The UDC Philosophy Revision: First Report

Claudio Gnoli
Science and Technology Library, University of Pavia (Italy)

Edited version of the report published at http://italia.udcc.org/report1.html (7 August 2009)

Introduction

The author of this report has been charged by the UDC Consortium to study the possibility of a revision of class 1 Philosophy. Psychology, of the Universal Decimal Classification. The starting assumptions for this study are the following:

- Class 1 has not been updated for several decades and needs to be checked against and aligned with current philosophical terminology;
- Class 159.9 Psychology, being part of class 1 for historical reasons, should now be separated from it, and should be moved closer the Social Sciences (possibly in currently vacant Class 4);
- the synthetic feature of Class 1 should be improved based on a method of facet analysis, thus following the general development principle of UDC;
- if possible, revision should not affect existing classes in major ways, and should exploit currently empty classes, such as 18 and 19, in order to avoid ambiguous interpretations by users.

In order to explore the situation and discuss possibilities of revising Class 1, an informal working group was formed at the beginning of 2009 by the author of this report. As a significant proportion of this team happened to be Italian, this offered an opportunity for creation of the first Italian UDC online discussion list "UDC Italia" italia@udcc.org and a related Web space http://italia.udcc.org, both hosted by the UDC Consortium. This group communicates mainly in Italian, and is also hoped to encourage a revival of interest and activity on UDC in this country.

An initial general discussion took place on the discussion list from February to April 2009, with active participation by the following people: Philippe Cousson, Francesco Di Giuseppe, Claudio Gnoli, Ia McIlwaine, Roberto Poli, Alan Pritchard, Riccardo Ridi, Aida Slavic, Chiara Zara. Discussions have been helpful in outlining several basic problems and options, which are synthesized and further developed in this report. The Web space is being used to collect information useful for the revision study, including access to the mailing list, schemes, drafts, bibliography, and related sources.

Scope of Class 1

It has been agreed that 159.9 Psychology will be moved out from the Class 1. Several colleagues have suggested that 13 "The paranormal. The occult. Psi phenomena" should be removed from this class as well, as it seems to be connected more with religion than with philosophy. On the other hand, revision of class 2 has been completed recently, and it should be verified whether subjects such as 'paranormal' could be placed in religion.

Faceted structure

Members of the working group agreed that the revised class should have a fully faceted structure. This implies a relatively substantial revision of several parts of the class, by application of the principles of facet analysis, rather than just a more superficial update.

Facets are most frequently represented in UDC using one of the following notational solutions:

    -1/-9
    '1/'9
    .01/.09

According to the current UDC editorial policy, the use of the last notational solution with facet indicator .0 should be avoided and '1/'9 is suggested to be used only in case that more than 9 facets and they cannot be accommodated within -1/-9 notational space. As it will be shown here, this is probably not the case with Philosophy. Therefore, notation -1/-9 is chosen to denote all facets in Class 1.

Categories

In facet analysis, each facet expresses a characteristic of division in its class, and at the same time can be reconnected to a general semantic category. For example, "teachers" can be a facet of the class of education, and at the same time belong to the general category of Agents.

There are several lists of general categories for classification, including that by Ranganathan (Personality, Matter, Energy, Space, Time) and that by Vickery and other members of the Classification Research Group (Thing, Kind, Part, Property, Material, Process, Operation, Patient, Agent, Space, Time). Such lists also work as guide for the citation order of facets, following the inversion principle: facets listed later in the schedules (hence represented by symbols of greater ordinal value) are cited first within a single compound classmark.

Although the UDC Consortium UDC Revision Guidelines (UDC Consortium, 2005: 34) recommend to group concepts into the categories Systems, Whole entities, Parts, Material, Properties, Actions, Agents, Principles and theory, UDC still lacks any list of general facet categories associated with a constant set of symbols and its development in the direction of facetization in past four decades was rather patchy and lacked a systematic approach. It is suggested that such list can be defined now. Indeed, the present moment is a historical occasion for it, as several classed are being revised according to facet analysis. It is desirable that they all conform to a common model for purposes of consistency throughout the whole system.

In order to facilitate development of such reference list of categories, facets of Philosophy will be defined to conform as much as possible with facets already implemented in Religion performing the same syntactical role. This is relatively easy to achieve, as Religion and Philosophy share many similarities. Furthermore, shared general faceted categories will provide some consistency across the system, and will offer a solution that could be applied in other classes.

It is proposed that the UDC notational zone -1/-9 assumes the value of the following general categories, which will be followed in this revision proposal and are consistent with use in the revised Class 2:

-9	Kind
-8	Property
-7	Part
-6	Process
-5	Operation
-4	Patient, Purpose
-3	Agent
-2	Tool, Material
-1	Principles, Theory

As it is obvious, these categories conform to a large extent to the list of categories proposed by Vickery, the modification of which was also applied in second edition of the Bliss Bibliographic Classification (BC2). This is not surprising, as revision of the UDC Religion was conducted by Vanda Broughton, an editor of BC2 and a member of the Classification Research Group, who has applied the same principle to the revision of UDC Class 2 and the related FATKS project. On the other hand, some categories, proposed for the revision of Philosophy, have been modified on the basis of experience with the Integrative Levels Classification (ILC) research project, which uses a different set of general categories (Gnoli, 2008). In particular, the category of *Purpose* is considered necessary, and is assimilated to the notion of *Patient* into a more general category; *Tools* are separated by *Agents* and assimilated with *Materials*, which are moved here from their original position after *Property*; the additional category of *Theory* is suggested by Broughton & Slavic (2007).

These categories are complemented in UDC with those expressed by existing common auxiliaries, including *Place* and *Time* as in Ranganathan's and Vickery's lists:

-05	Common persons
-04	Common relations, processes, and operations
-03	Common materials
-02	Common properties
"1/9"	Time
(=1/9)	Ethnic group
(1/9)	Place
(0)	Form
=	Language

Facets of philosophy

One basic step in the revision study is to identify the facets needed to express the contents of philosophical knowledge appropriately. To this purpose, one starting point was provided by examination of the facets of philosophy in existing classifications, in particular BC2. Another kind of source has been reflection and discussion within the working group. As claimed in facet analysis theory, facets of a domain emerge inductively, by looking for appropriate semantic/syntactic groups into which the concepts occurring in documents of the domain can be organized. In the

case of the present revision, these concepts are provided first of all by subclasses of the existing version of UDC. Some of them, like 101.8 "methods of philosophizing" or 14 "Philosophical systems and points of view", should clearly be reorganized into separate facets. The identification of facets and of syntactical relationship between them is the result of interaction between this inductive process and the deductive guideline provided by general categories.

As a first draft, the following facets of philosophy have been identified:

- Branches. Fields
- Systems. Schools. Traditions. Periods. History
- Viewpoints. Standpoints. Doctrines. Approaches. Theories. Possible philosophical attitudes. System typology. Isms
- Topics. Special philosophies. Domain philosophies. Philosophy of special subjects
- Development. Interactions
- Practice. Method. Argumentation
- Applications. Applied philosophy
- Philosophers. Promoters. Person and vocation of the philosopher
- Sources. Materials

Citation order of facets

As each of the facets above is reconnected to a general category, the standard order of categories determines the order of facets. The facets of philosophy seem to be connected with the following corresponding categories, given in square brackets, hence taking notation given on the left:

10/19	Branches. Fields [Things]
1-9	Systems. Schools. Traditions. Periods. History [Kinds]
1-8	Viewpoints. Standpoints. Doctrines. Approaches. Theories. Possible philosophical attitudes. System typology. Isms [Properties]
1-7	Topics. Special philosophies. Domain philosophies. Philosophy of special subjects [Parts]
1-6	Development. Interactions [Processes]
1-5	Practice. Method. Argumentation [Operations]
1-4	Applications. Applied philosophy [Patients. Purposes]
1-3	Philosophers. Promoters. Person and vocation of the philosopher [Agents]
1-2	Sources. Materials [Tools. Materials]

This means that documents would be listed primarily by branches, then by systems, then by viewpoints, and so on. Branches are also the main characteristic of division in current class 1, so having it as the main *Things* facet would help in reducing disturbances of the current structure.

On the other hand, division by systems looks as a reasonable alternative. The UDC class of religion, sharing many points of contact with philosophy and recently revised, is divided primarily into systems. Still, several members of the discussion group have observed that primary division by systems, that divides philosophy into a conventional number of traditions rather than considering it as an autonomous science with its own subjects, would reflect an outdated conception of philosophy and is not desirable.

Based on these considerations, the first division by branches has been kept in the current draft, while systems are treated as *Kinds* and assigned the second position in the citation order. For example, a work about positivist ethics would be filed under 17 Ethics, and further specified by the system facet "positivism", rather than the opposite. No other facet seems to merit the first i.e. primary position (that is, the role of *Things*) in the citation order.

Special philosophies

One of the points arising from the discussion has been how to represent Special Philosophies, such as "Philosophy of Law", "Philosophy of Science" or "Philosophy of Art", which occur in literature frequently. Currently these are not represented in specific subclasses of 1, but under the special subjects themselves. They are usually expressed using colon combinations with Philosophy e.g. 7:1 Arts in (some) relation to Philosophy, or 34:1 Law in (some) relation to Philosophy.

However, it has been noted that the subject of "Law in relation to Philosophy" has different meaning than "Philosophy of Law". Indeed, colon relationship itself does not express the kind nor the direction of the link between the two concepts. While 34:1 means "Law in relation to Philosophy", it may be useful also to have a way to express "Philosophy *of* law", that is, to treat Law (or any other subject) as a topic of Philosophy. In fact, the function of facets is representing the most typical relationships within a field, thus covering a semantic and a syntactic meaning at the same time.

Therefore, it is proposed that a facet for topics be used, as a manifestation of the general category of Parts, in the sense that topics are special parts of the whole subject coverage of Philosophy, consisting of all aspects of life and knowledge.

Place of definition of facets

This, in turn, poses the problem of how to combine notation for the topic facet 1-7 with notation for the particular facet value (the focus) law. As law has its own notation 34 in the general schedule of UDC, it would be desirable that this be used in combination with 1-7 in order to produce the combined meaning "philosophy of law". However, the two pieces of notation cannot be attached directly, like in 1-734, as this would give no hint to computers and humans for parsing the classmark, and a search for 34 would not retrieve it. Some indicator that the facet is composed from an existing class is needed.

This is a case of what we have identified as *extra-defined facets*, that is, facets of which foci consist of existing classes taken from other parts of the scheme (Gnoli, 2006). These are opposed to *context-defined facets*, having foci that only appear in the context of the present facets and have no independent meaning: while "positivism" only appears in the system facet of philosophy, which is its place of unique definition, "law" also appears as an autonomous class. Extra-defined facets are distinguished from context-defined ones in the ILC project, which can be used as a source of evidence when considering this problem.

As indicator of extra-defined foci, an obvious solution is offered by the colon: "Philosophy of Law" could be represented as 1-7:34, where 1-7 denotes (the facet of) Special Philosophy and :34 Law. Notice, however, that this implies that the colon is not given a meaning of phase relationship,

as in theory of facet analysis phase relationships have a more general value than facets, that is, facets belong to phases rather than the opposite (Ranganathan, 1967). This creates problems when futher concepts from other facets of Philosophy need to be added to Philosophy of Law e.g. if we want to further specify the 1-7:34 Philosophy of Law with notation such as -654.If the colon were interpreted as a phase relationship, a number like 1-7:34-654 would be parsed into the phases 1-7 and 34-654, which is not the intended meaning of our example. To avoid this, two solutions are hypothesized:

- extra-defined foci are represented between square parentheses (a symbol already used in UDC to delimit pieces of notation, although only for complex compounds until now): 1-7[34];
- extra-defined foci are represented by the colon 1-7:34 but this is not interpreted as a phase relationship, rather only as a generic way to combine meanings. This can be consistent with the fact that special auxiliary numbers -042 for phase relationships (bias, comparison, influence, tool phase) have been defined some years ago. The following meanings could then be distinguished:

1:34	philosophy in [some unspecified] relation with law
1-042:34	philosophy in [phase] relationship with law, e.g.:
1-042.3:34	philosophy influenced by law
1-7:34	philosophy of law [facet]

In conclusion, this second hypothesis requires that - be given a higher priority in parsing than : so that a classmark like 1-76:5-43-2:1 is parsed into facets -76:5, -43, and -2:1.

Extra-defined foci can be shortened in ILC by a mechanism of default main class (Gnoli, 2006). This concurs to produce shorter combined classmarks, though requiring that computers be instructed to interpret the shortened focus in the correct way for purposes of automatic information processing. As the trend with UDC is to consider automatic processing more important than brevity of notation, this kind of device will not be implemented for the proposed faceted classes of UDC.

It is highly advisable that more than one facet is allowed to be combined in the same classmark, as in the example just given, and as done already in revised class 2. Indeed, imposing that only one facet can be expressed at a time would mean missing some of the main advantages of facet analysis. Classmarks with multiple facets can be easily retrieved in digital sources, by the simple instruction of inserting a wildcard before each facet indicator: so that a search for 1-43 would be interpreted as 1*-43* and would also retrieve the multi-facet classmark 1-76:5-43-2:1. The other option, of expressing each facet by repeating the main class 1 and connecting all them by colons, would produce awkward classmarks like 1-76:1-43:1-2, which would:

- tend to be extremely long and redundant, as shown in the draft examples for the revision of the medicine class (McIlwaine & Williamson, 2008);
- imply to treat the colon as prior to the dash in parsing, thus conflicting with the second solution proposed above, hence requiring another symbol to express extra-defined foci.

Development of the study

The current study is expected to collect more ideas and suggestions from the UDC Round Table and Seminar planned in The Hague for October 2009, and from other feedbacks to the present report. This can induce some modifications in the current draft structure. The next steps will be to pay more attention to the details of classes and subclasses, and to the update of terminology and presentation of the schedule. All these components are expected to be included in a final proposal for revision of class 1.

References

Broughton V.; Slavic, A. Building a classification for the humanities: principles and procedures. *Journal of documentation*, 63, 5 (2007), pp. 727-754.

Gnoli, C.The meaning of facets in nondisciplinary classifications. In: Knowledge organization for a global learning society: proceedings Ninth ISKO Conference, Vienna. Eds. G. Budin, C. Swertz, K. Mitgutsch. Würzburg: Ergon, 2006. pp. 11-18.

Gnoli, C. Categories and facets in integrative levels. *Axiomathes,* 18, 2 (2008), pp. 177-192.

McIlwaine, I. C.; Williamson N. J. Medicine and the UDC: the process of restructuring. In: Culture and identity in knowledge organization: proceedings Tenth International ISKO Conference, Montréal. Eds. C. Arsenault, J. T. Tennis. Würzburg: Ergon, 2008. pp. 50-55.

Ranganathan, S. R. Prolegomena to library classification. 3rd ed. Bangalore: SRELS, 1967.

UDC Consortium. Guidelines for the revision and maintenance of the UDC. *Extensions and Corrections to the UDC*, 27 (2005), pp.19-38.