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A Theoretical Basis for the Accomodation of New Subjects in Colon Classification Edition 7

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As the universe of subjects is developing at an increasingly faster rate, the accomodation of new subjects has always been a problem for all classification schemes. Colon Classification, with its strong base provided by the 'Dynamic theory of ever-growing universe of subjects', of which the 7th ed. is a culmination, has tackled this problem at the conceptual level. The article seeks to describe how CC7 has tried to solve the problem on the Idea Plane and how the notational system could be made to admit an infinite number of newcomers without disturbing the infrastructure of the existing subjects. It is concluded that a theory-based scheme, like CC7, is more suited to cope with the accelerated proliferation of subjects than a non-theory-based scheme.   Author

0. Introduction

In the wake of an unprecedented growth of literary warrant in various developing fields, expecially during the second half of the 20th century, the accomodation of new subjects has been a problem for all classification schemes, with Colon Classification forming no exception. The measure of incidence of the growing number of subjects can be conjectured from the fact that the number of Basic Subjects in Colon Classification alone has increased from a mere two dozen in the 1st edition (1933) to 779 in the 7th edition (1987). Even this figure does not show the real picture because many subjects like Systems Basic Subjects and Environmented Basic Subjects are not completely enumerated in the Schedule of Basic Subjects in Colon Classification 7th edition (hereafter called CC7). Nevertheless, in the process of their making, new subjects with separate disciplines and published output have crystallized out so clearly that a classificationist may find it helpful to assign to such new fields of specialisation new basic subjects not already enumerated in the Schedule of Basic Subjects in the classification scheme concerned. Under such circumstances, the accomodation of newly emerging subjects becomes imperative for the survival of a classification scheme.

The present study seeks to investigate how CC7, with its strong theoretical base, has dealt with the problem of a growing universe of subjects. For this purpose it will be convenient to find out:

- How subjects are developed and where they can be appropriately placed, i.e. the work on the Idea Plane.
- What notational techniques may be evolved to provide infinite hospitality in the array of main classes - i.e. the work on the Notational Plane.

I. Work on the Idea Plane

The universe of subjects is growing at a precarious and ever faster rate. One way of dealing with this situation is to revise the classification scheme time and again, which, of course, requires a strong central organization with solid financial backing. Even with these facilities, the inevitable delay in revision, printing and publishing etc. may hamper the library processing of documents, dealing with the subjects which - from the point of view of helpfulness to specialists - should preferably be assigned their own new Basic Subjects rather than existing ones.

Another way to have some control over the situation, as suggested by Dr.Ranganathan, is to make an indepth study of each of such basic subjects to recognize different modes of formation of subjects, and then categorize the modes into a few patterns at a near-seminal or conceptual level.

Further to secure consistency and facilitate the arrangement of new Basic Subjects amongst the existing ones, several guiding principles according to the General Theory of Library Classification are used for each mode. Thus, the work in the Idea Plane for a growing universe of subjects will be completed by the following two steps:
- Modes of formation of subjects;
- Arrangement of subjects in a helpful sequence

Ranganathan recognized five modes of formation of subjects and their arrangement (1, p.351), viz. (a) Dissection, (b) Lamination, (c) Denudation, (d) Loose Assemblage, (e) Superimposition.

Neelameghan redefined and regrouped them (2) as follows:

Mode of formation	Name of subject formed
1. Formation of Primary Basic Subjects (PBS)	
1.1 Fission	Fissioned PBS
1.21 Distillation Kind 1	Distilled PBS Kind 1
1.22 Distillation Kind 2	Distilled PBS Kind 2
1.3 Fusion	Fused PBS
1.4 Clustering	Clustered PBS
2. Formation of Non-Primary Basic Subjects	
2.1 Fission	Secondary Basic Subjects
2.2 Lamination 2	Compound Basic Subjects (A) Compound PBS (B) Compound SBS
2.3 Aggolomeration	Agglomerate Basic Subjects

CC7, however, uses a different terminology (3, p.66-68) for each type of subjects formed by different modes, as given below:

Mode of formation	Name of subject formed
1. Formation of Main Subjects	
1.1 Fission	Traditional Basic Subjects
1.21 Distillation Kind 1	Distilled BS
1.22 Distillation Kind 2	Distilled BS
1.3 Fusion	Fused BS
1.4 Clustering	Subject Bundle

| 2.	Formation of Non-Main Basic Subjects	
2.1	Fission	Canonical Basic Subjects
2.2	Lamination2	2.21 SpeeialsBS
		2.22 Environmented BS
		2.23 Systems BS
		2.24 Compound BS
2.3	Agglomeration	Agglomerate BS

It may be interesting to note that CC7 has retained the old terminology as used in the late 60's and early 70's (2, p.156).

I.1 Formation of Main Subjects

Main Subjects (MS) are the ones belonging to the first order of array in a classification scheme. They are formed by the following modes:

I.1.1 Fission

"Fission is the process of division or splitting or breaking up into parts" (4, p.43). The first order of MS designated as the traditional MS in CC7 (3, p.66) are supposed to have formed by fission. The traditional MS appear to fall into the following four broad groups in CC7 (3, p.52):
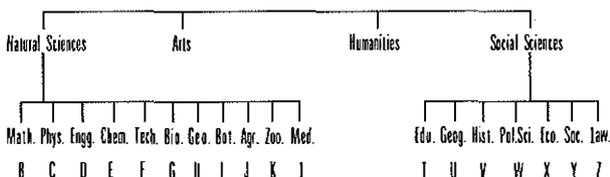
Such a grouping of subjects is found in some of the philosophical systems of knowledge classification.

Arrangement: The sequence of MS in all four groups is in general conformity with the following two principles of helpful sequence:

(1) Decreasing Predictability and Increasing Richness of Contents

This principle is followed in the arrangement of MS in CC7. At one end of the spectrum there are subjects like Mathematics, Physics, etc. with relatively more predictive quality but less contents, while on the other end, the subjects in the Social Sciences field are to be found, which have less predictive quality but are richer in contents.

(II) Pure discipline, applied discipline

Within each broad group, the MS are arranged according to this principle. For example

Pure discipline	Applied discipline
Physics C is followed by	Engineering D
Chemistry E is followed by	Chemical Technology F
Botany I is followed by	Agriculture J
Zoology K is followed by	Animal Husbandry KX

Applying the pure discipline and applied discipline sequence, a number of new applied disciplines have been interpolated in CC7. For example

Library Service	is placed as adjunct to	Library Science
Applied Mathematics	is placed as adjunct to	Mathematics
Applied Physics	is placed as adjunct to	Physics

1.1.21 Distillation Kind 1

A particular idea, when practiced in different fields, develops into a new subject. For example, Conferences are organized in different fields. Similarly, Research is conducted in various subjects. Consequently, on the basis of experiments and experience in diverse fields, new subjects like Conference Techniques and Research Methodology are developed. This type of formation of subjects is called Distillation Kind 1 (5). In the past few decades, several such subjects have been formulated and are, therefore, included in CC7. For example

Information Science
Library Science
Book Science
Management Science
Research Methodology
Conference Techniques

Arrangement: It may be noted that the MS formed by Distillation Kind 1, either deal with a 'service' aspect or a 'methodology' aspect. As these subjects can be associated with all the traditional MS, they therefore precede the traditional MS in CC7. The following principles of helpful sequence have been used in their arrangement:

(I) Principle of Later-in-time

In view of the assumption that the services emerged earlier than the pure discipline dealing with a 'methodology', the subjects dealing with the 'service' aspect have been placed in advance of those dealing with the 'methodology' aspect. This is in accordance with the principle of later-in-time.

(II) Principle of General to Specific

The Distilled MS Kind 1 dealing with the 'service' aspect are arranged according to this principle. Some of the Distilled MS Kind 1 dealing with 'service', taken from CC7 are given below:

01	Information Science
1	Universe of Subjects
2	Library Science
3	Book Science
3V	Reading Methods
3X	Notes Taking
3Y5	Mass Communication
4	Journalism
5	Exhibition Techniques
6	Museology

(III) Principle of Scheduled Mnemonics

The Distilled MS Kind 1 dealing with the methodology aspect are arranged by the following Principle of Scheduled Mnemonics. The semantically rich digits used to denote these subjects are taken from the Schedule of Common Isolates, as given below:

9b	Career
9c	Metrology
9d	Standardization
9e	Specification Methodology
9f	Research Methodology
9g	Evaluation Methodology
9p	Conference Technique
9t	Commission Technique

I.1.22 Distillation Kind 2

For some sociological or academic reasons, a particular idea (or sometimes several ideas) hitherto occurring in a particular basic subject becomes the focus of study and ultimately develops into a new subject. This mode of formation of subjects is called Distillation Kind 2 (5, p.167). The following subjects, taken from CC7 as examples, have developed as a result of Distillation Kind 2:

BT Statistical Calculus
BTT Operations Research
BTV Information Theory
BV Cybernetics

Arrangement: The MS so formed are usually placed, and logically so, as adjuncts to the host MS from which they have developed. Hence, the above MS are placed as adjuncts to Mathematics B. In CC7, such subjects are designated by the common term 'Distilled MS' (3, p.66).

I.1.3 Fusion

As a result of interdisciplinary research, subjects associated with two different MS combine together in such a way that a new subject of interdisciplinary nature is developed. This process is known as Fusion (6), and the subjects thus formed are called Fused MS (3, p.66). A few examples from CC7 are given here:

BYC Astrophysics
BYE Astrochemistry
BYG Astrobiology
BYT Astrometry

Arrangement: The sequence between a new Fused MS (e.g. Astrophysics) and an existing MS (e.g. Astronomy) is determined by applying the Principle of Later-in-time, as shown below:

BX Astronomy
BYC Astrophysics

When several such subjects appear as adjuncts to a host MS, they are arranged by applying the Principle of Systematic Mnemonics and Scheduled Mnemonics. The sequence of the above mentioned Fused MS conforms to the above principles.

I.1.4 Clustering

During the past few decades a new trend of research has come into being in which an idea becomes the focus of study from the standpoint of scholars in different subject fields. For example, the idea 'West Asia' may be studied by Mathematicians, Geographers, Political Scientists, Sociologists, Economists, etc. The result of such researches may be put together in what may be called 'West Asian Studies'. Such formation of subjects, involving the rounding-up of different subjects around a nodal point is called Clustering (7). Subjects thus formed are designated in CC7 as Subject Bundle. "A Subject Bundle comprehends subjects drawn from different disciplines pursued by different specialists" (3, p.68). "These are mission-oriented studies usually of applied nature and usually come in the domain of what is popularly called 'Big Science' (8, p.6). Subject Bundles are developed by the following three types of studies:

(I)   Area Studies
(II) Generalia 'Person' Studies
(III) Entity or Phenomenon Studies

(I) *Area Studies:* In this type of study, a particular area becomes the focus of study by specialists in different subjects. In CC7, such subjects have been grouped into one main class, denoted by 'OU'. The areas under study, forming Personality Isolates [1P1] of this main class, are taken from the Schedule of Space Isolates (G.D.). Examples:

OU   Area Study [1P1]
       isolates to be taken by (GD)
OU,41 Sinology
OU,42 Japan Studies
OU,44 Indology
OU,5   European Studies
OU,55 German Studies

(II) *Generalia 'Person' Studies:* A particular person of national or international importance may be studied by the specialists in different subjects. For example Ronald Reagan, Ex-President of the USA, may be studied from the point of view of different subjects as follows:

Reagan's role in the Middle East
Reagan's policy of Nuclear Disarmament
The impact of Reagan's policies on the US Economy

The above research topics may be put together in what may be known as 'Reagan Studies'. Such subjects, which are of relatively recent origin, have been dealt with in CC7 under a separate main class called Generalia 'Person' Studies, denoted by 'OW'. The dates of birth of the persons under study, comprising the isolates in Personality Facet [1PI] in schedule 'OW', are taken by the Chronological Device (CD). Some examples are given below:

OW   Generalia 'Person' Studies
         [1PI] isolates to be taken by (CD)
OW,M6   Ghandi Studies (born in 1869)
OW,NI1   Reagan Studies (born in 1911)
OW,NI7   Indira Studies (born in 1917)

(III) *Entity or Phenomenon Study:* A particular entity or phenomenon becomes the focus of study from the point of view of different subjects. Such subjects are grouped into two categories: *A. Those having a wide range of input:* While studying a particular entity or phenomenon, input subjects may have a wide range stretching from natural sciences to social sciences. Such subjects are more of a general nature and therefore are placed earlier in the Schedule of Basic Subjects in CC7. They are denoted by OX. The isolates in Personality Facet [1PI] in this schedule are taken by Subject Device (SD). Examples:

OX   Study of entity/phenomenon)
             [1PI] derived by (SD)
OX(C1,111)   Study of time
OX(W;18=L)   Peace research
OX(Y;3195)   Leisure research

B. Those having a restricted range of input: Here the input subjects studying an entity/phenomenon come mainly from the Natural Sciences alone. For example 'soil' may be studied from the viewpoints of engineering, physics, chemistry, agriculture, microbiology, etc. All such contributions give rise to a subject called 'soil sciences'. Such subjects are placed close to the natural sciences as given below:

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A   Natural Sciences
AX   Study of entity/phenomenon from different angles
     (input mainly from the Natural Sciences)
AXB Environmental Sciences
AXC Surface Sciences
AXD Soil Sciences
AXE Materials Sciences
AXF Hydro Sciences
AXG Ocean Sciences
AXJ   Atmosphere Sciences
AXK Space Sciences

In the above examples, the grouping is roughly solid associated (AXC, AXD, AXE), liquid associated (AXF, AXG), gas associated (AXJ, AXK), conforming to the Principles of Systematic Mnemonics as well as Scheduled Mnemonics.

Arrangement: The three varieties of MS, viz. Area Studies, Generalia Person Studies and Entity/Phenomenon Studies (with input from the Natural Sciences and the Social Sciences), are arranged in CC7 by applying the Principle of Later-in-time. Area Studies were earliest to emerge, followed by Generalia Person Studies and Entity/Phenomenon Studies. Therefore, the sequence in CC7 is:

OU Area Studies
OW Generalia Person Studies
OX Entity/Phenomenon Studies

I.2 Formation of Non-Main Basic Subjects

Non-Main BS are derived from MS. As defined in CC7 (3, p.66) "the term Non-Main BS denotes a subject having as its constituents a main subject - host main subject - and one of the other of the following four other kinds of constituents:

(a) Canonical constituent
(b) Specials constituent
(c) Environmented constituent
(d) System constituent

Consequently, a host main subject plus one of the above constituents will give rise to what is called a Canonical BS, Specials BS, Environmented BS, and Systems BS. The following modes are recognized in their formation:

2.1 Fission
2.2 Lamination 2
2.3 Agglomeration

I.2.1 Fission

Canonical BS are formed by the process of fission or splitting of Main Subjects (9, p.189). As the literature in a particular Main Subject grows, a stage may be reached where scholars may find it convenient to divide their whole field into separate specialized sub-fields which are themselves, after some time, treated as independent subjects. Thus, "the term 'Canonical BS' denotes a traditional division of a Main Subject" (3, p.66). The Canonical BS are enumerated in a number of Main Subjects in CC7. Here are some examples:

(1) For the Distilled MS, 9f Research Methodology, the following Canonical Classes are given:

  9f1 Survey Methodology
  9f2 Observation Methodology
  9f3 Experiment Methodology
  9f4 Data collection and analysis
  9f5 Discussion Methodology
  9f6 Postulation
  9f7 Abstract Model
  9f8 Planning Methodology

(2) For the Fissioned MS, C Physics, the following Canonical Classes are given:

  C2 Properties of Matter
  C3 Sound
  C4 Heat
  C5 Radiation
  C6 Electricity
  C7 Magnetism

(3) For the Fused MS, HV Geophysics, the Canonical BS are:

  HV2   Internal Geodynamics
  HV3   Volcanology
  HV4   Seismology
  HV5   Oceanology
  HV8   Atmospherology
  HV81 Meteorology
  HV83 Aeronomy
  HV86 Ionosphere Studies

It may be noted that HV Atmospherology has again become fissioned into canonical classes of a later order.

I.2.2 Lamination Kind 2

"Lamination is construction by overlaying facet on facet" (1, p.354). It is of two kinds: Kind I involves laminating one or more isolate facets over a basic facet to produce a compound subject (10, p.152). Lamination Kind 2 consists of the attachment of a speciator or qualifier to a main subject (9, p.190). The latter gives rise to three types of non-main BS as detailed below:

I.2.21 Specials Basic Subjects

"The term 'Specials BS' denotes a division of a Main Subject, in which the subject of study is restricted in some special manner" (3, p.66). Specials BS are formed when a core entity of study in a main subject is restricted or qualified by the help of a speciator which is a relevant characteristic of the subject concerned. For example, in Medicine, the human body, which is the core entity of study, may be qualified by speciators such as 'by age', or 'by sex'. In CC7, Specials BS are listed Physics, Chemistry, Botany, Zoology, and Medicine. A hyphen (-) is used as a speciator symbol. Examples taken from the Medicine Schedule are listed below:

L-9A   Specials in Medicine
L-9B* by age
L-9B   Embryology, human
L-9C   Child Medicine
L-9D   Adolescence Medicine
L-9E   Adult Medicine
L-9F   Old Age Medicine
L-9G* by sex
L-9G   Male Medicine
L-9H   Female Medicine
L-9J   Eunuch Medicine

I.2.22 Environmented Basic Subjects

Studies pursued for the entities found in an extra-normal environment ultimately give rise to what are known

as Environmented BS. An Environmented BS is formed when a core entity of study in a particular main subject is restricted or qualified by such a relevant characteristic as environment. The schedule of Environmented Divisions given as chapter DD in the scheme under discussion is used to construct class numbers for Environmented BS. CC7 attempts "to bring together in each Main Subject all the documents on the study of entity in each of the extra-normal environments" (3, p.42). Although there can be no limit to such subjects, yet depending upon the literary warrant, many Environmented BS are listed in the Schedules of Main Subjects like Engineering, Biology, Botany, Agriculture, Zoology, Animal Husbandry, Medicine, Psychology, and Economics. Some examples are given here:

D-9UK2 Desert Engineering
D-9Um7 Mountain Engineering
G-9Up   Marine Biology
G-9U3   Tropical Biology
L-9Un4 High Altitude Medicine
L-9Ux   Space Medicine
L-9U3   Tropical Medicine
L-9U8   Polar Medicine

I.2.23 Systems Basic Subjects

The term 'Systems BS' denotes a division of Main Subjects or Non-Main BS expounded according to a specific system or school of thought other than what is currently popular (3, p.67). These subjects are formed when a core entity of study in a particular basic subject may be qualified by the help of a speciator dealing with 'schools of thought' or 'system'. For example, the human body, which is a core entity of study in Medicine, may be qualified by a speciator dealing with different systems of Medicine as given below:

L-B*Z Indian Systems of Medicine
L-B   Ayurveda
L-C   Siddha
L-D   Unani
L-K   Allopathy
L-I   Homeopathy
L-M   Naturopathy

Apart from Medicine, Systems BS occur in such main subjects as Mathematics, Physics, Chemistry, Philosophy, Psychology, Education, Economics. Here are some examples:

B2-N Boolean Algebra
S-N   Gestalt Psychology
X-M2 Socialism

It may be noted that the Systems BS listed in Chapter DE of CC7 are only illustrative, and many more such subjects may be formed in the same way, thus supporting the hypothesis that the number of basic subjects will always increase.

Arrangement: The sequence between a Main Subject and a Non-Main BS conforms to the principle of Decreasing Extension. The sequence between the three types of BS

for a given Main Subject is according to the Principle of Later-in-time. This is in accordance with the assumption that the Specials emerged first, followed by Environmented and Systems Studies. Example:

Medicine
Medicine-specials BS
Medicine-Environmented BS
Medicine-Systems BS

I.2.24 Compound Basic Subjects

The process of lamination may assume another dimension to form a Compound Basic Subject. Generally, a Non-Main BS is comprised of a main constituent (i.e. Host MS) and a non-main constituent, which is either a canonical or special or environmented or system division. If two or more kinds of non-main constituents are laminated with the Host Main Subject, the resulting subject is a Compound Basic Subject. In case all the four non-main constituents are present in a Compound BS, their sequence will be: systems constituent, environmented constituent, specials constituent, and canonical constituent (3, p.67). Example:

XJ-9V-9H-3 Distribution in public enterprise in capital-istic economics during war time.

In the above class number the following components deal with

XJ	Capitalistic economies (systems constituent)
X9V	economics during war (environmented constituent)
X9H	economics of public enterprise (specials constituent)
X3	economics of distribution (canonical constituent)

Such Compound Basic Subjects are gaining literary warrant at the present time, hence some of them are listed in the Schedule of Basic Subjects.

I.2.3 Agglomeration

Partial Comprehensions now called 'Agglomerates' are formed as a result of Agglomeration. They consist of subjects treated either integrally or disjunctively in one and the same document. The process of agglomeration is the collecting together of entities into larger masses without cohesion among the components. The Agglomerates, in fact, are the major divisions of knowledge and have meaning only with reference to the Schedule of Basic Subjects in a classification scheme (11).

Partial Comprehensions or Agglomerates, as they are called, are sometimes confused with Subject Bundles. However, "a Partial Comprehension generally comprehends a few consecutive Basic Subjects or even Isolates. On the contrary, a Subject Bundle comprehends subjects drawn from different disciplines pursued by different specialists". (3, p.68)

Agglomerate BS emerge from time to time and are placed immediately earlier to the first of the successive Basic Subjects they comprehend, thus conforming to the

'Principle of Decreasing Extension'. An Agglomerate BS is indicated by the symbol *Z. Some of the Agglomerate BS given in CC7 are enumerated below:

A*Z   Sciences (Natural and Social)
B*Z   Mathematical and Physical Sciences
B*ZZ Mathematical Science
BX*Z Astronomy and Astrophysics
C*Z   Physical Sciences
D*Z   Engineering and Technology
E*Z   Chemical Sciences

Analysis of the Schedule of Basic Subjects in CC7

Main Subjects	
Mode of formation of subjects	Number of subjects
Fission 1	30
Fusion	41
Distillation 1	17
Distillation 2	48
Clustering	4
Total	140

Non-Main Basic Subjects	
Mode of formation of subjects	Number of subjects
Fission 2	383
Lamination 2	205
Agglomeration	51
Total	639
Grand Total	779*

(* This figure includes all the Basic Subjects, irrespective of their type, given in the schedule of Basic Subjects.)

II. Work on the Notational Plane

While the Idea Plane recognizes new Basic Subjects and determines their helpful position in arrays, the notational plane attempts to assign numbers to them in the already existing sequence of Basic Subjects. The new Basic Subjects may have to be accomodated either at the ends (Extrapolation) or in between two consecutive classes of an array (Interpolation). Thus, the work on the Notational Plane involves Extrapolation and Interpolation in arrays.

II.1 Extrapolation of Subjects

Extrapolation is made possible either by leaving certain numbers unused at the end of the array or by the help of a Sector Device (1, p.311). CC uses a mixed base consisting of 23 Roman small letters (except i, l, o); 10 Indo-Arabic numerals and 26 Roman capitals. In the Sector Device, the digits z, 0, 9 and Z are postulated to be 'Empty Digits' (ED). These digits, although allowed to retain their ordinal value, are postulated to loose their semantic value, i.e. they cannot represent a subject unless preceded by a semantically rich digit. For example, a base of IAN with 9 as an ED, can be extended as

1......8   91........98   991........998.

Because the last digits of the three bases used in CC are postulated to be ED, any number of extrapolations is possible at the end of each zone. Besides, 'Paketted Notation' may also be invoked for the purpose. The following diagram shows the capability of ED for extrapolation in an array:

Note, upward arrows (↑) indicate the possibility of extrapolation.

II.2 Interpolation of Subjects

Interpolation in an array is secured in CC7 by postulating certain digits as Emptying Digits and Empty-Emptying Digits (12, p.225-226).

II.2.1 Emptying Digits (EgD)

The digits T, V, and X are deemed to be EgD. The following postulates are associated with these digits:
(I)   All of them are semantically rich when used as singlets.
(II) Each of the EgD will empty the semantic richness of the digit prefixed to it, but allows it to retain its ordinal value.
(III) The digit pair, so formed, can represent a new subject.

Emptying digits have been used frequently for interpolation of a number of subjects in CC7. Two examples are given below:

(1) H   Geology   (2) K   Zoology
    HX Mining   KX Animal Husbandry
   1   Botany   L   Medicine

Further Interpolation: Two emptying digits may be used successively to allow further interpolations (3, p.37)

    B   Mathematics
    BT   Statistical Analysis
    BTT Operations Research

In BTT, the first EgD i.e. T empties the semantic richness of the preceding digit B. The second T empties its preceding digit T of its semantic value. Finally, the interpolated subject is represented by BTT. Several subjects have been interpolated like this in the schedule of Basic Subjects in CC7.
Emptying Digits make provision for twelve interpolations.
It may be observed that the three EgD make provision for only 12 interpolations in between two consecutive classes, as shown below:
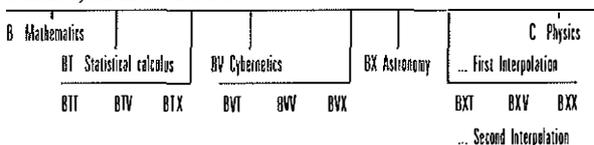
II.2.2 Empty-Emptying Digits (EED)

To achieve infinite hospitality in arrays, each of the digits U, W, and Y is deemed to be EED. The following postulates are associated with them:

(I) All of them are semantically rich when used as singlets.

(II) Each one of them will empty the semantic richness of the digit preceded by it.

(III) The digit pair so formed cannot represent a new concept unless followed by a semantically rich digit.

Example:

L	Medicine
LT	Physical Exercises and Sports
LTT	Ergonomics
LU1	Social Medicine
LU5	Public Health
LU6	Hospital
LU7	Sanatorium
LUD	Medical Technology
LX	Pharmacognosy

From the above examples, it may be observed that the subjects from LU1 to LUD have been interpolated by using U as EED. It may further be noted that the digit U when preceded by L could not represent a concept unless the digit pair LU was followed by a semantically rich digit, which may come either from Roman small letters or IAN or Roman capitals. In this way any number of new subjects can be accomodated at any point in the array of Basic Subjects, thus securing infinite hospitality in the Notational Plane.

III. Conclusion

Thus it may be concluded that a theory-based scheme like CC7 can easily keep step with the new developments in the Universe of Subjects by providing an inner mechanism for the accomodation of new subjects, while a non-theory-based scheme will wander in wilderness to cope with the accelerated proliferations in the Universe of Subjects. The life of a classification scheme, in fact, depends upon its capacity to meet the challenge of a growing Universe of Subjects. In the words of Ranganathan, "Colon sification version 3 (7th ed.) will be worthy of being continued without serious changes for a period much larger than the earlier versions of CC or than any non-faceted scheme for classification, old or new" (13, p.21). However, it remains to be seen how far his dream will come true.

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