change, adaptation);” “Entities (e.g. particles, atoms, molecules, minerals, organisms, communities, institutions, artefacts);” “These phenomena classes are designed to take that literature on a given concept (entity, attribute, process) which treats it from the viewpoint of several or all disciplines” (Mills & Broughton 1977, 52, emphasis original).

As Clare Beghtol noted (1998, 5-6), BC2 offers a quite appropriate accommodation for multidisciplinary works, enabling to use unique notation instead of choosing multiplicity of notational access points to show all different aspects of the subject.

4. “Philosophy” in bibliographic classification systems

Let us turn now our attention to the theoretical arrangement of the field “Philosophy” in two general
classification systems, DDC (22nd edition, 2003) and BC2 (1977). Considering the class 100–Philosophy and Psychology of DDC, the first feature to be noted is the lack of update. This class has never been revised and, in short, it is nearly as devised by Dewey in 1876, with a little difference, however: Dewey left out the division 120 (now Epistemology), displayed Anthropology in division 130 (now Parapsychology & Occultism), and in division 150, instead of Psychology, Mental faculties. The second feature, and following from the above, is the awkward insertion of the class Psychology, which interrupts philosophical divisions. The insertion of Psychology within philosophical divisions appears as an old-fashioned orientation. It would be more appropriate to join psychological studies together with social sciences, or even with Medicine, or to create a class for Psychology and Psychiatry, as in BC2. The same could be said for what is concerned with division 130 Parapsychology & Occultism.

One of the most considerable drawbacks of DDC, that has been recognized by scholars of bibliographical classification systems, is the particular influence of “western bias.” The class Philosophy and Psychology is one of the classes, divisions and sections of DDC, which feel much more the effects of “western bias,” which is evident in particular in classes not yet revised. Class 200–Religion, and its divisions and sections, for instance, was almost fully dedicated to Christianity, its history and sects, and only few sections of the division 290 were concerned with all the other religions. The same happens considering the class 400–Language, and 800–Literature and rhetoric, which offers the majority of the room to western languages and literatures, i.e. English, French, Italian, leaving few sections to all other languages and literary productions. However, we must acknowledge that, in the most recent editions, 21st and 22nd, DDC allows to expand the sections dedicated to the non-Christian religion and to the eastern literatures.

Finally, considering the organization of division in philosophical domain, we can note that it is not completely satisfactory. Divisions 110 Metaphysics, 120 Epistemology, causation and humankind, 130 Parapsychology & Occultism, 160 Logic, 170 Ethics, have been established. Each division presents sections aiming to accommodate his subdivisions or topics. As previously underlined, the insertion of both divisions—130 Parapsychology & Occultism and 150 Psychology, is inappropriate. Part of the topics in division 150 is dealing with neurological physiology, processes of sensory perceiving, mental processes, like learning, memory, intelligence, and factors influencing them, as well as gifts and natural abilities and so on, which could have a more effective and satisfactory collocation within sections of the medical domain.

Division 140 groups works on particular western modern schools of thought. Instead, the history of western modern Philosophy, that is, the collection of works of each individual philosopher, or his works dealing with his own general philosophical position, even though he founded a school of thought or a current of philosophical opinion, are classified in the division 190, grouped in sections according to different western countries, and the use of Standard Subdivision is obviously possible. Works about a specific philosophical area or topic will be classified in divisions or sections dealing with that area or topic.

Unlike the divisions mentioned above, the division 180 arranges both western ancient or medieval philosophical schools of thought and eastern philosophy, ancient, medieval and modern. In my opinion, that arrangement produces the effect of an excessively practical division, which also really suffers from the “western bias.” In fact, Eastern philosophy appears only on section 181, within division 180 Ancient, medieval & eastern philosophy, which presents the other sections mostly dedicated to schools of thought of ancient classical Greece.

Now, take into account Bliss Bibliographic Classification second edition (BC2). The revision and new organization started making up a vocabulary of specific terms used in philosophical domain, and went on applying general principles of facet analysis. Sets of concepts, that is facets, produced dividing the vocabulary by one broad principle of division, has been provided.

Discussing the revision of the field “Philosophy,” first of all it could be underlined that editors of BC2 acknowledged that in the case of class A/AL, Philosophy and Logic, it has been created a not completely homogeneous class, because only subclasses A-AJ concern Philosophy, and class AL, Logic, an independent scientific domain, is considered an autonomous and related class (Bell and Mills 1991, xviii). So, in this paper I am concerned with Philosophy class only.

We can also note that, in case of Philosophy, editors stated that in realization of compound subjects citation order between facets in Philosophy should provide that first-cited facet be the facet representing the ultimate purpose or main object of study of the discipline, that is, the primary facet to consider.
should be “Broad tradition.” The decision to adopt as first principle of division the “Broad tradition” instead of, for instance, the “Branches of Philosophy,” involves a consideration of cultural traditions, of social and political structures, as well as of religious beliefs and ethical rules. Eastern philosophical tradition, in particular, presents peculiar characteristics and is greatly influenced by religion, consequently this broad field needs a peculiar facet structure. These considerations persuaded editors to establish two different broad groups separately: Western Philosophy and Eastern Philosophy.

Facets in Western Philosophy are listed below, and should be cited in that order:

**Branches of Philosophy** (Branches & fields & subjects of Philosophy, e.g.: AGG Metaphysics, AGR Epistemology, AHK Ethics, AFD Metaphilosophy, a branch that has been defined for writings about Philosophy, its scope and nature), which includes all philosophical problems and topics belonging to each philosophical branch or field. Under topics should be classified works written by individual philosophers on these specific topics;

**Historical schools** (History of special periods & places, e.g.: ADB Ancient Western Philosophy; ADO Modern Western Philosophy), that is schools of thought defined according to an historical point of view, considering the time, the historical period in which they are flourished and, secondly, in which place. Within each place, individual philosophers will be considered (see n. 3 below);

**Individual philosophers**, in fact, is a facet dependent on the previous facet, in which individual philosophers considered as subject of a book or a document, also the founders of a particular school of thought, are arranged. Takes works about general views of philosophers, but also Collected works by individual philosophers, with qualifications from Auxiliary Schedule AA2;

**Viewpoints** (Viewpoints & schools in Western Philosophy, e.g.: ACN Idealism; ACJ D Pragmatism), a facet that reflects beliefs and models of thought, within which the Branches of Philosophy are examined. It could also include Historical schools as an array, but, for the latter, it was decided to create a special facet. Viewpoints facet can arrange both works from particular viewpoints, and works about particular viewpoints, even though the latter is normally used and the former is optional.

Considering now only the arrangement of works about particular viewpoints, we can note that Viewpoints facet presents in substance three arrays: a) studies about the viewpoint of a religious belief; b) studies about doctrines, standpoints and methods of enquiry e.g., a work about Existentialism; c) studies about the viewpoint derived from an individual philosopher, that is not already included among array b, “Doctrines, standpoints, schools and systems of Western philosophy”: e.g. Thomist, but not Kantianism; Common facets of Auxiliary Schedule 1 can be applied.

We can discuss some features now presenting some examples from two academic libraries of the University of Cambridge (England), that use BC2: Sidney Sussex College Library (37,000 volumes, mostly devoted to Literature) and Queen’s College Library, whose classmarks are available online at the Newton Catalogue http://collpw-newton.lib.cam.ac.uk/ (accessed February 2, 2008). In the examples below only author-title descriptions and classmarks are quoted from the OPAC, my comments follow.

Works written by an individual philosopher about a specific philosophical topic should be classified under that topic, that is under Facet 1 Branches of Philosophy, even though BC2 recognizes that “the writings of a philosopher constitute something like a system” and it would not be right to isolate some works from the others (Bell & Mills 1991, xxxvi):


Classmark: AGM (Sidney Sussex College).

Comment: Facet 1, Branches of Philosophy: AGM = Cosmology (for metaphysical speculation).

Comment: Facet 1, Branches of Philosophy; AHK = Ethics

When the work covers a range of philosophical problems, and it is not focused on a specific subject, as in case of a book of selections of works from a philosopher, BC2 invites to classify under the philosopher himself: Facets 2-3 Historical schools—Individual philosophers.

If individual philosophers themselves are the subject of a document, the document should be classified under Facets 2-3 Historical schools—Individual philosophers, with opportune qualifications from Auxiliary Schedule AA2 for individual works, if necessary:


Comment: A critical study by a philosopher on Kant. BC2 allows to put in evidence that there is a critical analysis about Kant.

Facet 3 Individual philosophers: ADT KP = Kant I.; Auxiliary Schedule AA2: 8M = Critical studies about the philosopher.

Facet 4 Viewpoints offers the possibility to represent in compound subjects the viewpoints, doctrines, methods of inquiry about which the work is. Composite subjects can be created using retroactive synthesis to classify a work in which a viewpoint is examined by another viewpoint: E.g.: a work about “An analysis of Existentialism from the Empiricist viewpoint,” ACT LBH (Bell & Mills 1991, 10). Works about the viewpoint of a religious belief should be classified under Facet 4 Viewpoints (Array a):

- E.g.: A work about “Jewish view of the Metaphysics of space” should be accommodate in AGQ CCL, where AGQ is from Facet 1, Branches of Philosophy (Metaphysics), ACC is from Facet 4 Viewpoints (Array a), and L comes from class P. Classmark realised by retroactive synthesis (Bell & Mills 1991, 10).

Works about doctrines, standpoints or methods of inquiry (e.g. Empiricism, Pragmatism) should be classified under Viewpoints Facet (Array b):


Comment: Facet 4 Viewpoints (Array b): ACJ D = Pragmatism

In Facet Viewpoints (Array b), among doctrines and standpoints, there are presented also the viewpoints of some philosophers that achieved the status of a complete doctrine (e.g. Platonism, Kantianism). Compound subjects can be realized, for instance, from Facet 1, Branches of Philosophy and Facet 4 Viewpoints (Array b):


Comment: A work about the philosophy of logic and language, carried out with an analysis of kantian theories on philosophy of logic and mathematics. The result is a revival of characteristically Kantian themes.

Facet 1, Branches of Philosophy: AGW = Philosophy of logic and language; Facet 4, Viewpoints (Array b): ACN Q = Kantianism (a viewpoint of a philosopher that achieved the status of a complete doctrine). Classmark realised by retroactive synthesis. BC2 allows to put in evidence the Kantianist viewpoint; using DDC 22th edition, the work would be classified in 160: Logic, without possibility of specification. (cf. Library of Congress: http://catalog.loc.gov/).

Compound subject realized from Facet 2 Historical schools and Facet 4 Viewpoints (Array b):

Comment: A work about medieval Platonism.


*BC2* allows classifiers to distinguish between works about the viewpoint derived from a particular philosopher, considered as a doctrine, which could be represented by notations from Array c, in Facet 4 *Viewpoints*, and works about the general views of the philosopher himself, which will be classified under Facets 2-3. In fact, in Facet 4 *Viewpoints* (Array c), the system offers also the possibility of qualification for “works about the viewpoints derived from particular philosophers,” who are not already enumerated in the Doctrine array (Facet 4). The examples listed below are informal and for illustrative purposes.

Let us consider a hypothetical work about “Cro- cian perspectives in French philosophy in the 20th century,” which is about the viewpoints associated with, or derived from, the doctrine of the philosopher Benedetto Croce (not a work about Croce’s own views). This work could be accommodate in ADV FCD CRO, created by retroactive synthesis and using alphabeting device: Facet 2 *Historical schools*, ADV F = 20th century-French philosophy; Facet 4 *Viewpoints* (Array c) = ACD; three letters from author’s name, because Croce is not already enumerated in the Doctrine, Array b.

Another feature of *BC2* on which we should pay our attention and regard with particular interest, is the possibility that classifiers could use “Phase relations” from Common Subject Divisions to create composite classes for representing the fact that a topic is influenced by another, and the comparison of a topic with another topic, in this case also linking terms from different main classes.

A hypothetical work about “Aesthetics in Hegel, in comparison with moral perspectives” could have an entry, created by retroactive synthesis, under ADU KJH P6T PYM, where ADU KJ stands for Hegel G. W. F. from Facet 3 *Individual philosophers*, AHP stands for Aesthetics, from Facet 1, *Branches of Philosophy*, 6T is the “comparison phase relation,” and PYM is a notation that comes from the Religion, Occult, Morals & Ethics class.

Eastern philosophy, on the contrary, calls for a different citation order, because of the relevance of different cultural traditions and systems, which does not allow to apply the first-cited facets *Branches of Philosophy* and *Viewpoints*, as it is performed in Western philosophy. In fact, in Eastern philosophy the first facet is considered a compound facet of Place and Religious system, since philosophical thought can be considered a subsystem of religious belief and, moreover, it is strongly connected to the place in which has flourished and developed. As a result, historical schools, characterized by a mix of place and religious belief, are considered the basis of the arrangement. The facet has been created by two combined characteristics of division, as it occurs also in class J Education, and in class P Social welfare (Bell & Mills 1991, xxv).

As explained by Bell & Mills (1991, 27):

Citation order here differs from that for Western philosophy. This reflects three important differences: Firstly, historical schools are usually regarded as the primary point of departure in the study of the literature. Secondly, the schools are characterized by a combination of religious criteria & place. Thirdly, within a defining religious or moral system the concept of a school is closely related to that of major writers or works in the subject, which then constitute quasi-schools of their own. Associated with this feature is the prominence attaching to the idea of a ‘classic’ forming the root from which may develop a large interpretative literature in the form of commentaries, ‘sutras’ (formulae), etc.

Facets in Eastern Philosophy are listed below:

*Philosophical systems characterized by a combination of religion and place.*

The connection between religious systems and places, or cultures, is particularly evident in Hindu philosophy, Buddhist philosophy and Confucianism. The first facet presents four arrays: a) division by broad periods (Ancient, Middle, Modern); b) classical philosophical systems within each philosophical system (e.g. Vedanta, in Hindu
philosophy); c) original historical texts on which a number of commentaries 'sutras' exists (e.g. Vedas, in Hindu philosophy); d) expositions and commentaries developed by singular writers under both a classical system and original texts;

Branches of Philosophy, a facet largely derived from the analogous facet in Western Philosophy. In this case there is the difficulty of equating concepts belonging to doctrines in Eastern Philosophy, to concepts of Western Branches of Philosophy that are largely used to support Branches facet;

Viewpoints & doctrines, which groups in arrays, particularly detailed for Indian philosophy and Chinese philosophy, the presentation of doctrines and methods of study.

An important consideration is concerned with the peculiar nature of philosophical literature published in the Eastern tradition, that is the existence of many commentaries on 'sutras', and also commentaries on these commentaries. In Eastern Philosophy, in fact, the focus is on original texts and commentaries on these, and consequently the schedules put in evidence “Writers” and “Originating works” related to classical philosophical system within each philosophical system. This was actually the reason that convinced editors to consider as primary facet the Broad tradition, and to give “just two large classes at this level (Western and Eastern)” (Bell & Mills 1991, xxii).

5. Conclusion

The main purpose of this study is to review some different arrangements of the philosophical domain in bibliographic classification systems. From this analysis some considerations can be drawn.

The lack of update in class 100–Philosophy and Psychology makes the use of DDC not completely satisfactory. The class suffers in particular from the difficulty of creating compound subjects using Standard Subdivisions, a tool that offers a relatively narrow variety of possibilities for philosophical domain.

On the contrary, the faceted analysis of philosophical domain in BC2 makes the organization of philosophical knowledge in Western tradition more appropriate. The system offers a great opportunity to represent interdisciplinary connections among branches of Philosophy as well as compound subjects. Another feature that must be considered positively, is the broad variety of "Phase relations" from Common Subject Divisions offered to create composite subjects in any class, at discretion of the classifier. The excellent flexibility and precision of BC2 allows to create more detailed compound subjects.

Considering that philosophical knowledge elaborated inside a culture is hard to accommodate in a classification system created by a different culture, the suggestion of BC2 to use as primary division of philosophical domain "Broad traditions" should be regarded with particular interest. BC2 acknowledges the importance of cultural traditions and social structures. As a result, peculiar characteristics of the Eastern philosophical tradition, greatly influenced by religion, are more appropriately accommodate. The arrangement of Eastern Philosophy appears particularly detailed, focused on the religion-philosophical systems and on their original texts and commentaries.

References


Knowledge Organization in the Philosophical Domain: Dealing with Polysemy in Thesaurus Building

Fulvio Mazzocchi* and Melissa Tiberi **

*Institute for Atmospheric Pollution of CNR, Via Salaria km 29, 300 Monterotondo staz., 00015 (RM), Italy <mazzocchi@iia.cnr.it>

**Central National Library of Florence, Piazza dei Cavalleggeri, 1, I-50122 Florence, Italy <tiberim77@yahoo.it>

Fulvio Mazzocchi works as a researcher at the Institute for Atmospheric Pollution of the Italian National Research Council in Monterotondo (RM). He has studied biologic sciences and philosophy at ‘La Sapienza’ University in Rome. He has participated in a number of projects concerned with the design and the implementation of thesauri for the environmental domain, such as EARTH and GEMET. Among his current research interests there are epistemological foundations of and semantics in relation to knowledge organization.

Melissa Tiberi has obtained a degree in philosophy at ‘La Sapienza’ University in Rome. At present, she is working as an external consultant for the National Central Library in Florence, where she is taking part in the development of the Thesaurus of the Nuovo Soggettario. In the past, by making research on the different kinds of semantic relationships and by implementing them in the thesaurus, she has collaborated to the development of EARTH, too.


ABSTRACT: This paper focuses on polysemy, the phenomenon by which a word has a network of multiple but related senses, as a characterizing feature of the philosophical lexicon. Many philosophical terms, in fact, are typified by a considerable stratification of meaning, which originates from the history of their semantics, where meanings accumulate over time and past knowledge is continually reintroduced and re-elaborated into new forms of theorizations. Developing a domain-specific knowledge organization system (KOS), like a thesaurus, would be largely affected by this feature. The demand for semantic disambiguation is, in fact, amplified. Furthermore, together with their frequent polysemy, the level of abstraction of the philosophical terms and the conceptual complexity of this domain make the thesaural semantic arrangement, especially the hierarchical structures, rather difficult to be set up. On the basis of a Wittgensteinian conception of meaning and its implication for information retrieval issues, some preliminary ideas on how to proceed on this topic are presented.

1. Introduction

Polysemy is the phenomenon by which a word has a network of multiple but related senses. It differs from homonymy, where different meanings are associated to the same word but have no relation. Polysemy—that in the XXI century has been studied in philosophy, linguistics and psychology—ensures richness and flexibility to a system of signs. As stressed by Ricoeur (1975), it is a fundamental fea-
ture of language, given that a language lacking polysemy would be forced to an indefinite extension of its vocabulary. In order to be used to communicate and express the variety of human experiences, a lexical system need, in fact, be developed according to the principles of economy, adaptableness and sensitivity to the context.

Polysemy, however, is also a factor of lexical ambiguity to be solved, as far as, in the process of creating a knowledge organization system (KOS), a natural language has to be converted into a subject language. Thesauri are KOSs designed to support the retrieval of information. They aim, in fact, at improving precision and recall and for such a purpose they make use of methods for treating homonymy and polysemy, and include a relational semantics by which meaning relationships among terms are established and the synonymy issue is dealt with. In this way the vocabulary is normalized and terms are rendered basically monosemous (Svenonius 2000).

Thesauri can also be regarded as semantic and terminological representations of given knowledge fields: they are functional maps of these fields. In developing them, it is, therefore, important to consider how they should deal with the particular features of the domain to which they are devoted, in order to support their intended use. A thesaurus of philosophy, for example, would be required to cope with the complexity and the level of abstraction of the philosophical conceptual structures and, as for the lexicon of this domain, with the fact that different philosophical concepts can be connected to the same term according to different theoretical backgrounds.

Considering the last point, many philosophical terms are, in fact, characterized by a considerable stratification of meaning. Such a stratification originates from the history of their semantics, where meanings accumulate over time and past knowledge is continually reintroduced and re-elaborated into new forms of conceptualizations (Natoli 2004). As a direct consequence of this, they are polysemic. Of course, not all the philosophical terms are highly polysemic. A number of them are part of single philosophical systems or used in restricted theoretical contexts. Examples of them are Übermensch, translated as superman, superhuman, or overman, (concept of Nietzsche’s philosophy), unmoved mover or prime mover (firstly introduced by Aristotle and then resumed by the Scholastic philosophers), signifier (introduced by De Saussure, part of the structural linguistics, and pertaining to philosophy of language).

This paper focuses on polysemy as a key feature of many philosophical terms and considers its implication for knowledge organization issues. Section 1 is devoted to the analysis of terminological aspects, taking advantage of Adorno’s ideas about the philosophical lexicon as expressed in his Philosophische Terminologie (1973), and focusing above all on the reasons for and characteristics of its polysemy.

In section 2, the semantics of the philosophical terms is interpreted in the light of Wittgenstein’s conception of meaning. Section 3 discusses how the development of a philosophical thesaurus is affected by the conceptual complexity of the domain and by the high level of polysemy of its lexicon, and presents, from a Wittgensteinian perspective, some preliminary ideas on how to proceed on this topic.

2. The philosophical lexicon: remarks on its features and polysemy

2.1 Relationship with ordinary language

First, it is important to note that philosophy relies largely on common language. The primary limitation placed upon philosophical terminology is, indeed, the standard use of ordinary discourse. As stated by Dye (1967): “the vast majority of philosophical terms are selected from among those having general currency. Of course, philosophers do occasionally coin neologisms, but this has never been so extensive as to result in a technical vocabulary for philosophy in the same sense that there are technical vocabularies for physics or mathematics.”

This fact is mostly due to the nature of the cultural role played by philosophy that, lacking a sectorial character, does not confine itself, as do for example the natural sciences, to some particular body of data, aiming to embrace and appraise all aspects of reality and of human experience. As Dye further adds: “Ordinary language, albeit with an understandable emphasis upon the practical, also embodies the entire breadth of human experience. Since philosophy aspires to a critical reconstruction of human experience, and since technical terms adapted to rather narrow specialties are not routinely capable of the requisite degree of generalization, philosophy tends to rely rather heavily upon the more comprehensive, although less precise, expressions of ordinary speech” (Dye 1967).

Nonetheless, words taken from common language are not used in the same way, since (new) special meanings are assigned to them (Adorno 1973). In a
sence, they become ‘foreign’ (although philologically they are not). Even though not in isolation from the social and cultural environment where they live, philosophers tend, in fact, to intellectually reconstruct the experience of reality and create their own conceptual universe. The cause of the semantic transformation resides, therefore, in the fact that words are used as part of these new (and conceptually thick) universes of discourse. As a consequence, in opposition to the more fluid meaning that words have when considered in common language, the meaning of philosophical terms crystallizes in stable and refined forms.

2.2 Form and content of the philosophical terms throughout history

The meaning underlying philosophical terms cannot, hence, be grasped by regarding these in isolation from the theoretical background in which they are embedded. A philosophical term should rather be understood referring to it within the entire web of concepts that forms its particular universe of discourse and bearing in mind the role it plays in this universe (Adorno 1973).

In addition, the historical dimension of this should also be considered. Philosophy, being strongly typified by both its self-critical character and its temporality, necessarily is, in fact, involved in the interpretation and assessment of its own historical development (Dye 1967), which is characterized by a continuous elaboration of concepts and by a constant re-assembling of the conceptual structures according to different philosophical viewpoints.

In philosophy there is no univocal (nor final) solution to problems, but rather a continuous work in which any topic is regarded from different perspectives, can be related to new emerging issues, yet always maintaining a strong connection to the former tradition.

This is somehow reflected also in the fact that, as explained by Adorno (1973), although their conceptual content undergoes changes, in philosophy there is the tendency to preserve the terms. Philosophical terms function, in effect, as ‘signs’ of philosophical issues that have emerged and settled throughout history.

Two contrasting processes seem, therefore, to co-exist. On the one hand, the identity throughout history (of a philosophical issue) is ensured by the fact that terms, referring to similar problems, tend to maintain the same form; on the other hand, the process of change is reflected in the new use of these terms, as they are re-contextualized in different philosophical systems. As a result, in many cases the same expression is used to denote different (but related) concepts. Thus, polysemy abounds in the philosophical lexicon.

2.3 Polysemy in the philosophical lexicon

Philosophical terms express highly complex and abstract concepts. As already said, if on the one hand the form of many of them has been preserved throughout history, on the other their meaning changes. The same term can be used, in fact, in different conceptual frameworks and be defined differently. However, most of the different meanings that have been produced in the course of the historical development of philosophy do not disappear. Terms acquire new meanings not (necessarily) replacing the old ones. The conceptual thickness of philosophical terms results, among other factors, from a (theoretically-based) process of continuous readjustment of their semantics and of integration of new meanings, which tend to coexist with the previous. Meanings, thus, accumulate, generating polysemy. The semantics of many philosophical terms is characterized by a considerable stratification and by the presence of a non-reducible multiplicity of senses, which are linked as part of the same cluster, but at the same time maintain their distinction.

The semantics of the philosophical terms, therefore, incorporates the history of these latter. Past conceptualizations are still alive—at least partially—in them. This is different, for example, from what occurs with scientific terms. Similarly to the philosophical terms, scientific terms acquire meaning within certain theoretical frameworks. Kuhn (1962) affirmed, indeed, that the change of meaning of scientific terms is one of the tangible signs of a paradigm shift or, according to his latest theories, the consequence of a change in a lexical taxonomy (Kuhn 2000). Scientific revolutions result, in fact, in taxonomic changes having a number of effects at the semantic level: in many cases, even if the original terminology is conserved, it is still subject to modification of meaning. However, differently from philosophy, the old meaning of a scientific term is no more of interest for the community of scientists and dies out. It becomes material for history of science, while the only meaning in use is the one justified by the accepted paradigm.
3. The semantics of the philosophical terms from a Wittgensteinian perspective

The semantics of many philosophical terms can be represented, in most of the cases, in terms of family resemblance as introduced by the late Wittgenstein. In order to explain the multiplicity of practices that occur in language, Wittgenstein (1953) put forth the language games theory. According to this theory, any single model of explanation is not capable to grasp the real complexity of language, which does not consist of a single unified system, but can rather be viewed as a collection of multiple and indefinite games. For Wittgenstein, meaning is use and should be understood in the forms of social living. To know the meaning of a word means to know how to use it as part of an activity, within the framework of a particular language game and following its rules.

As a consequence, the semantics of a word, with the exception of a restricted number of cases, is not defined by the existence of a stable nucleus of meaning. Considering the several possible and different language games, the instances of the use of a word do not, in fact, (necessarily) share a common denominator (i.e., some necessary and sufficient conditions as a common essence or a referent). They are, instead, linked through family resemblances, being similar but each in a different manner, like members of a family: some of them could have the same form of mouth or chin, others the same eyes but without a single feature common to all members:

"What a concept-word indicates is certainly a kinship between objects, but this kinship need not be the sharing of a common property or a constituent. It may connect the objects like the links of a chain, so that one is linked to another by intermediary links. Two neighbouring members may have common features and be similar to each other, while distant ones belong to the same family without any longer having anything in common. Indeed even if a feature is common to all members of the family it need not be that feature that defines the concept.

The relations between the members of a concept may be set up by the sharing of features which show up in the family of the concept, crossing and overlapping in very complicated ways.

Thus there is probably no simple characteristic which is common to all the things we call games. But it can’t be said either that “game” just has several independent meanings (rather like the word “bank”). What we call “games” are procedures interrelated in various ways with many different transitions between one and another” (Wittgenstein 1974, §35:75).

Wittgenstein, therefore, deconstructs the possibility to establish (natural) boundaries to meaning: words have multiple meanings which are connected through an open network. As Givon’s (1986, 78) scheme seems to suggest, family resemblance functions by means of peripheral, partial connections, often established by analogy. Core properties common to all the members of the same family do not (necessarily) exist. For some authors, however, the idea of family resemblance as such does not impose that resemblances have to occur only at a local and peripheral level. A ‘traditional’ concept could originate, in fact, from a particular kind of similarity in which all its members share the same properties (Violi 1996).

Wittgenstein believed that family resemblance plays a major role in the philosophical lexicon, as far as it expresses the polysemic character of most of its terms (Pelczar 2000). An example could clarify this point. The idea of category has developed throughout the different stages of Western (and not only Western) philosophy. How many (special) meanings could be assigned to the term ‘category’ or are somehow incorporated in its formulation? A philosophical encyclopaedia or dictionary would include different definitions according to the theories of different philosophers or philosophical schools. For example:

3.1. Aristotle

For Aristotle, the categories (Katēgoriai) should be regarded at the ontological level, as the ultimate determinations of the sensible reality, at the logical level, as the most general concepts, and have also a linguistic-grammatical significance.
3.2. Kant

Kant made a shift to a conceptualist approach in the conception of categories, that are conceived as a priori forms of the human intellect, which are necessary for any possible cognition of objects.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Ousia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity</td>
<td>Poson</td>
</tr>
<tr>
<td>Quality</td>
<td>Poion</td>
</tr>
<tr>
<td>Relation</td>
<td>Pros ti</td>
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<tr>
<td>Place</td>
<td>Pou</td>
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<td>Time</td>
<td>Pote</td>
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<tr>
<td>Position</td>
<td>Keisthai</td>
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<tr>
<td>State</td>
<td>Ekein</td>
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<tr>
<td>Action</td>
<td>Poiein</td>
</tr>
<tr>
<td>Affection</td>
<td>Paskhein</td>
</tr>
</tbody>
</table>

Table 1. Aristotle’s categories

3.3. Hegel

Hegel’s categorial approach appears to reflect Kant’s own triadic manner of articulating the categories—where the third term in the triad integrates somehow the others. Nonetheless, the categories lose their purely subjective character and are conceived as determinations of the Idea (or absolute reality) in the progressive dialectical unfolding. The fundamental categories are:

<table>
<thead>
<tr>
<th>Modality (Modalität)</th>
<th>Possibility – Impossibility (Möglichkeit – Unmöglichkeit)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existence – Non Existence (Dasein – Nichtsein)</td>
</tr>
<tr>
<td></td>
<td>Necessity – Casualty (Notwendigkeit – Zufälligkeit)</td>
</tr>
</tbody>
</table>

Table 2. Kant’s table of categories

3.4. Russell

In Russell’s view, the categories are the logical types.

The case of ‘category’ illustrates how polysemy occurs in the philosophical lexicon, and possibly denotes its extent. Being part of the same process of historical development—started with Plato’s and Aristotle’s philosophies and typified by a continuous comparison with past formulations—all the listed meanings, although pertaining to different theorizations, are somehow related and form a complex network, describable in terms of family resemblance.

Many other philosophical terms function in the same way, deriving their polysemy from an analogous process of stratification of meanings.

It is important to note that some authors (Blank 2003; Frath 2001) distinguish contextual variation from a true semantic polysemy, even if both can be represented by the notion of family resemblance. The former occurs in those situations in which the different meanings of a word are all linked to a same object, that can be regarded from multiple viewpoints (as occurs with the word piano that can be viewed as a music instrument or as a piece of furniture). The latter is, instead, related to those cases in which a word refers to different classes of (material or immaterial) objects (Blank 2003, 275):

“It is important to make a clear distinction between the referential or extensional level and the level of semantic description: from a referential point of view, ‘vagueness’ can only mean that a given referent is classified as a peripheral instance of a category, but still as a member of this category…. If, on the other hand, two referents have to be considered as instances of two different extensional classes, we are beyond the limits of referential vagueness ... we are dealing with polysemy.

It should be noted that a certain degree of contextual variation (that is more frequent) and of polysemy concerns scientific terms, too. Kuhn (2000), for example, has questioned the idea that science is formed by a universal conceptual structure and that words used in scientific discourses have one and the same meaning in all fields. Each scientific discipline or community of practitioners holds a given set of con-
ceptualizations, which crystallizes in a specific lexical taxonomy, in the frame of which terms assume particular meanings.

Which of the two phenomena exhibit the philosophical terms? Perhaps both. However, in cases on a par with ‘category’, in which the same term is used in different paradigmatic contexts and refers to different philosophical ideas or concepts (e.g. to different abstract objects), it is semantic polysemy that seems to be involved. Above all, these cases require to be specifically treated in a KOS, like a thesaurus.

4. Thesauri as semantic tools

Thesauri are semantic tools designed for the purpose of improving information retrieval. They are based on a natural language that is transformed, however, by means of certain semantic treatments, into an ‘artificial’ and normalized language where terms are rendered basically monosemous and relations among them are made explicit.

In order to achieve this goal, methods to solve cases of lexical ambiguity and delimit the meanings (and referents) of terms are employed. Precision in IR is, in fact, enhanced, when, by means for example of parenthetical qualifiers, homonyms and polysemes are disambiguated.

Furthermore, the relational semantics of a thesaurus is concerned with methods to connect terms with related meanings and constituted by a set of basic relationships (hierarchical, associative and equivalence relationships). Through the relational semantics, a thesaurus provides a more defined account of the meaning of each term—it is, above all, the allocation of the terms within the thesaural hierarchical trees that specifies their semantics—and a structured representation of the general understanding of a knowledge domain—a kind of “semantic road map for searchers and indexers and anybody else interested in an orderly grasp of a subject field” (Soergel 1995, 369).

The relational network is, thus, useful to navigate through a given bibliographic universe as an embodiment of a corresponding universe of knowledge. By means of it, the information recall performance is improved and, suggesting more specific terms that can refine the search and help to eliminate unwanted information, also precision could be enhanced (Svenonius 2000).

The question discussed in this paper is how all of this should be carried out in the domain of philosophy: in which way should the special features of this field be dealt with and somehow represented in a domain-specific thesaurus, in order to ensure the practical effectiveness of this latter?

4.1. Information retrieval in the domain of philosophy: insights from the language game theory

As affirmed in section 2, the meaning of words, including those that are part of philosophical and scientific vocabularies, could be understood in terms of the rules of the language games they belong to.

The language games theory has practical implications also for information retrieval issues (and consequently for the way in which thesauri should be designed). Words used in documents, in fact, pertain to particular language games. However, the cognitive authority that stipulates the basic rules for the use of any term in a given knowledge field, and thus its meaning, does not reside in the documents as such, but rather in the accepted paradigms (here intended in the broadest sense) of the field, on the basis of which the documents themselves are produced. Documents have, therefore, to be regarded as reflecting the conceptual structure of a given domain and appointed to the proper domain-specific language games (Andersen & Christensen 1999): “The meaning and purpose of a document is not a property inherent to it. Rather its linguistics and conceptual meaning is determined by external factors, within the framework of the language game … A document cannot define itself.”

Since databases (to be indexed and searched) include documents which are part of domain-specific language games and since information searchers look for concepts (contained in documents) as defined in specific subject fields, as affirmed by Brier (2006) “each subject area with interest in the documents of a database should have these documents indexed according to their own language game in order to make precise searches possible.” Thus, in developing a controlled vocabulary, which aims to provide through its semantic arrangement a functional representation of the meaning of the terms, the way in which their use is ruled in the respective language games should be seriously taken into consideration (Mazzocchi et al. 2007). In particular, it should be pondered whether and how to give account of all the different meanings that can be associated to an expression (as occurring in different language games), and that could be potentially useful to the users (Hjørland 1998).

All of this is particularly relevant in the domain of philosophy. What happens, in fact, when this idea of
The semantics of a word, as being differentiated according to its use in diverse language games, is applied to the philosophical field?

The domain of philosophy could be analyzed at multiple levels and according to different dimensions, which contribute in forming its complexity and delimit specific frameworks in which philosophical terms can assume special meanings:

Periods (further dividable into sub-periods):
- Ancient (or Greco-Roman) philosophy;
- Medieval philosophy;
- Modern philosophy;
- Contemporary philosophy.

Philosophical disciplines (branches of the domain),
that include, for example,
- Metaphysics (the study of existence),
- Epistemology (the study of knowledge),
- Ethics (the study of action),
- Aesthetics (the study of Art).

Philosophical schools (that overlap with philosophical doctrines),
like Neoplatonism, Scholastics, Contemporary hermeneutics, etc.

Philosophers.

This list (partially) corresponds also to what can be expected to be contained in a domain-specific thesaurus. For example, in the thesaurus derived from the LCSH in Philosophy the following categories (of headings) are included: name of philosophers, classes of philosophers (e.g. Aestheticians or Confucianists), philosophical disciplines, methodological approaches (e.g. Logical positivism or Phenomenology), philosophical concepts, and other philosophy-related headings.

Another aspect that should be considered is that philosophical theories, concepts and texts could be interpreted differently. For example, various versions and translations of a philosophical text are not isolated instances, but occur quite frequently, as in the case of the Greek philosophers. Theoretical controversies, which can occur at different levels, are an integral part of philosophy. Hence, the reconstruction of philosophical systems and theories is always filtered by a certain degree of interpretation. As a result of all of this (as well as of other factors not mentioned here), the structuring of the universe of philosophical knowledge into different language games could result in a highly complex endeavour.

In any case, even though the design of a thesaurus requires a simplified framework in order to correspond to actual operational needs, in representing the meaning of philosophical terms within a domain-specific KOS many of the discussed theoretical issues cannot be ignored.

Also for this reason, the inclusion of philosophers, as those who possess a conceptual competence of the field, in the process of compiling the thesaurus appears as necessary.

4.2 Which kind of domain-specific thesaurus?

Two issues directly concern the development of the thesaural semantic arrangement. Both of them are connected to the multiplicity and the level of entanglement of the language games that typify the domain of philosophy. First, the high level of polysemy of the philosophical terminology. This issue can only to some extent be solved by using parenthetical qualifiers. It could be necessary to perform disambiguation differently, for example, through a hierarchical or disciplinary contextualization of the terms (Tiberi & Mazzocchi 2007). (A limit of the argumentations presented in this paper is that they have not been derived from the process of design and implementation of a special thesaurus for philosophy.) Disambiguation could be carried out at different stages, thus not necessarily when terms are positioned within the thesaurus, but also postcoordinately, when a search is formulated, by proximity or AND operators. Precision in retrieval would likely be ensured. In order to rightly choose at which stage disambiguation should be performed, it is necessary to define which level of specificity the thesaural semantic structure should have in order to fulfill its function.

Second, the difficulty in classifying and even more in hierarchizing the philosophical terms, due to their frequent polysemy, to the fact that they refer to highly abstract ideas, and to the complexity and multiplicity of the conceptual structures to take into account, and of which these terms are part. In this case, what has to be assessed is, above all, which level of granularity the thesaural semantic structure should have in order to correspond to its intended function.

Thesauri could be designed to represent the whole philosophical domain or part of it. According to the change in the degree of coverage also their characteristics could change, since the level of conceptual complexity and of polysemy of the considered terminology could differ significantly. A (partial) example of a ‘general’ (e.g. encompassing the whole domain) philosophical thesaurus is the one that has been compiled selecting from the Library Congress
Subject Headings (Berman 2001) a series of headings related to philosophy, subsequently organized in a thesaurus format. This thesaurus does not, therefore, derive from the planning of a domain specific system. And this becomes clear by looking at its (scarce) conceptual and terminological coverage or at the way in which terms, like Categories, are displayed (many of the used parenthetical qualifiers make sense, for example, only in the wider domain covered by the entire LCSH).

Categories (Philosophy)

x Predicaments (Categories)

Nodes: LOGIC

METAPHYSICS

Broader terms: Logic, Ancient

Predicate (Logic)

Narrower terms: Dialectical Materialism, Categories of Modality (Logic)

Place (Philosophy)

Quality (Philosophy)

Quantity (Philosophy)

Relation (Philosophy)

Situation (Philosophy)

 Substance (Philosophy)

Time

Related term: Tattvas (Sankhya)

In the alphabetical list of the thesaurus, each term is presented with its semantic relationships and with the indication of Nodes, for the most part corresponding to the traditional subdivision of the domain by disciplines. On this basis, a systematic arrangement of terms is provided.

However, the way in which the thesaurus is displayed is not always clear, nor are the admitted semantic connections always understandable. For example, the way in which NTs are associated to the terms in the alphabetical list can be confusing, since a same NT term, when considered from the perspective of different Nodes, could correspond to different (even though related) concepts. This occurs, for instance, in the case of Quality and Quantity, both subordinates of Categories under two distinct Nodes. Their allocation in the Metaphysics Nodes seems basically to follow an interpretation of them as Aristotelian categories, whereas in the Logics Nodes they are treated as if they were regarded in a Kantian sense (cfr. with the description of ‘category’ in section 3).

Conversely, if for example Relation under the Logics Node has to be intended in the same Kantian manner (being a subordinate of Categories at the same level of Quality and Quantity), including among its NTs terms like Equivalence relations (Set theory) or Relational algebras, seems quite arguable. And if it should not be intended in this way, what could possibly mean the choice to display four terms as subordinates of Categories in this Node, equal in name and number to the first level of Kant’s categories?

If the thesaural semantic organization has to ensure the navigation objective and to increase recall (and precision) in IR, its representation of meanings should be based on suitable structures, above all as...

<table>
<thead>
<tr>
<th>METAPHYSICS</th>
<th>LOGICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Categories (Philosophy)</td>
<td>Categories (Philosophy)</td>
</tr>
<tr>
<td>Place (Philosophy)</td>
<td>Modality (Logic)</td>
</tr>
<tr>
<td>Quality (Philosophy)</td>
<td>Contingency (Philosophy)</td>
</tr>
<tr>
<td>Quantity (Philosophy)</td>
<td>Necessity (Philosophy)</td>
</tr>
<tr>
<td>Relation (Philosophy)</td>
<td>Possibility</td>
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<tr>
<td>&lt;NTs omitted&gt;</td>
<td>Quality (Philosophy)</td>
</tr>
<tr>
<td>Situation (Philosophy)</td>
<td>Extension (Logic)</td>
</tr>
<tr>
<td>Substance (Philosophy)</td>
<td>Limit (Logic)</td>
</tr>
<tr>
<td>&lt;NTs omitted&gt;</td>
<td>Negation (Logic)</td>
</tr>
<tr>
<td>Time</td>
<td>Quantity (Philosophy)</td>
</tr>
<tr>
<td></td>
<td>Whole and parts (Philosophy)</td>
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<tr>
<td></td>
<td>Relation (Philosophy)</td>
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<td></td>
<td>Causation</td>
</tr>
<tr>
<td></td>
<td>Equivalence relations (Set theory)</td>
</tr>
<tr>
<td></td>
<td>Identity (Philosophical concept)</td>
</tr>
<tr>
<td></td>
<td>Implication (Logic)</td>
</tr>
<tr>
<td></td>
<td>Interaction (Philosophy)</td>
</tr>
<tr>
<td></td>
<td>Relation algebras</td>
</tr>
</tbody>
</table>

Figure 2. The term Categories as it appears in the thesaurus arrangement by Nodes
far as the hierarchical arrangement is concerned. For the development of these structures, that in the case of the philosophical domain might require a higher level of detail if compared to the above shown, the way in which the semantics of terms is ruled by their respective (domain-specific) language games needs to be taken into account, in order to provide a reasonable and functional representation of it.

For example, generic (and polysemic) terms, like Categories, might be retained in the thesaurus to describe meaning in a general sense and be associated to History Notes illustrating the change of their semantics over time. In order to better reflect the existence of different special senses of terms like this, being they part of different language games, a cluster of more ‘specific’ or disambiguated terms could be derived from them and admitted in the controlled vocabulary, the meaning of these latter terms being further specified by their position within the relational structure. Moreover, additional forms of systematic display could be developed, for example structuring by period, or by a combination of period and discipline.

In any case, as already mentioned, the main question to evaluate is the level of granularity of the thesaural semantic structures with respect to their actual function in IR. The risk to create abstractly valid but too complicated and poorly usable structures still exists.

Things could be eased reducing the extent of the domain coverage (and, consequently, the multiplicity of entangled language games to be reflected) addressed by the thesaurus.

This occurs, for example, when thesauri are devoted to specific periods of the history of philosophy. Depending on their intended function, thesaurus like these could be the final expected outcome or also a step in the development of a general philosophical thesaurus. The idea of creating a number of period-specific thesauri, to merge at a second stage, in order to obtain the complete thesaurus is, indeed, rather interesting. What should, however, be further investigated is, above all, if the hypothetically huge amount of intellectual work required to make the resulting vocabulary structurally consistent would be justified by the obtainment of substantial benefits for IR.

Of course, from the point of view of the semantic representation, the ideal situation is when a thesaurus is devoted to a single philosopher or to a specific philosophical school. In this case, dealing with a single (or restricted) conceptual universe on which the meaning of the terms depends, the conceptual complexity and the polysmy to be considered would be drastically reduced (and consequently the need to employ disambiguation methods). Provided that this is useful for the intended purpose of the thesaurus, developing more granular semantic structures should become easier.

5. Conclusion

Polysemy is abundant in the philosophical lexicon and represents a typical feature of many philosophical terms, originating from the history of their semantics. In this paper the origin of this phenomenon as well as its relevance for knowledge organization issues have been analysed. The development of a domain-specific KOS, like a thesaurus would be, in fact, largely affected by this feature. The demand for semantic disambiguation is considerably augmented. In addition, other factors, such as the high level of abstraction and the conceptual complexity typifying this domain, also contribute in rendering the thesaural semantic organization, especially the hierarchical structures, not easy to be established. It has been stressed how, from this point of view, things could be made easier if the extent of the domain coverage was reduced. A general philosophical thesaurus, in fact, would tend to be, planned differently from a thesaurus devoted to a specific historical period or to a single philosophical school, since the amount of polysemy and of entangled conceptual structures to be dealt with would be substantially different.

Wittgenstein’s approach to meaning has furnished a theoretical basis for analyzing the semantics of philosophical terms and, with the idea of language game, a guiding principle with interesting implications for IR issues and for the design of KOSs, too, especially in the domain of philosophy. As already mentioned, many of the discussed ideas at this stage have been only outlined. They require, in fact, to be deepened and perhaps better evaluated also in terms of their technological feasibility. Above all, they should be experienced in the actual process of designing, implementing and using a special thesaurus for philosophy.

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Classification from the User’s Viewpoint: Concerning the Arrangement of Collections in University Libraries

Giovanna Granata

University of Cagliari. Department of Historical, Geographical and Art Studies, Via Is Mirrionis–Loc. Sa Duchessa, I-09123 Cagliari, Italy <ggranata@unical.it>

ABSTRACT: As the use of the most common classification systems for the arrangement of library material gives rise to evident problems both in terms of efficiency and user-friendliness, the paper proposes to limit them to the bibliographic description of documents and to make reference to different classification structures specifically aimed at meeting the needs of the physical organization and local access to documents. A possible solution can be the Scientific-Disciplinary Sectors which are the principal structural references both for research and teaching activities. Such a classification, of a purely institutional type, certainly reflects the present-day university situation rather than abstract models, but at the same time it defines more concrete approaches to knowledge. Furthermore, it can be profitably used to correlate people involved in different ways in the university’s institutional activities with the bibliographic material functional to such activities, thus offering a useful parameter in appraising collections.

1. Introduction

While in the training of librarians bibliographic classification undoubtedly represents one of the most important aspects of the complex problem connected with subject indexing, for library users the most direct and immediate approach to the logic of the organization of knowledge is through the physical arrangement of library materials; it follows that in the minds of readers the main reasons for discontent and criticism as concerns classifications do not depend (at least not directly) on an abstract and somewhat academic reflection on possible their inadequacies, for example on the level of organization by disciplines (a consideration that is the consequence rather than the cause of such discontent), but are more often originated by the encounter (or better still the clash) with contradictory and unsatisfactory call numbers which sometimes make exploration among the shelves a veritable torture.

Effectively, the use of the most common classification schemes in organizing collections accentuates a series in incongruences that are not necessarily intrinsic to the schedules themselves but are more often closely connected with the different situation in which they are applied and the different use made of them with respect to the context in which they were developed: that is to say, subject indexing and more in general information retrieval. In part, this “confusion” of objectives and the discontent it creates is caused by an unjustifiable silence of librarians (especially Italians) concerning the problem of physical arrangement of collections and the complexity of the relationship between notation on the one hand and
call numbers on the other, despite the fact that library science came into being with this “nagging” problem.

When, starting from the 17th century, the institutional model of the library in the sense of a large concentration of volumes for public use became foremost, one of the topics that attracted the most attention among scholars of library science in describing the phenomenon (Serrai 1994) was exactly that concerning the arrangement of volumes as the fundamental organizational element, not only for the image but also for the purpose of the collections and their fruition. In the *Advis pour dresser une bibliothèque* by G. Naudé (Paris 1627), for example, the need to adopt classified schemes for the physical location of books is at the origin of the discussion on classifications: once stated that a library, however rich it may be, is not such if the volumes are not arranged following a systematic plan that makes them physically retrievable, Naudé reviews the different solutions and then presents his proposal.

On the other hand, the possibility of adapting instruments created in a philosophical context to the representation of the conceptual contents of bibliographical documents, the exploration of such applications and the detailed study of their implications has gone through the need to use such instruments in arranging library materials: the first systematic catalogues as tools for access to information (Serrai 1993) were first of all topographical catalogues, that is, ones in which the collections were described in physical as well as logical order.

One of the most recent developments in this long tradition is perhaps represented by the *Dewey Decimal Classification* (DDC), the first classification of modern library science, but also the last in which the problems inherent in the logical organization of knowledge were dealt with in a profound symbiosis with those represented by the physical arrangement of the volumes in an attempt to find a solution in equilibrium between the two different exigencies. Effectively, the choice of a division based on the decimal system, which as is known represents the main reason for the success of DDC and at the same time its main limit from the theoretical standpoint, finds its justification in the need for intelligible and mnemonic notation which could be used as the basis for a “relative” location just as intelligible and mnemonic.

The developments that later conditioned thought on classifications have however led to a final breaking of this already unstable equilibrium: the perspective from which they have been studied has in fact been totally devoted to issues concerning the development of catalogues; on the operational plane it has been oriented in the direction of standardization, communication and the sharing of bibliographic records; in theoretical terms it has gone in the direction of the creation of more and more powerful, but also complex, instruments for subject indexing.

Thus, on the one hand, dissatisfaction with the “classic” solutions due to their capacity (or incapacity) to describe knowledge has led to researches requiring great intellectual commitment and with a decided opening towards strongly speculative aspects, farther and farther away from the perspective, typically “managerial”, that characterizes the physicalness of library collections; on the other hand, it has been increased the fortune of more traditional systems such as the DDC or the Library of Congress *Classification*, perhaps less refined in their premises or more hoary, but capable of imposing themselves as strong structures and as de facto standards in a quite specific context, that of the exchange of bibliographical data, with the result of projecting the problems of classification beyond the limits of the single library onto the vast horizon of the entire universe of the books and thus within the sphere of Universal Bibliographic Control.

Both of these perspectives, aimed at concentrating on the bibliographic aspects connected with the use of classification in the handling and retrieval of information, have put in the background the other side of the question, that is, the controversial issue concerning the possibilities and limits with which they may be used in the arrangement of library material and in so doing they have on the contrary aggravated the already difficult relationships between the two different levels: the logical level of bibliographic organization and the physical level of the library. The institutions which have turned to the same classified schemes for the indexing and arranging their collections have found themselves faced with a multiplicity of problems, all closely connected with this physical and spatial dimension within which the totally concrete interaction between book collections on the one hand and users on the other takes place.

In this perspective, some of the mainstays which are the very foundation of subject indexing procedures and ensure their success are undermined. One of these mainstays is the specificity of notation, which in turn provides an extremely precise approach to the subject of the document and which may instead have, in spatial terms, the certainly not “beneficial” effect of excessively fragmenting the arrangement of library material, thus making its explo-
ration more difficult. The class notation by a very specific subject (Projects for cooperation among libraries in the Alpine regions), 021.6094947 according to the DDC, translated into a call number with the addition of the book number will do nothing but create problems for users without providing any particular advantage: how many books will they find on the same shelf dealing with the same subject?

Moreover in the organization of collections it may be necessary to interrupt the linearity of the schedules to arrange special sections that create parallel sequences and, in a way that is the exact contrary of what is required of a catalogue, distribute (scatter) information over many places: we can for example distinguish a reference section, a teacher’s room and a multimedia area the material of which does no more than “duplicate” the structure of the main section. This problem, although apparently connected with the physicality of the architectural structure, in reality does not exclude the use of digital resources: on the contrary it is even more evident in this case; suffice it to consider the distinction that must be made between free access gained by means of a password or IP in the creation of pathways that simulate the browsing of users on the shelves and which in fact identify sections connected by different means of access for different kinds of resources.

Finally, it may be necessary to consider in a different way the context in which a book is published or the use to which it is destined rather than its “pure” subject: in the first case it is a question of maintaining the structural unity of series of volumes and other kinds of collections while in the second it is a question of avoiding the creation of sections that are too small and insufficiently filled when there are publications lying outside sections that take up more library space or taking into the necessary consideration the greater probability of users approaching the shelves with their own habits and behaviours, which are not always guided by an abstract rationality. Who would ever expect to find in the collections of a library that did not have other material belonging to Dewey class 020 (Library Science and Information Science), a book on the projects for cooperation among libraries in the Alpine regions with the call number 021.6094947 ALP?

2. Proposals for the arrangement of collections in university libraries

In this context, the use of the most widespread indexing systems by class brings with it the need to find a series of compromises and adaptations; in reality, these have led to attempts that have been globally defined in terms of “declassification.” This expression obviously indicates a sort of rebellion, one that is not so much against the idea of classification itself, but against the hegemony of the widespread systems used for indexing, since their abstractness and generality do not respect the needs that in specific cases characterize the access of users to collections and thus to continue to be used they must in turn be modified, tamed and, in the long run, distorted to some extent.

In Italy, where the problems of the arrangement of collection were put aside for many years following the 19th-century reflections (Fumagalli 1890), owing to the strong resistance of the Dewey system which today remains the preferred reference not only as concerns public libraries, but also those of universities, only recently has interest in these issues been revived, starting from a short essay by Maltese (1985), followed by the works of Traniello (1989), Gerotto (1991), Di Domenico (1995) and Innocenti (1996). However, several years had to pass before a more concrete proposal (Di Domenico 2003) for coordinating the Dewey system with curricular pathways more suitable for users by correcting some of its excesses within the framework of a logic of “departmentalization,” which however went in the direction of creating evident redundancies. The criterion for the organization of collections calls for a partial reorganization of DDC classification schemes within a different logic by categories obtained by subordinating the original conceptual setup to a division by thematic poles capable of grouping together branches of disciplines otherwise condemned to remain “physically” far away and of restoring to them a fuller identity, one that responds more closely to the expectations of users. The call number system proposed consists of three elements: an abbreviation for thematic departments, then a progressive number for the sections, if necessary divided into subsections following a logic of their own, and then the Dewey index, used as the book number followed by the initials of the author’s surname. In most cases the abbreviations of the departments, followed by the section number do nothing more than repeat the indications of the Dewey notation. A similar solution, but one characterized by a more radical operation on notations, had in reality already been in practice in few university libraries. Among those present in this review, for example, is the library of the Scuola Normale Superiore of Pisa.

What derives from such adaptations, however, is in the final analysis a classification parallel to the
original scheme, but necessarily different from it in content, for the most part more limited in its autonomy for development in that it finds itself caught between the need to depart more and more from its model and the need to maintain an improbable synchronism with the latter, despite having to undergo periodical updates.

The risk involved in this hypothesis is not only that of being detrimental to the internal coherence of the original classification schemes, but also of confusing users even more, who in order to use the library to best advantage must memorize sequences of numbers and letters present at different points of the bibliographic record, but each time expressed in slightly different form, once as a function of call number and then as a function of notation.

In the light of this, it appears to be far more reasonable to abandon traditional schemes altogether and turn to different classification structures capable of ensuring greater responsiveness to the peculiar modalities which within each library characterize the interaction between users and books on the shelves. Such an approach, which has often been adopted, especially in university libraries in consideration of the specialization of the collections and the specificity of users, brings with it another danger: that of improvisation and empiricism. After so much rhetoric about standardization and cooperation, this leads single libraries to the brink of the precipice of particularism.

A different solution that maintains a common frame of reference, thus avoiding the fragmentation of experiences, but at the same time presupposes a more careful consideration of the realities of users and especially the habits and practices of access to the collections, comes from the adoption of classification schemes which, although they perhaps sacrifice logical rigour and abstractness, are based rather on categorizations born of needs of a practical nature and which, having become consolidated with the passing of time, are for this reason commonly shared and “natural.” In the specific case of the arrangement of collections in university libraries, the hypothesis that can be proposed in this sense (Granata 2005) is represented by the Scientific-Disciplinary Sectors (SDS) which now are the main structural reference both in research and teaching: they define not only the areas of the professors and researchers for the purpose of their arrangement and the determination of their functions, but also the composition of the teaching ambit relating to the different courses of study, both three-year and postgraduate ones.

In this sense the SDSs represent an indispensable and particularly deep-rooted point of reference: professors are used to thinking in terms of a Sector abbreviation and use the same labels when they describe their own research projects, when they must find their subjects in the students’ curricula or when they must make their lecture notes or other materials available in the open access sites which many universities are now installing.

At present, having regard to Italian Ministerial Decrees of 4 October 2000 and 18 March 2005, the structure of SDSs derives from the reorganization of a previous setup in which changes of different kinds had been made: in particular the internal setup based on three levels has been delineated in a more clearly hierarchical way. The highest level is represented by the Areas which contain several homogeneous Subareas; the latter in turn contain several homogeneous Sectors following the logic described below:

- Area 01 with two Subareas in which we find the Sector belonging to the Mathematical Sciences (MAT/01-09) and the Sector INF/01 in which we find disciplines concerning Information Science respectively.
- Areas 02, 03, 04, 05 and 06 in which we find respectively the Physical Sciences, the Chemical Sciences, the Earth Sciences, the Biological Sciences and the Medical Sciences.
- Area 07 in which we find the Sectors concerning the Agrarian Sciences (AGR/01-20) and Veterinary Sciences (VET/01-10) in two Subareas.
- Area 08 in which we find in a single series the Sectors concerning Civil Engineering and Architecture (ICAR/01-22).
- Area 09 in which we find in two Subareas the Sectors concerning Industrial Engineering (ING-INF/01-07) and Information Engineering (ING-INF/01-01).
- Area 10 in which we find the Sciences of Antiquities (L-ANT/01-10), and Historical and Artistic Sciences (L-ART/01-08), Philological and Literary disciplines (L-FIL/01-15), Linguistic disciplines (L-LIN/01-21) and finally Oriental Studies (L-OR/01-23).
- Area 11 in which we find the Sectors concerning Historical Sciences (M-STO/01-09), Demographic, Ethnographic and Anthropological Studies (M-DEA/01), Geographic Sciences (M-GGR/01-02), Philosophy (M-FIL/01-08), Pedagogy (M-PED/01-04) and Psychology (M-PSI/01-08).
Area 12 in which we find in a single series the Sectors concerning Juridical Sciences (IUS/01-21).

Area 13 in which we find in two Subareas the Sectors concerning the Economic Sciences (SECS-P/01-13) and Statistical Sciences (SECS-S/01-06).

Area 14 in which we find in a single series the Sectors concerning Political and Social Sciences (SPS/01-14).

We cannot exclude that behind this organization, and in particular in the identification of the Subareas and within the Sectors, there have been considerations of a more clearly "political" nature, of mere opportunity, and not reflections or abstract models: behind the SDSs there are in fact groups of people and thus also interests, traditions and even differences in power. This fact, which may appear to represent an element of weakness, in reality constitutes, if not an element of strength, at least the characteristic that makes the system especially interesting as an instrument capable of reflecting the borders between disciplines, their relationships and contents owing to the way in which they are concretely defined, putting aside considerations that are too theoretical or too distant from users' habits.

The classification represented by the SDSs is to all intents and purposes an "institutional" classification that reflects the present-day organization of universities; from this standpoint, we certainly cannot expect it to be entirely coherent or "perfect." To verify the possibility of its use in the arrangement/classification of university library collections it is thus necessary to examine its characteristics more in detail.

Despite the fact that the subdivision of Areas into Subareas has given a more marked hierarchical aura to the entire structure, the main peculiarity of the scheme continues to be a certain tendency to use enumeration. Especially at the third level of the Sectors, their listing does not really take into account the relationships of dependence that some have with respect to others and presents them substantially on the same level.

The Subarea Philosophy is for example divided into the following Sectors:

- M-FIL/01 Theoretical Philosophy
- M-FIL/02 Logic and Philosophy of Science
- M-FIL/01 Moral Philosophy
- M-FIL/04 Aesthetics
- M-FIL/02 Philosophy and Theory of Languages
- M-FIL/06 History of Philosophy
- M-FIL/06 History of Ancient Philosophy
- M-FIL/06 History of Medieval Philosophy

It is rather evident that Sectors M-FIL/07 (History of Ancient Philosophy) and M-FIL/08 (History of Medieval Philosophy), are in fact on the same level as the upper class of M-FIL/06 (History of Philosophy) although they derive from the correct application of the principle of chronological division.

In itself, this aspect does not necessarily introduce contradictory elements, but if carried to the extreme consequences it would certainly lead to great freedom in the management of the relationship between the determination of Sectors by means of the correct application of principles of hierarchical division and their distribution within Areas and Subareas. As appears evident from the overall scheme, the sciences of the ancient world are grouped into Area 10 and not in Area 11, and among them we obviously find Ancient History, both Greek and Roman, while Medieval, Modern and Contemporary History are in Area 11. If we reconstruct the logic of the development starting from the hypothetical, more general class "History" (found in the Subarea STO of Area 11), it is evident that all the historical disciplines should be grouped in that Area: their grouping partly in Area 10 and partly in Area 11 is clearly connected with a criterion totally independent of that of a logical-hierarchical nature from which they derive. If instead we follow another line of development starting from the more general class "Sciences of Antiquity" (it too to be found in Subarea ANT of Area 10), we still find a similar problem that makes it difficult to justify the presence of History of Ancient Philosophy in Subarea M-FIL of Area 11.

This incongruity is explained by an enumerative choice "taken to the limit," to the point of neglecting structural aspects in the determination of the logic of classification and grouping of the disciplines themselves in favour of a necessity completely different from that of representing the steps taken in logical division: that is to say, the need to reconstruct consolidated pathways in the approach to knowledge as it is in fact practiced and not as it is abstractly defined; it is obvious that while in the framework of studies of antiquity the affinity between historical and philological studies is accredited by study methodologies, by relationships of scientific collaboration and teaching subjects, the relationship between historians of the ancient and those of the modern are more forced and less substantiated by custom. Similar arguments can be advanced in the case of History of Ancient Philosophy.

Up to now we have been dealing with two characteristics that are the direct consequence of an enu-
merative rather than a hierarchical choice, but which are admissible on the logical plane: 1) the placing on the same level of classes obtained by applying successive criteria of division and 2) the redistribution of classes within Areas and Subareas on the basis of a pragmatic rather than a logical-hierarchical criterion, despite the fact that it is properly used in the determination of Sectors.

More serious is another problem that the SDSs present and which instead must be overcome since it originates in a real incongruity in the reciprocal determination of the single divisions and thus has to do with the logic of the system. This is the case which, to remain in the Subarea concerning Historical Sciences, arises in the relationship between Sectors M-STO/01 (Medieval History), M-STO/02 (Modern History) and M-STO/04 (Contemporary History) on the one hand, and M-STO/03 (History of East Europe) on the other, which come from the adoption of two different principles of division: chronological in the case of the former three Sectors and geographic in the fourth, without there being a logical order to assign priority to one of the two criteria. This brings with it a serious limit that must be overcome to ensure the best use of the structure as a bibliographic classification; in fact, the classes obtained are not reciprocally exclusive and thus there may be ambiguities in identifying the position, both logical and physical, of the documents within the scheme. One possible solution to this problem is that of implicitly assuming that the different steps in division are successive, consequently specifying the content of the subclasses obtained, that is, by resolving the structural incongruity on the semantic level.

Substantially, this means first of all that we must arrive at a new formulation of the SDSs, one that is modified in content; secondly, it is necessary to devise an amplification of the “basic” list with the addition to the sequence of Sectors of junctions not contemplated by the original scheme but which are required in properly reconstructing the sequence of steps in the division.

In the case examined, we must reconsider the logic of the scheme in the way shown in figure 1 below.

This is to say, we must 1) introduce the new class [History of West Europe] and possibly the even more general one [History of Europe] to justify the adoption in succession of a geographic and then a chronological criterion; 2) specify the content of the SDS Medieval, Modern and Contemporary History as the Medieval, Modern and Contemporary History of West Europe.

The second expedient (the semantic one) is in reality not overly invasive: it certainly requires an “adjustment” of the original sequence, but the number of cases is fairly limited and does not have a significant impact at the structural level. As concerns the addition of new elements, considering the enumerative nature of the classification, this does not by itself change the general structure to any great degree: despite the graphic display on three levels, we can keep both the Sectors and connecting classes that may be reconstructed on the same plane.

However, the importance of interventions in this case is certainly more consistent owing to the fact that other additions are required, not only for this specific problem, but for an entire series of elements that remain implicit, as outlined in the development of the scheme and still necessary, especially when a presumable process of subdivision is reconstructed while maintaining the hierarchical relations on the same plane. For the sake of greater clarity, we can propose the example of Subarea Philosophy where, faced with a specification for the History of Ancient Philosophy and History of Medieval Philosophy, Sectors for History of Modern Philosophy and History of Contemporary Philosophy are lacking.

And that is not all. There is still a final problem: further additions to the main scheme, but ones that are less compatible with the basic enumerative structure, are indispensable owing to the different level of specificity with which the SDSs are defined. While for some the declaratory description identifies a

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[History of Europe]

Geographic area

[Hist. of W. Europe]            [Hist. of E. Europe]

Period:


Figure 1.
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fairly well-defined and circumscribed disciplinary ambit, for the majority more extensive and complex competences are required.

In this case the solution of inserting new classes in the main scheme, thus levelling out relations of reciprocal dependence, may not be convenient (it may lead to an excessive broadening of the structural base and thus to chaos), while on the other hand it may be necessary, for clarity’s sake, to increase the levels of hierarchical division of the system, which in some cases may even become fairly widely branched out.

To sum up, the system must offer a certain amount of hospitality in the two directions, thus a notation capable of guaranteeing this is required. As concerns this, the SDSs are already distinguished by an alphanumerical sequence composed of numerical labels to indicate the Areas (although in some cases they are duplicated by letters of the alphabet); by initials for their divisions (Subareas) and by numerical indexes for third-level divisions (the single Sectors); each element is then distinguished from the next by a separator. For example, this is the case of Areas 10 and 11, where the alphabetical labels (L and M) represent an element of continuity with the previous organization of the SDSs. Technically, this structure may represent a notation which in general terms may be described as a hierarchical but not a positional one. Indeed, each sequence indicates a different nesting level and thus the entire reference expresses the hierarchical structure of the system (M-FIL/01), but the greater length does not correspond to greater specificity: L-ANT/01 and L-FIL-LET/01 are on the same level even though of different length. However, within each group of symbols, divided by the separator, is constructed (in accordance with the opposite logic) with a function of pure arrangement (either alphabetical or numeric) and according a positional criterion: Area M comes after Area L and, most of all, 10 comes after 9.

Overall, we are dealing with a fairly prolix system but one that has the certain advantage of being quite mnemonic (especially thank to the initials of the Subareas) and of maintaining the reference to the denominations in use. But most of all, as specifically concerns the problem from which we started, this system can provide good hospitality both vertically and horizontally: in the first case, owing to the way in which the reference is constructed (that is, its hierarchical and not positional character), it is sufficient to add a separator to create a further level without causing problems, other than the lengthening of the reference. As concerns horizontal expansion, since the symbols are used in a purely ordinal way for each level, it is possible to make additions at the beginning, in the middle and even at the end of each sequence, simply by combining the symbols of the chosen base without there being an increase in nesting levels (which are handled by means of separators). We could even go so far as to insert after Area M another Area MM, where the double letter simply indicates the succession of one after the other and not their hierarchical relationship.

In the case of the first and third hierarchical levels, the base of reference must certainly increase with respect to the original structure: for the Area, with the use only of the alphanumerical system it could be difficult to make new additions at the beginning (since we start with Area A), while by adding to the base of reference the numbers from 0 to 9 good expansion becomes possible. On the contrary, when dealing with the Sectors using only numbers it may be difficult to make additions in the structure, but by using a combination of numbers and letters it should be possible to solve the problem: between Sectors 01 and 02 we can insert 01 A and so on.

3. Conclusion

Generally speaking, on performing a more attentive analysis of its characteristics, despite its essentially empirical slant, the structure of SDSs appears to ensure a certain coherence, although it requires a series of horizontal and vertical additions.

This is certainly the main obstacle to use it effectively as a classification system for the arrangement of collections, since it is here that there is still much work to do. Is it worth the trouble? Perhaps it is at least worth examining the hypothesis, not only for the reasons given above, but also for a series of other reasons that may open up new, potentially important prospects. Two above all: firstly, the possibility of having a common system for all Italian universities and thus avoid not so much the empiricism of do-it-yourself solutions, which in some cases work quite well, but the inevitable lack of communicability; secondly, in a broader perspective, the possibility of placing collections and users in direct contact: indeed, the same system of classification classifies both and, if the library is where books and users come together with the librarian as the professional working to guarantee the success of such a meeting, this double function may become truly interesting.
References


ABSTRACT: The thought is canvassed that any reasonably heterogeneous collection of philosophy books accessible to any public is best shelved in strict alphabetical order by the author/editor names that appear on their spines, as we often find in public libraries with open access for a general reading public. The positive good that such an arrangement seeks is philosophical neutrality, given the highly controversial and fissiparous nature of the activities that are embraced under the rubric ‘philosophy.’ For the rest, support for our hypothesis is mainly negative, and derives from considerations concerning the difficulties that arise in persevering with any of the obvious alternative classifications. Though some of the ordering principles that motivate more adventurous and helpful arrangements can be applied to many philosophy books, the hard cases are so hard, so many and so prominent, that they would require any conscientious cataloguer to be continuously making make choices. The upshots of such choices cannot be predicted and hence make for arbitrariness. Someone who knows their own way around will find what they are looking for; and someone who doesn’t is beyond help.

1. Suspend the 100s

The Dewey Decimal Classification (DDC) allots classmarks to novels and short stories, which are distributed in the subdivisions of the 800s. Nevertheless not a few municipal and other non-specialist libraries disregard this resource and prefer instead to operate a basic dichotomy between those items that are shelved by DDC and those that are not. In such libraries, what is generally to be found in the 800s are, in addition to perhaps poetry and drama, works of literary criticism, literary history and other studies that take what we might call belles lettres as their object. On the other side of the basic dichotomy, a library of this sort will place books that people read rather than study. Some of these will be among the objects discussed in the works to be found in the 800s; many will not. Those that are not are likely to be among the books that are most read, as lending rights payments amply demonstrate. Thus, in a fair number of libraries open to the general public, genre novels such as romances, thrillers or detective fiction, are not given their place on the shelf that strict application of the DDC would indicate, but are arranged in alphabetical order by the name by which the author is known to the reading public (which, for simplicity, we shall sometimes call ‘surname’).

The rationale for not applying DDC to fiction generally is not hard to understand, though part of it may be patronising. The patronising part is the thought that the typical reader of genre novels and the like may not be a sophisticated library user. The realistic aspect of this is that, if, to find a novel by Catherine Cookson, one need only know the author surname, then the best way of allowing a reader to find what he is looking for is to place all fiction in alphabetical order by author. Author surnames—not least when they are not in reality the surnames of the authors—are salient in the identification of fiction. Setting aside the brand effects of such imprints as Mills and Boon, only a reader who was in possession of more information—such as date and place of birth and/or of publication—about his preferred author would be able to track down the book he was looking for within the DDC. The library user, presumed on this hypothesis to be unsophisticated, does not
even need to know that the book he is looking for has a place in DDC, because the only information he has is, on the one hand, the author’s surname and, on the other, the order of the alphabet. If the reader is not in search of any particular writer’s works, the alphabetical order in which they are arranged on the shelf will be no greater hindrance to casual browsing than any other.

The claim of this note is that a similar suspension of DDC should be applied to philosophy books even, and especially, when the typical user is knowledgeable about the subject (say, from undergraduate major upwards). The DDC 100s should be empty and alphabetical order by author surname is no worse an order than any other, is better than most and recommends itself on its merits. Unlike the patronising part of the high—street library’s treatment of fiction, the claim is not that typical users of a collection of philosophy books are unsophisticated to the point of not knowing that libraries need some sort of organisation. Nor is it the claim that someone with an interest in or knowledge about philosophy is somehow disabled from mastering a cunning system of classmarks. Rather, it is the claim that she should not have to think about how to classify philosophy books when looking for one: if that is what she is looking for, she should find Whitehead and Russell’s Principia Mathematica under “Whitehead” (though a certain remissness may take her first to ‘R’), thus obviating one visit to the catalogue.

To make our claim at least less paradoxical than it might seem at first blush, we begin with a brief review of why any composite system of classification is unsuited to arranging philosophy books in the linear way required by shelving: each item must occupy one and only one place in the scheme. Though we take DDC as an example, parallel remarks could be made about, say, the Library of Congress Classification or of the Cambridge University Library’s classmark system. Granting that the size of a literature collection is an important practical constraint, we then set out a few simplifying idealisations, and then proceed to examine in turn the elements that play a role in DDC’s mixed taxonomy of philosophy books. Each, we suggest, runs into insuperable difficulties in assigning even—or, perhaps, especially—some of the best—known books to a place where even—or, again, especially—the most philosophically sophisticated reader could expect to find it.

In the field of knowledge organization, there is the category of the ‘subject matter specialist’ (e.g. Bosch 2006). The present author presents himself in that field in that rather ridiculous garb, i.e. as one who has been reading and studying philosophy books for upwards of thirty years and, over that period, has used numerous libraries of various dimensions, structures and degrees of specialisation for use by philosophers. But with this caveat: though many specialists in this field may be confident that their own word on the field is authoritative (because that of a specialist), the present author harbours the suspicion that it is precisely the specialists who have made the terrain particularly fertile for idiosyncratic categorisations of philosophy books. All this note aims to defend is the idea that, although the claim in favour of alphabetic shelving may itself seem idiosyncratic, at least one subject matter specialist is prepared to waive any authority that might be attributed to the category in the interests of simplicity and predictability in book finding.

2. Mixed modes

A compromise is an agreement out of which no party gets what they wanted, though each party can be satisfied that they are less badly off than they would have been if they had not reached the compromise. A taxonomy like that adopted in DDC is a compromise among divergent ways of thinking of philosophy as subdivisible into its constituent parts, mixing as it does considerations of genre (100), subject—matter (110, 120, 160, 170), doctrine (140) and time—and—place (180, 190). We set aside for present purposes the peculiarity of the inclusion of parapsychological phenomena (130) and psychology (150), and their particular collocations within the scheme, which are mere artefacts of the philosophical culture in America in the time of Melvil Dewey (see Kuklick, 2001 ch. 7). Yet the employment of more than one criterion for classification means that virtually every book should be allotted to more than one place. Why is this a problem?

It is a problem because it requires a cataloguer to choose. We shall recur several times to this argument, so it is well to spell it out at the outset. Though it is not our present purpose to give a philosophical account of what choice is, let us say that an agent makes a choice when she perceives more than one line of action open to her and she determines for herself which to take. That is, consulting her own preferences and expectations, she deliberates in a way that another person in the same situation might not, either because of differences in preferences and expectations or because the differences between one line of action
and another are insufficient to make one wholly preponderant to a rational agent with given preferences and expectations.

Let us consider as simple a case as is imaginable. We give an absolutely typical philosophy book, say, a monograph on pantheism in Stoic cosmology, under an unequivocal title such as *Pantheism in Stoic Cosmology*, to three cataloguers, A, B and C, and we ask them to assign it a *DDC* classmark. Even if A, B, and C are not experts on pantheism in Stoic cosmology, they may conscientiously consult not only the title but also the Library of Congress Cataloguing—in—Publication Data on the copyright page and find, among other things ‘1. Cosmology (Philosophy)’, ‘2. Stoicism’ and ‘3. Pantheism.’ Making absolutely proper use of the data available, A may assign the book to 113 (‘cosmology’), while B assigns it to 188 (‘Stoic philosophy’); and C to 147 (‘pantheism and related systems’). The behaviour of each of the cataloguers is perfectly consistent with *DDC*: A privileges subject—matter, B the school represented and C the doctrine espoused. These differences reflect choices made on the basis of the preferences and expectations of A, B, and C, each of which is perfectly rational and even philosophically defensible.

Suppose, then, a cataloguer like B, who consistently resolves his doubts by preferring the criterion of doctrine espoused. In such case, as many as nine of the top—level divisions can end up almost empty, with virtually all the library’s holdings huddled under 149 (‘other philosophical systems’), and those ordered alphabetically primarily by author surname. On the other hand, if the cataloguer uses now one and now the other of the basic differentiae for classifying the parts of philosophy, then, even though the distribution of works will be more uniform over the classmarks, there is the following consequence for the reader. Not knowing which of the possible criteria has been adopted by the cataloguer who took the volume in hand, she will not know in advance where to look. If she does not know anything about pantheism in Stoic cosmology, then *DDC* will direct her to all of 113, 188 and 147. But, on our scheme, if she has just one name, such as Freudenthal, Sambursky or Reinhardt (or all three), then she will make as many hits as there are books by these authors and these will take her to further surnames by consulting the bibliographies of the books she finds, rather than detouring through the catalogue.

Because *DDC* does not guide either the cataloguer or the reader in the matter of determining how to ‘cut philosophy up at the joints’, uncertainty is generated. In particular, if the reader has to divine the cataloguer’s choices, then a mixed system of this sort is worse than useless. As we shall see on an anecdotal basis, in philosophy, the hard cases are so hard, so many and so prominent, that they would require any conscientious cataloguer to be continuously making choices. Hard cases make hard choices make bad shelf—juxtapositions. Even supposing the choices made were wholly coherent one with another, they would nevertheless be unpredictable by anyone who did not share all and only the cataloguer’s philosophical presuppositions—that is, by almost anyone with an interest in the subject.

3. A modest proposal

Let us sharpen a little the claim we are aiming to render palatable, which we may express by saying that any reasonably heterogeneous collection of philosophy books accessible to any public is best shelved in strict alphabetical order by the author/editor names that appear on their spines or title—pages. Perhaps the place to start is with some idealisations and some background assumptions.

The basic idealisations are that there should be no space constraints on shelving the collection and that there need be no duplication of texts; hence there is no justification for anything other than open shelving and there should be only one place where a given book should be found by a user with the minimum indispensable knowledge about what she is looking for. A further idealisation calls for catalogues by title and subject matter or key word that are reasonably heterogeneous collection of philosophy; supposing that they have no particular time constraints, questions of ‘instant—use’ collections and the like need not arise.

We should next get to grips with the notion of a ‘reasonably heterogeneous collection of philosophy books.’ One notable problem that arises concerns the demarcation of philosophy relative to other fields of enquiry. This is itself a question that philosophers pose themselves as a properly philosophical issue, the manner of confronting and resolving which can have consequences for the ways in which other philosophical problems are posed, confronted and resolved. Most philosophers more or less gaily admit to not having any decent definition of their
subject, and not a few offer definitions that are wilfully misleading. Some, such as G.E. Moore, have been known to point to a reasonably heterogeneous collection of philosophy books (in Moore’s case, his own) and say that philosophy is what those are about. Whatever philosophy is, we shall suppose that all those in a supposed collection are philosophy books at least in this sense: that someone pursuing a recognisable interest in philosophy might be (at least academically) interested in what is in them.

A negative reason for specifying our collection as ‘reasonably heterogeneous’ is that we do well to exclude from consideration cases in which a research library may have a clear focus or be the instrument of a definite programme of enquiry. For instance, where a collection specialises in works by and about a certain author or intellectual moment, the distinctions between ‘primary’, ‘secondary’ and ‘reference’ works can be staked out with some precision, and can offer effective help to readers whose interest in the holdings are already guided by a pre—established research project

If, then, we are supposing that our collection might be of use to pretty much anybody who is interested in one aspect or another of philosophy, it is worth recalling how heterogeneous, in terms of subject matter and genre (to name but two dimensions), a collection of philosophy books has to be to be anything like representative of the field. In at least one respect, this is the obverse of the demarcation problem: just as there is no straightforward and consensual way of determining what should fall outside the perimeter of philosophy, there is no straightforward and consensual way of accounting for all the things that do in fact fall within it.

The phrase ‘accessible by any public’ appears in our summary formulation of our claim because it is fairly obvious that individuals arranging their books for private use need not care how accessible their material is to people with different conceptions of the nature and scope of philosophy. The claim that an author—name arrangement is preferable depends crucially on the idea that a usable library presents books to users irrespective of their philosophical predilections.

The positive good sought by an arrangement on the shelves in alphabetical order by author is neutrality—specifically philosophical neutrality—given the highly controversial and fissiparous nature of the activities that are embraced under the rubric ‘philosophy.’ Assuming the Roman alphabet and consensual schemes of transliteration, simplicity and predictability are the overriding desiderata, satisfaction of which can be measured by the minimum amount of information a reader has to possess in order to be able to locate unaided the material sought. Though there are cases of homonymy among philosophers, it is not so terribly difficult to distinguish—to take a surname very felicitous for their bearers, but perhaps not entirely appropriate in at least one case—between John Wisdom and John Oulton Wisdom. Obstacles such as pseudonymity, as in the case of Kierkegaard, and misattribution, as with the pseudo—Scotus, are not problems of principle. Cataloguers do well to act on what is on the spine or title page of a book, not because they have to believe it, but because users follow that information, however many further complications they are willing to envisage. Likewise, there is generally not much difficulty in distinguishing between the textual editing (transcribing, reconstructing or translating) of a work with an originator different from the person who submits the text to a publisher, which is an enterprise in philology, and the editing of, say, a collection of commissioned essays, which is an exercise in academic entrepreneurship. Unless they are housed in a separate alphabetical run, there is no theoretical reason—given that we are setting aside those practical factors that have to do with the housing of stock—why journals should not appear under their own names, as if they were surnames.

Just as it is not philosophically neutral to say in general terms what is and what is not philosophical, it will be urged that the thesis that texts have authors is not philosophically neutral. For, considerations have been adduced in favour of the thesis that the very idea of authorship is in one way or another misleading, misunderstood or even incoherent. We may concede that this is indeed a philosophical thesis. But, just as it does not follow from the fact that Darwinism is inconsistent with some religious doctrines of the Creation, that Darwinism is a religious doctrine, so it does not follow from the inconsistency between the philosophical thesis that texts do not have authors and the identification of authors in our cataloguing scheme, that that identification carries with it a philosophical thesis. All we need is the supposition that, if texts have authors, then the rule to follow is that of the ways they are identified on spines and title—pages. It is hard to resist the further observations: (i) that the books in which considerations are adduced for the death—or—absence of the author could, on the scheme we are advocating, easily be found under their authors’ surnames;
and (ii) that some of these authors did not disdain to collect royalties on their books.

4. The Standard Rivals

Granting that the idea of shelving philosophy books by author surnames will strike many knowledge organisation specialists as a depressingly unadventurous and unhelpful way of arranging such material, we may examine how the standard ways of being just a little more adventurous and helpful will backfire because they lack predictability.

Let us consider first the subject divisions recognised by DDC. As already noted, these are 110 (metaphysics), 120 (epistemology), 160 (logic) and 170 (ethics). With some pushing and pulling, these divisions can be seen as inheriting the trichotomy envisaged by the Stoics who, in one favoured image, likened philosophy to an egg, with logic as the shell, ethics as the white, and physics as the yolk (Diogenes, Lives, VII, 40). The pushing and pulling called for to make these distinctions line up with each other are themselves the product of what has gone on in philosophy since the time of Zeno of Citium (to whom the egg image is due): what the Stoics studied falls, for those parts that are pretty squarely under ‘ethics’ modern philosophers may recognise as metaphysics and epistemology. But let us suppose that we can be beguiled by the simplicity of some such scheme.

One question that might be asked is: ‘are there any philosophy books that can be assigned with fair certainty, and therefore predictability, to one or other of these categories?’ To this, the answer is undoubtedly ‘yes, there are some.’ Indeed, there are quite a few. For instance, there would be no difficulty in placing G.E. Moore’s Ethics pretty squarely under ‘ethics’ and, more specifically, under 171 (‘systems and doctrines’). The crucial question, however, is not: ‘are there any that can be assigned?’ but, rather: ‘are there any that can’t?’ where the proviso ‘with fair certainty, and therefore predictability’ remains in force. To this latter question, the answer is, as before, positive. Indeed, it is very emphatically positive. Not only are there very, very many philosophy books so hybrid as to fall into more than one of the basic subject categories, there are not a few that fit into none with any certainty or predictability.

To stick with a homonym of the example just cited, Spinoza’s Ethics falls, for those parts that are not purest theology, under a bewildering range of different categories, almost none of which figures in the 170s. In such a case, the considerations to do with catalogue choice kick in. If, on the basis of Part I, we put the book under 111 (‘ontology’), 122 (‘causation’) or 147 (‘pantheism and related systems’ again), then we have ignored Part II, which might go under 129 (‘origin and destiny of individual souls’) or perhaps 126 (‘the self’), Part III, which looks fairly surely like a 152 (‘perception, movement, emotions, drives’) and Part IV, which we might slot into 123 (‘determinism and indeterminism’) or perhaps, at a stretch and on one reading of the text, 171 (‘ethical doctrines and systems’). Any of these choices could be defended. But none is certain. More to our present point, none could be predicted. And especially not by someone who, not having yet read the book, is looking for it on the shelves of a library.

Moving slightly crabwise, and without intention to suggest that every book written by an author who has written one philosophy book is itself a philosophy book, we might consider another work by Spinoza, the Tractatus Theologico—Politicus. Although its twentieth and final chapter might justify a DDC classmark under 172 (‘political ethics’), the rest does not find a place at all in the 100s. Yet the work is undoubtedly a philosophy book, so much so that a colleague of the present author devoted an entire course of what is known in Italy as ‘theoretical philosophy’ to it in the academic year 2006—7. The Ethics and the Tractatus Theologico—Politicus have very little in common by way of subject matter or doctrine; but they should not be isolated one from the other. Hence, any shelving arrangement that leaves the finder of one oblivious of the existence of the other, and, in the best hypothesis (i.e. that the reader does know something about their contents), quite in the dark about where to find either, is defective for the purposes of someone using a reasonably heterogeneous collection of philosophy books.

Our claim is not that there are not differences in subject matter that have been hallowed by tradition and have proved useful by common consent even by the most disputatious of philosophers, but that the differences thus established have been so in spite of their not corresponding to the areas that attract investigation and analysis. Though we do not intend to make a grand metaphilosophical statement, it is noticeable that much philosophy is done precisely at the crossovers between the disciplines that make up the Stoics’ egg and indefinitely many others: these are the points at which things become genuinely philosophical. Even if this is a mere appearance in need of some other explanation, it is at least a perceived feature of the subject itself to be continually revising
the categories on which a subject catalogue functions, generating just the sorts of uncertainty that a librarian should be concerned to minimise.

If we seek any greater fineness of grain than the Stoic tripartite division, even using the most explicit of criteria, the effects are devastating. As already indicated, the inventor of DDC was in thrall to the learned consensus of his time and place (not, be it said, one of the recognised heydays for philosophy), and was fully aware that the cataloguer can do no better than consult those who are at the leading edge of the various specialisms. This has proved a proper flexibility for encompassing developments in and of the hard sciences and their associated technologies. But there are at least three emergent phenomena in philosophy over the last century and a quarter that do not seem to have been taken into account in the 2004 version of DDC. One is the explosion of work in logic, both in formal systems and in philosophical logic, as well as the latter’s offspring, the philosophy of language (decidedly not to be put in the 400s), which makes the subdivisions of the 170s look quite inadequate. Another has been the growth of autonomously philosophical theorising about aesthetics, which does not fit easily in the 700s or 800s. And a third is the development in recent decades of cognitive science. The trouble, however, is that there is no obvious referee to determine how these should be collocated. Insofar as—to take the last instance—cognitive science calls on loudly disputed philosophical presuppositions, the cataloguer should be wary of trusting to a putative classification by one of the disputants. The very different, schemes, projects, proposals and evaluations that are still on the table are in competition in such a way that an extension or modification of DDC in line with the views of, say, any one of John Searle, Jerry Fodor or Andy Clark (all leading lights in the field, but unable to agree with each other about almost anything), might not necessarily add to the confusion, but it would certainly enrage at least one of the participants to ongoing debates.

Adjacent to the employment of subject matter as a principle for distributing books on shelves, there is the criterion sometimes known as the ‘happy neighbour’, which itself shares ancestors with the ‘primary’—‘secondary’ distinction. Here, the idea is to group books according to some focus, which in turn may be subject matter or author. Although the present writer does not know of any attempt to apply ‘happy neighbour’ in a publicly accessible philosophy library, the Warburg Institute arranges its books in such a way that the primary and secondary literature on certain artistic and cultural themes will snuggle up to each other, so that someone looking for something on a given topic—so long as it is well—recognised within the Warburgian paradigm of studies in the classical tradition—will find several things on it without extra legwork or catalogue consultation.

As applied to philosophy, this might have the enjoyable outcome that, in a subdivision of a section directed by John Locke’s Essay Concerning Human Understanding, we would find a string of books on the question of personal identity, because Bk II ch. xxvii of Locke’s book has effectively set the terms of that particular debate for three hundred years. Enjoyable, no doubt. But lacking in predictability and hard to generalise. Cataloguer choice on such a scheme would be either agonising or entirely frivolous; to find what they are looking for, users would have to have intuited what (the cataloguers think) are the core things in a subject in which core things are few and far between. The principle of ‘happy neighbour’ can be used effectively outside philosophy, perhaps for some dedicated holdings for special use within it, and, not without some inconvenience, by the individual owner—user of a private collection, but hardly for our reasonably heterogeneous collection of philosophy books accessible to a public.

The other major way of organising philosophy books is by reference to a time and/or a place. DDC divides these into the 180s (‘ancient, medieval and Oriental’) and the 190s (‘modern Western’). The reasons that have been adduced for ordering books chronologically seem peculiarly weak when applied to philosophy.

One can understand ordering history books by the periods that they have as their subject—matter. But it does not follow at all easily that books concerning the history of philosophy should be treated likewise, for it is very hard to tell when a book written by a philosopher is a history—of—philosophy book. For instance, Russell’s critical exposition of the philosophy of Leibniz may be said to be a history book because its ostensible subject is a philosopher long dead when its author wrote. But a slightly sour reader might think that one learns at least as much about Russell’s thought at the turn of the twentieth century as one does about Leibniz’ at the turn of the eighteenth. Though it is a slightly extreme case, it is not unique nor even untypical of the ways that, even when a book of history of philosophy aspires to the neutrality of the most imbecile
forms of doxography, there is always and inevitably a powerful refractive effect in the composition of such works. Moreover, not a few history books explicitly set themselves to make comparisons over long lapses of time aiming to bring out the character of one or more of their named subjects. Thus, a book with the title *Descartes and Augustine*, which happens to dedicate as much space to Plotinus as it does to Augustine, might quite reasonably be shelved as Cartesian scholarship because its author’s primary purpose in discussing forms of Neo—Platonism was to throw light on a strand in Descartes’ thought.

As indicated at the outset, many of the books in the 800s have works of fiction as their objects. In this respect, they are often called ‘secondary’ in terms of the distinction already referred to. Such a distinction can frequently be made in pairwise fashion among philosophy books; but it is not without its problems. For instance, one of the most influential logic books of all time, the *Isagoge* of Porphyry of Tyre is declaredly an introduction to Aristotle’s *Categories*, a work on which Porphyry also wrote two commentaries. One might be tempted, therefore to shelve these books together. The trouble, however, is that, starting with Boethius, a tradition grew up of writing commentaries on the *Isagoge*: should these be shelved under Aristotle, under Porphyry or under their authors? Our present claim is that the last solution is the simplest and least demanding.

On the other hand, there is almost nothing compelling to be said in favour of classifying philosophy books by the time and place of their original elaboration. Much has been said about the peculiarly intimate dialogue that philosophers keep up with the past of their subject. Some of what has been said has led to the thought that philosophy ought to be studied in chronological order, starting with Thales of Miletus. In Italy, for instance, this is the absolutely standard practice in schools where philosophy is taught, and derives from the Hegelian—inspired doctrine of a certain Giovanni Gentile, a philosopher who took improper advantage of being Minister of Education under Mussolini. The doctrine espoused by Gentile, and adopted by his successors for reasons that are not our present concern, is known as ‘historicism.’ Historicism has a very slim chance of being anywhere near the truth of the matter as a point of pedagogy; and it seems to the present author to be not—even wrong as a theory of what is involved in understanding a philosophical text, so wildly misconceived is it. In our view, considering philosophical books in descending order of their authors’ body weights at the age of 25 would be no worse criterion than what historicism proposes, and it might remind us of an interesting dialogue between the corpulent St Thomas Aquinas and the distinctly pudgy David Hume.

Apart from its arbitrariness, the historicist criterion seems to fail all possible tests as a principle for determining the shelving of a reasonably heterogeneous collection of philosophy books: it can hardly be applied consistently; it requires too much of readers; and it produces unpredictability. Though one could imagine a consistent version of the principle, one that specified, for instance, that a book’s place on the shelf is determined by the date of birth of its author, so that Spinoza, born on the 24th November 1632 comes after Locke who was born on the 28th August of the same year, it is hard to believe that any librarian has ever set up such an arrangement. In its pure form, the historicist principle runs into problems of practicability. Not only should library users not be expected to know the exact date of birth of even the most famous philosophers, in many cases, the best scholarship available cannot determine to within a greater accuracy than, say, a decade, when many were born, though it is pleasantly easier to know the dates of death.

As a result, a collection that respects a watered-down historicist principle subdivides the last 2,500 years into periods or, in the case of the *DDC* 180s, both periods and schools. Even so, this seems to require that a reader know more than necessary about his quarry. If, for instance the Professor of Philosophy in the University of Cambridge, publishing with the Oxford University Press, can classify Epicurus as a ‘Stoic’ (Blackburn, 2001, 17), thus straddling, not to say muddling, 187 and 188, what hope is there for the rest of us? When, for instance, did ‘Medieval philosophy’ (189) begin? Before or after Iamblichus (whose dates are, in any case, a bit approximate)? And when did it end? Before or after Suárez? Did philosophy immediately become ‘Modern’ (190)? And what will we get next?

While it may—or may not—be conceptually impossible for a philosopher, or any other human being, to have more than one beginning in time, the fact that people can move in space makes the *DDC* organisation of the 190s utterly unpredictable. The notable nomads of the twentieth century, such as Wittgenstein, Popper, Carnap, Hintikka (is Finland in ‘Scandinavia’: 198?), Marcuse, Arendt, Levinas and Derrida (like Camus, 194: ‘France’ or 199: ‘other geographical areas’?) all require catalogue choices of just the sort we are aiming to avoid.
More generally, we may note that within these unstable and inscrutable categorisations, at a certain point of subdivision, a system like DDC relents and goes alphabetical by author surname. If later, why not sooner? And this is what underlies the foregoing polemic: given (i) that library—users want to get at books; (ii) that the easiest, least contentious, least theory—laden and most compatible—with—ignorance way of identifying a book is by its author’s name; and (iii)—and this is the crunch—that most library users believe (ii), and would act on it, if free to do so; there is no reasonable alternative to organising a reasonably heterogeneous collection of philosophy books accessible to any public in any order other than that of alphabetical order by author surname.

5. Some temptations to make exceptions

As we have noted, the first decade of the 190s is subdivided, internally and relative to the rest of the century, by genre; specifically, it is devoted to what we might call ‘reference’ books. If our analogy between the arrangement of philosophy books and the municipal approach to handling books of fiction (i.e. not contemplating Barbara Cartland under DDC) holds good, then it might give rise to the following thought relative to our present interests. Even supposing that all the philosophers and philosophy books we have alluded to so far should be shelved in alphabetical order by author surname, are there not categories of books, such as dictionaries (103), encyclopedias, bibliographies (some, presumably, in 105), guides and overviews (106?) biographical repertories (108) and histories (109) that should be exempted from our levelling zeal?

Three kinds of reason might be given for thus bending the rule. One is that a reference section is a natural enough category: these are books about philosophy, rather than of philosophy, just as a handbook of the characters in Dickens is not a work by Dickens. A second is that it is handy to have such works concentrated in one zone of the library: if a user fails to find what he is looking for in the Routledge Shorter Encyclopedia, he may find it in the adjacent Oxford Companion. A third is that, as in the cases just cited, works of this sort are more easily remembered by title and/or publisher than by author, compiler or editor (to the chagrin of Edward Craig and Ted Honderich respectively).

Taken together, these three considerations seem to make a strong case for separating reference material from the run of philosophy books. But, though the second and third of them are certainly cogent from the point of view of the user, the difficulty of elucidating the highlighted prepositions in the first (and thus explicating the ‘such’ and the ‘of this sort’ in the others) in a way that is philosophically neutral, and thus predictable by users, seems to set the proposal at naught. This is not a matter of mere vagueness, but a reflection of the fact that philosophers often use titles, styles and manners of presentation that mimic those of reference works, and, vice—versa, sometimes end up writing what can become a standard or institutionalised reference work in the course of pursuing other expository purposes.

We may consider, in the first category, the uses made by, say, Pierre Bayle or Voltaire of titles including the word ‘dictionary:’ though perhaps there was a moment in which the former could have been regarded as a somewhat polemical antidote to other reference works then on the market, both are now consulted not to know how things stand, but to know what Bayle or Voltaire thought about things: they have become objects, rather than instruments, of study. The tradition in question is by no means exhausted, as Quine’s Quiddities: an intermittently philosophical dictionary of 1987 attests.

In the second category, we might cite Guthrie’s History of Greek Philosophy, which may be regarded as predecessors in the series that bears the title Cambridge History of x Philosophy, where for ‘x’ we may substitute names of other periods. Though its author disavows ‘encyclopedic’ intent in discussing Aristotle (Guthrie, 1962—81, vol. V, p. ix), his magnum opus deserves a 109 classmark if any does. Likewise, in logic, a number of textbooks, such as Hughes and Cresswell’s Modal Logic, have taken on the status almost of texts for consultation, although that was by no means the original intent.

Further trouble is raised by this second category. Even if the present author might want to classify the works just mentioned as, in one way or another, reference works, he would be less than happy to see some—without saying here which—of what a publisher would call their ‘market competitors’ similarly honoured. This, then, is the judgment of one subject—matter specialist, and one that would not be shared by other, equally or more specialist, users of our collection of philosophy books. Hence, the cataloguer should not be put in the invidious position of attributing to this book or that an authoritativeness that is not philosophically neutral. We do not deny that many reference works in philosophy are to be trusted about many matters. But it is in part a phi-
philosophical commitment to say which, how much and about what.

Where multiple authorship, collaboration or committee approaches to composition might recommend that a work be regarded as anonymous, the hypothesis of simplicity would indicate shelving by the name of the publishing house. It is true that such a flattening of the terrain means that our collection calls for a fairly articulate subject and title catalogue; but that is a matter for separate consideration.

6. The long and the short of it

Our argument for alphabetical ordering of all the books that would fall within the DDC 100s has been mainly negative. It derives from considerations concerning the difficulties that arise in persevering with any of the obvious alternative classifications of a reasonably heterogeneous collection of philosophy books, and in making some of the most apparently commonsensical exceptions. Though some of the ordering principles that motivate more adventurous and helpful arrangements can be applied to many philosophy books, the hard cases—in which philosophi-
cal judgment is demanded of a cataloguer—are so glaring to anyone who knows about what is between the covers of this stuff, that someone who knows their own way around will find what they are looking for, and someone who doesn’t is beyond help.

References

Declassifying the Library of Congress Classification: 
The Case of the Department of Philosophy Library 
at the University of Padova (Padua, Italy)†

Cristiana Bettella,* Cristina Capodaglio,** Cristina Ramous,*** and Maria Cristina Vettore****

All: Department of Philosophy. Library – University of Padova, Piazza Capitanato 3, I-35139 – Padova, Italy
* <cristiana.bettella@unipd.it>  ** <cristina.capodaglio@unipd.it>
*** <cristina.ramous@unipd.it>  **** <mariacristina.vettore@unipd.it>

Cristiana Bettella (MA in Romance Philology, University of Padua) is librarian at the Library of the Department of Philosophy, University of Padua (Italy) where she is in charge of the philosophy collection development and management both in print and digital format. She organized the workshop Classifying the Human Sciences: The case of Philosophy. Stimulated by Claudio Gnoli, she has recently promoted the ISKO Italy research project on Knowledge Organization for Philosophy. Areas of research: knowledge organization within the context of the digital humanities.

Born in Padua (Italy) in 1969, Cristina Capodaglio studied History at Ca’ Foscari University of Venice. Since 1999 she has been working at the Library of the Department of Philosophy at the University of Padua where she is in charge of the Philosophy serials collection. She currently teaches information literacy to undergraduate and graduate students in philosophy.

Born in Padua (Italy) in 1967, Cristina Ramous studied Humanities and Pedagogical Sciences at the University of Padua. Librarian at the University of Padua since 1998, she worked at the Library of the Department of Economics and at the Humanities Library before moving to the Library of the Department of Philosophy in 2005. She is in charge of cataloguing and teaches information literacy to undergraduate and graduate students in philosophy.

Born in Padua (Italy) in 1966, Maria Cristina Vettore studied English and German at Ca’ Foscari University of Venice (Italy). In 2005 she obtained the Certificate of Attendance to the Master’s Program in Library Management and Administration organized by the Sacro Cuore Catholic University of Milan (Italy). Librarian at the University of Padua since 1991, she worked at the Library of the Department of History before moving to the Library of the Department of Philosophy in 2003 where she is chief librarian. Areas of interest: Library Management and Acquisitions.

Cristiana Bettella, Cristina Capodaglio, Cristina Ramous, Cristina, and Vettore, Maria Cristina. Declassifying the Library of Congress Classification: The Case of the Department of Philosophy Library at the University of Padova (Padua, Italy). Knowledge Organization, 36(2/3), 130-140. 3 references.

ABSTRACT: The ongoing project to revise the arrangement of the open shelves library collections occasioned a historiographic account of the implementation phases of the Library of Congress Classification (LCC), subclasses B-BJ – Philosophy and Psychology, at the Library of the Department of Philosophy of the University of Padua (Italy). The schema was adopted as a collection shelving and location device since the Library institution in 1997. The LCC international acknowledgement and the neutral
framework of the schema have undoubtedly played a role of driving factors at the first stage of the selection process. However, the implementation of the classification scheme had to consider critical issues like the shortage of the library area, the selection criteria of the appropriate bibliographic material, as well as the effort to settle and tailor the original schema to the specific needs of the library collections and its end-users. The purpose of this paper is twofold: from one hand, we aim to examine in detail each stage of the implementation project in order to provide a preliminary impact evaluation of the classification schema both on the collections management and development and on the research practices of the local users community; from the other, we intend to highlight the principal factors that have implied a sort of declassification process of the system itself. In conclusion, we argue that the declassification of library collections can be read, from a bottom-up perspective, as an index of vitality of the collections themselves, as well as a valuable basis for planning the next steps of the Library project.

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1. Introduction

The ongoing library project to revise the arrangement of the open shelves collections has occasioned a historiographic account about the implementation phases of the Library of Congress Classification (LCC), subclasses B-BJ – Philosophy and Psychology, at the Library of the Department of Philosophy in Padua. In fact the Library adopted this system and used it with some modifications as a collection shelving and location device since its institution in 1997. The Library of Congress Classification is probably the most widespread bibliographic classification employed in the context of the academic and research libraries all over the world, although, as we will see, this is not the main reason why the system was embraced at the Library. The purpose of this paper is twofold: from one hand we aim to examine in detail each stage of the implementation project in order to provide a preliminary impact evaluation of the classification system both on the collections management and development and on the research practices of the local users community; from the other hand, we intend to highlight the principal factors that have implied a sort of declassification process of the system itself.

2. Background: history and institutional context

The history and the development of the Library of the Philosophy Department at the University of Padua are deeply grounded in the institutional and research context in which the Library came into being. This is a distinctive aspect connoting the origins of most part of the university libraries in Italy, as they were conceived, at least in their early stages, to exclusively serve their scholarly community. However, it is rather unquestionable, if not trivial, to assert that the historical collections development of a given institution can be seen as a mirror of the institution’s own history. Collections, from this reading perspective, may preserve the richness of signs left by generations of readers and scholars; they gather and keep inside the niches of those lines of research from which are followed in some cases veritable schools of thought. And in this respect, the case of the Library of the Philosophy Department at the University of Padua is not an exception.

The Department was officially activated on January, 1st 1997. It was founded in 1996 by mergering the previous two institutes: the Institute of Philosophy of the Faculty of Letters and Philosophy, founded by Marino Gentile following the transformation of the former Philosophy Seminar directed by Luigi Stefanini, and the Institute of the History of Philosophy at the Faculty of Education Sciences (formerly Faculty of Education), founded by Carlo Giacon. Thus, the whole of the academic staff in philosophy of both Faculties joined the new born Department along with some scholars coming from the Faculty of Psychology.

Between tradition and innovation, the Department of Philosophy offers a program covering a wide range of fields in systematic philosophy and the history of philosophy. Its special strengths lie in German idealism, moral and political philosophy, aesthetics, epistemology, philosophy of logic, philosophy of language, the history of analytic philosophy, ancient philosophy, medieval philosophy and Eastern philosophies.

The Department is responsible for both undergraduate and graduate instruction. It administers the full degree course in Philosophy and the philosophy
section of the degree course in Education. Graduate studies have been recently organized in the Doctoral School in Philosophy that includes three main research lines: Philosophy and history of ideas, Moral and theoretical philosophy, Political philosophy and history of political thought.

Furthermore, the Department hosts the headquarters of the Interdepartmental Centre for Research in Medieval Philosophy “Carlo Giacon” and the Inter-University Centre for Research on History of the Aristotelian tradition, which has absorbed the former University Centre for the History of the Aristotelian tradition in Veneto, founded by Carlo Diano. For further information about the Philosophy Department and the Library, see their official web site available at the address <http://www.filosofia.lettere.unipd.it> and at <http://www.filosofia.lettere.unipd/biblio/> respectively (last visit: December 28, 2008).

3.  Portrait of the Library: on collections and classification

The constitution of the Library of the Department of Philosophy cannot be disjointed from the institutional context of the Department to which it is closely related. The Department and the Library share in depth a similar genealogy and common cultural values, as well as the institutional mission devoted to promote the development of research in philosophy and in supporting teaching in philosophical studies.

Following up the activation of the Department in 1997, the Library was born by the conflation of the Libraries’ collections of the former Institute of Philosophy and of the Institute of the History of Philosophy. The union library is housed in the new spaces inside Palazzo del Capitanio where the Department has its headquarter and where the library is still located.

The Library is currently part of the University Library System applying its General Regulation and library policies. As a centre of information services and resources, the institutional function of the Library is to promote the study and research in the philosophy domain by acquiring, storing and making available the philosophical production of the national and international scholarly literature, both in print and digital format.

With an annual index growth equal to about 1800 items, the Library owns almost 90,000 books, with 19,653 volumes belong to special collections coming from the donors of Emilio Bodrero and Erminio Troilo (both professors in Philosophy at the University of Padua), and 840 ancient and rare books. The Library’s serial collection includes 257 current subscriptions and 120 ceased periodicals. The bibliography of courses in philosophy is also provided; textbooks are purchased on an annual basis, when possible in multiple copies.

The collections of the Library are completely computerized and indexed in the University Library Integrated System, migrated to Ex Libris Aleph 500 in 2007; all of its documents are available through the university electronic catalogue to the online searching and browsing. The Library stopped updating the card catalogue in 2002. The university electronic catalogue can be reach from the Padua Library System Portal at <http://www.cab.unipd.it> (last visit: December 28, 2008).

3.1 Collections arrangement

The collections location is arranged according to a mixed device. Thus, the Library’s collections are partly located on open shelves and partly on closed stacks of two off-sites depositories.

3.1.1 Closed shelves collections

Most of the library material (over 87%) is stocked on closed shelves in the two library depositories. Books are sorted out by book size based on the dimensions as measured in centimetres from head to tail and from spine to fore edges of the cover.

The call number is made up by the introductory capital letter M of the shelf-mark (M stands for the Italian word “magazzino”, i.e.“depository”), followed by letters E, F, G etc. in conformity with the book size (i.e. “E” stands for books at most cm 18 tall) and closed by the chain number which is generally based on the order of the arrival of the works in the library.

For example:

E.g. M.H.11817 is the call number assigned to the following work:

where:

M stands for a work shelved in depository
.H stands for a volume that is at most 24 cm tall
11917 is the chain number assigned to the copy
The arrangement by book size is also applied to other collections housed in the depositories as those of special collections _Fondo Bodrero_ and _Fondo Troilo_ (call number with opening shelf-mark FB and FT respectively) and that one reserved for the ceased periodicals (call number with shelf-mark RIV.M.). However, there are some exceptions. For example, the collection reserved for standing orders of monographic series is ordered by an identification number assigned to each series (call number with opening shelf-mark M.CONTI), while the ancient and rare books belonging to _Fondo Bodrero_ are embedded in the subdivision ANT of FB (ANT is the Italian abbreviation for “antico”, i.e. “ancient”).

All books on closed shelves are available for circulation upon the submission of a formal request by filling the apposite form at the circulation desk or by sending an e-mail. The staff of the Library fetches the books from the depositories four times a day.

### 3.1.2 Open shelves collections

The open shelves collections are housed in four reading rooms and in a mezzanine floor within the Library area. They are composed by five main subdivisions organized as follows:

<table>
<thead>
<tr>
<th>Collections</th>
<th>Sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>II. Course readings</td>
<td>CORSO</td>
</tr>
<tr>
<td>III. Philosophy</td>
<td>B</td>
</tr>
<tr>
<td>IV. Serials collection</td>
<td>RIV</td>
</tr>
<tr>
<td>V. Rare books</td>
<td>Z.ANT</td>
</tr>
</tbody>
</table>

Note that the sections order corresponds roughly to the collections arrangement throughout the library reading rooms. Let us stop for a moment to consider their internal composition.

*Reference section:* the section is the result of a layering process of several interventions in the collections arrangement over time. Thus, the section is articulated in embedding subdivisions that gather, and somehow classify, the heterogeneity of the *corpus* of the reference works. In this respect, general reference sources as bibliographic and research guides, bibliographies, dictionaries, encyclopaedias, handbooks and so forth, can coexist with sources on individual philosophers and their works, as well as with sources related to a specific branch of the philosophical research. For example, research tools largely related to the Medieval studies, including primary and secondary sources, are housed separately in the third reading room and shelved according to the following arrangement:

- CONS.A collects the Latin Aristotle Commentaries
- CONS.B collects primary and secondary sources in biblical studies
- CONS.M and CONS.MS are specifically reserved to research tools for Medieval Studies and Philosophy

Conversely, the philosophical reference collection is properly housed in the reference stacks of the first reading room near the circulating and reference desk. The collection gathers, along with language tools, the principals reference tools related to the philosophical field like bibliographies, lexicons, encyclopaedias and alike. The reference collection includes also several philosophical series which endow the reader with excellent introductory works to the most important philosophical topics, as well as to the study of individual philosophers and their works.

Books are arranged according to an in-house location device which has been elaborated in recent years by the library staff. For example:

E.g. CONS.ENC.2.8 is the call number assigned to the following work:

where:

- CONS means that the work belongs to the class CONS reserved for the *Reference works* collection (CONS stands for the abbreviation of the Italian word “consultazione”, i.e. “consultation”)
- ENC means that the work belongs to the subdivision assigned to the reference type “encyclopaedias” (ENC stands for the abbreviation of the Italian word “encyclopaedia”, i.e. “encyclopaedia”)
- .2 is the chain number assigned to the whole work (i.e. _Enciclopedia_)
- .8 is the sequence number, that is the eighth volume of the _Enciclopedia Einaudi_

E.g. CONS.FIL.GUI.1.10.50 is the call number assigned to the following work:

where:

CONS means that the work belongs to the class CONS reserved for the *Reference works* collection.

.FIL means that the work belongs to the subdivision assigned to reference works in philosophy (FIL stands for the abbreviation of the Italian word “filosofia”, i.e. “philosophy”)

.GUI means that the work belongs to the reference type “guides” of the subdivision in reference works in philosophy (GUI stands for the abbreviation of the Italian word “guida/e”, i.e. “guide/s”)

.1 is the subtype number assigned to reference works on philosophical topics

.10 is the chain number assigned to the philosophical series *Oxford readings in philosophy*

.50 is the sequence number of the series, that is the fiftieth volume of the *Oxford readings in philosophy*.

Books are generally available only for consultation, as the shelf-mark’s name describes it, with the exception of some monographic series recently open up for short-term loan without renewal.

*Course readings*: the collection is shelved in the first reading room and gathers the textbooks belonging to the bibliography of courses in philosophy related to the past two academic years. Due to the temporary nature of this location, books are arranged according to an intermediate call number. For example:

E.g. CORSO.2008/09.154 BIS is the call number assigned to the following work:

Foucault, Michel. 2001. *Biopolitica e liberalismo*. Milano: Medusa

where:

CORSO means that the work belongs to the class CORSO reserved for the *Course readings* collection (CORSO stands for the English word “course”)

.2008/09 means that the work belongs to the bibliography of a current course in philosophy

.154 is the chain number assigned to the copy

BIS means that it is the second copy of the work. Note that if a second copy of the work is available, then the work is available for loan.

**Serials collection**: the collection of current periodicals is shelved in the mezzanine floor. The collection gathers the leading scholarly reviews in the philosophical field published in Italy and abroad. According to the library collections policies, since 2004 the Library subscribed regularly to the electronic version of journals if available.

The periodicals are arranged on open shelves in alphabetical order according to a homemade location device. The call number is made up by the introductory shelf-mark of the section RIV (RIV stands for the abbreviation of the Italian word “rivista/e”, i.e. “review/s”), followed by the capital letter A and closed by the identification number assigned to each journal title.

**Rare books collection**. The collection gathers ancient and rare books mainly related to primary philosophical sources. It is housed in the fourth library room, reserved to the academic staff, and kept safe in closed shelves. The books are shelved by book size and ordered by call number. For example:

E.g. Z.ANT.16.44 is the call number assigned to the following work:

*L’strumento della filosofia di M. Alessandro Piccolomini*. In Venetia: per Francesco Lorenzino da Turino, 1560.

where:

Z stands for the Library of Congress Classification, Class “Bibliography and Library science”

.ANT stands for the subdivision related to ancient and rare books

.16 means that a “sixteenmo” book (i.e. with sixteen leave per sheet)

.44 is the chain number assigned to the copy

**3.2 The philosophy collection**

Housed throughout the first and the second library reading room, the philosophy collection informs the bibliographic core of the Library’s collections profile gathering the works of worldwide leading philosophers. Books are shelved according to the subdivisions of the class B “Philosophy and Psychology” that the Library of Congress Classification reserves for the philosophical works. As we will see more in detail in the next paragraph, the schema was adopted by the Library with functions of location device and shelves arrangement since its inception in 1997.
Currently, the philosophy collection is sorted out in the following class shelf-marks:

<table>
<thead>
<tr>
<th>Class</th>
<th>Shelf-Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Philosophy (General)</td>
</tr>
<tr>
<td>—</td>
<td>105 Special Topics (Events; Meaning; Reference, etc., specially related to Philosophy of language)</td>
</tr>
<tr>
<td>—</td>
<td>108-708 Ancient Philosophy (600 B.C. – 430 A.D.)</td>
</tr>
<tr>
<td>—</td>
<td>720-765 Medieval Philosophy (430 A.D. – 1450 A.D.)</td>
</tr>
<tr>
<td>—</td>
<td>770-785 Renaissance</td>
</tr>
<tr>
<td>—</td>
<td>790-5739 Modern Philosophy (1450 A.D.- )</td>
</tr>
</tbody>
</table>

Branches of Philosophy

- BC Logic
- BD Speculative Philosophy (Metaphysics; Epistemology, Methodology; Ontology)
- BF Psychology

Limited to: Relation to critical and speculative philosophy; Psychoanalysis; Consciousness; Cognition

- BH Aesthetics
- BJ Ethics

Topics related to Philosophy: Philosophy and/of —

- B Religion (Cf. Religious Philosophy)
- BL 51 Religion
- BT 40-50 Theology (Cf. CONS.B)
- BX Only for classic protestant texts

- P Language
- P 27 Collected works, papers, etc., of individual authors (i.e. Chomsky’s Collected papers)
- P 39 Relation to logic
- P 99.4.P72 Pragmatics (Cf. P831.5.A1 +, Philosophy)
- P 101-107 Language. Linguistic theory. Comparative grammar

Philosophy, origins, etc. of language

General works subdivided by period

- P 151 Theory of Grammar
- P 291 Syntax
- P 299.A-Z Other aspects, A-Z
- P 325.5 Semantics
- P 325.5.A-Z Other aspects, A-Z

- Q Science
- Q 124-175 Science
- Q 295 System theory; Cybernetics

- Q 325 Self-organizing system. Conscious automata
- Q 327 Artificial intelligence
- Q 342 Information theory
- QA Mathematics
- QA 9 Philosophy, Mathematical logic
- QB 14.5 Astronomy
- QC 6 Physics
- QD 6 Chemistry
- QH 331 Biology
- QH 360 Evolution

Note: ongoing revision

Religious Philosophy

- BL 51 Religion (General)
- BQ 251-799 Buddhism – History – Philosophy
- BQ 1001-1945 Buddhism – Literature
- BQ 1100-3340 Canonical Literature
- BQ 4061-4570 Doctrinal and Systematics Buddhism
- BQ 4911- Works
- BR 100-110 Christianity – Philosophy
- BR 140-1500 History
- BS 1-2979 The Bible (Cf. CONS.B)
- BT Abandoned
- BX 4800 Only for classic protestant texts

Note: ongoing revision

Political Theory

- JA 71-84 Political philosophy
- JC 11-126 Pre-modern political theory
- JC 71 Greek political theory
- JC 131-300 Modern political theory
- JC 301-497 Forms of the State
- JC 327 Sovereignty
- JC 336 Social contract
- JC 500-561 Purpose, function of the state
- JC 571-628 The State and the Individual
- JC 571-574 Authority. Individualism.
- JC 585-599 Liberty
- JK 1751-1788 Political ethics - Citizenship

Note: ongoing revision

Table 1. Philosophy classification scheme: outline

Philosophers’ works are collected under their names and enumerated within the tripartite temporal order of the philosophy’s schedules (B). According to the original schema, they are further arranged and grouped following a space-temporal principle where each country, or major historical period within a country, is subdivided as follows: collected works,
general works, special topics A-Z, individual philosophers A-Z. However, general works, special topics, as well as any subdivisions hosting the pertinent secondary literature (i.e. “Criticism and interpretation” or “Criticism” in the schema), have been progressively abandoned to allow the expansion of philosophers’ works throughout the library open shelves. For example, philosophical works belonging to the so-called modern period are arranged as follows:

<table>
<thead>
<tr>
<th>Call Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 790-5739</td>
<td>Modern Philosophy (1450 A.D.- )</td>
</tr>
<tr>
<td>850-945</td>
<td>United States</td>
</tr>
<tr>
<td>934-945</td>
<td>Later 19th and 20th centuries</td>
</tr>
<tr>
<td>945</td>
<td>Philosophers A – Z</td>
</tr>
<tr>
<td>1111-1674</td>
<td>England</td>
</tr>
<tr>
<td>1131-1299</td>
<td>17th century</td>
</tr>
<tr>
<td>1148-1299</td>
<td>Philosophers A - Z</td>
</tr>
<tr>
<td>1300-1398</td>
<td>18th century</td>
</tr>
<tr>
<td>1302.5-1398</td>
<td>Philosophers A - Z</td>
</tr>
<tr>
<td>1401-1584</td>
<td>Scottish philosophers, 18th &amp; early 19th centuries</td>
</tr>
<tr>
<td>1403-1559</td>
<td>Philosophers A – Z</td>
</tr>
<tr>
<td>1561-1612</td>
<td>19th and 20th centuries</td>
</tr>
<tr>
<td>1572-1612</td>
<td>Earlier 19th century to 1870</td>
</tr>
<tr>
<td>1574-1612</td>
<td>Philosophers A - Z</td>
</tr>
<tr>
<td>1614-1674</td>
<td>Later 19th and 20th centuries</td>
</tr>
<tr>
<td>1618-1674</td>
<td>Philosophers A – Z</td>
</tr>
<tr>
<td>1701-2403</td>
<td>Scotland</td>
</tr>
<tr>
<td>1815-1907</td>
<td>17th century</td>
</tr>
<tr>
<td>1824-1907</td>
<td>Philosophers A – Z</td>
</tr>
<tr>
<td>1911-2179</td>
<td>18th century</td>
</tr>
<tr>
<td>1928-2179</td>
<td>Philosophers A – Z</td>
</tr>
<tr>
<td>2015-2417</td>
<td>19th century</td>
</tr>
<tr>
<td>2189-2417</td>
<td>Philosophers A – Z</td>
</tr>
<tr>
<td>2421-2430</td>
<td>20th century</td>
</tr>
<tr>
<td>2421</td>
<td>General works</td>
</tr>
<tr>
<td>2424</td>
<td>Special topics A - Z</td>
</tr>
<tr>
<td>2430</td>
<td>Philosophers A - Z</td>
</tr>
<tr>
<td>2521-3396</td>
<td>Germany. Austria.</td>
</tr>
<tr>
<td>2543-3396</td>
<td>17th century</td>
</tr>
<tr>
<td>2615-2729</td>
<td>18th century</td>
</tr>
<tr>
<td>2741-3177</td>
<td>Later 18th and early 19th centuries</td>
</tr>
<tr>
<td>2750-3177</td>
<td>Philosophers A - Z</td>
</tr>
<tr>
<td>2949.3-3177</td>
<td>Other philosophers A – Z</td>
</tr>
<tr>
<td>3180-3396</td>
<td>Later 19th and 20th centuries</td>
</tr>
<tr>
<td>3198-3396</td>
<td>Philosophers A – Z</td>
</tr>
<tr>
<td>3551-3566</td>
<td>Italy</td>
</tr>
<tr>
<td>3571-3585</td>
<td>17th century</td>
</tr>
<tr>
<td>3591-3598</td>
<td>18th century</td>
</tr>
<tr>
<td>3601-3656</td>
<td>19th and 20th centuries</td>
</tr>
</tbody>
</table>

Table 2. Classification of Modern (and contemporary) Philosophy

Individual philosophers are classified accordingly to the range of call numbers (50 at most) assigned to their own subject headings. For example:

E.g.: B.2430.D483 P37 is the call number of the following work:

where:

B.2430 means that the work is a twentieth century French work
.D48 is the Cutter number assigned to Jacques Derrida as subject heading
3 means that the work is a separate work by Jacques Derrida
P37 is the Cutter number assigned to the work Papier machine

A short explanatory note has to be introduced with regard to the Religious philosophy. As we can observe in the classification outline above, religious subdivisions—as given by the original schema—are poorly used and populated in the Library’s collections arrangement. The biblical literature is shelved separately in an ad hoc library section, as it is the whole of the monumental series of Corpus Christianorum. On the other hand, works by Christian authors are subarranged under their name within the appropriate ranges of call numbers of the Late Antiquity and Medieval period.

4. The Library of Congress de-classification

The above portrait of the collections arrangement points out the fragmentary or, if one prefers, hybrid organization of the open shelves collections. Furthermore the variety of call numbers, as well as the same notation format, do not help the casual reader “to see” Philosophy through those classification paths that trace, to say so, the collections boundaries by characterizing, at the same time, their bibliographic profile. As we have seen, the Library of Con-
Library of Congress Classification is mostly used as location device to classify authors and their works on the library open shelves; whereas works on philosophical topics play a marginal role and are often banished in the reference sections where they may find some rooming within the thematic series. Hence, which were, and still are, the reasons to classify philosophical works using the Library of Congress Classification?

4.1 The Library of Congress Classification: an economic and strategic choice

The unification between the former Library of the Institute of Philosophy and the Library of the Institute of the History of Philosophy cannot bear the consequence of assuming the location system previously used to arrange the bibliographic material of both libraries on the shelves. Both systems reflected the specific character of their own library and community of users. They were conceived to arrange books in order to grant their invisible college, so to say, the appropriate primary and secondary sources but both were not adequate to represent in a systematic way the organic corpus of the philosophy collection of a modern research library.

Conversely the Library of Congress Classification seemed to offer those functional requirements to be able to meet the specific needs of a young but growing library. A special library committee was therefore established with the task of managing, from one hand, the evaluation process in order to select the appropriate classification scheme, and, from the other hand, of identifying the bibliographic composition of the open shelves collections. Committee’s members were both from research and library staff.

If one consider that in those days, it was 1997, the university libraries automation was at the beginning, the most part of library collections were so poorly computerized as they were available to the online searching from the electronic catalogue, that the same libraries were accessible as far as to graduating students and research staff; then it may be more understandable at what extent the choice of an international standard could be sound as a position statement that can be easily defined revolutionary. Note that the attribute “revolutionary” is used in this context as synonymous of rupture, or break, with special consideration to the past tradition of the local library environment.

The outstanding acknowledgement of the Library of Congress Classification at an international level from one hand, and the neutral framework intrinsically innate in the schema from the other, have undoubtedly played a role of driving factors at the first stage of the selection process. But let us examine more in detail some of the surrounding reasons on which these factors can be based:

- **Neutrality**: as we have pointed out, the neutrality of the schema was able to overstep the permanence of some form of symbolic resistance, typically related to the legacy of the context, to mean that the Library of Congress Classification served as super partes schema.
- **Internationality**: the definition is taken tout court to mean a schema that is not elaborated in-house. On the other hand the Library of Congress Classification may be considered by the same standards since the schema was mainly conceived as location device to accommodate the Library of Congress collections.
- **Consensus and authoritativeness**: the fact that the Library of Congress Classification is de facto one among the pre-eminent and most employed system in the international context of the academic and research libraries.
- **Reliability**: from a technical point of view, classification schedules, both of the Library of Congress Classification and of the Dewey Decimal Classification, were available as machine-readable data from the Library of Congress magnetic tapes used in the RAP environment for the automatic retrieval of bibliographic records. RAP stands for Recupero Automatico del Pregresso (Automatic retrieval for the retrospective conversion of bibliographic records). RAP is a software implemented by the technical staff of the University Computer Centre. In the nineties of the past century, it was widely employed within the University Libraries project for the retrospective conversion of the library catalogue. Of course, nowadays such a working scenario seems to belong to an other age. The pervasiveness of the digital world with its searching devices, as well as the digital mass of information available online, have deeply affected the same way of perceiving the librarian’s job.
- **Legacy**: the Library of Congress Classification was also used at the Library of the Biology Department of the University of Padua.
- **Time management**: along with the Library of Congress Classification, even the Dewey Decimal Classification was considered. But due to the contraction of time to manage both the removal and the actual running of the new library, it was not pos-
sible to carry out an in-depth analysis to compare the portability of the two systems.

4.2 The Library of Congress Classification: a choice content-based

Among the factors outlined above, and despite the constraints of the project management, the Library of Congress Classification seemed also to positively respond to scholars’ research habits, especially with regard to the indexing modalities of the philosophical domain offered by the schema. For example, compared with the Dewey Decimal Classification—at least from the standpoint of the evaluation committee—the Library of Congress Classification appeared to be more philosophy-oriented and to have got a deeper level of inclusiveness and hospitality. More in detail:

– schedules that coherently be able to embed the domain of philosophy and branches of philosophy
– schedules with a lower degree of scattering the author’s works by different subjects. Furthermore:
– schedules with a more granular nesting be able to gain a stronger consensus from the research staff.

In this respect, a good example is given by the classification of the ancient philosophers. We can see below the case of the Aristotelian corpus and how the Stagirite’s works are nested within the call numbers range B 402-491. It has also to be noted that the LCC distinction between classes B and PA (Greek and Latin languages and literatures) for philosophical works by Greek and Latin writers was not applied in the library schema. Thus, one can find in B both the original Greek and Latin texts, as well as the Latin translations (In Italic in the text):

<table>
<thead>
<tr>
<th>Latin</th>
</tr>
</thead>
</table>
| B407  | English

<table>
<thead>
<tr>
<th>French</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 415</td>
</tr>
<tr>
<td>—.A5H</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 416</td>
</tr>
<tr>
<td>—.B 485</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Italian</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 491</td>
</tr>
</tbody>
</table>

Concluding, one can argue that the decision to adopt the Library of Congress Classification as location device was based not only on mere organizational reasons, but also on reasons of content.

4.3 Implementing the Library of Congress Classification

The implementation project of the classification scheme at the library was not, and is still not, free from troubles, to the point that it can be easily defined as a self-learning library project, and this from several points of view. In the first instance, if it is rather true that the Library of Congress Classification is the classification scheme of the research libraries par excellence, it is likely true that the extent of its spreading among the Italian university libraries is still quite limited.

Without going too thoroughly into the topic, the isolation of the schema in the Italian context was
undoubtedly a relevant constraint from the early beginning of the project, preventing the actual possibility to share information and to cooperate, on a common empirical ground, with other peer institutions. Moreover, librarians, in particular those who were directly involved in the project, suffered the lack of specific training courses, as well as having available in Italian some pertinent literature in the field. Along with this, one should even to consider that in the late nineties the digital information infrastructure, notably the Web, was still in its seminal stage; otherwise said, that librarians were not so accustomed, if not skilled, to think the web like a huge digital library to explore.' It was not so simple, therefore, to access all that information as valuable as to support librarians towards a better understanding of the classification scheme. By contrast, at the present time, librarians can browse the LCC call numbers from their desktops and keep themselves updating through the Library of Congress Classification Weekly list. (The LCC Weekly list is available at <http://classificationweb.net/>). The revised edition of the Philosophy and Psychology schedules, published in 2008, cumulates all addictions and changes to subclasses B-BJ through Weekly list 2008/18, dated April 30, 2008 (last visit: December 28, 2008).

4.4 Declassifying the Library of Congress Classification

In a certain respect, the implementation project of the classification schema is still open and ongoing. Since the beginning the instance of the Library of Congress Classification at the Library has been subjecting to a sort of mending and emending process in order to settle and tailor the schema to the specific needs of the library collections and its end-users. An extensive reduction of the original schema was, rather obviously, necessary, if not inevitable. The Library of Congress Classification has been elaborated—in a specific period and with specific purposes—to accommodate its own collections consisting of millions of books. Thus, this kind of interventions were (and still are) primarily aimed to trace a schema that is able to include and to represent the peculiarity of the philosophy collection of the Library.

For example, several subjects, with their relative ranges of call numbers, have not been taken into consideration, preferring instead the creation of new homemade subdivisions. It is this the case, as we have seen, of the philosophical journals and reference works embodied under a common library class shelf-mark. Conversely, within the Congress, the periodicals, serials, dictionaries, as well as the general works are generally subdivided by language, and then within each language the topic is further subdivided by historical period; while general philosophical treatises and introductions to philosophy are embedded in the introductory numbers of the theoretical BD. It is also the case of the religious philosophy and, in particular, of the hybrid treatment reserved for the philosophical literature related to the field of the Medieval philosophy.

Similarly but conversely, others subjects, living outside the B class, have to be integrated into the schema in order to cover those topics and branches of philosophy that are in relation and mingled with other disciplines, as it is the case of the many "philosophy and/or ". However, it has to be noted that some of these border subjects are still not adequately represented through the open shelves philosophy collection. But to represent philosophy by philosophy is in some sort the core of the problem.

From this perspective, a brightening example is given by the emblematic case of the so-called Analytic philosophy of language, whose philosophical themes are subjected to a high scattering degree within the original framework of the Library of Congress Classification. For example, if we consider the thesaurus of the Library of Congress Subject Headings, Philosophy of language is represented under the node “Language and Languages – Philosophy that embeds hierarchically themes as the Ineffable, Language and ethics, Language and logic, Nominalism, Rethoric and Semiotics.

Thus, starting from the following sample of books (previously located in the library depository):


The same sample of books may be split into categories such as “Philosophers” = G. Evans = B.105.R25.E93;

The example above reveals, at some sort, the impossibility threshold to arrange in a unique shelf location the philosophical works in this field of studies. Along with the external re-styling, to so say, of the original class shelf-mark, a second kind of intervention is specifically related to the indexing modalities of the philosophical works and, in particular, to the pervasiveness of the concept of authoriality that has so deeply affected and altered the schema itself. Thus, the Philosophy’s schedules have been turning into the Philosophers’ schedules following, better, exploiting a feature that it is own of the Library of Congress Classification, to collect authors’ works under their subject headings.

Evidence of this tendency is given by the choice to classify works by philosophers on philosophers under the shelf-mark assigned to the author of the work, that is to say that Anscombe’s An introduction to Wittgenstein’s Tractatus is not subarranged under Wittgenstein’s criticism but in Anscombe’s shelfmark B1618.A57. For a similar reason, philosophical works—for example those that are typically classified by subject within the original schema—are gathered under the author’s range of call numbers. It is this the case of the political works of philosophers taken from JC—for example Hobbes’ Leviathan, Hannah Arendt’s papers and so forth – as well as it is the case of contemporary philosophers’ works.

5. On the revision project and some concluding remarks

If we observe the collections of the Library and the “form” that their bibliographic profile has evolved over the past ten years, we can actually notice the tangible signs of an endless reflection on the collection arrangement and management both from librarians and from the research staff. The concrete perspective to expand the physical space for the open shelves collections from one hand, the permanent growing of the collections size from the other, pressed the Library to embrace a long-standing project with the aim of identifying the best practices to be able to select the appropriate philosophical literature. More in detail:

- The need to bridge the bibliographic gap between the open shelves collections and the lines of research at the Department.
- The need to create the bibliographic core of the open shelves collections to be able to meet the information needs both of students and research staff.
- The need to simplify the collections arrangement and their call numbers.

The close collaboration between librarians and members of research staff allowed to carry out a first systematic revision of the open shelves collections and, at the same time, of the classification scheme adopted as location device. As we have seen, working closely on the collections building implied also the possibility to explore in-depth the original framework of the schema, tracing its weakness and strength points. Furthermore, the revision activity allowed to evaluate at what extent the schema has been affected by the adaptive process at the Library over time, evolving into what we have called the Library of Congress deClassification. Similarly but conversely, we have observed at what extent even the philosophy collection at the Library has been affected by the framework of the schema, evolving into what we have called the Philosophers’ classification.

In conclusion, we argue that the declassification of library collections can be read, from a bottom-up perspective, as index of vitality of the collections themselves, as well as a valuable basis for planning the next steps of the library project towards, maybe, a new classification scheme.
1. Introduction

In the late seventies, I was asked to work on classifying our Philosophy (and Psychology) collections, which were still located partly in the stacks and partly in the so-called Seminars—a traditional didactic and research structure of our School—where the books were mostly ordered by format or collection title. As often happens, my task was not completely free of restrictions: the general “new policy” of the entire Library was oriented toward accomplishing an open-shelf decimal classification, and the first step was to avoid an overly complicated schema, as this would probably have rendered more difficult the task of the end users, that is, our students but mainly our teaching staff.

At the Scuola Normale Superiore, where historicism has always had an illustrious though somewhat cumbersome tradition (I quote only two philosophers and/or historians of Philosophy: Giovanni Gentile and Eugenio Garin), ordering the Philosophy collection—with its divisions, topics, geographical notations, chronological tables et similia—strictly by the Dewey decimal system might have been unthinkable. A second requirement was to designate a main location to the large collection of the often “complete works” of the philosophical Tradition. This way, the ideal Reader, foreseen to linger for hours in the newly restored library building of the Palazzo della Gherardesca, could easily access the reservoir of the great texts, which were to be followed on the shelves by the secondary literature ad auctorem. All in all, the implicit message to our students and scholars was to be the virtuous necessity of finding, ready on the shelves, the substantial core of the textual Tradition.

Arranged only in alphabetic order without any chronological partition (with the Cutter numbers as additional support), the Authors were meant to constitute (and actually are) the main section of our Philosophy collection. However, there was a further, even more challenging exception: the Greek and Latin Classics had to be “attracted” by the underlying Philology Seminar, where a formidable collection that is constantly enriched by donors and former
professors of the Scuola Normale, from Giorgio Pasquali to Arnaldo Momigliano, had to embody the Ancient Philosophy as a tribute to the German traditional unity of the Antike.

Therefore, in our library, medieval philosophy is arranged as a new Beginning, perhaps in consolatory and coherent balance with the spectacular structure of the town, which can be admired from the windows of the magnificent building where we are housed, including Count Ugolino's tower!

2. A first draft of a scheme

The first draft of a catalogue scheme vaguely similar to the Dewey decimal system introduced some preliminary divisions, as follows:

100. Philosophy.
100.5 Philosophy of science.
103. Miscellanea. Festschriften.
104. Interdisciplinary essays.
105. Anthologies.
111. Aesthetics.
150. Psychology.
150.195 Psychoanalysis.
190. AUTHORS.

My task was to reorganize, redefine and implement this new schema.

After having easily solved the not-too-difficult problem of the “formal” subclasses 101, 102, 103 and 105, which could be easily replaced at the initial points of the new schema, I was compelled to recognize the isolation of Philosophy of science, 100.5, which sounded somewhat unorthodox in the historicist context mentioned earlier and yet too isolated, for example, from Logic. Moreover, if the latter could coexist, however uneasily, in those still predominantly Marxist (and/or Marxological) years with Dialectics, surely it could not cohabit with Metaphysics in division 110: as this would no longer be allowed by the contemporary philosophical status of Logic, a definitively formal discipline. Still other relevant candidates remained unquestioned. For example, wasn’t Philosophy of Language entitled its own location, especially at a time when the works of the Chomskyan and structuralist waves dominated the shelves? Of course, no place was foreseen for History of Science (Dewey 509)—the beloved discipline of many “converted” philosophers (and scientists)—or for Philosophy of Religion, which would have clearly been incorrect to confuse with Metaphysics.

Moreover, in a classification schema in which our Philosophy collection risked being thrown off balance by having too large a body of classic Authors and the attendant secondary literature on the one hand, and a casual assortment of philosophical subclasses on the other, it seemed necessary to further ask whether the ontological status of Philosophy (Is a librarian allowed to put such questions?) was suitably and wholly represented by the historically documented classical Thinkers, and whether the lack of a broad representation of the so-called Philosophy in progress was justifiable. The true question wasn’t, of course, to do justice to the absent (or to relocate the present) Thinkers: the deeper problem was—and always has been—about the conceptual nature of Author in itself. That is, what is a classic Phi-
losopher? On the other hand, maintaining a living philosophy library—to adapt the celebrated P. A. Schilpp’s collection title—entails maintaining constant and careful attention to the contemporary philosophical debate, and that even before posing any relocation problem. All of which is, one could ironically say, History’s necessary, perhaps listig (in the Hegelian sense) revenge. On the very concept of “classical,” a thorough analysis is in Settis (2004). For the interesting evolution of a prestigious, not generalist classification scheme, which turned out to be so exciting for no less a philosopher than Ernst Cassirer, see also S. Settis (1996).

In other words, if the historical legacy of Philosophy had to have its rightful place, what was the right place for theoretical, “ongoing” philosophical reflection? Is it only by chance that most university arrangements of Philosophy Faculties distinguish between historical and theoretical orientation?

A pedantic transcription of the academic disciplines and subdisciplines in the new classification schema perhaps would have been too unwieldy or too casual. Yet, the implicit core of the question was probably another, namely, that there are ontological grounds in Philosophy “in sich selbst” (that is, Philosophy as a structural subjective attitude, not as the metaphysical store of the so-called everlasting philosophical problems. For a comprehensive analysis of the relations between theoretical and historical attitude in Philosophy, see Semerari 1991) for the proliferating growth and the frequent historical appearance (and disappearance) of philosophical currents.

If we consider that philosophical research is a “normal” discipline only in a historical and sociocultural sense, we will more readily see that, while unveiling the historical “garb of ideas” (Husserl’s Ideenkleid), its true essential meaning lies at the core of accurately and genetically describing all the dimensions of the experienced world as well as those of the intentional structures of the experiencing Subject.

In other, more general terms, we have to recognize that the aim of Philosophical research is a critical investigation into the foundational sense of intentionally oriented operations, which concern the World only as experienced by Subjectivity in the World. Indeed, philosophy is not directly and immediately interested in increasing the knowledge of the World, unlike the other disciplines; it makes no direct experience of Nature, tells no stories, heals no illness and invents no mathematical theories or technical devices. Therefore, philosophy, as experience of the experience, is a transcendental activity that plays at the underlying crossroad of all the disciplines, each of whose region is passed through by its intentional ray.

3. Representing the transcendental

The next step in my task was now somewhat clearer, although not easy: how to represent (or at least allude to) this transcendental (or phenomenological, or metalinguistic, if you prefer) status of Philosophy in my mandatory, traditional decimal classification scheme? Without any pretence to deeply exhaustive or highly technical organization, it would have perhaps been possible to develop the intentional knots of the regional ontologies (in the phenomenological sense), which are semantically “embodied” through the noematic equivalent of the philosophical subdisciplines. The complex problem of regional ontologies cannot be discussed here adequately; it is mentioned only because it is relevant to preliminary reflection on the role of an “applied” phenomenology in matters of bibliographic classifications. For a first, classic definition see Husserl (1950 and 2002). I am somewhat suspicious, moreover, of some recent ontological-realistic approaches, which are mainly interested in describing ontologies as static—Husserl would have said “katastematic” realities (Husserl 1952). This could be accomplished by arranging a consistent and hopefully comprehensive set of location points, all without giving up the notational value of the sections of the decimally ordered classification tree, but instead by recoding them.

101 Handbooks, Guidelines, Treatises.
102 Encyclopaedias, Dictionaries.
102.1 Bibliographies.
102.2 Anthologies.
103 Miscellanea, Festschriften, Workshops, Congresses, Seminars.
104.1 Subjectivity, Interpretation, Perception, Hermeneutics.
104.2 Metaphysics, Ontology.
104.2.1 Religion, Myth, Cosmology.
104.3 Civilization, Society, Praxis.
104.4 Language, Communication.
104.5 Science, Knowledge, Logic.
104.6 Ethics, Behaviour, Values.
104.7 Argumentation, Dialectics, Ideology.
104.8 Aesthetics.
104.9 Philosophy of History.
104.9.9 n.9, if postponed to the subclasses, which begin with 104, means: History of the related subject.
History of philosophy
109 History of philosophy (General works).
109.1 History of ancient philosophy: classify in Antiquity Seminar.
deleted number
109.2 History of medieval philosophy.
109.3 History of modern and contemporary philosophy.
109.9 Methodology and history of the philosophical historiography.
150 Psychology.
150.9 History of psychology.
151 Experimental Psychology and Psychophysiology.
152 Psychoanalysis.
153 Psychology of cognition.
154 Clinical psychology and psychopathology.
155 Social psychology.
190 AUTHORS (Works and Essays).

Table 1. Philosophy classification scheme.

The 104 subclass of the scheme (denoting Interdisciplinary studies—a probable home for a repository of chaotically located essays) was first recoded and articulated as a relevant division number that was to be transcendentally, that is, intentionally connected with the philosophically equivalent “regions” pertaining to the disciplines of the Universal Decimal Scheme. Melvil Dewey’s 10 subdivisions could therefore be seen as the reservoir a parte objecti, that is, the ontological areas that the philosophical work in progress thematises (thematisiert, in phenomenological jargon).

The result of this intentional reorientation was that, if class 100 designates the Philosophy class, the 104.1 division (or subclass) could host works on Philosophy of Subjectivity in itself (Analysis of pure Subjectivity, Hermeneutics, etc.). If class 200 is devoted to Religion in the General Scheme, its philosophical pendant, Philosophy of Religion, could obviously be found in the 104.2 subclass, just as Social Philosophy had its natural place in 104.3, corresponding to class 300 (Social Sciences). Linguistics (class 400) obtained its philosophical counterpart in 104.4—Philosophy of language. The Behavioural and Moral sciences were in place with code 6 of the class 600, which was also possible (despite a little forcing in the parallelism with the class 800) for 104.8, Philosophy of Art and Literature. The 104.7 division was “Solomonicly” adapted to Dialectics: a historically conditioned but emendable compromise between the dialectically oriented works and, for example, Chaim Perelman’s argumentative neorhetorics, both of which were regarded as study areas for a Philosophy of technical tools of “disputation” (according to class 700). Philosophy of Science could finally escape its singular isolation in the scheme, inserting itself as 104.5 between the other subclasses, so happily joining the number 5 pertaining to the large family of scientific disciplines (class 500). As a further benefit, History of Science—often the academic twin of Philosophy of Science in curricula—could also become contiguous with that parent discipline, only by assuming the “history” code of 9 from the general Classification scheme (class 900). This last simple, surely unorthodox classification device granted the end user not only the advantage of finding epistemological works in comfortable proximity to the historical studies on Sciences, but also made it possible to locate the history of the “philosophical reflections” on each disciplinary region in the corresponding section of the region within the 104 division by merely adding the history coding number .9 (in homage to our historicist tradition). Therefore, Philosophy of History could finally be coded, with the usual History code, as 104.9 (Psychology gained a slightly better articulation in the local schema by only distinguishing some few disciplinary or methodological orientations (or adding, for instance, the just then increasing Cognitive studies).

4. Genus-species hierarchy

Upon evaluating this attempt, it is not likely that someone would automatically say, “All’s well that ends well.” I am not so naïve as to ignore that the key principle of each decimal classification is a hierarchical one, that in the genus-species structure of its Porphyrian tree lies the foundational part-whole-oriented logic of the arrangement, and that notation rules are binding requirements. On the other hand, it is probably not so paradoxically an open question that the classic hierarchical models of arranging Philosophy on the shelves are widely deficient.

Faced with so many influential and authoritative frameworks, I hope that my archaic arrangement might be tolerated only as a minimal effort at getting to the bottom (to the arché) of that paradoxical question. Even if positively accepted by the end users, it is still only a rudimentary, homemade device. What is more, in the matter of library classifications, the relocations phantom always waits in ambush on
the shelves. That is why an attentive librarian always has to watch for the inner developments of the disciplines. But, perhaps the transcendental mode of Philosophy—a discipline at the same time equal and different from the others—had worked out an attempt which, even if disrespectful of the canonic tradition and probably irreverent to the scientific librarianship, was aiming at least to pursue, just in ordering a Philosophy library, the idea itself of Philosophy as a rigorous science (Husserl 1910-11).

References

Classifying Philosophy at the Library of the Scuola Normale Superiore (Pisa, Italy): Part B, Evaluation and Experience*

Stefania Manzi

The Library of the Scuola Normale di Pisa, Palazzo della Carovana, Piazza dei Cavalieri, 7 - Palazzo del Capitano, Piazza del Castelletto, 6/18/20, I-56126 Pisa, Italy <manzi@sns.it>

Born in Pisa (1961), she obtained a University Degree in Philosophy in 1987 (University of Pisa). From 1988 to 1991 she worked as librarian at the Statistics Library of the University of Florence (Italy). In 1992 she moved to the Library of the Scuola Normale Superiore (Pisa) where she is in charge of the Philosophy Collection and of the development and maintenance of the Library web site. She is currently head of Acquisitions and of the collection of electronic resources.

ABSTRACT: The verification of the functionality of the Philosophy classification schema adopted at the Library of the Scuola Normale Superiore needs to take into account the context: the Library is both a special and a multidisciplinary library; its collections reflect the history of the SNS. The philosophy collection has a specialized and selective nature, as do others within the same Library; the Library is open shelves, and classification is used as a shelving and location device. Bearing in mind the above conditions, the second part of this paper examines the strengths and weaknesses of the schema in order to highlight its suitability to match a coherent classification of documents with the effective fruition by the users.

* English version of the talk given at the conference Classifying the Human Sciences. The case of Philosophy (Padua, February 2, 2007). Translated by Cristiana Bettella.

1. Introduction

The verification of the functionality of the Philosophy classification schema adopted at the Library of the Scuola Normale Superiore (SNS) needs to take into account the context: the Library is both a special and a multidisciplinary library; its collections reflect the history of the SNS. The philosophy collection has a specialized and selective nature, as do others within the same Library; the Library is open shelves, and classification is used as a shelving and location device. Bearing in mind the above conditions, we will analyse the strengths and weaknesses of the schema in order to highlight its suitability to match a coherent classification of documents with the effective fruition by the users.

1.1. Points of strength

– adherence—to the studying and research needs of the SNS
– simplicity
– synthesis

1.1.1 Points of strength: adherence

As we have seen in the Part A (Giampetro), the choice of a special schema originated as a response to the arrangement need of a material that, because of its growth and development, requires a classification system that allows the easy retrieval of documents and at the same time meets the institutional users’ needs, while maintaining its readability and adher-
ence to the main lines of research in philosophy at the SNS. Let us examine some of these needs and their relative responses.

The result of the “dialogue” between scholars and librarians is the choice of a classification and location by author in which the shelf location of the authors' works are followed by the pertinent secondary literature. The location by author corresponds to a very European and continental conception of philosophy that interprets philosophy as a history of philosophy through concrete figures, notably those who have developed the philosophical discourse. According to such a conception, the whole of philosophers' works constitutes an organic corpus, which often receives a name (e.g. criticism, idealism, etc.) even for the outcomes that it finds in other philosophers.

We had several options in disposing the authors' works on the shelf: in chronological order, in order of schools or schools of thought or in alphabetical order. The second criterion seems not to be responsive to the practical needs of a library that must come to terms with problems of space such as the arrangement of shelves and so forth, while the other two criteria appear to be substantially equivalent in terms of functionality. The choice fell to an alphabetical order, most likely because of its simplicity both with the initial arrangement and to its maintenance over time. For the same reason, documents included in the Dewey decimal system class 100 concerning supernatural phenomena (spiritism and alike) are not represented in the philosophy collection of the Library. Conversely, one can find works in psychology and in psychoanalysis on the contributions that these disciplines lead to or have led to in some areas of philosophy.

One of the main reasons why a special schema was adopted is because it allows intervention in the collection, as well as in the schema, on the basis of “points of attraction” that can be formed between the library and philosophy research. For example, ancient philosophy was dismissed from the philosophy classification schema, as a set of issues required that the presence of ancient philosophers was gathered in the field of Classical Antiquity; meanwhile, some more purely philosophical branches of studies at the SNS have pointed towards disciplines like theory of knowledge and history of modern philosophy, especially German.

On the other hand, in the philosophy collection, one can find works in the field of the history of science, due to the attention given to gnoseological and epistemological theories, where the collections in mathematics and physics have a theoretical composition that is more responsive to the development of research in these disciplines.

1.1.2 Points of strength: simplicity

The simplicity of the schema implies that call numbers are short and uniform. Hence, the brevity and clarity of codes allows them to be read without effort and also grants users and librarians the ability to memorize easily different locations (e.g. if Kant's works are located in 190 K16, then a book with call number 190 K16 is a work by Kant).

All this facilitates the ease with which books can be searched and retrieved from the shelf by librarians and library users. It also enhances the visual check of misplaced volumes; it is immediately noticeable if a 190 K16 book is shelved among books with call number 190 N677, that is, if a work by Kant is in the midst of works by Nietzsche. Conversely, there is a lower chance of shelving books in the wrong place once returned or consulted. Above all, it implies an exploitation of the schema that goes beyond the traditional functions of the classification systems; as call numbers and shelf marks are used as signposts in any library rooms where philosophical papers are located, they serve an orientational function and provide users with a direct understanding of the schema, an aspect usually quite complex and rare in standard classification systems.

1.1.3 Points of strength: synthesis

The schema is very synthetic; in fact, any ramification in subsections was avoided.

Despite an in-depth analysis that is certainly relevant in terms of pure classification theory but impractical once applied at library locations, with this choice, we mean to favour the need to not scatter information—whether similar or related to common sets—into too specific fractions.

1.2. Critical points:

– hospitality

– border regions: both within the philosophy collection and between the philosophy collection and the other Library collections.

1.2.1 Critical points: hospitality

The coexistence between simplicity and hospitality is not easy to manage by a classification schema. In our
case, inserting new classes or sections is quite simple, and then, from a purely notational standpoint, the schema meets the need to accommodate new class numbers for new documents. However, it is the very structure of the schema, or rather its informing criteria, to limit the possibilities of movement, at least in some cases. It is therefore necessary to distinguish between different situations as follows.

We call internal hospitality the event of the relocation of an author from the sections of 104 to its own place in class 190. Such migration usually happens when a critical edition of his or her (collected) works is published or when the corpus of the author’s works and its weight within the studies in philosophy are likely to meet those canons that characterize an author as a “classic author” (but the value of these criteria is not absolute). The process of collecting documents is not easy, especially with regard to secondary literature. This activity is mainly based on keyword searching through the online catalogue, on retrieving documents with the same Cutter code, as well as on the help of bibliographies. The activity of retrieving is rather mechanical but effective since it allows the identification of authors assigned the same Cutter number and thus their clean-up. However, the final purpose of all these activities is clearly and simply realized: to follow the string 190 by the Cutter number, disambiguating at most the new Cutter number through the appropriate procedures if already present among the locations of the authors.

Concerning the so-called internal hospitality, other issues are those addressed by interdisciplinary works. In the context of the philosophy collection at the SNS, the attribute “interdisciplinary” is used in cases of the relationship between philosophy and parts of philosophy and between philosophy and different disciplines. Of course, interdisciplinary issues are common to many classification schemas, but they often offer an exclusive dislocation. These kinds of solutions are not present in the classification schema at the SNS. Therefore, it is always necessary to select the suitable section in the event, for example, that one needs to classify a work about logic and ethics.

More specific examples of how the scheme works include those regarding works on many authors, each one classified in 190 (e.g., a book on Marx and Nietzsche), or works by authors who are classified in 190 and wrote on authors who in turn are also classified in 190 (e.g., Heidegger’s Nietzsche, a case that we pragmatically resolved by locating two copies of the work, one with Heidegger and one with Nietzsche).

In all these cases, we look at solutions in order to assess how the work in question can be better integrated with the others, not only as it could be in a philosophy handbook or in a volume of history of philosophy, but as it is within the special type of collection that is the philosophy collection at the Library of the SNS. For example, if a work on ethics and logic is written by an author whose works are all classified in the class of Logic, then the work has a good chance of being classified in Logic unless the issue in question does not cover one of the most relevant topics represented in the Ethics subclass. Compromise solutions are inevitable; they are often offered by the sections of history of philosophy, as in the case of works on multiple authors classified in 190. In case of works by philosophers on philosophers, where both are classified among authors in 190, the selection criteria should be different. Typically, it must be taken into account either the weight, or role, that the two philosophers have in the context of the history of philosophy, as well as within the library collection.

1.2.2 Critical points: border regions and some final remarks

Different problems are posed by the so-called “border regions.” These are fields of study whose disciplinary boundaries are made uncertain and changeable by the increasingly inter- and multi-disciplinary nature of contemporary knowledge, which combines tools, theories and models pertaining to different disciplines.

Nonetheless, this is not the appropriate context to linger over such an issue; at the risk of going beyond the boundaries of the librarian’s tasks, let us consider only a couple of examples:

1) Philosophy of language, ontology and linguistics;
2) Cognitive Sciences and its many “components,” such as psychology, logic, linguistics and so on.

In both cases, the question is: how to classify works by analytic and cognitive philosophers?

In the case of the works of analytic philosophers, for example, can they be hosted in their native regions, putting together works that, in these areas, are deeply rooted with works that undoubtedly branch outside the boundaries? Otherwise, should they receive a new “citizenship,” so to say, in the regions towards which are they migrating, penalizing the original connection with their roots to enhance their current development?
We have not found the optimal solution to the open questions above. We try to focus the dialogue with our users on these issues, to trace trends in the reference literature that could legitimize a sort of territorial belonging, debating and analyzing, until the evidence of the postulate “a place for every book; every book in its place” leads us to a decision.

For about a decade, the library collections have been enriched by publications related to the line of research of the so-called cognitive sciences. As we have discussed above, Cognitive Science represents well facets that are typical of the multidisciplinary and crossing nature of contemporary knowledge. In fact, cognitive science is itself a convergence of multiple disciplines; it is not the simple sum of the parts, but rather a new line of research.

How then to classify works whose authors, from one hand, may come from different disciplines and, from the other hand, do not yet have a corpus of works, nor a statute, to the point that they can be clearly recognized as psychologists, philosophers as well as linguists?

Unlike the case of works in analytic philosophy, a solution has been found. Maybe it is a compromise solution, but it is still somehow useful. As there is a section devoted to “cognitive psychology” in the Library’s classification schema, we created a sort of “reception center” within it for such documents, to be able to find in one place works with such a “nomadic” character.


Organization of knowledge by an order as external and mechanical as that represented—along with lexicons, inventories/registers, indexes, bibliographies—in the library catalogues that appeared for the first time in ancient Alexandria. These tools allow you to find at any time that knowledge that cannot be immediately preserved in memory.

References


From Disorder to Order:
A Challenge for the Philosopher and the Librarian
(Milan, Italy) *

Laura Frigerio

Philosophy Library, University of Milan, Via Festa del Perdono, 7, Cortile Ghiacciaia, I-20122 Milano, Italy, <laura.frigerio@unimi.it>

ABSTRACT: The Philosophy Library at the University of Milan was born in the fifties by the merger of the two Institutes of Philosophy and the History of Philosophy. Once the restoration had been completed, it was necessary to devise a suitable classification system in order to arrange the books and to meet the new research needs of the Institutes. The project was entrusted to Prof. Corrado Mangione and Prof. Maria Assunta del Torre, with the theoretical contribution of Giuliana Sapori, chief Director of Central Library of the Faculty of Laws and Humanities. The model had been conceived as completely anew, without any reference to other existing classification systems. The inspiring principles were from one hand the choice for an open shelving system, from the other one the idea that the orientation criteria and the book search had to be user-friendly for everyone. This paper provides an in-depth analysis of the making-up of the call number as applied to each section of the collection, and how the scheme has been developed over the past fifty years. Points of strength and weakness of the scheme are also discussed at the light of the technological innovations which have gradually affected the whole of the library activities, notably with the introduction of the electronic catalogue. The original classification scheme has maintained its coherence and functionality over time, in spite of the expansion of the collection and the automation of all stages of the classification process. This is the main reason to keep using it in the future.

* Translated by Michela Dalbagno.

1. Introduction

The conference held at the University of Padova, Classifying the Human Sciences: The Case of Philosophy (February 2, 2007), has provided the opportunity to recover historical information about the Philosophy Library at the University of Milan. The research was based on the analysis of the Annals of the University and of an unpublished typescript by Giuliana Sapori (1991), the Library Director of the Faculty of Laws and Humanities from 1959 to 1982. The dating of some very meaningful events in the development path of the library called for reference to the relevant acts and deliberations from the archives of the Philosophy Department and to interviews to some academic staff. Through their historical memory and witnesses it was possible to reconstruct the first stages in the process of bringing the collection together and to trace the inspiring guidelines of the classification system which was then
adopted and has remained practically unchanged ever since.

2. The birth of the library: a brief historical account

In the 1950s the University central seat hall was restored after the ravages of the second world war bombings. The two Institutes of Philosophy and History of Philosophy were then relocated from their temporary home in the via della Passione in Milan to their present location in the restored wing of the building in the via Festa del Perdono, which adjoins the Ghiacciaia courtyard. Thus the Philosophy Library had found its permanent home.

Up until that time the philosophy books owned by the University of Milan had been kept in the Faculty Central Library. The subject subdivision, conceived by Giuliana Sapori on the basis of the material available at that time, included the following areas:

15. Theoretical philosophy 
16. Ethics 
17. History of philosophy 
F.S. I, II, III Philosophy - general

As the Institutes were being relocated, a first collection of some hundred volumes was reported to be on its way to the central seat. The books were at first stored in a basement room next to the teaching staff offices. This was the nucleus of the library: casual piles of books in a small room with no librarian. In those days there were neither technical staff nor any supervision over the books and their handling.

3. Devising a special classification scheme

In the 60’s a project was started to restore a room in the basement underneath the library. The one being used was becoming too small to host the collection, which was increasing in number.

Two professors were thus entrusted with the task of devising a classification system which would both serve the purpose of arranging the books and meet the new research needs of the Institutes.

The persons in charge were Professor Corrado Mangione, teaching Logic (a subject first introduced at the University of Milan) and Professor Maria Assunta Del Torre, teaching History of philosophical historiography. The choice was all but random, if one considers the structure they had in mind for the new system.

The theoretical contribution of Giuliana Sapori – at that time the chief Director of the Central Library of the Faculty of Laws and Humanities – was essential to create a classification scheme in the “library style” that would allow for the complexity of a call number, the rising growth of the collection both in subjects and numbers, as well as the layer structure of several works in more than one volume. The scheme had to make it possible to represent reference-only works as well as any information that might be of relevance to the current Institute research areas and lecture subjects.

Once the restoration had been completed and a technical-administrative staff unit assigned to the library, the books could be moved downstairs. Only then did the collection start its substantial growth and some of the volumes of the Faculty Central Library were gradually transferred, at the request of the academic staff, to the Institute. In reality, the inventory of the new books, which were bought upon the advice of the teaching staff, was still made by the librarians of the Central Library, who also catalogued them. The shelf mark, though, started to be defined by the teaching staff on the basis of the new classification scheme.

The model had been conceived anew, without any reference to other existing systems. The inspiring principles were the choice of open shelves and the idea that the orientation criteria and the book search should be user-friendly for everyone. The Dewey Decimal Classification system was judged unsuitable to satisfy the current needs of a library created for study and research. Its adoption was therefore immediately ruled out.

4. The make-up of the call number

The call number of the books in the Library is made up by four fields:

1: Section: it is the same for all monographic works, e.g. 3L (3L was the identification code assigned to all the books of the library by Giuliana Sapori, in order to identify the Library of Philosophy as the third library of the Faculty of Humanities (as a matter of fact, each library of the Faculty Institutes had been given a code to distinguish it from the Central Library));
2: Shelf mark: it can be in turn broken down into class, type and chain number, whereas:
   – the class identifies the century or centuries with reference to the author or to the content of a book;
– the type distinguishes between the works by an author, e.g. letter T (for Italian testi), and the studies on an author, e.g. letter S (for Italian studi);
– the chain number is an identification number assigned to each author. It is used, without distinction, for both the works by and the studies on that author.
3: Specification: it depends on the order of arrival of the work in the library. It doesn’t necessarily reflect the publication chronological order, but rather the inventory order;
4: Sequence: it is the final set of numbers and is used when a work consists of more than one volume.

4.1 Applicability of the scheme to circulating works

The works for borrowing are divided by class into 20 groups:

Class
01. Eastern philosophy – works and studies
02. 6th- and 5th-century B.C. authors – works and studies
03. 4th-century B.C. authors – works and studies
04. 3th-, 2th and 1th-century B.C. authors – works and studies
05. 1th-, 2th and 3th-century A.D. authors – works and studies
06. 4th-, 5th and 6th-century authors – works and studies
07. 7th-, 8th and 9th-century authors – works and studies
08. 10th- and 11th-century authors – works and studies
09. 12th-century authors – works and studies
10. 13th-century authors – works and studies
11. 14th-century authors – works and studies
12. 15th-century authors – works and studies
13. 16th-century authors – works and studies
14. First half 17th-century authors – works and studies
15. Second half 17th-century authors – works and studies
16. First half 18th-century authors – works and studies
17. Second half 18th-century authors – works and studies
18. First half 19th-century authors – works and studies
19. Second half 19th-century authors – works and studies

Table 1. Circulating works

3L. 19.T.173.013 is, for instance, the call number for:

Brentano, Franz
The *True and the Evident / by Franz Brentano ;
edited by Oskar Kraus ; English edition edited by
Roderick M. Chisholm ; translated by Roderick
M. Chisholm ... <et al.>. - London : Routledge

The different elements of the call number carry the following information:

3L.: the work belongs to the Library of Philosophy;
19.: it is a work by/on an author from the second half of the 19th century;
T.173.: it is a work by Franz Brentano (173 is the
chain number assigned to Brentano within class
19);
013: it is the thirteenth work by Brentano acquired
by the library.

4.2 The 20th century philosophy

Owing to its richness, the last group of circulating books – e.g. the works and studies related to 20th century authors – is divided into 19 subgroups:

Class
20b. Italian language authors and studies
20c. Chinese language authors and studies
20d. Philosophy of language – works and studies
20e. Aesthetics – works and studies
20h. French language authors and studies
20k. Communication Science – works and studies
20i. German language authors and studies
20l. English language authors and studies
20m. Russian language authors and studies
20n. Other languages – works and studies
20o. Philosophy of science – works and studies
20p. Physics – works and studies
20q. Natural Science – works and studies
20r. Mathematics – works and studies
20s. Logic – works and studies
20u. Philosophy of history – works and studies
20v. Artificial Intelligence – works and studies
20w. Bioethics – works and studies
20z. Anthropology – works and studies

Table 2. 20th century authors

The class list immediately reveals a basic ambiguity resulting from the mingling of two grouping criteria: language and subject. That is the reason why the attribution of a shelfmark to the 20th century philosophy books is based on the following priorities:

– If the subject matter of the work is clearly identifiable, it prevails over the language, then and the author is classified according to the area of expertise (It is still true that a 20th-century philosopher might eventually turn to and even favour new areas of thought. In such a case he might be moved into another group);
– If the author is involved in more than one subject area or in general philosophy, then the language prevails (By language it is meant the source language of the author, which does not necessarily coincide with his nationality);
– If a subject area is lacking – as is the case with political philosophy, a teaching subject recently introduced for which the addition of a new group is being considered – then the identification is based on the language.

Obviously, once the chain number for an author has been established, the related translation works will be put under that same number, in order to support the readers in their search for different versions of the same work.

L.20v.T.0010.001 is, for instance, the call number for the following work:

Dreyfus, Hubert L.

The different elements of the call number carry the following information:

3L. : the work belongs to the Library of Philosophy;
20v.: it is a work by/on a 20th-century author who wrote about artificial intelligence;
T.0010.: it is a work by Hubert L. Dreyfus (0010 is the chain number assigned to Dreyfus within class 20v.);
001: it is the first work by Dreyfus acquired by the library.

Given the growing number of 20th-century authors, the shelfmark subfield reserved for the chain number was expanded to 4 figures. Works by more than three authors and the general studies about an age or a subject are grouped under the chain number 000., which is a fixed identification available in each class.

The book:


is identified by the call number 3L.13.S.000.230, which reveals that this is a general study on the 16th century.

The volume:


is identified by the call number 3L.20l.S.0000.030, which reveals that this is a general study on the 20th century philosophy in English.

4.3 Reference works: instruments and critical editions

Reference works, which may not be borrowed but only used in the library reading room, are divided into Instruments and Critical Editions.

“Instruments” are divided into 9 subgroups:

<table>
<thead>
<tr>
<th>Class</th>
<th>A.01. Bibliographies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>A.02. Encyclopaedias</td>
</tr>
<tr>
<td>Class</td>
<td>A.03. General Histories of philosophy</td>
</tr>
<tr>
<td>Class</td>
<td>A.04. Compendia</td>
</tr>
<tr>
<td>Class</td>
<td>A.05. Handbooks and manuals</td>
</tr>
<tr>
<td>Class</td>
<td>A.06. Dictionaries</td>
</tr>
<tr>
<td>Class</td>
<td>A.07. Conference proceedings</td>
</tr>
<tr>
<td>Class</td>
<td>A.08. Anthologies</td>
</tr>
<tr>
<td>Class</td>
<td>A.09. Exhibitions catalogues</td>
</tr>
</tbody>
</table>

Table 3. Instruments

“Critical editions” are divided into 19 subgroups; the last group further distinguishes between language and subject area, according to the instructions given in the preceding/previous section.

<table>
<thead>
<tr>
<th>Class</th>
<th>02A. 6th- and 5th-century B.C. authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>03A. 4th-century B.C. authors</td>
</tr>
<tr>
<td>Class</td>
<td>04A. 3rd-, 2nd and 1st-century B.C. authors</td>
</tr>
<tr>
<td>Class</td>
<td>05A. 1st-, 2nd and 3rd-century A.D. authors</td>
</tr>
<tr>
<td>Class</td>
<td>06A. 4th-, 5th and 6th-century authors</td>
</tr>
<tr>
<td>Class</td>
<td>07A. 7th-, 8th and 9th-century authors</td>
</tr>
<tr>
<td>Class</td>
<td>08A. 10th- and 11th-century authors</td>
</tr>
<tr>
<td>Class</td>
<td>09A. 12th-century authors</td>
</tr>
<tr>
<td>Class</td>
<td>10A. 13th-century authors</td>
</tr>
<tr>
<td>Class</td>
<td>11A. 14th-century authors</td>
</tr>
<tr>
<td>Class</td>
<td>12A. 15th-century authors</td>
</tr>
<tr>
<td>Class</td>
<td>13A. 16th-century authors</td>
</tr>
<tr>
<td>Class</td>
<td>14A. First half 17th-century authors</td>
</tr>
<tr>
<td>Class</td>
<td>15A. Second half 17th-century authors</td>
</tr>
<tr>
<td>Class</td>
<td>16A. First half 18th-century authors</td>
</tr>
<tr>
<td>Class</td>
<td>17A. Second half 18th-century authors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class</th>
<th>18A. 19th-century authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>19A. 20th-century authors</td>
</tr>
</tbody>
</table>
4.4 Personal collections

The Library houses rather substantial personal collections, received as donations, which are shelved in special areas. They include Mario Dal Pra’s collection of about 4500 volumes, which came to the library after the philosopher’s death and, according to his precise instructions, was made totally available to students and academic staff. Between 1991 and 1992, the Philosophy Department received the donation of a part of Professor Mario Del Pra’s private collection, who had held the chair of History of Philosophy at University of Milan. The works were catalogued by Marina Cappelletti and divided into 10 groups, following the instructions given by the professor himself, who had expressed the will that the collections should be available for borrowing and reference on open shelves. The books were classified as follows:

- Oriental philosophy: 3L.DP01.T/S
- Ancient philosophy: 3L.DP02.T/S
- Christian and Medieval philosophical culture: 3L.DP03.T/S
- Renaissance philosophical culture: 3L.DP04.T/S
- 17th-century philosophical culture: 3L.DP05.T/S
- 18th-century philosophical culture: 3L.DP06.T/S
- 19th-century philosophical culture: 3L.DP07.T/S
- 20th-century arts, literature, history and religious, political and pedagogical culture: 3L.DP.MISC.

The other collection is Giovanni Vailati’s. Donated to the then Institute of History of Philosophy at Milan’s Università degli Studi by a close relative of Giovanni Vailati’s, Enzo, in March 1959, the book collection includes about 2000 volumes as well as a substantial manuscript and typescript archive. In the second half of the nineties, Lucia Ronchetti completed the card-indexing of the Vailati collection, nowadays entirely traceable through the electronic catalogue. The books are arranged in close shelves, in alphabetical order by title and author, and are catalogued according to the rules provided by the Italian National Library Service, Servizio Bibliotecario Nazionale. Since the books are mostly 19th-century editions, they could not be made available for borrowing but for reference use only. (All quoted web-sites URLs were checked in December 2008. For a biography of Giovanni Vailati’s in English, see http://www.giovanni-vailati.net/biografia.php.)

The shelfmarks for personal collections have been devised ad hoc to contain the initials of the donors, in order to allow the immediate identification of the documents:

- 3L.DP: Mario Dal Pra’s collection
- 3L.GV: Giovanni Vailati’s collection

The initials are followed by a set of numbers which parallels the division in use for any other book.

4.5 The shelfmark of periodicals and multi-media

About ten years ago the philosophy journals were moved from the Faculty reading room to the library. A new section had to be especially created, since the original classification system did not cover periodicals:

3L.PER. + progressive number assigned to each title; PER stands for the Italian “periodici,” “periodicals” in English.

For distribution purposes, the material available on open shelves was arranged according to the same criterion in use at the Faculty Library, e.g. the alphabetical order by title, without following the number progression.

As to the multi-media, the adopted shelfmark simply refers to the type of media:

- 3L.CD. + progressive call number
- 3L.VHS. + progressive call number
- 3L.DVD. + progressive call number

No reference is made to either the contents or the author.

Let’s now give some examples to clarify the process of call number assignment by the librarian. The work to be classified is by David Hume, who belongs to class 17 (authors of the second half of the
18th century) and has been given the chain number 003.
1. E.g.: A work by Hume, the forty-third acquired by the library:

Assigned call number: 3L. 17.T.003.043

2. E.g.: A study on Hume, the fifty-first acquired by the library, has the same chain number 003:

Assigned call number: 3L. 17.S.003.051

3. E.g.: Works by Hume on electronic device. In this case, the CD-ROM progressive number (010) prevails over both the chain number and the chronological specification:

Assigned call number: 3L. CD.T.010

4.6 Recent innovations

4.6.1 Ancient and rare books

Since 2006 a project for the safeguarding of ancient and rare books has been carried out at the library, with the following purposes:

- Final survey of the ancient and 19th-century modern material (up to 1899) owned by the library (a small number of these books has not been catalogued, yet; note that, according to the guidelines of ICCU (Istituto Centrale Catalogo Unico, Central Institute for the Union Catalogue), 'ancient' are the books published until 1830);
- Binding and restoration of the worn-out and/or damaged volumes;
- Creation of a suitably furnished area where books can be safely kept in compliance with the best possible preservation standards;
- Reduction of the risk of theft/violation;
- Fitting up of a permanent display section for the most rare and valuable editions, as well as the most philosophically relevant or peculiar volumes;
- Optimization of a controlled Reference Service;
- Abatement of damage factors such as dust, improper or careless handling, photocopying.

In view of the physical transfer of the volumes, the call numbers have been changed on occasion of the bibliographic control check and are now structured as follows:

3L.ANT (ANT stands for Italian “antichi,” “ancient” in English)
+ 500, 600, 700, 800 (e.g.: specification in short of the century of the edition)
+ volume progressive number

Since this is an expanding sector, the classification according to the progressive number might cause a continuity gap with respect to the authors. However, the chronological aspect was deliberately preferred, since it was thought to be more relevant as to the value of the editions. For obvious reasons, these books are going to be kept in closed shelves.

4.6.2 New subject areas

New class numbers have been recently added to the 20th-century group for the following new subject areas:

20k Communication science
20v Artificial intelligence
20w Bioethics

5. Evaluation of the classification scheme

5.1 Merits and points of strength

Despite its fifty years, the expansion of the collection and its increase in subjects, the classification scheme adopted by the Library of Philosophy has kept some features unaltered in time. These are valuable both for the users and the librarians. Regular visitors have acquired familiarity with a scheme which has basically remained unchanged. The shelfmark structure is both immediately comprehensible and easy to bear in mind. Both teaching staff and researchers appreciate the fact that the arrangement of books reflects the internal organization of the research branches and the orientation of the Department of Philosophical studies.

A further advantage is the fact that the works in the original language are shelved side by side with their
translations. From a practical point of view, the same chain number for both the studies on and the works by an author allows the researchers to comfortably find on neighbouring shelves both the works by the studied author and the critical literature of the same.

The ease of change of the shelfmark is undoubtedly fully appreciated by librarians. Moreover, there is the awareness that subject indexing, which has been constantly carried out since the Eighties, makes up for the non-application of a more traditional classification system. The cataloguing by subject is carried out according to the Florence guide to cataloguing by subject (Soggetario 1956).

5.2. Limitations and points of weakness

The weak points of the system are of both theoretical and practical nature as well as subject-related. First and foremost is the rare possibility of further expanding the thematic scope, either in connection with philosophy in general or with new/future research fields at the Department.

Secondly, some classification choices made by the librarians were in time to be somewhat arbitrary. For instance, in the case of composite works including studies on various subjects, which should be given priority? The first work or the most extensive? The one written by an author from the University or the one dealing with a subject currently of great interest? Librarians have gradually replaced the teaching staff in the task of assigning call numbers, and they have inevitably personalized some choices, giving different interpretations to ambiguous cases. It has, for instance, become rather difficult to establish which is the most proper call number for the studies concerning longer periods of time (as is the typical case with Medieval philosophy). Authors who lived around the turn of a century have been classified by the year of their birth in some cases, or the period of richest scientific production in some others. Also 20th-century works show some inconsistency, should they be classified according to the language or subject area? Such is, however, an insuperable fault, bequeathed by the original system. The classification of contemporary authors is not free from any doubt either, for they are not classics, yet, but they might become so. Should their writings then be included among the works or the studies?

As well as this, the expansion of the collection has brought about the necessity to frequently relocate large groups of call numbers. Researchers have pointed out, in particular, that the Instrument section needs updating and that the arrangement of reference-only books on shelves is unfit for ‘browsing-through’ searches. This has given rise to a revision process. A revision of the Instruments was started in 2007, aiming at the updating of the existing resources, at the distinction of the dictionaries between linguistic and thematic as well as the introduction of a new class for library science. Conference proceedings and Anthologies are going to be incorporated in the collection and changed shelfmark. Furthermore, school handbooks are going to have their own shelfmark and be relocated in an upstairs room of the library. The operation, including the following modifications and additions (Table 5), was to be completed in 2008.

<table>
<thead>
<tr>
<th>Current classes</th>
<th>New classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.01. Bibliographies</td>
<td>A.01. Philosophical bibliographies</td>
</tr>
<tr>
<td>A.02. Encyclopaedias</td>
<td>A.02. Encyclopaedias</td>
</tr>
<tr>
<td>A.03. General histories of philosophy</td>
<td>A.03. General histories of philosophy</td>
</tr>
<tr>
<td>A.04. Compendia</td>
<td>A.04. Compendia</td>
</tr>
<tr>
<td>A.05. School handbooks</td>
<td>A.05. Thematic dictionaries</td>
</tr>
<tr>
<td>A.06. Dictionaries</td>
<td>A.06. Linguistic dictionaries</td>
</tr>
<tr>
<td>A.07. Conference proceedings</td>
<td>A.07. [empty]</td>
</tr>
<tr>
<td>A.08. Anthologies</td>
<td>A.08. Library science</td>
</tr>
<tr>
<td>A.09. Exhibition catalogues</td>
<td>A.09. Exhibition catalogues</td>
</tr>
<tr>
<td>校手books – new class to be defined</td>
<td></td>
</tr>
</tbody>
</table>

Table 5. Modifications and additions

The librarians themselves have noticed a weakness, which is after all inevitable in a model conceived by teaching staff, e.g., the lack of a class for library science works, which for the past few years have been directly acquired by the Library, as an instrument for staff professional training and activity.

From a more strictly technical point of view, it was necessary to revise and manually correct some hundred shelfmarks – which had been previously assigned – in order to:

1. make the number of characters and field separators in a shelfmark uniform;
2. remove the mixed use of Roman and Arabic numerals;
3. solve the problem of the inverted alphabetical order of studies (marked by letter ‘S’) and works (marked
by letter ‘T’), which had already been changed over on shelves, in order to allow the application of digital technologies for the topographic control on shelves through the RFID system.

RFID (acronym of ‘Radio Frequency IDentification’) is a technology for the automatic identification of objects. The system is based on the remote scanning through an optical reader of the information contained in a RFID tag, e.g. a microchip applied to each book and storing its inventory number. Here is a table which sums up the result of such a long and thorough revision:

<table>
<thead>
<tr>
<th>Past</th>
<th>Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>3L.III.T.2.525</td>
<td>3L.03.T.002.525</td>
</tr>
<tr>
<td>3L.XXB.S.98.34</td>
<td>3L.20b.S.0098.034</td>
</tr>
<tr>
<td>3L.XXD.T.859.3</td>
<td>3L.20d.T.0859.003</td>
</tr>
<tr>
<td>3L.XIX.S.000.27</td>
<td>3L.19.S.000.027</td>
</tr>
<tr>
<td>3L.A.IV.534</td>
<td>3L.A.04.534</td>
</tr>
</tbody>
</table>

*Table 6. Shelfmark revision*

Finally, many inconsistencies have been found through time, resulting from the unintentional duplication of some authors, especially when they happen to have the same name as another author or alternatively belong to ancient times. As a matter of fact, it is only in the last six years that new authors have been entered and the existing tables have been gradually corrected by means of the authority control lists. For information about the Authority control, visit the related page in the website of ICCU (*Istituto Italiano per il Catalogo Unico*, Central Institute for the Union Catalogue) http://www.iccu.sbn.it/genera.jsp?id=335&cl=en (page in English).

6. The current situation and the electronic catalogue

The Department of Philosophy, born of the fusion of the two Institutes of Philosophy and History of Philosophy in 1982, was the first Department of the Faculty of Humanities. As a Department, it could enjoy administrative autonomy and such a condition favourably influenced the development of the Library. From then on, the constant devotion of the Library Directors has been fundamental to its success.

On 1st September 1989 Milan’s *Università degli Studi* joined SBN production data bank for the classification work management, and the Library of Philosophy has actively participated in the University library automation project. SBN stands for *Servizio Bibliotecario Nazionale*, National Library Service. For information about SBN, visit ICCU website, section SBN, at http://www.iccu.sbn.it/genera.jsp?sl=5&cl=en (page in English).

On 9th November 1999, according to a resolution passed by the University Senate, the Library of Philosophy became an independent body in the University Library System. This position, besides being an acknowledgment of the quality of its educational standards and possessions, gives the allocation of an annual fund for Library running costs, directly by the Board of Directors. Projects and investments, which are to be deliberated on by a Library Council in the manner provided for by the University Library System (http://www.unimi.it/ateneo/1015.htm), are managed by the Director, who has been a librarian since 2001. Up until that time the person responsible of the Library had been the Department Director, hence a professor.

The process of growth has continued, further supported by the autonomous management and decision-making of the institution, which in the year 2000 adopted a set of rules and in 2002 a Service Charter. Nowadays all the Library holdings can be traced through the University OPAC (provided by Sebina SBN/opac Open Library http://opac.unimi.it).

The introduction of an electronic catalogue pushed the reclassification needs to the background, despite the awareness of inconsistencies and problems connected with the current system.

The adoption of a more common library classification standard (e.g. DDC or LC) would require a huge work, both manual and technical, to change all shelfmarks and re-label all books. At present, such a work is not perceived as a priority neither from the librarians, nor from the researchers. Through its potentials, the OPAC enables a multiple-criteria access to the Library collection. Specifically, an entry can be traced in any part of the bibliographical description through a key-word search.

From a psychological point of view, it was not easy to transmit this new approach to the users. The passage from a paper to an electronic catalogue was not painless and many members of the teaching staff were at first disoriented by the fact that a number of books had been moved or removed from their reference location. At present, it can be stated that everybody is at ease with the electronic catalogue and hardly ever does anyone ask to change a call number assigned by a librarian. Books are found even when
they are shelved in a different place from the one expected. It’s been six years since the paper catalogue was last updated.

6.1. The Judaic Library

Following the drawing up of an agreement with the Cukier Golstein Goren Foundation in 1996, Milan’s Università degli Studi received a collection of volumes on the philosophical aspects of Judaism. The Judaic Library, which is still expanding, has been housed in a basement room of the Library of Philosophy for a few years now. At present, it counts 1300 volumes, about 400 of which are in Hebrew. Today all the works written in Latin characters are in the electronic catalogue and a project is being implemented to enter the rest. Also the Judaic Library collection is available for borrowing and reference. For classification purposes, the new section 3L.JUD., as well as new classes by subject area, have been created. The volumes have been classified according to the following subject list, which also provides for subdivisions.

| Subject         | Code  
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exegesis</td>
<td>01-04</td>
</tr>
<tr>
<td>Mishnah</td>
<td>01-02</td>
</tr>
<tr>
<td>Talmud</td>
<td>01-05</td>
</tr>
<tr>
<td>Halachah</td>
<td>01-05</td>
</tr>
<tr>
<td>Midrash</td>
<td>01-02</td>
</tr>
<tr>
<td>Jewish thought</td>
<td>01-02</td>
</tr>
<tr>
<td>History</td>
<td>01-02</td>
</tr>
<tr>
<td>Grammar</td>
<td>01-02</td>
</tr>
<tr>
<td>Literature</td>
<td>01-02</td>
</tr>
<tr>
<td>Liturgy</td>
<td>01-03</td>
</tr>
<tr>
<td>Mysticism</td>
<td>01-02</td>
</tr>
<tr>
<td>Chassidism</td>
<td>01-02</td>
</tr>
<tr>
<td>Reference works</td>
<td>01-07</td>
</tr>
</tbody>
</table>

There are texts from the Hebrew Tradition, among which annotated copies of the Tanach, editions of the Babylonian and Palestinian Talmud, Halakhic texts, rabbinical responsa, editions the Midrashim, editions of the Zohar and other mystic literature works, comments, theoretical works, liturgical and historical texts. The Hebrew collection is supplemented by a large number of translations into the main European languages, in order to make the works understandable on a larger scale to those who are interested in topics and questions concerning the Judaic culture and tradition.

7. Conclusions and projects for the future

The choice to keep using the original classification system in the future derives from an awareness that the pattern, specially conceived for the philosophy subject area, has maintained its coherence and functionality through time, in spite of the expansion of the collection and the computerization of all the stages in the classification process.

A recent restoration work carried out between 1998 and 1999 brought to light the archaeological area of the ancient ghiacciaia, a typical storeroom to keep perishables cold in ice, which was an annex to the old 15th century hospital. For historical information about the Ca’ Granda, the mid-15th century building wanted by Francesco Sforza and housing the central seat hall of Milan’s Università degli Studi, see http://www.unimi.it/ateneo/645.htm (in Italian). The Library thus enlarged its premises considerably, with the addition of a very characteristic basement room, in which the open-shelf tradition has been preserved.

The Library collection currently include:

<table>
<thead>
<tr>
<th>Total:</th>
<th>52,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Periodicals</td>
<td>215 (current: 167)</td>
</tr>
<tr>
<td>[Jewish section]:</td>
<td>702 + about 600 volumes not in the opac</td>
</tr>
<tr>
<td>Other resources:</td>
<td></td>
</tr>
<tr>
<td>E-journals</td>
<td>6500 (off campus access only by login)</td>
</tr>
<tr>
<td>Data-bases</td>
<td>154 (off campus access only by login)</td>
</tr>
</tbody>
</table>

While reference-material cannot be easily monitored, over 11,500 items were borrowed in 2006. In the light of such encouraging data, it can be expected that new rooms will be required in the next four or five years. This has never stopped further thoughts, modification plans and new solutions being considered for the current distribution of the books.

In the writer’s opinion, the secret of the success of the old classification scheme consists above all in its flexibility and philosophical rigour, which has been found to be very functional by those who prefer familiarity and comfort of use to the strict rules imposed by library science.

Thus, it can be stated beyond doubt that favoring the ease of access to Library resources has in time proved to be a winning strategy.

As to the new projects for the near future, an operation is being carried out for the revision, renewal
and reclassification of the Instrument section, explained above. Furthermore, the idea is being contemplated to process a new database for the automatic attribution of call numbers and the processing of the electronic tables that list the assigned call numbers. As a matter of fact, besides being rather complicated, the current attribution system isn’t integrated with the electronic catalogue and doesn’t allow sharing among users. The creation of a new class number group for the 21st century authors is being considered, which would parallel the 20th century one and would be equally divided according to the language and subject area.

As far as the organizational structure is concerned, the Library offers orientation sessions to first-time visitors, with the aim of making them familiar with the services and arrangement criteria of books on shelves. Within a few minutes users have gained sufficient confidence, helped by the system of signs and the information booklets. After all, it takes a few hours for the grant holders, who have been cooperating with the library as a support staff for years now, to acquire the necessary skills to rearrange the returned books. In the future, the Library intends to continue promoting user independence, for instance through the production of new information material like maps and guides, also in digital format.

References

Looking at the Library, Seeing Philosophy (Trieste, Italy) *

Maria Angelica de Gaetano
Philosophy and Languages Library, University of Trieste,
Androna Campo Marzio, 10, I-34127 Trieste, Italy <degaetan@units.it>

ABSTRACT: This paper focuses on the job undertaken between 2003 and 2004 in order to plan a new location arrangement for the Philosophy collection of one of the libraries at the University of Trieste. The paper describes the basic needs which played a fundamental role in the planning phase. Furthermore, it examines in detail how the most widely known classification systems – particularly the DDC- did not seem the best answer to the specific needs in this context. The solution was to develop an original classification system in order to answer the specific needs. The paper describes its development and the basis upon which it was built: the classification schemes used were those of the most authoritative periodical bibliographies in this field. Among them, the International Philosophical Bibliography system seemed to be closer to the continental tradition of the organization of knowledge in the discipline. Conclusions deal with the management of the transition from the old to the new system giving some information about the possible evaluation of the work that has been carried out.

*English version revised by Matilde Fontanin.

1. Introduction

I am going to describe the job experience done since 2000 in the Philosophy Library at the University of Trieste. The first aim of the project was not to develop a new general (universal) classification for the philosophical literature, but, less ambitiously, to set up a location arrangement based on classification principles for the existing materials and for those of future acquisition. Therefore this report is connected with location theory and practice and only secondarily with classification issues.

2. The background: a sixty years’ history

The Library was founded in the forties, along with the establishment of the Faculty of Letters, as an Institute library. At the time Faculties were organized according with disciplines in Institutes; Departments appeared much later, around 1990. Sixty years later, in the 2000s, books and periodicals (about 46.000 volumes all together) were still ordered and arranged as at the beginning, with the only system in use at the University of Trieste: firstly a subdivision into a few large classes (some based on contents and others on document forms) named sections and marked with roman numerals intended as ordinal numbers, and then another subdivision depending on book size and marked by a letter, followed by the chain number.

This arrangement reflected a collection organisation and management linked with:
– a rough correspondence between classes and existing curricula or teachers;
– a location in several and separated rooms, often even in teachers’ studies, usually not accessed to directly by the public;
– a traditional separation between philosophical disciplines;
– a lack of concern with multiple copy acquisition and preservation;
– little consideration of users’ needs, in particular of students’ ones.

Moreover, the attribution of a book to a class or another was not decided by a librarian, but by the teacher who had proposed the acquisition, and this meant a sort of loop, where it was the user who organized the information by him/herself.

Here is the location scheme. Note that Monographs (in Italian “Monografie”) is used improperly to mean secondary literature and Texts (Testi) to mean primary literature, that Limentani refers to the name of an Italian scholar whose private library was acquired to begin the collections of the Institute library, and that Cons. in Italian stands for Consultazione, which means reference collections.

INSTITUTE OF PHILOSOPHY
1st section
Dictionaries, encyclopedias, handbooks, directories and general histories of philosophy
2nd section
Classics of philosophy
3rd section
Ancient philosophy: monographs
4th section
Medieval and renaissance philosophy: monographs
5th section
Modern philosophy: monographs
6th section
Texts and monographs of contemporary philosophy
7th section
Philosophy of art
8th section
Philosophy of science
9th section
Philosophy of practical reason
10th section
Philosophy of religion
11th section

Dictionaries, encyclopedias, handbooks, directories and general histories of pedagogy
12th section
Classics of pedagogy
13th section
Monographs
14th section
Texts and monographs of contemporary pedagogy and didactics
15th section
Psychology
16th section
History and theory of historiography
17th section
Appendixes (large formats)
18th section
Classics of philosophy of law and of politics
19th section
Monographs
20th section
Varia Limentani 1. (Economics and law)
21st section
Varia Limentani 2. (History, politics, etc.)
22nd section
Varia Limentani 3. (Literature)

Cons. 1st
Meeting papers
Cons. 2nd
Varia
Cons. 3rd
Varia
Cons. 4th
Languages coursebooks

In 2000 this scheme looked quite out of date, also in the denomination of the classes, not really working upon its principles as the book size and even the classes themselves could not be correctly used because of a dramatic lack of physical spaces, and no more responding to a renovating library organisation.

3. The reasons for change

The study of a new location arrangement became an urgent need as the library had the chance to move in a new building, which is the present site. At last there could be room enough, open stacks and adequate services, but there should also be the unification with two other department libraries, collecting documents of foreign languages and literatures. That
is why the study of the new location arrangement for philosophy became part of a larger project of a brand new library, The Philosophy and Languages library (in Italian: Biblioteca di Filosofia e di Lingue).

3.1 More background

There was another important fact that led to the decision of making a change. Just then the University Library System was completing the automation of cooperative cataloguing. Since 1993 – also on the ground of a long lasting experience of centralized cataloguing and administration of a joint catalogue including all libraries – the University had taken part of SBN (the Italian national library network: Sistema Bibliotecario Nazionale), becoming promoter and administrator of the regional pole of the system. In 2000 the OPAC was working well enough and was quite diffused and accessible, so that it could be possible to cease the production and to bring about the update of the card catalogue. But not every library user was ready either for this transition, from printed description of documents to digital information, or (furthermore) for the use of a collective catalogue, as in every library there used to be only a local card catalogue, describing the single collection. And this was particularly true in the humanistic area. I wondered how, without a local physical and visible catalogue, it could be still possible to become aware of the library dimension and identity, to appraise it at a glance, to browse it. The answer was evident: instead of the catalogue the collection itself should become visible. And not only visible, but also comprehensible, intelligible, recognizable, of course because of public direct access to stacks, but also thanks to a new plain and significant books allocation. My personal conviction was that without the unitary physical representation previously given by the card catalogue, the library had an increasingly urgent need to show itself, to exhibit the collections, to allow public to access documents directly.

Besides, and this is to complete the overview, I remind that the university libraries of Trieste have never started to use classification or subjecting in cataloguing, so even today there is no semantic access to information, except for the word researches that are possible using the opac database, obviously limited to the terms used in documents’ description. So I thought it was really important to make up for this fault through a physical arrangement based on classification, that is semantic, principles.

3.2 The tripartite library

The outlines of the new library plan are not really linked with the organisation of the philosophy section, but I nevertheless want to speak about them in this context to help understand the project.

At the very beginning of thinking about a new library, its space was a data. The building had just been restored and the room was fixed in extension and organization. So the library project took form thinking about the container, and this was a good matter, because libraries have a lot to do with materialness. In the common sense the library is above all a place, then a collection of documents arranged in a given place. This is true also from the professional point of view: it is the organisation that makes sense, and for paper documents the organisation is within a room.

Furthermore, the sense of the library can be analyzed, interpreted and developed as a semantic relation (every library collection and every part of it has a specific meaning), a syntactic one (every part of the library in relation with the others) and a pragmatic one (in connection with users).

Keeping this in mind, the plan was carried out bearing in mind the following issues:

- give the readers a comfortable place;
- preserve the identity of the three pre-existing collections and the relationship between users and their study interests;
- bring readers nearer the books by using open stacks and turning free access to better account;
- give more sense to the existing locations, with few definite recataloguing and relocation interventions;
- emphasize also the preservation function of the library, remarking this fundamental role that distinguishes it from commercial services;
- in the end, make it clear that the library can break through its walls, being also digital and virtual and cooperating with other institutions.

The new library was thus projected as a tripartite library:

- as regards the location, the library is subdivided in the new site, the remote centres of the University Library System and the other cooperating libraries, and finally the virtual space of digital collections, represented by the public computer stations located in the reading rooms;
as regards the collections, they are organized in three parts: philosophy, Anglo-German literature and foreign languages and literature of the Mediterranean countries;

as regards the use of the collections, every part is divided into reference works, located in the reading rooms, current works, located in the stack rooms near the reading ones, and other materials located in a storage area furnished with compact shelves and accessible only by the library staff.

The philosophy section was examined and divided to be located in the unique philosophy reading room (190 square metres, 44 seats, stacks with 155 metres capacity), in the two contiguous store rooms (104 and 88 square metres, containing only free standing double faced stacks with the capacity of 570 and 582 metres) and in a relevant part of the storage area (approximately 400 metres). Each accommodation is supposed to correspond to a diverse use in terms of frequency and duration; books and journals are located in the storage area when rare, damaged or obsolete.

4. The development of a new system

All over the world the system mostly used to classify and arrange books in public libraries is the Dewey Decimal Classification. But a university library is not quite the same as a public library. First of all it is important to evaluate the advisability of indexing documents that are collected to be used by scholars of a particular discipline; after all, we must admit that DDC is not really well-known in Italian academic institutions and furthermore in recent years web technologies have improved folksonomies and users’ classifications. So I decided not to use the DDC, even if I acknowledge its primary importance as an international standard indexing code and I like it because of a long personal practice.

The reasons for this choice can be summarised as follows:

– DDC classification is very time-consuming: the content analysis involved in is very detailed and requires a subject specialist;
– difficulty in coexisting with the old arrangement and impossibility for the librarians to recatalogue quickly all the books;
– incoherence with the other university libraries;
– lack of familiarity and esteem of the DDC by the library patrons;

– questionable structure of the Dewey class 100 and poor correspondence between its numbers and the library collections (literary warrant referred to the documents acquired by the library).

Also because of my personal lack of practice with other classification schemes, I decided to develop an original classification system, responding to two leading principles:

– the aim not to classify in detail books according to their content, but to group them in significant classes, remaining to a level surely less detailed than the one provided for in the DDC, yet suitable to the reader who does not need to do an exact semantic search, but to browse interesting subject areas;
– the need to refer to some authoritative sources, chosen from the area of philosophical studies themselves.

I decided to work out again and to adapt the scheme used by one of the most widely used current periodical bibliographies: the International Philosophical Bibliography edited by l’Institut Supérieur de Philosophie, Louvain-la-Neuve. This scheme of classification has been recently revised, in 1991, and is for sure an authoritative landmark, well-known by the scholars, close to the continental tradition of philosophical studies, tested and built upon literary warrant.

Building the new scheme for Trieste I also used CDD, Library of Congress Classification and the structure adopted by the Routledge Encyclopedia of Philosophy.

A draft version had been discussed with some teachers, and then improved collecting and assimilating their notes about the classes’ meanings and relations. The proposed classification is enumerative and can be extended with new classes. In each class books are arranged univocally and progressively by means of a chain number. The new scheme organizes books in a Reference section (marked with the letter C that stands for the Italian Consultazione) that includes a few commonly used dictionaries and encyclopedias; a General section (marked with the letter G that stands for Generale) that contains philosophical reference works located in the reading room, a Historical section (S for Storia) including philosophy and disciplines related in a wider sense, a Thematic section (T, meaning Temi) dedicated to the various branches of philosophy, and in the end a
A small section for non-philosophical works (Others, marked with Z that is the last letter in the Italian alphabet). The main distinction is thus between historical and thematic works. It reflects our (continental) cultural tradition and is largely used in bibliographies; furthermore it suits perfectly the organisation of the main stacks in two rooms.

The scheme is completed with a notation system, necessarily more complicated than the one in use in the rest of the University libraries, but sufficiently developed and hospitable. The notation is composed by letters and numbers. The first letter F stands for the Philosophy collections of the library (the others being marked with M, for the Mediterranean area languages and literatures, G for the anglo-germanic ones, and A for the general reference collections).

Here is the adopted scheme, still in revision especially in its more disputable parts.

<table>
<thead>
<tr>
<th>F/C</th>
<th>REFERENCE WORKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>F/C/1 DICTIONARIES</td>
<td></td>
</tr>
<tr>
<td>F/C/2 ENCYCLOPEDIAS</td>
<td></td>
</tr>
<tr>
<td>F/C/3 LANGUAGE COURSEBOOKS</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>F/G</th>
<th>PHILOSOPHY REFERENCE COLLECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>F/G/1 GENERAL STUDIES</td>
<td>(value, terminology, principles; methods; relationship with other disciplines …)</td>
</tr>
<tr>
<td>F/G/2 ENCYCLOPEDIAS AND DICTIONARIES</td>
<td></td>
</tr>
<tr>
<td>F/G/3 HISTORY OF PHILOSOPHY</td>
<td></td>
</tr>
<tr>
<td>F/G/3.1 General history</td>
<td></td>
</tr>
<tr>
<td>F/G/3.2 Anthologies and collections</td>
<td></td>
</tr>
<tr>
<td>F/G/4 BIBLIOGRAPHIES</td>
<td></td>
</tr>
<tr>
<td>F/G/4.1 General</td>
<td></td>
</tr>
<tr>
<td>F/G/4.2 Special</td>
<td></td>
</tr>
<tr>
<td>F/G/4.3 Bibliography serials</td>
<td></td>
</tr>
<tr>
<td>F/G/5 SPECIFIC SUBJECTS IN PHILOSOPHY (non-philosophical issues)</td>
<td></td>
</tr>
<tr>
<td>F/G/6 STUDY, TEACHING AND RESEARCH</td>
<td></td>
</tr>
<tr>
<td>F/G/7 ORGANISATIONS (institutions, societies, congresses…)</td>
<td></td>
</tr>
<tr>
<td>F/G/7.1 Organisations in general</td>
<td></td>
</tr>
<tr>
<td>F/G/8 UNIVERSITY OF TRIESTE</td>
<td></td>
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<tr>
<td>F/G/9 MISCELLANY</td>
<td></td>
</tr>
<tr>
<td>F/G/CT SERIES (books arranged by series)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>F/S</th>
<th>HISTORY OF PHILOSOPHICAL AND SCIENTIFIC THOUGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>F/S/1 ANTIQUITY</td>
<td></td>
</tr>
<tr>
<td>F/S/1.0 General studies</td>
<td></td>
</tr>
<tr>
<td>F/S/1.1 Works (alphabetically arranged by author)</td>
<td></td>
</tr>
<tr>
<td>F/S/1.2 Presocratics</td>
<td></td>
</tr>
<tr>
<td>F/S/1.3 Socrates and Socratic schools</td>
<td></td>
</tr>
<tr>
<td>F/S/1.4 Plato and the Academic tradition</td>
<td></td>
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<tr>
<td>F/S/1.5 Aristotle and the Peripatetic school</td>
<td></td>
</tr>
<tr>
<td>F/S/1.6 Hellenistic philosophy</td>
<td></td>
</tr>
<tr>
<td>F/S/1.7 Late antiquity</td>
<td></td>
</tr>
<tr>
<td>F/S/2 MIDDLE AGES</td>
<td></td>
</tr>
<tr>
<td>F/S/2.0 General studies</td>
<td></td>
</tr>
<tr>
<td>F/S/2.1 Works (alphabetically arranged by author)</td>
<td></td>
</tr>
<tr>
<td>F/S/2.2 Greek Fathers and Byzantine thought</td>
<td></td>
</tr>
<tr>
<td>F/S/2.3 Latin Fathers</td>
<td></td>
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<tr>
<td>F/S/2.4 From 6th to 12th Century</td>
<td></td>
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<tr>
<td>F/S/2.5 13th Century</td>
<td></td>
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<tr>
<td>F/S/2.6 14th Century (and over)</td>
<td></td>
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<tr>
<td>F/S/2.7 Islamic thought</td>
<td></td>
</tr>
<tr>
<td>F/S/2.8 Jewish thought</td>
<td></td>
</tr>
<tr>
<td>F/S/3 FROM RENAISSANCE TO ENLIGHTENMENT</td>
<td></td>
</tr>
<tr>
<td>F/S/3.0 General studies</td>
<td></td>
</tr>
<tr>
<td>F/S/3.1 Works (alphabetically arranged by author)</td>
<td></td>
</tr>
<tr>
<td>F/S/3.2 Renaissance and Humanism</td>
<td></td>
</tr>
<tr>
<td>F/S/3.3 17th Century</td>
<td></td>
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<tr>
<td>F/S/3.4 18th Century</td>
<td></td>
</tr>
<tr>
<td>F/S/4 FROM ROMANTICISM TO NIHILISM (19th Century)</td>
<td></td>
</tr>
<tr>
<td>F/S/4.0 General studies</td>
<td></td>
</tr>
<tr>
<td>F/S/4.1 Works (alphabetically arranged by author)</td>
<td></td>
</tr>
<tr>
<td>F/S/4.2 Italy</td>
<td></td>
</tr>
<tr>
<td>F/S/4.3 Great Britain</td>
<td></td>
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<td>F/S/4.4 Germany and Austria</td>
<td></td>
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<tr>
<td>F/S/4.5 France</td>
<td></td>
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<tr>
<td>F/S/4.6 Spain and Portugal</td>
<td></td>
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<tr>
<td>F/S/4.7 Other European countries</td>
<td></td>
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<tr>
<td>F/S/4.8 United States and Canada</td>
<td></td>
</tr>
<tr>
<td>F/S/4.9 Other geographical areas</td>
<td></td>
</tr>
<tr>
<td>F/S/5 NINETEENTH CENTURY</td>
<td></td>
</tr>
<tr>
<td>F/S/5.0 General studies</td>
<td></td>
</tr>
</tbody>
</table>
## F/S/5.1 Works (alphabetically arranged by author)
- Italy
- Great Britain
- Germany and Austria
- France
- Spain and Portugal
- Other European countries
- United States and Canada
- Other geographical areas

## F/S/5.2 Italy

## F/S/5.3 Great Britain

## F/S/5.4 Germany and Austria

## F/S/5.5 France

## F/S/5.6 Spain and Portugal

## F/S/5.7 Other European countries

## F/S/5.8 United States and Canada

## F/S/5.9 Other geographical areas

## F/S/6 HISTORICAL STUDIES
- Studies in History of philosophy and of Science (various and miscellaneous periods)

## F/S/7 NON-WESTERN TRADITIONS
- General studies and Comparative Philosophy
- Works (alphabetically arranged by author)
- Africa
- China
- India
- Japan
- Other countries

## F/T PHILOSOPHY (disciplines and schools)

### F/T/A METAPHYSICS
- General studies
- Texts and anthologies
- Ontology
- Cosmology
- Philosophy of nature
- Space-time
- Matter
- Number and quantity

### F/T/B AESTHETICS
- General studies
- Texts and anthologies
- History
- Aesthetic judgment
- Theory of literature
- Theory of other arts

### F/T/C PHILOSOPHY OF LANGUAGE
- General studies
- Texts and anthologies
- History

### F/T/D THEORY OF KNOWLEDGE (epistemology)
- General studies
- Texts and anthologies
- Knowledge (conditions, sources, limits, value)
- Belief; faith
- Objectivity-subjectivity

### F/T/E LOGIC
- General studies
- Texts and anthologies
- Argumentation (rhetoric; informal logic)
- Classical logic (mathematical, formal, symbolic logics)
- Non-classical logics (intuitionistic, many-valued, fuzzy logics)
- Modal and philosophical logics
- Logic and artificial intelligence
- Philosophy and fundamentals of mathematics

### F/T/F PHILOSOPHY OF SCIENCE
- General studies
- Texts and anthologies
- Causality and explanation
- Philosophy and methodology of human and social sciences
- Philosophy and methodology of natural sciences
- Philosophy and methodology of applied sciences
- Inference and scientific justification (induction, probability, theories evaluation)

### F/T/G PHILOSOPHY OF MIND
- General studies
- Texts and anthologies
- Action
4.1 Some problems

Now I would like to point out some relevant questions emerged at the very beginning of the use of the new schema.

4.1.1 Works

In the previous organisation of the library there was a very large section named Classics, where the various editions of primary literature were located according to book size and order of acquisition. Most works of the Nineteenth century and the totality of those of the Twentieth were not included in this section, but were located together with secondary literature in another large section named Contemporary philosophy. Besides, texts of politics, education and psychology intended as classics were located separately, precisely in the sections created for those disciplines. This arrangement was debatable and no longer useful: to begin with, the concept of classic works is questionable itself, then the separate location of primary literature for some disciplines results in a different treatment for some authors and involves a dispersion of the works of authors that have contributed to more than one philosophical discipline.

Because of the relevance of authorship in philosophical studies, I decided to give priority to the grouping of the works of every single philosopher.
Primary literature is thus mostly located in the historical section, according to the different periods and using an alphabetic notation (three letters or more if necessary). For each author all works are gathered together, regardless of whether they are critical editions, single works, editions in the original language or translations. This was decided in order to maintain notations as simple as possible and to avoid the frequent shifting of books locations.

As the new classification was to be adopted at the beginning of the new millennium, I thought it could be correct to place all twentieth century authors in the historical section, and to apply the denomination of contemporary philosophy to authors still alive and working. The age of each author is determined by the flourish, not by the date of birth.

4.1.2 Secondary literature

Secondary literature works are not located near the corresponding philosophers, but are arranged in each class according to the period they write about or, for the Nineteenth and Twentieth centuries, the geographical area. Because of this ordering system, researches about a single author might become more difficult and their result not so prompt, but on the other hand it is easier to perceive the wholeness of a period and for the librarian to locate effectually works about more than one author, about a school, about a theme.

4.1.3 Related-disciplines

Philosophical research and teaching at the University of Trieste had always involved also related disciplines and subjects, in particular history of science and political theory. For this reason I decided not to create separate sections for these disciplines (that obviously could in every other context stand alone), but to keep them all together, to make the most of history of thought and philosophical and scientific research, emphasizing a comprehensive point of view. That is why in the historical section there are also the works of authors who are not (or not only) philosophers, but mainly scientists, psychologists, sociologists and so on.

4.1.4 Conflicts

Classifying books displays conflicts, especially between the decision to locate them in the historical part or according to the discipline. I acknowledged that sometimes it is useful to locate primary literature in the disciplines, so I provided for a Texts and anthologies subdivision in every single class. Works published in editions that emphasize the use in a specific – not historical – context are located here. When in doubt, however, historical and authorial classification is preferred. If in primary literature the author prevails, on the contrary in secondary literature the discipline or subject is the first facet.

4.1.5 Contemporary philosophy

It is difficult and even useless to distinguish between texts and critics in contemporary philosophical literature. Moreover in this field research itself has little to do with the historical point of view. For these reasons contemporary philosophy is not in the historical section, but constitutes the last group in the thematic one. Contemporary philosophy is organized referring to currents and schools; this important criterion is used only in this part of the classification, even if it is well known and useful in history of philosophy, as it seems to describe well enough a moving scenery. However I must admit that book classification in this area remains often troublesome and doubtful.

5. Organizing the existing collection and managing change

Unfortunately it became soon a matter of fact that there were not and there would never be enough resources to recatalogue all the existing documents. As the urge for a new arrangement was also clearly felt, I decided to use the new system for the new acquisitions and to put off the solution of the problem of the pre-existing documents. Anyhow, during the settlement in the new library, we were able to make some relocations: all reference books were examined, those still up-to-date and useful were located in the reading room according to the new classification system and the others were put in the storage area with the old call numbers. Many works of primary literature were relocated as well, and also some important works in many volumes still in course of publication.

At present we often do relocations, but there is not a definite working plan. So a complete relocation is not scheduled, but it is provided for, in particular for the space on the shelves.

As two different location systems would have been in use in the new library, sections have been organized in the space to limit scattering. The whole
old collection is not completely separated from the new, but old and new sections follow one another maintaining a logical order, first in the historical section (that corresponds with old classes 2-6) and then in the thematic one (old classes 7 to 19). An accurate signage helps readers, distinguishing new sections from old ones.

The letter F is placed before the old notation in the online catalogue, to indicate the physical part of the library where to find the book and also to remove ambiguity with other identical notations that can derive from the other two pre-existing libraries. There was no need to change the labels, because they are evidently different in patterns and the old ones bear the printed name of the original department or institute library.

6. Impact

I must admit I have not carried out an extensive analysis on the users’ perception of and satisfaction with the new arrangement. I know that readers appreciate open stacks, but I must realize that few people understand the importance of classifying books to give them an adequate location on the shelves. The relocation of primary literature according to the author is for sure the most appreciated innovation, but its incompleteness in comparison with the collections makes it scarcely utilizable at present.

From the librarian’s point of view, even such a simple classification requires the work of a subject specialist and a certain amount of working time. Yet I believe that this is the minimum required to do our work: arrange a book in a semantic section makes sense, and the process is involved with the development of collections. It is even more important in the context of Italian university libraries, where the acquisition of a work is very often due to some specific research needs and only rarely to an organic acquisition plan.

7. Conclusion

A new topic has lately emerged in the Italian debate, matching some of the problems I felt still unsolved in this experience. I mean the discussion about Web 2.0 and its influence in library world, in particular in cataloguing issues. As it is well known, each document of a library can be described with metadata expressed by librarians or also by authors themselves; the new aspect is that thanks to new web resources it can be described also by users. The first process is carried out by the traditional librarians’ work, intended as an analytic and formalized representation of the content of the document; the second is scarcely represented in our organisations, even if title words act in this sense, as they are expressed by authors and searchable in opacs as metadata. The third process, the user’s involvement represents the new challenge.

In my library, as I have just explained, the content organisation remained at a higher and more general level than the one commonly used in classification, simply assigning every document to one of the pre-defined classes. This, originally due to the lack of human resources, has become nowadays a more sensible choice, because users can have new powerful instruments to complete a poor but manageable classification with adequate and shared tagging. Our patrons are, or at least are going to become, discipline specialists; philosophic works are inevitably and constitutionally polysemic; “authoriality” is so important that it makes philosophic works assimilable to literature works, in that the latter have no subject in cataloguing. In this context the librarian’s work can look too simplified, unreliable, even useless. It is the users’ turn and chance: a tagging work can be done for personal use, or even better, to be used by a working community, and if the community is composed by scholars of the discipline, the result will for sure build up more than a folksonomy. No specific competence in classifying and indexing is required, and it is possible to devise many different systems based on different criteria or made in different times. The librarian’s work stops at the basic level of a simply and obvious location of the books on the shelves; afterwards this work is completed by publishing (in the sense of making public) basic records that can be used and grouped according to users’ needs and in case re-distributed via the library web.

In this sense the library can become a “conversation”, and in the specific case of a university library it would be a conversation between a research community and its instruments and products. This way also the role of the librarian can become clearer and the debate about intermediation and disintermediation can proceed a step further.
Brief Communication: Concepts and Terms – ISKO’s Major Challenge*

Ingetraut Dahlberg

Am Hirtenberg 13, 64732 Bad König, Germany, E-mail: IDahlberg@t-online.de

ABSTRACT: Starting from the premise that extant knowledge of the discipline of Knowledge Organization ought to be made accessible by its knowledge units (concepts) this article includes short descriptions of the work of E. Wuester (Austria) and F. Riggs (USA) who both had laid foundations in this field. A noematic concept of knowledge (Diemer 1962, 474) is used for the necessary work to be done. It is shown how a concept-theoretical approach (relying on the characteristics of concepts and their system-building capacity) can be applied for pertinent terminological work. Earlier work in this regard by standardization bodies is mentioned. Seven necessary steps towards accomplishment are outlined.

* Acknowledgement: I hereby wish to thank Dr. Herbert Eisele for helping to streamline my sometimes awkward English.

1.0 The Task

In their contribution “Disciplines as a differentiating force” N.W. Storer and Talcott Parsons (1968) mentioned four criteria which they consider as characteristics for the sociological relationship of members of a knowledge field in their environment. I would like to cite here the first two of them (retranslated from German translation) concerning:

– the responsibility of a professional group for the maintenance, furthering and management of a specific body of knowledge. The possession of this knowledge distinguishes the members of this professional group from so-called lay-people.
– the fact that the professional group possesses authorization for attracting, training and examining their members, who may be judged for their knowledge and the degree of their contributing to the respective field.

If we consider knowledge organization as a scientific discipline (Dahlberg 2006) and our International Society for Knowledge Organization as its representatives, then these criteria also apply to our case. Keeping this in mind, our task consists accordingly in elaborating distinctly and definitely the knowledge units of our craft. However, as this work so far has not as yet found the necessary attention, especially also regarding the new terminology drifting into our field from the area of the computer sciences which “discovered” the need of knowledge organization for their field, the following contribution attempts to prompt a solution.

2.0 Earlier work

Among the preparatory works which we should mention, two are outstanding: already in the thirties the Austrian Eugen Wuester, while establishing an Esperanto-dictionary, considered it necessary to grapple with the philosophical foundations of concepts. Later-on, when he became owner of a factory for the fabrication of saws, he found that in different factories engaged in this field, different terms were used for the same type of saws. He therefore looked for a way to streamline products and their names and wrote his internationally well-known book International Language Standardization in Technology (Wuester 2.1966). From then on he started the elaboration of terminological standards. Thus the DIN Standards 2330-2339 can be attributed to him and to those col-

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laborators in Germany and Austria, who became interested in this field through him. The standards DIN 2330 Concepts and Terms as well as DIN 2331 Concept systems and their representation contain essential preliminary works for later developments which will also be treated in this contribution. They were already anticipated in the journal Muttersprache (Dahlberg 1976). (When I corresponded once with an Indian in the United States in the seventies about these topics, I was advised by him not to use ‘concepts’ as this is considered an unknown term in this country. However, in the meantime I am sure it must have changed. Most of the newcomers to our field as well as linguists are still only familiar with ‘term’ and speak of its meaning, not realizing that there is something more behind it, which will be explained in Section 4.)

Another pathfinder was Fred W. Riggs, USA, who elaborated together with his friends in the Committee for Conceptual and Terminological Analysis (COCTA) methodical approaches in terminological work for international social science societies, as e.g. the matrix of contexts for the recognition of characteristics of a concept and the so-called onomasiological approach in concept representation, which does not care about the meaning of a term (semasiological approach) but starts from the definition of a concept. By this, one should be able to recognize just through its definition at which position in a system a concept belongs and how it has to be differently named, that is, existing also as synonym. By this Riggs did not decide that a definition must be connected to a specific term. He wanted to let everybody freely decide on which term to use, provided the relation to the definition is respected. By this, he preferred a descriptive instead of a prescriptive way of procedure (Riggs, 1981, 1988).

3.0 The concept of knowledge in knowledge organization

What kind of knowledge is meant by Knowledge Organization? Gerhard Budin has put this question to himself too in his habilitation work (Budin 1996), which he started with a knowledge typology of antonymic concept pairs differing in their criteria and which could be extended ad libitum, e.g.:

- Implicit vs explicit knowledge
- Theoretical vs practical knowledge
- General knowledge vs subject knowledge
- Linguistic knowledge (lexical, semantical, syntactical, grammatical, etc)
- Declarative vs procedural knowledge
- Conceptual vs propositional knowledge
- Specific language vs terminological knowledge
- Knowledge of details vs knowledge of facts
- Knowledge concerning activities, experience, names
- Public vs private knowledge

In all these cases the substantive ‘knowledge’ is connected with a property—or activity concept, thus we can distinguish—as already pointed out in an earlier publication (Dahlberg 1974, 10):

- the act of knowing (i.e. cognition ID) as the psychological procedure of becoming conscious; comprehending, recognizing, grasping—what has been called the ‘noetic concept of knowledge.’
- the known as result of such an act of cognition, the consciously known, what has been called the ‘noematic concept of knowledge’ and
- the disposing of known items (knowledge units, ID) into active habit, as active consciousness by a constant relating of new or extant known items to stored items.

This ‘disposing of known items’, i.e. its possession and its conscious usage leads to the forms of knowledge listed above as well as to educational knowledge, knowledge about achievements, knowledge about salvation, as understood by Max Scheler (1926, 250-1).

The noematic concept of knowledge is best fitted for our programme of concept work in knowledge organization, i.e. the known as result of an act of cognition. It can best be achieved on the basis of statements about a referent, be it an object, a property, an activity, a dimension or a subject which thereby can be understood, verified and justified.

We should like to refer also to the distinction which Karl Popper made in his work Objective Knowledge (1972) when he compared objective knowledge, which manifests thoughts in the form of a sentence, independent of persons, possessing this knowledge with a knowledge, which is derived of the subjective state of mentality of persons, having certain ideas—viz. his ‘world 3’ as against his ‘world 2.’ Already Essers and Schreinemakers had pointed this out, when they tried to clarify the difference between ‘knowledge’ in Knowledge Organization and in Corporate Knowledge Management (Essers & Schreinemakers 1996). We are facing here also the difference between Wues-
The understanding of concepts as units of thought (Denkeinheiten) which are necessarily subjective and units of knowledge which are objective and hence verifiable and justifiable.

4.0 Conceptualization and Determination

Each true statement about a certain item of reference delivers a knowledge element about this together with a characteristic of its concept. The sum of necessary statements about such an item of reference forms the whole of characteristics of its concept, it presents distinctly the contents of it. With this procedure we obtain the characteristics, which build the concept of the item of reference; they are, so-to-speak its elements. In order to handle the result of this quasi analysis of the item of reference a designation is necessary, which can be either a code or a term, possibly one which relates to the main characteristic of the referent. By this designation—if done by a term, a kind of de-term-ination takes place. If done by a code, it will be a codification—in any way an indication of the contents of the concept. See for this also Fig. 1 as well as the concept triangle in Fig. 2.

When I spoke above of necessary statements, one might ask why this restriction? In philosophy one speaks of essential characteristics and means those, which characterize the nature of a thing. Its opposite, the unnecessary statements, resp. knowledge elements or characteristics, which may indeed be given, are not important for the knowledge act in question, they are superfluous, as they are not characterizing, they are included.

A definition is the shortest form of such a whole of statements on the contents of characteristics of an item of reference. It presents, however, by these characteristics the possible relationships between the concepts thus gained—similar to the analytically obtained whole of statements of an item of reference. Take for example the whole of statements about a general object, as e.g. a museum as a building, then all characteristics are listed which distinguishes a museum from any other building, such as

A museum
- Is a public building
- Serves for the exhibition of objects
- Possesses collections of certain fields of study
- Presents collections thematically
- Has certain times for visitors
- Controls visitors (in general) by tickets, etc.

Here the general but necessary statements on museums are listed. Unnecessary because irrelevant would have been to say that the building has an entrance, or windows, or a roof, since these are already contained in building as correspondingly also all the additional statements on the characteristics of an exhibition, a collection, a field of study. However, these additional statements will play their role when the concept of a certain kind of museum must be characterized, as e.g. an archeological museum. It will be still more definite, if an individual concept for a certain archeological museum is attempted, e.g. the one in Konstanz (Constance). By this we can speak—as shown in Figure 3—of general, special and individual concepts and their characteristics showing the generic relationship.

It must, however be admitted, that the scheme presented in Figure 3 is a simplification of the “real world,” as there are usually a number of differentiating items between the three vertical sections.
Steps in differentiation/
Levels of reference  | All items of a certain kind | Some items of a certain kind | ~a single item
---|---|---|---
A Item reference  | Genus | Species (Kind) | Individuum
B Statement reference  | Essential characteristics | Essential and additional characteristics | Essential, additional & individualize. Characteristics
C Designation  | General term | Special term | Proper name
Sum of A + B + C  | General concept | Special concept | Individual concept

**Figure 3.** Diagram of conceptual differentiations of the generic relationship

5.0 Concept relationships

How do conceptual relationships come into being and how is it possible to establish thereby a system of concepts? It should be noted that the so-called Formal Concept Analysis as used by the mathematicians of the R.Wille school, Darmstadt and elsewhere (Wille 1994), also based their analysis of concepts on statements about referents (relating this to DIN 2330).

Their aim, however, exists primarily in establishing object-property matrices and derive from them with computer assisted displays of kinds of concept relationships for use of various applications. If two concepts have the same or similar characteristics, one can assume that a relationship must exist between both. If we take the predicate “is a building,” it follows that this characteristic assembles all predicates concerning buildings, this then forms a class of buildings. If we take the predicate, “is a public building” we separate such buildings in the system from all private buildings. This is of course a rather primitive knowledge, but it seemed necessary to show very simply, how a system of concepts and classes of concepts arises.

Now there are three essentially different kinds of concept relations, namely A) formal, B) categorial and C) contents related.

A) Formal relations are those, which establish the kind of characteristics of a concept. Here four possibilities can be distinguished:

- Identity, i.e. two concepts (with e.g. different terms) have the same characteristics. In this case we are dealing with synonymy.
- Inclusion—two concepts can be distinguished by only one additional characteristic, by this the one with the additional characteristic becomes a sub-concept to the other one.
- Intersection—the characteristics of two concepts cross each other (they intermingle)
- Disjunction—two concepts exclude each other, their characteristics differ entirely.

B) The categorial relationships between concepts can equally be subdivided into four different kinds. If one relates e.g. to the categories of Aristotle which can be grouped into four times three subkinds, as follows, one gets:

<table>
<thead>
<tr>
<th>1</th>
<th>Abstract entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Entities</td>
<td>Concrete entities</td>
</tr>
<tr>
<td>Principles</td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td></td>
</tr>
<tr>
<td>2) Properties</td>
<td>Quality</td>
</tr>
<tr>
<td>Relation (in the sense of comparison)</td>
<td></td>
</tr>
<tr>
<td>Operation (active)</td>
<td></td>
</tr>
<tr>
<td>3) Activities</td>
<td>Process (procedure)</td>
</tr>
<tr>
<td>State (passive, zero-activity)</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td></td>
</tr>
<tr>
<td>4) Dimensions</td>
<td>Space</td>
</tr>
<tr>
<td>Position</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 4.** The categories of Aristotle grouped by super-categories, the concept of substance was enlarged.

If one can assign an item of reference to one of these 12 categories, a categorial assignment has taken place, its concept has been categorized. An item of reference can be assigned to only one category, only if the item of reference is a subject, which usually has an object and an activity, the analysis must state this.

C) Contents-related relations are likewise fourfold and can be grouped into 1) generic, 2) partitive, 3) opposition/complementarity, and 4) functional relations.
The generic relation which has been called by computer specialists in children’s language the “is-a-relationship” is a hierarchical relationship and distinguishes a higher concept and its lower concepts according to kinds of the higher concept, e.g. a museum and the different kinds of museums.

The partitive relation, called a “has a relationship” by computer people, is also hierarchical, however it is one that lists under a higher concept the concepts which relate to parts of its item of reference, e.g. regarding museums its rooms, tables, exhibition objects, etc. The partitive relation has also been termed meronymic relation (Winston et al 1987) from the Greek word ‘mero’ = part. He and his collaborators had looked into Regel of 1962 and found some 400 synonyms for ‘part,’ for the conceptual level they distinguished only six kinds, of which only the following four kinds are real whole-part ones (see also Dahlberg 1988):

<table>
<thead>
<tr>
<th>Integral object/component</th>
<th>cup – handle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collection/member</td>
<td>forest – tree</td>
</tr>
<tr>
<td>Activity/feature</td>
<td>Shopping – paying</td>
</tr>
<tr>
<td>Area/place</td>
<td>Florida – Everglades</td>
</tr>
</tbody>
</table>

Six years before Winston’s publication, Y. Shrejder (Moscow) (1981) had already used the term meronymy for the partitive relation.

The opposition/complementary relation is one of property. It also can be subdivided into four kinds, namely: 1) contrast as in clean-dirty, light-dark, often-seldom; 2) as contradiction, as in understandable-not understandable, harmony-disharmony, 3) complementarity as in above, middle, below; high, even, deep (here as visible, even triades can occur—for this see also the relator schema of Perreault (1965/1994); and 4) analogous, homologous, or dual cases as, e.g., model and reality, arm of a human being and wing of a bird, North pole and South pole.

The functional relation, which can also be called a syntactical one, as it joins the parts of a sentence with subject, predicate, object. This relationship can be found in definitions and is also the typical relationship between the higher- and lower concepts of a faceted classification as far as the concept of a knowledge field can be subdivided into the parts of object-related, activity-related, property-related and further concept classes, which form the facets, i.e. the category-related classes of a knowledge field. In this very special case the functional relation includes a partition relationship, as it assembles, as said above, the parts of a knowledge field. In an earlier publication (Dahlberg 1988) I showed that to all of these four relationships there exist also kinds of characteristics. Regarding the functional relation the following 17 questions can be put, listed here together with their categories (which might well be related to Aristotle’s and to the facets of a faceted classification system) and their Latin forms (as far as available from the medieval philosopher Raimundus Lullus, who used them in his Ars Magna):

<table>
<thead>
<tr>
<th>Questions</th>
<th>Categories</th>
<th>Latin questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>What if?</td>
<td>Possibility</td>
<td>utrum?</td>
</tr>
<tr>
<td>What?</td>
<td>Nature, essence</td>
<td>quid?</td>
</tr>
<tr>
<td>From what?</td>
<td>Material stuff, substance</td>
<td>de quo?</td>
</tr>
<tr>
<td>Why?</td>
<td>Causality, reason</td>
<td>quare?</td>
</tr>
<tr>
<td>How big?</td>
<td>Quantity, size</td>
<td>quantum?</td>
</tr>
<tr>
<td>How good?</td>
<td>Quality</td>
<td>quale?</td>
</tr>
<tr>
<td>When?</td>
<td>Time</td>
<td>quando?</td>
</tr>
<tr>
<td>Where?</td>
<td>Place</td>
<td>ubi?</td>
</tr>
<tr>
<td>How? In which way?</td>
<td>Modality</td>
<td>quomodo?</td>
</tr>
<tr>
<td>By which means?</td>
<td>Instrumentality</td>
<td>cum quo?</td>
</tr>
<tr>
<td>By what?</td>
<td>Potentiality, capability</td>
<td></td>
</tr>
<tr>
<td>How generated?</td>
<td>Genesis</td>
<td></td>
</tr>
<tr>
<td>By whom?</td>
<td>Originator, producer</td>
<td></td>
</tr>
<tr>
<td>With whom?</td>
<td>Accompanied by, together with</td>
<td></td>
</tr>
<tr>
<td>For what purpose?</td>
<td>Finality</td>
<td></td>
</tr>
<tr>
<td>How occurring?</td>
<td>Occurrence, in parallel, in connection</td>
<td></td>
</tr>
<tr>
<td>Under which condition?</td>
<td>Condition</td>
<td></td>
</tr>
</tbody>
</table>

Figures to all these kinds of relationships can be found in earlier publications of the author, as e.g. (Dahlberg 1978, 1987, 1995). Also of interest is the fact that just these four kinds of relationships can be used for the formulation of four different kinds of real definitions. In general dictionaries one will find mostly the generic relationship in its definitions, in special dictionaries the partition and often also the functional relationships are added, when a concept should be explained thereby. For this see (Dahlberg 1987 and 1995).
6.2 Seven Steps for Conceptual Work in Knowledge Organization

It is assumed that the following seven steps are necessary for a reasonable representation of the concepts and terms of Knowledge Organization with their contents and their relationships. If they can be undertaken, the result would then be a databank, a systematic and alphabetical dictionary and also a classification system.

Step 1: Collection of all relevant terms into a databank. To accomplish this we have a huge source in the papers of our international proceedings volumes and in all issues of our Journal, including the bibliographic items in the KO Literature Section. In addition we have the proceedings volumes existing in German, French and Spanish which will need a bilingual approach. All relevant terms of our discipline should be identified and entered into this first database together with their contexts or, if applicable, with their definitions and source indications. This could be done by a volunteering team of experts in our field with experience of many years. It might be useful, if for each proceedings or KO volume one expert underlines the terms and another takes a critical look at these underlinings (and vice versa) before entering them with their differing contexts into the first database. After alphabetical sorting of these entries, creating by this a second database, one will recognize that many terms will be listed more than once, however, probably with different contexts, so that on this basis one may make conclusions about the use of the terms.

In addition to the collection of terms on the basis of the proceedings volumes from the past 20 years, there are already existing standards and dictionaries with definitions of relevant concepts as well as those proper terms used by universal classification systems such as the DDC, UDC, Bliss and Colon Classification. They ought to be collected too, alphabetized and joined to the second database with their sources. Here I would like to mention first of all the International Standard ISO 5127 (1st ed. 2001) “Information and Documentation Vocabulary.” The standard comprises 152 pages. Its terms and definitions are subdivided into seven sections of which section one lists 97 “Basic and framework terms” and section 4.2.2, entitled “Content analysis and description,” covers 94 terms. In each case a short definition is given in English, together with its equivalent in French. As each term received a notation, it was possible to refer to the definitions of entailed terms (terms with definitions at other points in the alphabet) by citing their notation in brackets. In some cases, additional notes are provided. An English and French index concludes the volume, indeed a major accomplishment of its contributors.

Another interesting document is the Draft for Development of the British Standard DD247:1998 “Documentation—Vocabulary”. (Its final version as a Standard had apparently been given up for money reasons). It comprises 114 pages and lists all terms with their definitions in alphabetical order, the entailed terms are printed in bold face. In each case a notation is given after the definition, which refers to the systematic subject index at the end of the document. 130 relevant terms may be found here under the heading 2.3 “Classification.” A closer look reveals that all of Ranganathan’s special terms in our field have been included.

A third document to mention in this regard is the 2nd ed. of Terminologie der Information und Dokumentation published as a book by G.Beling, P.Port, H. Strohl-Goebel, issued by the German Society for Information (DGI) in 2006 with an Annex in sheet form listing the terms systematically and alphabetically in German, English and French. This kind of glossary is arranged in the form of a classification system and differs insofar from the aforementioned standards as it does not only present terms of the special written language of the information sciences with their definitions (in German only) but introduces also terms, which fit into the context of the chosen structure and endeavors to complete it. As an example of this approach, one will find under “Types of Notation” altogether 19 entries (the ISO Standard has just one entry, the British one lists eleven). Already the large number of entries shows what had been intended and outlined in the Foreword, viz. “that a scientific and systematical permeation of the foundations of practical work... had been attempted to be presented by verbal means.” The document thus contains many proposed and not as yet used terms but still recommends that it be considered as a standard vocabulary.

A closer comparison of the pertinent terms in each of the three documents would have been desirable but cannot be given here. It might be possible when, according to the proposed Step 1, these terms and their definitions will be collected and joined to the second database with their sources.

Step 2: Investigating the characteristics of each concept. As to each term found in the proceedings and KO volumes contexts or existing definitions are to be added, it will be possible to recognize similar or
dependent characteristics of concepts which should be considered and respective conclusions drawn.

**Step 3: Categorization of all terms.** The 12 categorical relationships mentioned above (section 5B) will be a first help in sorting all terms according to this formal faceted order and within the facets also in alphabetical order. This third step can be accomplished separately, or together with the first step. In any way, a sorting according to this categorization will yield a new (our third) database for further procedure.

**Step 4: Purification of the third database.** On the basis of the contexts found under step 2 one should be able to identify all synonyms. At this juncture, a provisional decision ought to be taken as to which term should be used as the preferred term for a concept and keep its synonyms together with the selected preferred term. If one would like to work in the final version of the dictionary with all synonyms in the alphabet according to the onomasiological method used by F. Riggs, one could still use sub-entries for synonyms and enter it into the final version. After this ‘purification’ each entry should receive its running (a serial, a decimal) number.

**Step 5: Systematizing each concept.** To accomplish this, a print-out of the single cleared data sets of each concept is necessary. Although it might sound old-fashioned to use now again catalog cards or sheets of paper for of each concept, it is the only method to recognize and compare the hierarchical dependencies and the functional relationships between single concepts. It is recommended to use for the arrangement of concepts the so-called ‘Systematifier’ (Dahlberg 1995) which has also been used in the classification system for the bibliographical entries in our journal *Knowledge Organization*. Thereby a faceted classification system of the collected concepts and their terms can be established which can be compared with the classification system mentioned (extant for the past 34 years) while also testing its adequacy. Consequently, this new classification system should receive its own notation. Robert Fugmann suggested that this Step 5 could also be done electronically (by software) if an intelligent program were available. So I hope, the necessary intelligence can be detected.

**Step 6: Establish definitions of the concepts collected.** Based on the systematization process of Step 5, it is now possible to develop definitions for the concepts and their terms, as a classification system is in fact a definition system. These definitions should then be entered into the catalog cards under Step 5.

**Step 7: Transfer of the concepts into the database of Step 4.** Now it is possible to relate the numbering of Step 4 to each catalog card with its concept, definition and notation and create thus a final database which can be printed out in alphabetical or systematic order with all the different data.

It will of course be useful, to include control mechanisms between the steps mentioned. The whole project could be treated as a model project and as one which might need public support if the enthusiasm of our members for voluntary work does not appear to suffice. Also one may face a lot of situations not clearly explained; these should be considered, tried to be solved and finally documented for later cases. One should also envisage to handle in a similar manner the field of Corporate Knowledge Management, there exist also proceedings and journal volumes for about ten years in order to clarify the differences between the two fields. Only recently Kasten (2007) referred to the fact that this field should lend itself to using the knowledge of Knowledge Organization.

**7.0 Future Possible Uses of the Model Project**

If the dedication of those responsible for our Society is strong enough to recognize the need for launching such a model project, it will be first of all carried out in English. At the same time, however, all interested countries, such as Germany, France, Spain, Italy, Poland and perhaps others too, should try to find and elaborate verbal equivalents to the English original term. The ISKO directing group should realize that with such a model project and its organized representation it is possible to mediate a sort of standard comprehension of the concept contents of its “craft”. This seems to be essential for a proper self-understanding, also for the training of experts in Knowledge Organization, as well as for a necessary profile for the outside world. For only when the contents of a discipline have been clarified, it is possible, e.g. to apply this methodical knowledge also to other knowledge fields.

It has been proposed in an earlier publication (Dahlberg 2006) to establish *Institutes for Knowledge Organization* which should have to perform the essential concept work in any knowledge field, as summarized in this contribution by relying on experts of Knowledge Organization in collaboration with ter-
minologists and subject scientists of the various fields of knowledge. The model project could, for such cases, serve as an example to rely on. However, in order not to get lost in such an undertaking as witnessed in the seventies of last century with the establishment of macrothesauri, it seems to be essential to stick to a given universal scheme of well-delimited subject fields. For this the Information Coding Classification (ICC) (Dahlberg 1982 and 2008) might serve, which starts from areas of being, subdivided subject fields. For this the Information Coding Classification (ICC) (Dahlberg 1982 and 2008) might serve, which starts from areas of being, subdivided into aspect areas, with mutually excluding categories.

As the ICC is a universal system, the field of Knowledge Organization has been subordinated to the Science of Science. From this position it might be applied with its objects and methods to all knowledge fields. Here we face a similar development to what had already been experienced in philosophy after the beginning of the 19th century covering many disciplines which ever since have found their own raison d'être, e.g. anthropology, psychology, law, politology, the arts, religion, etc. (see e.g. the scheme which G.W.F. Hegel designed 1817 (Dahlberg 1974, p.310). Similarly our own field grew out of library and information science and owing to its new position under the science of science it has „emancipated“ to cater properly to all other sciences.

In conclusion, it would be a positive development if the proposals of this note could be regarded as a programme. This could not only supply a new aim to ISKO, but also the framework for any scientific discipline by the criteria mentioned by Storer and Parsons. It seems now to be up to our expert colleagues to collaborate in the way mentioned. Do we have the enthusiasm and motivation we initially set out on our field of study? I would wish that all of us could make an effort in order that the vision of the model project presented and its application to an appropriate modern organization of the concepts of all knowledge fields becomes a reality.

References


Riggs, Fred W. 1981. Interconcept report. a new paradigm for solving the terminology problems of the social sciences. Reports and papers in the social sciences no. 47. Paris: UNESCO.


Knowledge Organization Systems (KOS) are often developed in specialized fields such as medicine, chemistry, law and geography. In geography, for example, there is a specialized literature about Geographical Information Science, just as Geographical Information Systems (GIS) are becoming important kinds of knowledge organizing systems. Research in Knowledge Organization (KO) should contribute to the organization of knowledge in such fields. If not, this would be an indication of a serious problem in our field. The overall impression is, unfortunately, that such specialized fields develop rather independently from developments in our community of KO—and that general KO and specialized fields of KO are relatively isolated from one another.

What general principles, concepts and methods of KO should be developed by our field in order to be useful to specific kinds of applications? Theories of concepts and semantics should clearly form an important part of such knowledge. (This is indicated by the subtitle of this journal: Knowledge Organization: Devoted to Concept Theory, Classification, Indexing and Knowledge Representation. Thus far, however, “concept theory” seems to have been neglected.) The book under review can be seen as an attempt to provide such knowledge and to apply it to Geographical Information Systems. Somewhat paradoxically, however, this book is not that much about geographical concepts. This becomes clear if compared with, for example, Holloway et al. (2003). It is more about general ontology, semantics, concepts, interoperability and knowledge representation theory (although mostly related to geography). This makes the book relevant for our community as a statement about what topics KO should be engaged in.

The Book is organized the following way:

Part 1: The Context
Chapter 1 The Context
Chapter 2 Geographic Ontologies
Chapter 3 Semantic Interoperability

Part 2: Theoretical Foundations
Chapter 4 Ontologies
Chapter 5 Concepts
Chapter 6 Semantics

Part 3: Formal Approaches
Chapter 7 Knowledge Representation Instruments
Chapter 8 Formal Concept Analysis
Chapter 9 Conceptual Graphs
Chapter 10 Channel Theory
Chapter 11 Description Logics
Chapter 12 Natural Language and Semantic Information Extraction
Chapter 13 Similarity

Part 4: Ontology Integration
Chapter 14 Integration Framework
Chapter 15 Integration Approaches
Chapter 16 Integration Guidelines

Part 5: Post-Review
Chapter 17 Epilogue

Index

The book does a fine job in summarizing mainstream research in all these fields and as such, it offers a valuable overview of a very big amount of literature. However, I believe this mainstream research is currently on a problematic track, and in many places the authors express discomfort about the state of the field.

This book has neglected the theories that I consider most promising. Moreover, the book is not really about theories of geographical concepts as the title states. It fails to consider specific concepts and their associated theories. If this had been done, quite different perspectives would have been revealed.

Holloway et al. (2003/2008) is by contrast really about geographical concepts and their associated theories. The same can be said about Huber et al. (1988) covering physical geography and Larkin & Peters (1983) covering human geography. Huber et al. (1988) is described by an editorial review: “[T]his book in-
cludes a variety of analyses reaching back to origins or terms, making the work of interest to intellectual historians. The search for the intellectual genesis of each term, its development, usage, and change in meaning is accomplished with brevity and clarity.” These books are parts of the series Reference Sources for the Social Sciences and Humanities edited by Raymond G. McInnis, who has written an article on concept theory, which supports the way this series has been designed. McInnis writes (1995, 35–36):

In scholarly disciplines, concepts, the building blocks of knowledge, are basic to enquiry and explanation. Scholars present their research findings in scholarly publications as explanations. These explanations, in turn, organize knowledge. And the principles and theories which emerge from this organization of knowledge are called concepts.

We are indebted to Paul Thagard [1992] for a succinct account of the shifting concept of the concept of the period from Descartes through Hobbes, Locke, Hume, Kant, to Hegel. To understand scholarly progress, he argues, we need an account of how concepts can change. For Thagard, Hegel should be recognized as the founder of the study of conceptual change. Whereas Kant and the earlier empirists tried to find a foundation for knowledge using both empirist and rationalist ideas, Hegel stressed the importance of conceptual development.

My point is as follows: There are different theories of concepts (as described by Kavouras & Kokla 2007). Such theories must have different implications for designing KOS, whether we speak of ontologies, dictionaries or something else. (If the implications are one and the same, then the theories are not relevant for our purpose, which is to guide in the construction and evaluation of KOS.) Although the book under review does present and discuss different theories of concepts, they are not related however to the analysis of specific concepts as in the mentioned dictionaries. Furthermore, the different implications for designing KOS are not discussed. Kavouras & Kokla (2007) contains a chapter about formal concept analysis. I cannot imagine how a dictionary such as Huber et al. (1988) would have looked like if its design had been governed by formal concept analysis. (And this is not just the case with dictionaries but also with ontologies and other kinds of KOS).

In my opinion, the design of KOS must be developed from the literature and concepts in the domain (here, geography). It should be acknowledged that different views or voices are competing in each field (see Holt-Jensen 1999, about competing approaches in geography). The designer of a KOS is thus involved in negotiating between views. To believe that there is only one view, and that the designer can reflect the objective reality without considering the different voices—and without negotiating different interests—is, in my opinion, an unfruitful view.

Among the views that have been ignored by Kavouras & Kokla (2007) are critical approaches to Geographical Information Systems (see, for example, Sheppard 2001 and Schuurman 2006). The word “critical” may have a negative echo, but in reality it provides a better theoretical foundation for establishing a constructive basis for information systems. Theories of Geographic Concepts offers, despite such omissions, a rich and valuable overview of a complicated field. The different perspectives it presents are views and concepts that are at the centre of attention in contemporary research. Our field of KO cannot afford to ignore this literature and it is important that we come in closer contact with specific domains, including geography. This book should therefore be included in libraries and collections serving research and teaching in Knowledge Organization.

References


Birger Hjørland, Professor
Royal School of Library and Information Science,
6 Birketinget
DK-2300 Copenhagen S, Denmark
bh@db.dk


*User’s Guide to Sears List of Subject Headings* reminds me of my library science classes where the tutors struggled to teach subject headings as they did not have any companion to the *Sears List of Subject Headings*. The best available resource was the manual itself. Tutors and learners can now get respite as a help book produced by two veterans in the field, Satija and Haynes, is readily available. To my knowledge, this eagerly awaited text of 143 pages is the first practice book on the *Sears List of Subject Headings* I’ve come across.

The subject approach to documents is a key area in the knowledge organization aspect of librarianship. Effective subject headings are needed for adequate search. The *Sears List* is a very well-known subject headings list and is used all over the world in small and medium sized libraries. Tutors in library schools often make it their first choice. Although some book chapters mention the *Sears List*, there is no complete book on usage. The *User’s Guide* attempts to educate practitioners on its role, introducing them to a variety of uses, contexts, and offering a wide range of examples. It aims to compensate for the lack of a much needed workbook on the *Sears List*. The authors describe it as a “companion book” (p. vii).

The work is organized into twelve chapters. Chapter 1, “History and Chronology of the Sears List of Subject Headings”, serves as an introduction and presents a brief history of the various editions of the *Sears List*, accounting for its popularity. Chapter 2, “Structure of the Sears List”, elaborates on the design of the *Sears List*, offering interesting insight to the trainers of subject cataloguing and subject analysis. In chapter 3, “Subject Analysis”, readers will find very important tutorial principles on the topic. It also tells how fanciful and vague book titles often baffle the subject cataloger. The chapter finally deals with the general procedure of assigning the correct heading.

The next chapter, “Principles of the Sears List”, discusses the theoretical basis and main features on which the *Sears List* was founded, including the principle of uniformity and the semantic constructions of the headings (e.g., single-noun headings, synonyms and phrase headings).

Following chapters include “Key Headings” (i.e., “model headings that provide a clear and ready-made pattern to construct similar subject headings in that area” (p. 43)), “Headings Omitted in the Sears List”, and “Subdivisions”. The authors provide long lists of examples including Key Headings of different categories (person, wars and battles…).

Chapter 8, “Cross-references”, demonstrates how cross-references (see, see also) are constructed. Chapter 9, “Geographical Headings and Subdivisions”, deals with geographical headings, namely headings for cities and towns. In chapter 10, “Subject Headings for Language and Linguistics”, the authors provide us with a wide array of examples from Spanish, Sanskrit, Arabic, Korean and French languages, for example “A handbook on the use of foreign words in Hindi: Hindi language—Foreign words and phrases—Handbooks, manuals, etc.” (p. 104). Chapter 11, “Subject Headings for Literature and Literary Works”, covers criticism and portrayal of individual literary authors and also the subject headings for a individual works. The last chapter, “Subject Headings for Biographies and Autobiographies”, offers information on headings for individual biographies, collective biographies as well as subdivisions related to biographical work: anecdotes, case studies, chronology, correspondence, etc.

The *User’s Guide* will undoubtedly be of great help to practitioners and tutors, as each chapter includes a summary and exercises. The purpose suggested by the title is fulfilled, serving as a companion to the 19th edition of the *Sears List*. It is designed as a manual for beginners who will realize the importance of vocabulary control and subject analysis, and start to comprehend the structure and organization of the *Sears List* as well as the methods and techniques to locate, specify, and construct subject headings.
The book, however, lacks a good number of examples for practice. The emphasis seems to have been put more on the theoretical than the practical aspects. Despite this criticism, I unreservedly value the authors’ efforts. At the same time, I can’t help but wonder if the book will have wide access as the place of publication, the cost and the availability will especially affect the users in developing countries.

The User’s Guide will be a valuable tool to technical services librarians, subject catalogers, students and teachers of library and information science. It is intended for college and university libraries in general, but more particularly for library schools. The authors produced a work of high quality that stands out in its category.

N. K. Swain, Lecturer,
Dept of Library Science,
Vani Mandir Building,
Banasthali University,
Rajasthan — 304 022, India.
E-mail: nkswainlisfaculty@gmail.com


M.P. Satija, professor at Guru Nadav Dek University (India), is well known to Knowledge Organization readers, classification instructors and specialists of the Dewey Decimal Classification (DDC). He co-authored the 1987 Introduction to the Practice of Dewey Decimal Classification, collaborated with Lois Mai Chan and the late John P. Comaromi in the preparation of the Dewey Decimal Classification: A Practical Guide, and prepared the Exercises in the 21st Edition of the DDC as well as the Exercises in the 22nd Edition of the DDC.

Satija’s new contribution to the theory and practice of the DDC is intended for students and working librarians. His text emphasizes both number location through the schedules and number-building with auxiliary tables. This double emphasis, asserts Satija, can be explained by the fact that DDC remains primarily an enumerative classification scheme, even while becoming increasingly synthetic with each new edition (“Preface,” p. xi).

Professor Satija strives to introduce and to illustrate all issues and methods involved in using the DDC in a methodical and simple way (p. xii). He succeeds in reaching his goal, but sometimes at the expense of the reader’s ease in following the author in all the rules, special cases and exceptions that are explained or often simply presented in the form of examples.

The textbook is divided in three sections: 1. History (Chapters 1–2), 2. Introduction and Foundations (Chapters 3–4), and 3. Application (Chapters 5–14). Throughout the document, references are made to the print version of the 22nd edition, published in four volumes by OCLC in 2003.

Chapter 1 presents a brief history of the DDC. It is accomplished and informative, with appropriate emphasis given to a few significant events, such as the publication in 1958 of the 16th edition, which marked the beginning of a second life for the DDC (p. 6). Two useful tables are provided. Table 1 presents all editions of the DDC, with the date of publication, the total number of pages, the number of copies printed and the editor for each. A similar table presents the fourteen Abridged editions. Chapter 1 closes on a description of alternate versions/editions of the DDC.

Surprisingly, nothing is said about the various language versions of a classification system that exists in more than 30 languages (http://www.oclc.org/us/en/dewey/about/translations/default.htm). Chapter 2, “Governance and Revision”, fully elucidates the critical process of revising and updating the scheme.

In chapters 3 and 4, readers are introduced to the foundations and basic structure of the DDC. While chapter 3 offers a very detailed presentation of the four-volume print version of the 22nd edition, the following chapter, “Basic Plan and Structure”, provides basic information about the system, assuming that the reader knows very little about it. Several references to facet theory and its application to the DDC are made—an appropriate reminder of Satija’s extended knowledge of Ranganathan’s work and the Colon Classification.

Chapters 5 to 7 are short but offer adequate introductions to the functions of subject analysis, location of class numbers, as well as application of tables and rules of precedence. Paragraphs are clearly identified, with significant and useful section titles. At this point, the reader—particularly the student—begins to perceive more clearly the complexity of the system. Starting in Chapter 6, numerous examples are provided to illustrate the various rules.

Satija devotes separate chapters to Tables 1, 2, 3, and 5, while Tables 4 and 6 are covered in a single
An introduction to each table emphasizes the changes that have occurred in the latest edition. Here again, many examples are provided. But as some sections are entirely made up of examples, without any introductory or concluding text and with a minimal explanation (e.g. pages 104, 106, 125, 136–144), readers are forced to figure out for themselves the exact way of reading or explaining the problem or the rule. Furthermore, references made to the volumes and the page numbers of the previous edition are useful only if one works with the original print version of the 22nd edition. At times, only a page number is supplied. On page 89, for example, one reads: “A brief paragraph of instructions (p. 215) precedes the enumeration of area number”—the reader must deduce that the page number refers to Volume 1.

Chapter 13 explains the complex process of multiple synthesis. If the examples provided appear useful at first, the explanations become at one point somewhat sketchy and increasingly difficult to follow. Novice users will undoubtedly have trouble with this one. Conversely, Chapter 14, “Using the Relative Index”, offers a clear and detailed description of this searching tool.

There is no concluding chapter with reference to future applications of the DDC. The appendices include a chronology of the DDC, a table of DDC editors, and a review tutorial with answers. However, the sixty questions only cover the history and foundations of the system. No practical exercises have been provided. Furthermore, only thirty-two terms are defined in the glossary. For further information on the DDC, a select bibliography lists 150 sources, mostly print documents. The short index is accurate and useful.

The document has been carefully prepared and edited. The information is presented in a sober but efficient manner. Relevant sources are suggested at the end of each chapter. There are very few typographical errors, but some mistakes should have been caught in the bibliography. For example, one reads Library Research & Techniques where he or she should read Library Resources & Technical Services. A few references also appear twice, the author’s name having been entered a first time under the surname and a second time under the first name. For example, Andrzej, D. and Durlak, A. are one and the same. The journal Libraries and Culture also appears under the title Librarian and Culture. The correct form of the author’s name is the second one; the correct form of the journal’s title is the first one.

M.P. Satija’s latest contribution to the small bank of textbooks available to classification instructors and learners is, without doubt, a good one. However, some parts of the document are not accessible to novices. These sections are too technical, stressing on the rare exceptions to the common rules of class number identification and building. It at times appears as if the author has reviewed each and every class number provided in the schedules! In this respect, the recently published Essential Dewey by John Bowman can be considered more accessible to true beginners.

Very few references are made to WebDewey and to the increasing flexibility and usefulness of the electronic version of the classification. One can’t help but wonder how and why the choice was made to present the DDC not as a system, but rather in reference to the four printed volumes only, and this without any discussion pertaining to its physical presentation.

References


Michèle Hudon
Associate professor
EBSI, Université de Montréal
Montréal (QC) H3C 3J7 Canada
E-mail: michele.hudon@umontreal.ca
Letters to the Editor

Dear Sir

Thank you for the interesting issue (35(2008) No. 4) of Knowledge Organization. I especially liked the inspiring article on Ontology Design by Oknam Park. I very much appreciate Park’s approach of combining the principles of facet analysis with conventional designing principles of ontologies. However, the article would have benefited from 1) a more scrupulous proofreading and 2) a stricter peer review.

- p. 214 the spelling mistake Proprieties instead of Priorities is rather disturbing;
- In my view the “Case Studies on Wine Ontology” (by the way, a somewhat weird heading) needs some more thinking.

In combining the two classes consumable things and meal course in one class ‘dish’ Park ignores the function of the class meal course for instantiating food and drink. I agree, it can be discussed if this is a useful option, however it should be discussed.

Even more critical I view Park’s suggestion to group Wine Region below Winery as this change implies a severe violation of logical ontological principles. Ontologies, and especially ontology languages like OWL, are based on the assumption that the in-build hierarchical relation of the class relation is either a is_a or is_part_of relation. The decision to define Wine Region as a subclass of Winery disregards this principle and would therefore severely limit the reasoning potentialities of the ontology.

I am sure a revision of this aspects would even increase the usability of Park’s approach.

Kind regards,
Ulrike Spree

Prof. Dr. Ulrike Spree
University of applied Sciences Hamburg
Department Information
Berliner Tor 5
20055 Hamburg

Sir,

Thank you for the useful feedback.

Although the class “meal course” functions for instantiating food and drink, the representation of “consumable things” and “meal course” as classes might confuse users as to when they need to look at two similar classes and when they need to look at each one separately. Therefore, combining these according to the principle of differentiation would enhance usefulness of this representation.

This is valuable feedback regarding the change of facets. I define ontologies in a more broad sense, suggesting that ontologies consist of terms and exhibit structured relationships. Along the continuum of complexity of semantic relationships and logical inheritance, ontologies can be represented in different formats. In this wine case, I represented that Wine region is a facet indicator and subgroups are preceded by Wine region (Winery by Wine region) since wine region is the class to represent Winery. The other option to represent facets, which may not violate the reasoning potentialities of the ontology that you suggested, is to mention that wine region and winery can be represented as having an associative relationship.

Oknam Park

We regret any errors in proofreading.—Ed.
Instructions for Authors

Manuscripts should be submitted electronically (in Word, WordPerfect, or RTF format) in English only to the editor-in-chief, and should be accompanied by an indicative abstract of 100 or 200 words. Submissions via email are preferred; submissions will also be accepted via post provided that submissions are accompanied by a 3.5” diskette encoded in Word, WordPerfect, or RTF format.

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KNOWLEDGE ORGANIZATION was founded in 1973 by an international group of scholars with a consulting board of editors representing the world's regions, the special classification fields, and the subject areas involved. From 1974-1980 it was published by K.G. Saur Verlag, München. Back issues of 1978-1992 are available from ERGON-Verlag, too.

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