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## Chapter 4

### LIBRARY CLASSIFICATION AS A TRANSFORMATION AND ITS LIMITATIONS

Let us assume that a linguistic foundation is laid for library classification, that the fundamental categories and types of relations have been isolated to the necessary and sufficient extent and enumerated and arranged in a helpful order, and that suitable ordinal numbers have been found to represent them. Then any specific subject will first be analysed into the fundamental categories which go to form them; then the types of relations involved will be determined; all these will be translated into their respective ordinal numbers and will then be finally assembled according to prescribed rules. This will be the class number of the specific subject. The presumption is that the class numbers which can be composed in this manner will all fall in a helpful order if they are arranged according to their ordinal values and that every possible specific subject of the past, present and future will be individualised by them. The question arises whether this order will be found to be helpful by every user. It will be if and only if there is one and only one order which is helpful to all users, and all other orders are totally unhelpful to every user *i.e.* if there is a sharp line of demarcation between helpful and unhelpful orders irrespective of the kind of user and only one order will lie on the right side of this line and all the others will lie on its wrong side.

#### 41 An Example

Let us first examine some simple particular cases. Let us take the main class Psychology. For definiteness let us take that two facets occur in its facet-formula *viz.*

Psychology [Entity] : [Problem].

The resulting class numbers will first group the reading materials in psychology by the Entity studied. Let us for simplicity consider two entities only:

Genius and Idiot.

Let us assume that these are to be taken in the order given above. Then as a person approaches the psychology room in a library, the first gangway will have all the materials on Genius and the second, all the materials on Idiot. Of course, the materials in each gangway will follow the order of problems. Here again for simplicity let us consider two problems only,

Emotion and Conation.

This arrangement will be helpful to a person who specialises in a particular psychological type. But a person who specialises in a particular psychological problem will find that his reading materials are not found together. If he specialises on Emotions, he will have to pick up his materials from two gangways. So also if he specialises on Conation; if there are a hundred foci in the Entity Facet, he will have to pick them from a hundred different places. This will be unhelpful to him. The helpful order he will demand is that the materials must first be grouped by Problems — all materials on Emotion together in one gangway, all on Conation in another and so on. But if they are so arranged the specialist of the first kind will find the arrangement unhelpful.

Let us imagine a well-guided stock-room. When the first kind of specialist enters, he wants the gangway guides to show the names of entities like Children, Adolescents, Women, Genius, Idiot etc., so that he can walk into the gangway in which he is interested, say Genius. When he enters into it, he wants the bay-guides to show the names of several problems like Sensation, Character of Consciousness, Cognition, Emotion, Conation etc. following in helpful succession. When the second kind of specialist enters, he should be able to press a button; and the gangway-guides, bay-guides and the materials themselves should be thrown into a different pattern. The gangway-guides should now show the names of the Problems. If he enters the gangway of his choice, the bay-guides in it should show the names of Entities.

Unless there is provision for such an instantaneous change in the arrangement of the materials and the guides as in a kaleidoscope, both kinds of readers cannot be given an arrangement which is helpful to them.

#### *42 Multiplicity of Helpful Order*

In other words, the facet-structure of specific subjects makes more than one order among them equally helpful if we take the totality of the kinds of readers into consideration, though for each kind of reader there is one and only one order which is helpful and every other order is unhelpful. It may also happen that a reader does not always belong to one kind. His interest at one moment may be as for the first kind of reader and at another moment as for the second kind. Thus, even from the point of view of a single reader, the facet-structure makes more than one order among specific subjects equally helpful. The multiplicity of helpful orders is not the creation of library classification or of its notation. It is inherent in the relation of the field of knowledge and the world of readers. For the facet-structure is inherent in specific subjects whether a scheme of classification explicitly recognises them as the Colon Classification and the Universal Decimal Classification do or implicitly takes them into consideration in arrangement as the Congress Classification does generally or the Decimal Classification does in Subjects like Medicine and Literature but fails to do in subjects like Education. Interest in different orders of facets is also inherent in readers. Multiplicity of helpful orders is inherent also similarly in the phase-structure of specific subjects, the interest of readers in different orders of phases and therefore in the relation between the field of knowledge and the world of readers.

#### *43 Methods of Solution*

Since multiplicity of helpful order among specific subjects is a fact independent of library classification — a fact to be reckoned with in arrangement — how are we to provide for it? It is a case of arranging concrete materials — books and other kindred materials — in such a way that one kind of arrangement presents itself to one

person and another kind to another person. To secure this by pressing a button is obviously possible only in the world of fancy; it is not possible in the world of reality. Real solutions to the problem were explored in 1942 when this was discussed closely in the class-room at the instance of Das Gupta who was then a member of the class. One mode of solution is to design the stack-room in a lattice-pattern. At each of the lattice-points, books on one and only one specific subject will be shelved. The very pattern allows gangways running on all the four sides of a lattice point. Let us, for definiteness, assume that one set of gangways run from east to west and another set from south to north. The guides of the east-west gangways show, let us say, the names of Entities and the guides of the north-south gangways show names of Problems. Readers will walk down the appropriate gangways according to their interest. Calculation shows that a stack-room of such a lattice-pattern will require floor-space many times larger than the stack-room of the lanepattern. This may be anything between 100 times to 1000 times or even more per volume according to the number of books which collect on each specific subject. This is obviously impracticable.

When the number of facets in a subject is three the number of helpful orders will be six. To provide for all the six helpful orders with equal efficiency, a much more complicated lattice-system in more than two dimensions will be required. The complication will increase tremendously with subjects which have four or more facets.

#### *44 Solution by Multiplication of Copies*

The first method of resolving the conflict, due to multiplicity of helpful order, being fanciful, the second being unrealisable on account of spatial extravagance and dimensional complication, we can think, as a third solution, of the purchase of as many copies as the number of helpful orders and make different libraries of them for the different helpful orders. In this case, library classification cannot be based on a linguistic foundation such as the one postulated, not allowing more than one class number to a book. If however purchase of the necessary number of copies is feasible, it may be possible to

and Goethe are able to communicate to intellectuals some of their trans-intellectual experiences. Fully integrated persons like Jesus, Muhammad and Ramakrishna Paramahansa are also able to do so.

#### 46 *Library Classification as a Transformation*

But as classifiers our job is not to communicate multi-dimensional experience as a whole in its nascent form of thought-energy. Our work is to arrange the materialised forms of multi-dimensional thought, the embodiments of thought in books and kindred materials. The materialised forms of thought are to be arranged so as to be cognisable by the primary sense of sight, which cannot comprehend more than three dimensions even in the most favourable circumstances. There is indeed a further restriction imposed. For the arrangement of books has to proceed along a line only and even there in one direction only. A set of arranged books form a unidirectional one-dimensional set capable of being followed up by the eyes and handled by the hands in a sequential manner. At the same time they represent the multi-dimensional continuum of thought. Thus library classification is equivalent to a representation of a multi-dimensional continuum in a single dimension.

#### 47 *Limitations of the Transformation*

Such a representation can not be unique. It will admit of several alternatives. The representation of any continuum on a continuum of a smaller number of dimensions will admit of alternatives. Take for example the simple case of representing three dimensional space on two dimensional space — the representation of the globe as a plane map. We know the difficulties of map-projection, and the alternatives we have to reckon with. If we choose a projection which keeps the proportion of areas invariant, the angles go wrong. If we choose a projection which keeps the angles invariant, the proportion of areas goes wrong. Between these two extremes there are many other alternatives. Users of maps know what a bewilderment this leads to. In the same way if we want the books in one facet or phase to cohere, those in another facet or phase are denied coherence. If an

arrangement is made in accordance with what one interest deems helpful, the other interests find it unhelpful.

#### *48 Need for Help from Catalogue*

Library classification, which is subject to the mechanical, dimensional and financial restrictions such as we have, has irremovable limitations imposed on it by multiplicity of helpful orders among specific subjects. It is, as it were, a knowledge of this irremovable limitation inherent in itself which makes library classification look for help from outside. Some help is possible from another tool common among librarians, the library catalogue.



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