

Briefs on the 19th (1979) to the 23rd Edition (2011) of Dewey Decimal Classification

M.P. Satija

*Deptt. of Library & Information Science, Guru Nanak Dev University, Amritsar-143 005
E-mail: satija_mp@yahoo.com*

ABSTRACT

The paper analyses that the Dewey Decimal Classification (DDC) is the most popular library classification in the world. It states its use in 2 lac libraries, information centres and many national libraries in the world. Its translations exist in more than 30 major languages. It is being used in organising and searching the web and databases. The paper reviews the new features and changes in the five consecutive editions of the DDC since its 19th ed. (1979) to the current one 23rd (2011). It explains the management and tools like the ESS4.0 for revising the DDC. The paper finds the role of the OCLC and the DC Editorial Policy Committee (DCEPC) and the European Dewey Users Group (EDUG) in keeping the DDC updated, relevant and remain connected with the users all over the world. It explains its various print and electronic versions, namely, Full edition in 4 volumes, Abridged Dewey in one volume, and its electronic editions since 1993 such as the Electronic Dewey, Dewey for Windows (DfW) and now the WebDewey and the Dewey database. The paper explains the organised and continued efforts of the OCLC to keep DDC popular and relevant to the use in libraries in the IT environment. It states the official efforts to make it a truly international classification by reducing the Western and Christian bias and make it more faceted with every edition.

Keywords: Abridged Dewey, Dewey database, DDC, editorial support system (ESS), European Dewey Users Group (EDUG), OCLC, WebDewey

1. INTRODUCTION

The DDC, one of the big three classifications is the most popular of all the library classification systems. It is used in 2,00,000 libraries in 135 countries including national bibliographies of 60 countries, and has been translated in over 30 languages. It has secured and retained this position partially because of its well-defined revision policy, sound revision machinery and proactive marketing network. First revised in 1885, it has constantly and regularly been revised. Revision has been described as a double-edged sword which cuts both ways. Though essential for survival, too much of it may be killing and dangerous to its popularity and atrocious for its users. So a revision policy has to be carefully formulated, and has to make a delicate balance between change and stability. A new edition incorporates new topics at appropriate places that have emerged since the previous edition, and deletes some of the obsolete subjects. But as an equally important task, it relocates some topics to better deemed places in view of changed structure of knowledge or to rectify earlier mistakes. Many

subjects are expanded in details. In addition, advantage is taken to apply new classificatory techniques in improving the system. Edition by edition the system is becoming more and more faceted, user-friendly, and better technically and intellectually.

1.1 Revision Procedure

To carry out the revision there is a full-time editorial team headed by the (chief) editor of the DDC. The editorial office is located in the Dewey Section of the Library of Congress, Washington, DC, USA since 1953. This section applies DDC numbers to more than one lakh new but select books every year procured in the Library of Congress. There is ten-member Decimal Classification Editorial Policy Committee (DCEPC) headed by a chairperson to advise the editors on the kind and extent of revision. This is a broadbased international committee appointed jointly by the American Library Association (ALA) and the OCLC the publisher of the DDC. The Committee has representatives from Canada, the UK, Australia, South Africa and from every sector of the US library profession. It is an apex committee

which minutely advises and oversees the editing including changes and innovations in the system. Its decisions are executed by the chief editor and his/her team of assistant editors who have their office in the Library of Congress, Washington, DC. Its new editions are published at an interval ranging from 7 to 10 years by its exclusive publisher the Forest Press till recently located at Albany, New York. It has now moved its office to OCLC headquarters at Dublin, Ohio. It is headed by an Executive Director, who is a vice-president of the OCLC. The Forest Press is now retired since 2003.

1.2 Communication and Incorporation of Changes

Revision of the DDC is a continuous process. After deliberations and discussions when the changes or additions are approved by the DCEPC these are announced in an irregular newsletter, named DC&. It means DC AND (i.e., DC Additions, Notes and Decisions) which is mailed free to all purchasers of a DDC edition. Since 1997 DD& in traditional print form has been discontinued and this newsletter is now available on the Dewey homepage on the internet at <http://www.oclc.org>. The Dewey homepage is updated on the first of every month. Therefore, now the DDC users have always an updated DDC. In addition, since 1993 the DDC is also available in CD-ROM format which is published every year with new revisions. However, implementation of changes in library is not as easy, and most of the librarians are scared of it and some hate doing it; some avoid implementing them on one pretext and the other. Only a few libraries implement the new changes; rest continues with the edition once adopted. Bibliographies and new libraries, however, use the latest version.

1.3 Salient Features of DDC-19 (1979)

The 19th edition of the DDC published in 1979 was the last edition edited by able and famous editor Benjamin A. Custer (1912-1997), who first edited DDC-16 (1958). The DDC-19 (1979) obviously carried forward the trends of the last three decades, though it did not bring up as many changes as were seen in the DDC-18 (1971). The major revision (phoenix schedule) was the new schedule of 301-307 Sociology. In 1982 a more detailed version of 301-307 Sociology was issued separately as an independent booklet. Most of the other changes were also in the main class 300 Social Sciences. The 329 Practical Politics was merged at 324 to form quite a new number, i.e., 324 Political Process.

1.4 Changes in Tables

There were some changes in the standards subdivisions especially in discontinuation of the ss-08; and an extremely useful Table of Precedence given

at the beginning of Table 1. Table of precedence provides standard guidance in case of choice between two standard subdivisions. There was a general 17 % increase in the Area Table (Table 2). As a major change the area number of the UK as a whole was shifted to 41 from 42. In fact this change had been in force since 1974.

1.4.1 DDC Manual

A landmark for the DDC practice and standardisation came in 1982 with the publication by the Forest Press the 'Manual on the Use of the Dewey Decimal Classification', Edition 19 prepared by John P. Comaromi and his team. It was a result of a long survey of the use of DDC in North America conducted by John Comaromi in 1975. The Manual explains the DDC perceptions and practices of staff of the Dewey Division of Library of Congress in applying and interpreting the DDC numbers. It has made possible the uniform application of DDC throughout the world in conformity with the official use. It provides guidance for classifying in difficult areas, and distinguishes one number from other related number. In nutshell, the Manual is a blue book on the DDC numbers interpretation and application policies. With many maps, flow charts and detailed point by point elaborations, it is a handy guide for thr, DDC classifiers for uniformity of applications of the DDC. Due to its success it has been incorporated in the system since the DDC-20 (1989).

1.4.2 Computerisation

DDC-19 was published for the first time through computerised photocomposition. Later from the electronic tapes many path breaking experimental studies were conducted by Karen Markey Drabenstott to study the use of' classification (DDC in particular) in online searches and retrieval. In 1984 from these tapes a computerised Editorial Support System (ESS) was developed by Inforonics Inc., for the Forest Press. It started the hitech era for the classification.

1.4.3 Relative index

The relative index continued to be complicated. The only exception was that the bold typeface for entries that were subdivided in the schedules was eliminated.

2. DDC-20 (1989)

The 20th edition (1989) brought in many changes which proved to be trend setters. It was edited by a new editor, Dr John P. Comaromi (1937-1991), a brilliant academician, who had a long, time association with DDC in various capacities. Since July 1988 ownership of the Forest Press has been transferred to the OCLC, Dublin, Ohio which started

a new era in the development of new DC products, marketing, research and popularity of the DDC. The system was published for the first time in 4-volumes running to 3383 pages compared to 3361 pages in 3 volumes of the DDC-19. Splitting the schedules into two volumes eased the classifiers.

2.1 Editorial Support System

Edition 20 was first to be produced by an online Editorial Support System (ESS) installed by a private company Inforonics, Inc in 1984 in the Decimal Classification Division of the Library of Congress. It is a database of the entire contents of the DDC system and is used to produce future editions and a variety of products. It has almost eliminated the manual/clerical labour in editing and has reduced the production period to six months from the earlier 2 years.

2.2 New Changes

Dr Comaromi was appointed new editor in 1980. He had vast knowledge of use of the DDC in North American libraries. He introduced many new changes especially to make the DDC-20 simple, smart and uptodate. It contained many more changes as compared to the previous two editions. Though Comaromi believed in drastic changes to keep pace with growing 163 Knowledge, he stuck a diplomatic balance between stability and change. By way of a major development a completely new schedule for 780 Music was incorporated. It had been under revision for the last decade by outside experts. The schedule is not only modern in contents but also more faceted with transparent facet structure. This edition also incorporated 004-006 Data Processing and Computer Science, which was earlier issued as a 'separate' between DDC-9 and DDC-20. Minor changes took place in subjects like Christian Religion, Television, Adult Education, Electronics, Civil Rights, Gymnastics and Civil History.

2.2.1 Change in Tables

The new Area table reflected changes in administrative and political setup of different countries and their units. Table 3 was further refined, modified and split into three sub-tables: T3A, T3B and T3C. T3C is used on instructions from Table 3B or in 808-809 in the Schedules. It has made its application more easy direct and simplified.

2.3 Electronic Version

A major achievement of DDC-20 had been its electronic version issued in 1993 on CD-ROM titled, 'Electronic Dewey'. It contained the DDC-20 Schedules, Tables, Index and Manual as, well as the amendments and updatings made in the DDC-20 since its publication in 1989. The disc can be used with a standalone microcomputer. A highly value-added version the Electronic Dewey

could be searched by words or phrases, numbers, index terms and Boolean operations. Captions could be browsed and hierarchies could be displayed. An entry also showed frequently-used LC subject headings associated with a Dewey number, alongwith a sample bibliographic record. It enabled users to classify materials quickly and efficiently. It was the first CD-ROM version available commercially of any library classification system.

2.4 Simplification Movement

Comaromi will be remembered for his fruitful efforts towards simplification and ease of use of the DDC. Format and presentation of the DDC text was improved in elegance and operation as:

- Three main summaries were relocated to the second volume.
- Throughout the schedules and tables many more multilevel summaries were introduced especially in dense schedules such as 370 Education, 620 Engineering and 630 Agriculture, and also for Area tables of Europe and North America. A multilevel summary is an outline of a class at some lower level, e.g., outline of 631.11. A multilevel summary allows to view the entire class at one glance, i.e., provides a bird's eye view of that class. It is time saving in locating a number without much scanning and flipping of the schedules pages. It also saves the schedules from physical wear and tear.
- Under each entry detailed definitional and instructional notes have been provided.
- Centered heading as indicated typographically by the symbol ">" in the number column.
- Optional numbers were given in parenthesis, e.g., (828.9935).
- Manual on the use of DDC (Forest Press, 1982) was incorporated in the 4th volume (pp. 731-961). Schedules, and tables quite frequently referred back to the Manual for further clarification and elaboration.
- As another significant innovation, 'Editor's Introduction' was simplified and made simple and brief. It was mentioned: "The introduction is written primarily for the novice or beginning classifiers, although the experienced classifiers may benefit from reviewing its contents" (Introduction, Sec. 1.1). It is comparatively easy to comprehend.

2.5 Index

Another milestone change occurred in simplifying and trimming the index. It had then been substantially reduced to 730 pages from 1216 of DDC-19. This had been accomplished without impairing its efficiency. All the 'See' references had been replaced by direct entries. Synthesised numbers were omitted

with a few exception. Only terms of the schedules and tables were indexed. Users' convenience and efficiency were the two important achievements of the DDC-20. It was clear, usable, and a trend setting edition which was well received by the library world.

3. DEWEY-21 (1996)

The 21st edition was released in July 1996, for the first time, simultaneously both in traditional print (in 4 volumes) and CD-ROM forms. Latter is known as Dewey for Windows (Dfw). Availability of DDC-20 on CD-ROM facilitated and accelerated the publication of the new edition. By now the relationship of IT and DDC has crossed the teething trouble to enter a mature and fruitful era. As with the earlier edition the editorial work for the DDC-21 was also done on the ESS, now a UNIX-based system. As another innovation, members of the DCEPC now hold electronic meetings via the Dewey listserve on the internet. DC& in the print form has been discontinued and, instead, is now available on the internet at <http://www.oclc.org/fp>. The Dewey home page also includes the OCLC Forest Press catalogue, Dewey News, and the 'hot' classification topics and internet addresses of online catalogues using Dewey. The text in 4 volumes has been edited by a new editor Ms. Joan S. Mitchell who was appointed Chief Editor in 1993. Ms Mitchell, the 9th editor since Dewey has been associated with the Dewey Organisation since 1985. She is an expert in information technology.

3.1 Structure of DDC-21

The DDC-21 has the following bibliographic details:

'Dewey, Melvil Dewey Decimal Classification and Relative Index' devised by Melvil Dewey. Ed. 21/ edited by Joan S. Mitchell, Julianne Beall, Winton E. Matthews, Jr. and Gregory R. New. Forest Press, a Division of OCLC Online Computer Library Centre, Inc. Albany, N.Y.: 1996, 4 Vols. ISBN 0-910568-50-4.

Volume 1: Prefatory material, Editor's introduction
Glossary, Tables 1-7 and information
on the changes in the new edition.

Volume 2: Schedules 000-599

Volume 3: Schedules 600-999

Volume 4: Relative index, Manual

The 4 volumes spread over to 4126 pages have been divided into nine sections marked A/I.

3.2 User's Convenience

The DDC-21 furthers on all aspects the line set by the previous (Ed. 20) with emphasis on user's convenience and modernisations. Entries are clear with copious notes. Editor's Introduction is brief and simple with improved captions. Many brief manual

like notes are also appended to entries in the schedules. Some new types of notes and theoretical concepts have also been introduced.

3.3 Changes in Schedules

The changes in the DDC-21 are numerous and far reaching in form of additions, expansion, relocations, deletions, change of headings, and newly added notes. The major new schedules are for:

296	Judaism and 297 Islam
350-354	Public Administration
368	Insurance
370	Education
560-570	Life Sciences

Some select revisions have been made in:

004-006	Data Processing
342-349	Branches of Laws
355	Military Science
362-363	Social Problems
420-490	Specific Languages
636	Animal Husbandry
790	Theatre
810-890	Literatures of Specific Languages
940-990	General History of the Modern World.

As an important change in 370 Education, 376 Education of women and 377 Schools of religions have been made subdivisions of 371 Education, whereas distance education has been expanded.

3.3.1 Reduction of Bias

A commendable effort has been to reduce Christian bias in religion by shifting Christian religion from 200 to 220/289. 200-219 is now comprehensive religion. Similarly, US bias has been reduced in wording and structure in 350-354 Public Administration. It is a big step towards reduction of Western and Christian bias and an effective move towards internationalisation.

3.3.2 Changes in Tables

Select changes in the auxiliary Tables in volume 1 are not less either. Regularisation of standard subdivisions has been carried on bit further. Foremost example is in 370 Education where irregular use of standard subdivision has been replaced by the regular use of T1-07. There has been a regularisation of the use of standard subdivisions at 370.7 and elsewhere in the schedules and related adjustments in T1-071. This brings uniformity and makes the notation mnemonic and faceted. But still more remains to be done, e.g., there is inconsistency as:

340.1	Theories of laws
342.02-.09	Other standard subdivisions of laws

Area table has many significant changes especially in the area for 47 Russia, 499 Bulgaria, Area numbers for news and other geopolitical changes have been incorporated. There are minor changes in other tables.

3.3.3 Transparent Facet Structure

The completely revised schedules (the new edition also avoids the term phoenix schedule adopted in DDC-16/19) not only incorporate new subjects with details but it also provides opportunity to rectify the order of classes and the facet structure to reflect modern thinking in that profession. In the DDC-21 the new schedules have transparent facet structure. It means the DDC is getting more and more faceted. For good or bad the DDC-21 abounds in options in facet formula for local emphasis. For example, in 560-590 Life Sciences, the major taxonomic subdivisions have remained the same, but the order of facets has changed from Entity-Process to Process-Entity. Biochemistry from 574.19 has been raised to the status of a section at 572 with ample details and many facets. This is keeping in view the current status of the subject. In 350-354 Public Administration structure has been improved by reducing US bias. The facet order has been changed from Jurisdiction Topic to Topic-Jurisdiction. There is also an option here to bring together all topics of Public Administration by area. There are many facet indicators used through many internal tables. Number building has been simplified. For example:

(Public) Administration of Justice in India
 353.4 + 09 (T1) + 54 (T2) = 353.40954
 (Option A, Vol. 2, p. 601)
 or
 351 + 54 (T2) + 0 (Facet indicator) + 34
 (from 353.4) = 351.54034

It simply means that the topics of Public administration can be collocated by country/place or by topic. In Public administration, the new numbers are not only shorter but also do away with dual provision of the DDC-20, e.g.:

Topic	Ed 20	Ed 21
Abuse of power	351.991	353.46
352.002		
Decentralisation	351.0073	352.283
352.00472		

3.4 Relative Index

Relative index now of 895 pages has been increased, by 150 pages with the addition of many new terms and headings. The index includes terms in the headings, and most terms in notes appended to entries in the schedules, and terms in all the

seven tables arranged in word by word order. Notes in the Manual have also been indexed which lead classifiers to relevant discussion. 'See also' references have been employed to draw attention to the broader and related terms. It also indicates the place for the interdisciplinary works in the subject. As in DDC-20, 'See' references for synonymous terms have not been used. Instead a term has been indexed under all equivalent terms. For example, Birds and Aves both have been indexed. Under Aves 'See also' reference leads to Birds and their all related aspects.

In DDC-21 in accordance with other subjects indexing tools such as Sears List of Subject Headings and the Library of Congress Subject Headings, uninverted, i.e., direct and natural form of phrasal headings have been used. Personal and geographic names have been indexed on AACR-2 specifications. For instance, entry is Civil Engineering, not Engineering, Civil; Commercial art, not Art, Commercial.

Some synthesised numbers have been restored in the index-based on literary warrants. It incorporates more terms to make it more hospitable to non-US users.

Some concepts and terms implied and some terms obtainable through number building having sufficient literary warrant have also been included in the index. Apart from physiogeographic names and features, countries and their provinces have also been included in the index. The US geographic details are upto the county-level. Some historical events, personalities, kings, queens, eras, names of (literary/social/political) movements have also been included in the index. The index of DDC-21 has best of both the two previous indexes, i.e., it has simplicity of DDC-20 and exhaustiveness of DDC-19.

3.5 Abridged DDC-13 (1997)

First published in 1894 an abridged edition has shorter numbers (normally up to two digits beyond the dot) which are easy to remember and can be easily written on the spine of the document for shelving. Besides this, it is less expensive. In brief, it is efficient for a collection upto 20,000 books of a school or small public library, and makes a handy tool for teaching DDC. It is also used in subject headings for children.

Abridged DDC-13 comprising a total of 1026 pages has the following major parts:

- Prefatory material (pp. i-iii),
- Four tables (pp. 1-57), and
- Schedules (pp. 59-651).

It is a true abridgement of the DDC-21 (1996) which has been printed from a database prepared at the Library of Congress by a computer-assisted

ESS. Abridged DDC-13 subcommittees of ALA Subject Analysis Committee, and (British) Library Association Dewey Decimal Committee have guided the preparation of this edition as they did in case of DDC-21. Accordingly, it has all the traditional and new features of the unabridged DDC-21, namely, revised schedules for 350-354 Public Administration, 370 Education, 570-590 Life Sciences and new numbers for the countries of the erstwhile Soviet Union among the major revisions. Many notes have been added to provide guidance in use of standard subdivisions for multidisciplinary topics. Terminology has been updated to reflect international and current usage; and number building instructions have been made explicitly simple. Caption headings have been improved and made more informative. Notes appended to various entries have been simplified and made more comprehensive. Use of standard subdivisions has been bit regularised. It helps in better decision making. There is a long term multi-edition plan to reduce Christian bias. First step has been taken in this edition by shifting the comprehensive number for Christian religion to 230 from 200. In Public Administration, and Life Sciences the citation order of facets have been reversed to reflect the shift in the current literature of these disciplines. Manual has been expanded, made more explicit and indexed; and there are more references to the Manual in the schedules. In brief the new abridged edition in a single volume provides small libraries the updated features of the unabridged DDC-21 with ease and at a much lower price.

3.6 Dewey for Windows (DfW)

The e-version of DDC-21, named 'Dewey for Windows (DfW)' was released simultaneously with the traditional print version in 1996. It is a Microsoft window based LAN compatible version of the Electronic Dewey with DDC-21 database. It provides a window interface which is different from the DOS version of DDC-20 (Electronic Dewey 1993). Search engine in both the cases remains the same. Obviously, it requires a micro computer with windows version 3.10 or higher, a 486-based PC or higher with a minimum of 8 MB of memory, and a colour monitor with CD-ROM drive. The DfW database began as a database in the ESS at the Library of Congress. The ESS format is though different from the MARC format yet there are many similarities between the two. The tapes generated from ESS database are used to produce both the print and CD-ROM format as well as abridged DDC. DfW is updated between editions by issuing a new CD which incorporates changes announced in DC& which is now published only on the internet.

Unlike the print editions the Dewey on CD is not constrained by the physical size and space. The database includes all built numbers from the

relative index of the print version and thousands more added to the e-version. Each readymade number is accompanied by index terms and the nearest matching DDC schedule number with its verbal heading. It includes the segmentation (prime) marks used by the LC to show either the end of an abridged number or the beginning of a standard subdivision. A convenient work area displays and stores the parts of the Dewey number being built as one moves among the schedules and tables for instructions.

The LC subjects headings have been added to the each class number by statistical matching. These headings provide additional terms for searching. It is an additional help for libraries using LCSH for subject headings, and a source of additional terms for other DfW users. There are some in-built readymade numbers. Keyword access is helpful for finding these already-built numbers. Future edition may contain many more such built-in numbers. In DfW movement of upward and downward hierarchies is possible by highlighting and clicking. For interface, it uses single function windows. If a number or term is dragged and dropped into a search window, the search for number or the term will begin. For full-record display of a number including caption notes, relative index entries and associated LCSH headings of a number that Dewey number is dragged and dropped. If the term is dragged and dropped into an index window set for the relative index, the relevant part of the Relative index will be displayed looking like that of the printed relative index.

The windows are arranged in a tiled fashion to facilitate dragging and dropping. There are standard as well as customisable views for the user to set. The standard views are:

- (a) Search view—search window and DDC number window
- (b) Browse view—search window, DDC pages window and DDC number window
- (c) Scanview—Index window, search window, and DDC number window
- (d) Summary view—DDC summary window, search window, DDC pages window, and DDC number window.

It also provides facility to create, i.e., customise users' own views to configure the windows to suit ones own approach. The standard views are each described in the Dewey for Windows reference card. The print version of DDC is used in different ways, i.e., either through the schedules or through the index, so there are different ways to use DfW. Mary Mortimer explains that in any view one can:

- Maximise any window to see a larger display
- Choose display to see appropriate LCSH
- Choose bibliographic record to see a sample

record using the number selected

- Change LCSH to review the frequency of headings used with the number
- Contents of a window may be printed by choosing 'Print'. Choose Notes to make a permanent record of a DDC number and its specific use
- Choose 'Past' to review the searches made during the current session
- Use 'Help' to understand a term or procedure.

It has an augmented index with natural language terms from other thesauri to provide an enhanced access. Some of the important advantages of DfW over the traditional print version are:

- (a) Keyword access to the entire print DDC-21
- (b) Additional terms and subject headings for search
- (c) Hierarchic display
- (d) Standard and formulable view
- (e) Dragging and dropping of numbers and terms.

It also remains up to date without any manual addition from the DC& as a new version is issued annually. However the basic principles and number building techniques are the same. Future e-versions may provide some built-in expert system for automatic synthesis of numbers wherever required. Many surprising features may be in store in the near future including the one Dewey without notation.

3.6.1 Version 2.00 Features

This version issued in January 2000 has the following improvements:

- Improved annotation feature is helpful to add as many as 16000 notes to the schedules; can categorise in four different ways and assign a label and multiple keywords for fast and easy retrieval.
- Enhancement to the Dewey for Windows database: Changes as published in 'Decimal Classification Additions, Notes and Decisions', Vol. 6, Nos. 1-3.
- Updated area for France, and the Canadian territory of Nunavut and South Africa
- An expanded index, including more than 500 built members and accompanying index terms added for popular topics in literature.

For example compare the entry in the indexes of print edition and the DfWs on Computer Science:

'Computer Science' in DDC-21:
Computer Science 004
T1-028 5

See Manual at 004-006; also at

004-006 vs. v621.39

'Computer Science' in Dewey for Windows:
The entries above, plus:

Computer science-dictionaries	004.03
Computer science-education	004.071
Computer science-examinations	004.076
Computer science-higher education	004.0711
Computer science-problems	004.076
Computer science-secondary education	004.0712
Computer science-vocational guidance	004.023

As another example Mitchell (2000, p. 85) cites that ecology of Tundras indexed as 'Tundras - ecology' in print edition has an additional entry as 'Tundra ecology' in the DfW.

- Automatic cutting, with two options for constructing four-figure or three figure cutter numbers.
- New instructions for use of standard period tables for affiliated literatures.

Any of the following search options can be availed:

- Relative index words and phrases,
- Captions, words and phrases,
- LCSH words and phrases,
- Dewey number,
- Basic index of all the fields except LCSH.

4.0 SALIENT FEATURES OF DDC-22 (2003)

The 22nd edition was released in September 2003, two months later than the scheduled time of July 2003. However, its e-version WebDewey was released on time in July. The period between two print editions now seems settled to a seven years as a matter of policy. The CD versions of the Dewey were issued annually whereas WebDewey, i.e., Dewey accessible only on the internet is updated quarterly. So what constitutes an edition is now legally a problematic question. Edition is rolling, always in a flux without much fixity.

Since the last half a century, especially during the tenure of Benjamin A Custer (1912-1997) as editor (1956-1980; Editions 16-19), it has been an era of structural changes in the DDC backed by professional management and organisational planning. Custer was instrumental in not only resuscitating but also putting DDC back on the path of progress. His able successor Dr John P. Comaromi (1937-1991) who edited the 20th edition (1989) ushered in a period of simplification and consolidation. Since the acquisition of the Forest Press by the OCLC in 1988 a lot more research input goes into making a new edition of the DDC. If the DDC-21 (1996)

was a product of high IT, it can safely be termed as child of network technology. It is the first edition produced in the web environment. Editors and policy makers got constant feedback and suggestions via the Internet to add new features and to achieve accuracy and efficiency. To be abreast of current developments on knowledge practices the editors relied on the internet and e-databases for new topics and terms. The DCEPC members also communicated via the Internet.

4.1 Electronic Versions

Its e-versions WebDewey (2003) and Abridged WebDewey (2004) are now only available on the internet to the licensed users. The annually updated Dewey for Windows on CD ceased publication in 2001. This decision may hurt the libraries in developing countries where the internet, due to poor telecommunication infrastructure and unreliable services, is not easily accessible 24/7.

It is a second edition edited in a row by Joan S. Mitchell who took over as editor in 1993. It carries forward the policies and improvements started earlier in DDC-21 especially its onslaught on the Christian and Western cultural (WASP) bias in the schedules and tables. Two editions plan for reducing the Christian bias in 200 Religion started in DDC-21 has now been completed with some additional provisions in 296 and 297.

4.2 Organisation of the System

The print DDC-22 in four volumes containing 4076 pages in all has been divided into eleven sections marked A/K as follows:

Volume 1 Sections A/G

A	xi-xxxvi	Prefatory text, notes and new features
B	xxxvii-1xiii	Introduction to the system of the DDC. It describes the theory and practical procedure for number building. In nutshell it is concise operational manual of the DDC.
C	lxv-lxxiv	Glossary: Brief definitions of terms used in the theory and practice of the DDC
D	1xxv-1xxvii	Index to the terms and concepts in sections A/C.
E	1-181	Manual: A guide to the interpretation and comprehension of some ambiguous numbers; to compare and contrast two analogous or seemingly similar subjects in the schedules and tables. It epitomises the policies of the DDC of the LC.
F	183-713	Six tables with their subdivisions
G	715-731	Equivalence table of relocated and reused numbers from the previous edition

Volume 2 Sections H & I

H	v-xvi	Three main summaries
I	1-1250	Schedules of classes 000-599

Volume 3 Section J

J	1-1074	Schedules of classes 600-999
---	--------	------------------------------

Volume 4 Section K

K	1-928	Relative index: Alphabetical and structural index of subjects and topics listed in context of disciplines and their corresponding numbers in schedules and tables.
---	-------	--

4.3 New Features

The new edition, as expected, represents the current thinking in knowledge mapping and emergence of new terminology. Progress made in understanding the user approaches in accessing information; and users expectations from the DDC have been the focus of this new edition. The revision process has received considerable input from a commissioned survey of the DDC users in USA, Canada, UK and Australia conducted by George D'Elia (of the State University of New York (SUNY), at Buffalo. In addition to D'Elia's survey the Editorial Policy Committee (DCEPC), which is both a recommendatory and supervising committee, and an apex body continued to associate outside experts, institutions and associations for suggestions on some national and cultural issues and to reduce inherent biases. It is a healthy trend to involve inter alia experts from other knowledge organisation systems, e.g., Professor I.C. McIlwaine (UDC) and Dr Joseph Miller (Sears List) in the revision and review process. International survey has led to improvement in geographic areas, law, political systems and parties, languages, literatures and historical periods. Wide based cooperation helps the proliferating translation programmes and in using current terminology. Concern for users convenience continues – through no new special or users-friendly device or move has been incorporated. Only number of multilevel summaries has been increased which facilitate scanning and subsequent location of numbers without undue scurry. Apart from outsourcing revision and advise, a few areas were also pretested in some US and foreign libraries.

Acquisition of the DDC by the OCLC in 1988 has meant a great deal of progress for the former. It has inaugurated an era of research, new products and services and their organised marketing. The OCLC Office of Research had involved itself in classification research at the beginning of the revision, especially in the harmonisation of various knowledge classification systems, mapping of DDC numbers to subject headings, above all to make DDC amenable to organise electronic information of every sort. In addition to the feedback and expert advice, this edition, as usual, is based on actual classification of three quarters of a million current books in the Decimal Classification Division of the LC since 1996.

4.4 Changes

The first and noticeable change is with the publisher. The Forest Press (incorporated 1932), a subsidiary of the OCLC, since July 1988, has been

retired and the work has been published directly by the OCLC. It seemed something on the way since the retirement of Peter J. Paulson and shifting of the Forest Press from Albany to OCLC headquarters at Dublin, Ohio. The other outstanding change has been the abrogation of Table 7 Persons. Its contents have been shifted partially to the standard subdivision T1-08, and for the rest use of the add from 011-999 has been prescribed. There are six places in the tables and 12 places in the schedules where this table was used. What good this move has done is not clear. In fact it has made number building in some cases bit circuitous, especially, while using Table 3C. It has also resulted in the reuse of many DDC-21 numbers with new meanings:

Title	DDC-21	DDC-22
Artworks by scientists	704 + 5 (T7) = 704.5	704.08 + 8 (from 088 T1) + 5 (001-999) = 704.0885
Ethics of historians	174.9 + 97 (T7) = 174.997	174.9 + 90720 (from 907. 201) +2 (T2) =174.9907202
Collection of English poetry about lawyers	821.0080352344	821.008035208834

However, some numbers remain the same, e.g., Social customs of artists 390.47 (both DDC-21 and DDC-22). A few numbers have also become shorter in length.

But certainly there are improvements in the manual now shifted to volume 1 (pp. 1-182) from the fourth in DDC-21. Notes in the manual have been shortened with removal of some redundant information, and further by dividing them into smaller sections. Some information from the manual has been transferred as notes to the respective entries in the schedules and tables. The Manual has always represented the policies of the Decimal Classification Division of the Library of Congress. Now the Schedules and the Tables with many notes do it. This has helped prune redundant information. The manual now makes more clear and easy reading, though it loses some of its authority. Flow charts, built-in numbers, and see also, references are of great help to classifiers in achieving inter-indexer consistency.

The relative index of 928 pages has 33 pages more than the previous index to include new built-in numbers and some additional terms. Entry vocabulary is widely based and current. The index has been beefed up.

In compliance with the recommendations of D Elia's survey all the works relating to directories of travel facilities such as hotels, lodges, motels, inns, have been shifted to 910.46 and to 913/919 whereas 647.94 continues to be in place for hotels etc. per se.

Unlike the previous editions (trend that started in DDC-16) there are no full class or extensive revisions (nee' phoenix schedules) in the DDC-22. But minor changes are many. There are more than one thousand relocations and discontinuations of class numbers. Some 40 numbers have been reused. Some

routine revisions involving expansions, reductions, deletions and relocations are outlined here :

- 004-006 Data processing and computer science. New topics have been accommodated retaining the structure.
- 200 Two editions programme of removing Christian bias and further expansion of 296 and 297 is now complete. Contents of 291Comparative religion have now been distributed to 200-209 with obviously brief numbers, and more space for expansions. For example, 291 has been shifted to 200, and so 291.1 becomes 201. There are more than sixty relocations in religion of which more than half are from 291 to 201-209. As a result standard subdivisions of 200 have been shifted to 200.1-9. Advantage for non-Christian religions is obvious.

- 340 Law - Now 341 international law becomes law of nations with new numbers for human rights and inter governmental organisations. There are major relocations in 341.7 international economic and social laws.
- 510 Mathematics (earlier completely revised in DDC-18 (1971) has been substantially updated. Numerical analysis earlier part of 515 has been upgraded and shifted to 518 lying vacant since long.
- 543 All aspects of Analytical Chemistry dispersed earlier have been converged at 543.1-543.8.
- 610 It has been reworded as 'Medicine and health', and medical topics find improved indexing.
- 640 It is now titled as 'Home and family management' with some topics shifted to 910 travels.
- 930-990 The historical periods have been updated. There are about 80 relocations here.
- T2 The Area table has been updated by geographic areas, historical periods and persons. There are about 280 relocations in this table alone.
- T3C Table 3C has been revised to provide grouping of topics parallel to DDC schedules
- T5 & T6 From T5 by deleting the term 'Racial' the table has been renamed as 'National and ethnic groups'.

These tables have been expanded especially to make provisions for American native people and languages.

However, all these changes are not those projected as slated changes for DDC-22 in the DDC-21 (1996), namely, in 520 Astronomy, 355-359 Military Science, 636-639 Animal husbandry and 690 Buildings. Obviously, switch over to the DDC 22 will put less strain on libraries.

4.5 Abridged Edition 14

Released in early 2004, it is a true abridgement of the DDC meant to classify a general collection

upto 20,000 documents. Its web version abridged WebDewey (www.oclc.org/info/abridged14) has been issued simultaneously. WebDewey is an enhanced version of the Dewey database of terms and numbers available in the print edition. Updated quarterly it is only accessible via the internet on annual subscription basis. It provides much more facilities including key words navigation. Annotation feature allows classifiers to add and share notes about local classification changes. WebDewey is available within the full OCLC cataloguing services environment. It provides many access points with many search and browse indexes. It makes the location of Dewey numbers an easy game.

DDC-22, the first edition of this millennium has kept pace with the fast changing information environment to map and organise squarely the big world of knowledge.

5. DDC-23 (2011)

The 23rd edition of DDC, earlier scheduled to be published in 2010, was delayed about a year to be released in May 2011 in the 135th year of its first publication in 1876. That small pamphlet published anonymously very soon puck like girdled the world, as if it was being awaited. Since then, save a brief period of 1950s, it has been on an ascending path of progress scaling new heights and covering new territories at home and abroad. Though counted among the big three library classification system (the other two being the UDC and the LCC; it has surpassed them in its popularity, simplicity and use. Now it is well entrenched in Europe too where since 2007 “European DDC User Group” (EDUG) has been officially established. Used in about two lac libraries in 130 countries in six continents, and in 60 national and trade bibliographies, its official translations exist or are under way in more than thirty major languages of the world. It has found many uses in electronic databases, organising and retrieving information on the web, as an online management tool, supporting collection developments, mapping thesauri, and subject schemes. The WorldCat/OCLC, the largest ever bibliographic database, uses the DDC. The OCLC since its acquisition of the DDC in 1988 has given an impetus to research in wider applications of the DDC especially in the digital environment. The Knowledge Organisation Group in OCLC Research first under Diane Vizine-Goetz and now Lorcan Dempsey have made substantial advances in this area. From its founding aim of arranging books and pamphlets on library shelves it is now at the center of research in theory and practice of knowledge organisation and information retrieval.

5.1 Changes

The 23rd edition, of all its half a dozen recent editions, has come with minimum changes, i.e.,

updating of schedules here and there. The entire gamut of changes (as listed on pages xxv-xlii, Vol.1) fills only 18 pages. “.... expansion and revision have been preferred to relocation” states the chairperson of the DCEPC Ms Caroline Kent (Vol. 1, p. xi.). This time its thrust seems on marketing by associating experts and users from different libraries and countries. The present Chair of the DDC Editorial Policy Committee (DCEPC) Caroline Kent is from the British Library. It is for the first time that a non-American is occupying this influential chair. And it is for the first time that a member (Welna van Eeden) has been taken from South Africa on the DCEPC. A very active and strongly organised group EDUG has been established to promote the use of DDC in Europe, initiate translations in European languages and the need for research in their interoperability and discuss problems of translation and practical use in those countries. International Dewey Users Meeting is a group of translators, which helps to improve its international usage. A long list of institutions, individuals and groups who offered advice on updates has been given in acknowledgement. Thirty four individuals have been acknowledged for their advise only on updating 741.5 Comic books, graphic novels, fotonovelas, cartoons, caricatures, and comic strips. Apart from additions the new edition updates terminology “to improve currency and accessibilities for classifier”. It is asserted that the changes have been motivated by classifiers efficiency and emerging requirements in machine representation and application (New features, p. xxi, vol1). There are major updates in Computer Science and Medicine, continued changes in Religion and other updates as needed. There is a bit of simplifying number building in Literature, an area in which classifiers are often daunted by the complexity of the instructions. Some of the proclaimed changes are:

- 004-006 Computer sciences, and parallel provisions in 621.39 Computer engineering, and 025.04 Information storage and retrieval.
- 155 differential and development psychology.
- 160 & 513 Logic and Symbolic logic.
- In 200 Religion updates have been initiated for 281.9.Orthodox church and 297 Islam which will also be continued in 24th edition. There are minor changes, addition and terminological updating in 300-390 Social sciences, and a few more languages have been added in Table 6, and corresponding additions in 400 and 800 schedules have been incorporated. Of interest to Indians may be the following numbers:
- 491.489 Divehi (Maldivian language)
- 491.492 Eastern Hindi languages
- 491.496 Pahari languages.

Number for dialects (geographic variations) of many languages such as Swedish, Danish, Finnish, Norwegian, French, Italian, Spanish, Portuguese (may be under the influence of EDUG) and Chinese language have been provided. New forms of art, graphic arts, graphic novels, comic books, etc., have been relocated from 760 to 740. Obviously, history dates and areas in schedules and tables have been updated.

5.2 Structural Changes

There are some structural and terminological changes of no consequence to the end-user, through claimed to increase the efficiency of classifiers and to facilitate machine display and retrieval. The present edition is now a byproduct of the online web Dewey 2.0 released year. WebDewey 2.0 has been prepared using 4th generation of ESS (ESS 4.0, 2010). New data format is now based on open source MARC21, and formats for Classification and Authority Data. WebDewey is now the chief vehicle for delivering monthly updates. Unwieldy headings for the three main summaries have been edited to make them handy. For example 500 Natural Sciences and Mathematics appear simply as Science. 600 Technology (Applied Science) appears as only Technology in the first Summary. 320 Political science (politics and government) appear only as 320 Political science in the second summary. Then in the Table 1-08 kinds of person has been renamed as Groups of People with corresponding changes in the schedules of 155 Differential psychology, 305-306 Psychology of Social Groups, 331 Labour Economics, and of course in T1-092 Biography. Then wherever any subdivision in Table 1 is used differently in the schedules, it is indicated so now, otherwise it was quite obvious. For example:

- 331.01 Philosophy and theory (of Labour economic)
- Motivation 01 from table as modified below
- 331.01 Rights and position of labour
- 331.0112 Industrial democracy.

Also there is elimination of dual headings. For example, in the previous edition some three-digit number had dual headings, both the headings separated by four spaces in the scheduled were given as:

- 532 Fluid Mechanics Liquid Mechanics
- 570 Life Sciences Biology
- 954 South Asia India

All such provision are replaced by a single heading, with the other included as the class here note. Now 532 is Fluid Mechanics with a note to class Liquid Mechanics here. Similarly, 954 is given the heading “[History of] India and neighboring

South Asian countries. Such changes are both in schedules and tables. As another structural change uneven span of numbers have been balanced digitally. For example 420.1-428 has been changed to 420.1-420.9 and 421-428. Similarly, 305.805-.89 is now rendered as 305.805.809 and 305.81.89. There were only a few such ranges of numbers which however had never posed any challenge or problem even to a very modest DDC classifier, through such transcription of number saved lot of space on the schedules.

Apart from these there is no major change in schedules or grammar of number building. Nor there is any innovation. Has the revision process come a full circle?!. The vow of integrity of numbers taken in 1885 seems to have been observed only to its best in this edition. In such a situation one wonders, if it was necessary to bring out a new edition. Would not a supplement of 20-25 pages have served the purpose, instead. In face of continuously updated WebDewey the edition has lost its strict boundaries, even definition. Nevertheless, the new edition was a necessity, politically, and ritually to renew its life.

The going popularity, consequent thoughtful and grateful dedication to the worldwide Dewey community, increasing applications in the digital information environment, and innovative marketing and research machinery keep the system at the top.

6. FUTURE TRENDS

The next edition, i.e., DDC-24 is likely to be published in 2018 to continue the changes hinted in DDC-23.

As evinced by the two previous editions the DDC is moving towards internationalisation by gradually removing White, Anglo-Saxon and Protestant (WASP) bias. Though able to classify in complex situation, it is getting simple to operate. Facet structure is becoming transparent with a capability to hold together many facets in a single class number.

Since the acquisition of the Forest Press by the OCLC-Online Computer Library Center, Dublin, Ohio, many innovative efforts have been made to design and market many Dewey products, such as bookmarks, Dewey rap music, AV teaching kit, Guides to the full, abridged and electronic versions of the DDC, and Dewey posters and exclusive publication of three main summaries. OCLC has sponsored pioneering and successful research to study the use of classification in online databases. Most important of all, research is going on to find wider applications of the DDC in all sorts of information management. Three summaries of the DDC are already being used to organise information on the internet. For example, a browser based on the DDC has been developed for Net First,

an OCLC database of source accessible on the internet. Some of the question currently addressed to the DDC are:

- How can the classification be made more effective for classifiers?
- How a standard English language classification be built that also meets the needs of international users?
- How to make DDC more effective in OPACs?
- How can the classification be made more useful for the end-users?
- What can be done to make the DDC constantly relevant in the future?

The DDC is geared to become a powerful and reliable subject access system of the 21st century-digital environment.

REFERENCES

1. 025.431. The Dewey blog <http://www.typepad.com/> Claims to provide "Everything you always wanted to know about the Dewey Decimal Classification system but were afraid to ask..."
2. Beall, Jullane. Dewey for windows guide. The Forest press/OCLC, Albany, N.Y., 1998, 212. Dewey web site <http://www.purl.org/ocic/fp/>
3. Chan, Lois Mai; *et al.* Dewey decimal classification: A practical guide. 2nd ed. revised for DDC-21, The Forest press/OCLC, Albany, N.Y., 1996,1-24.
4. Chan, Lois Mai & Mitchell, Joan S. (Eds.). Dewey decimal classification edition 21 and international perspectives. Forest Press/OCLC, Albany, N.Y.,1997, pp. 3-42.
5. Comaromi, John P. Eighteenth editions of the Dewey decimal classification. Forest Press, Albany, N.Y.,1976, 678p.
6. Comaromi, John P. & Satija M.P. Exercises in the 20th edition of the Dewey decimal classification. Sterling, New Delhi, 1990, 127p.
7. Comaromi, John P; *et al.*, A survey of the use of the Dewey Decimal Classification in the United States and Canada. Forest Press, Lake Placid, N.Y., 1975, x, 290. (mimeographed)
8. Dewey Decimal Classification and relative index Ed. 22, edited by Joan S. Mitchell, *et al.* OCLC, Dublin, OH., 2003, 4v.
9. Dewey Decimal Classification and relative index/ Devised by Melvil Dewey. Ed. 23, edited by Joan S. Mitchell, *et al.* OCLC, Dublin, Ohio, 2011, 4v.
10. Dewey, Melvil. Abridged Dewey decimal classification and relative index. Ed. 15, edited by Joan S. Mitchell, *et al.* OCLC, Dublin, OH., 2012. 1228p.
11. Dewey, Melvil. Abridged Dewey decimal classification and relative index. Ed.10, edited by Benjamin A Custer, Forest Press, Lake Placid, N.Y., 1971.
12. EDUG 025.431094 Dewey in Europe: Europe in Dewey. <http://www.slainte.org.uk/edug/about.htm>.
13. Lawson, Dawn. Abridged WebDewey brings electronic classification to smaller libraries. *OCLC Newsletter*, March/April 2002, 13p.
14. Husain, Shabahat. Dewey decimal classification: A complete survey of twenty two editions. B.R. Publishers, Delhi, 2004, 102p.
15. Mitchell, Joan S. Dewey behind the scenes. *DC&*, 1994, 5(5), 7-11.
16. Mitchell, Joan S. The Dewey decimal classification in the twenty first century. *In* The future of classification, edited by Rita Marcella & Arthur Maltby. Gower, Aldershot, UK, 2000, pp. 81-92.
17. Mitchell, Joan S. DDC 22 offers many updates to Dewey users worldwide. *OCLC Newsletters*, July 2003, 261, 16-19.
18. Mortimer, Mary. Learning Dewey decimal classification, Ed. 21. DocMatrix, Canberra, 1998. pp. 87-88.
19. National Information Standards Organisation. Guideline for the construction, format and management of monolingual controlled vocabularies: NISO Press, Bethesda, MD, 2005 (ANSI/NISO. Z39.19-2005).
20. Satija, M.P. The theory and practice of the DDC. Chandos, Oxford, U.K., 2007, 206p.
21. Satija, M.P. & Comaromi, John, P. Exercises in the 21st edition of the Dewey decimal classification. Sterling, New Delhi, 1998, 148.
22. Satija, M.P. Abridged DDC-13 and its workbook. *J. Lib. Info. Sci.*, 1998, 23(2), 170-73.
23. Satija, M.P. Abridged Dewey-15 (2012) in historical perspectives. *Knowledge Organsisation*, 2012, 39(6), 466-68.
24. Satija, M.P. The DDC 23rd edition: An appraisal. *SRELS J. Inf. Manag.* 49(1), 2012, Guest editorial, 1-4.
25. Every version of the Dewey is derived from the full database. Here is a brief snapshot of the DDC-23 EN database (the database associated with the English-language version of DDC-23) as of 1 October 2012:
26. Posted on the Dewey Blog by Joan S. Mitchell, Chief editor, DDC.
27. www.oclc.org/dewey/
28. www.oclc.org/info/abridged14/