The Scheme of Library Classifications: Concerning the Structural changes of 23rd Dewey Decimal Classification (DDC)

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Abstract

The Dewey decimal classification system is continuously revised to keep pace with knowledge. This means accommodating new topics, as well as revising the old one. Today the Dewey decimal classification has undergone 22 revisions to keep itself abreast of the ever advancing frontiers of knowledge and to cater the increasing demand of its users Edition 23. It is regularly (quarterly) to cope up with the pace of increasing universe of knowledge. This article has been made discussion about the modification revised version of 23 DDC edition and its features, updates and subscription information etc.

Keywords: Library Classification, Classification Schemes, Dewey decimal classification, Melvil Dewey

1. Introduction



The Melvil Dewey was born in "Adums Center, New York, 1951. The year 1876 is a landmark in the history of library classification, when the first Dewey Decimal Classification was brought out by Melvil Louis Kossuth Dewey, the father of library movement in the USA as a tool for the organization of books on the shelves. Dewey was the first person to properly expand on and define his ideas concerning a classification that

placed books into a relative order based on disciplines rather than an alphabetical order,

or one that simply identifies a shelf space for a specific book. The DDC was the first timely modern system that introduced features like relative locations and a relative index. This allowed book to be placed in stacks based on their relationships to one another, and freed libraries to begin more freely organizing their libraries.

Many new provisions are included in DDC 23 as a means of more accurately reflecting regional differences around the world. OCLC's close working relationships with the global Dewey community including the European DDC Users' Group (EDUG) have informed changes to topics across the DDC. Several significant updates have been incorporated to the provisions for the European Union, criminal courts, and juristic acts in 340 Law. In 370 Education, advice from EDUG and others has resulted in an improved international framework for levels of education, kinds of schools, policy issues, and specific subjects in primary education. DDC 23 also features updates of provisions for the Orthodox Church and Islam in 200 Religion. Other expansions within the new edition will improve the classification of geographic areas and historical periods in the ancient world, Italy, Switzerland, Sweden, Finland, Africa, Turkey, Indonesia, Vietnam and Canada. All of these changes mean vast enrichment to the way international diversity is represented within the DDC, which is used by over 200,000 libraries in 138 countries.

The major Library Classifications Schemes are

Scheme of Classification	Called as	Inventor	Nation	Year
Dewey Decimal Classification	DDC	Melvil Dewey	USA	1876
Expensive Classification	EC	CA Cutter	USA	1893
Universal Decima	UDC	Inter. Inst.	Belgium	1896
Classification		Documentation		
Library Congress Classification	LC	Library of	USA	1904
		Congress		
Subject Classification	SC	J.D Brown	UK	1906
Colon Classification	CC	S.R. Raganathan	BC	1940
Bibliographic Classification	BC	Henry Evelyn Bliss	USA	1940
Rider International	RIC	F. Femennt Rider	USA	1961
Classification				

2. Dewey decimal classification (DDC)

The DDC system has a long history (131 years) of expansion and adaptation to the needs of the communities it serves. From edition 1 to edition 10 the scheme was copyrighted by Dewey or by the Library Bureau. In 1924 he delegated the copyright to Lake Placid Club Education Foundation. After the death of Dewey in 1931, the trustees of the Foundation incorporated Forest Press in 1933 as its subsidiary for bringing out subsequent editions of Dewey decimal classification. Again in 1961, the Lake Placid Club Education Foundation delegated all copyrights in classification to the Forest Press. In 1988 the Forest Press became a division of OCLC Online Computer Library Center, Inc. and since than subsequent editions has been copyrighted by the OCLC Online Computer Library Center, Inc. The 1st edition of Dewey decimal classification was published under the title 'A classification and subject index for cataloguing and arranging the books and pamphlets of a library' (Apurba J M and Gautam KS, 2007). The 1st edition was published under the title "A classification and subject index for cataloguing and arranging the books and pamphlets of a library", consisted of 44 pages covering 12 pages of introduction, 12 pages of schedule and 18 pages of index. The most recent edition to emerge was the 23rd print and online edition in 2011. Revisions of the DDC are institutionalized and so is a continuous process. In every revision, it has been expanded, modified, rectified and made more modern in methods by applying the results of latest research in library classification.

2.1. Editions of Dewey decimal classification

The Dewey decimal classification conceived by Melvil Dewey in 1873 and first published in 1876 entitle "A classification and subject index for cataloguing and arranging the books and pamphlets of a library" is a general knowledge organization tool that is continuously revised to keep pace with knowledge. The system is further extended through number building, interoperable translations, and association with categorized content, and mappings to other subject schemes.

Editions	Year of	Features		
	Published			
1 st Ed	1876	44 pages,		
2 nd Ed	1885	314 Pages, the work has an author heading and the title		
		includes the concept of "decimal" which, actually		
		individualizes it.		
3 rd Ed	1888	416 Pages, "a policy of index integrity", to assure a		
		homogenous and uniform structure		
4 th Ed	1891	466 Pages,		
5 th Ed	1894	467 Pages, developed 20,000 index terms in its tables,		
		Paul Melvil Dewey, Otlet and Henry La Fontaine.		
6 th Ed	1899	511 Pages,		
7 th Ed	1911	792 Pages,		
8 th Ed	1913	850 Pages,		
9 th Ed	1915	856 Pages,		
10 th Ed	1919	940 Pages,		
11 th Ed	1922	988 Pages,		
12 th Ed	1927	1243 Pages,		
13 th Ed	1932	1647 Pages,		
14 th Ed	1942	1927 Pages, Relative Index, comprised 80,000 notions.		
		extension for almost 30 important topics		
15 th Ed	1951	716 Pages, Milton James Ferguson, "Dewey Decimal		
		Classification & Relative Index. Standard Edition"		
16 th Ed	1958	2439 Pages, Benjamin, changes of the index		
17 th Ed	1965	2153 Pages, Consists of 2 volumes, John Phillip		
		Comaroni, PLPCE Foundation, "A Guide to Dewey		
		Decimal Classification"		
18 th Ed	1971	2718 Pages, Consists of 3 volumes,		
19 th Ed	1979	3385 Pages, Consists of 3 volumes, I Introduction		
		tables, II Scheduled, III Relative Index		
		3389 Pages, John P. Comaroni, Consists of 4 volumes,		
20 th Ed	1989	I Introduction Auxiliary tables, II Schedule (000-599),		
		III Schedule (600-999), IV Relative Index and Manual,		
		"reference edition"		
21 st Ed	1996	John S. Mitchell, Forest Press, use the Manual 1984 in		
		DDC, General formats, Summaries, Notes, Notations,		

		"Decimal Classification and Relative Index", Albany
		Forest Press, Using Auxiliary Tables.
22 nd Ed	2003	John S. Mitchell, first edition of Electronic Dewey
		(ED), version 1.00 for MS-DOS was issued by OCLC,
		Forest Press, Dewey for Windows; Web Dewey; Cyber
		Dewey; Web Dewey in Corc, Dewey Classification in
		view-based searching; Dewey Search, LCSH statistics
		terms.
23 rd Ed	2011	The complete description were discussing below

2.2. 23rd Dewey decimal classification (DDC)

The content of Abridged Edition 15 can, to a large extent, be generated automatically because of several important features of the DDC. The first of these is its expressive notation, which permits automatic determination of the correspondence between DDC 23 and Abridged Edition 15 classes. This comes into play both in identifying which DDC 23 classes are in the same hierarchy as an Abridged Edition 15 class and in identifying abridged-equivalent notation for classes mentioned in DDC 23 records. The effort to derive the abridged edition semi- automatically is guided by several motivations, both practical and intellectual; DDC 23 has been some of features are following there:

- ➤ New provisions in 004-006 Computer science and elsewhere to reflect changes in technology
- ➤ Updates to provisions for the Orthodox Church and Islam in 200 Religion
- > Improved provisions in 340 Law for legal systems based on civil law
- ➤ Significant updates to 370 Education resulting in an improved international framework for levels of education, kinds of schools, policy issues and specific subjects in primary education
- ➤ Updated provisions for food and clothing and Updates to 740 Graphic arts and decorative arts
- ➤ A new location and expanded development for cinematography and videography at 777
- ➤ Significant expansions throughout 796 Athletic and outdoor sports and games
- ➤ Significant expansions in Table 2, with parallel provisions in 930-990, for the ancient world, Italy, Switzerland, Sweden, Finland, Turkey, Indonesia, Vietnam and Canada
- ➤ Updated historical periods throughout 930-990

- ➤ The new print version of DDC 23 is a snapshot of the underlying DDC 23 database. Right now, we're on a six-week hiatus for issuing updates in WebDewey 2.0 as we prepare to make the switch from the DDC 22 database to the DDC 23 database.
- ➤ The DDC is published in full and abridged editions by OCLC Online Computer Library Center, Inc.
- The DDC has been translated into over thirty languages. Since 1988, authorized translations of the full and abridged editions of the DDC have been published or are under way in Arabic, French, German, Greek, Hebrew, Icelandic, Indonesian, Italian, Norwegian, Russian, Spanish, Swedish, Turkish, and Vietnamese. The DDC Summaries, the top three levels of the Dewey Decimal Classification system, have been translated into Afrikaans, Arabic, Chinese, Czech, French, German, Hebrew, Italian, Norwegian, Portuguese, Russian, Spanish, Swedish, and Vietnamese.
- ➤ The DDC is the most widely used classification system in the world. Libraries in more than 138 countries use the DDC to organize and provide access to their collections, and DDC numbers are featured in the national bibliographies of more than sixty countries. Libraries of every type apply Dewey numbers on a daily basis and share these numbers through a variety of means (including WorldCat). Dewey is also used in a variety of applications on the web in support of categorization, browsing, and retrieval.
- The main structure of the DDC is presented in the *DDC Summaries* in the beginning of volume 2. The *first summary* contains the ten main classes. The *second summary* contains the hundred divisions. The *third summary* contains the thousand sections. The headings associated with the numbers in the summaries have been edited for browsing purposes, and do not necessarily match the complete headings found in the schedules.
- Arabic numerals are used to represent each class in the DDC. The first digit in each three-digit number represents the main class. For example, 500 represent science.
- ➤ The guiding principle of the DDC is that a work is classed in the discipline for which it is intended, rather than the discipline from which the work derives. This enables works that are used together to be found together.
- ➤ If the Relative Index is used, the classifier must still rely on the structure of the Classification and various aids throughout to arrive at the proper place to classify a work. Even the most promising Relative Index citations must be verified in the schedules; the schedules are the only place where all the information about coverage and use of the numbers may be found.
- ➤ Notes in the schedules and tables generally appear in the following order: revision, former-heading, definition, number-built, standard-subdivisions-are added, variant-name, scope, including, class-here, arrange, add (including subdivisions-

are-added), preference, class-elsewhere, see-reference, see-also reference, see-Manual, option, discontinued, and relocation notes.

Joan Mitchell: The short answer is, to keep pace with knowledge that evolves every day. That can mean everything from representing developments in fast-changing technical areas such as computer science to expanding and updating historical periods and geographic areas to reflect political and geographic changes. We also update the DDC to reflect shifts in viewpoints and terminology. In addition, we make structural changes to the system motivated by requirements for machine display and retrieval, and to support user convenience.

2.3. DDC Process for change

- ➤ '7' year cycle
- ➤ Editors & EPC
- ➤ CILIP DDC Committee
- > EDUG

2.4. Changes of Dewey decimal classification (DDC 23)

DDC 23, the four-volume unabridged edition of the Dewey Decimal Classification (DDC) system, reflects the many changes to the body of human knowledge that have occurred since DDC 22 was published in 2003. Published in mid-2011, DDC 23 includes helpful tools that make the classification easier to use. You can download PDF versions of DDC 23 highlights, including an introduction, a glossary and a list of new features. Each of these tools will help you better understand how the DDC organizes knowledge into a classification that is useful to library users worldwide. The DDC 23 Introduction provides a detailed overview of the DDC, including basic terminology and an explanation of DDC structure, complete with many helpful examples. If you are new to classifying with Dewey, this introduction will help you get started quickly.

2.5. Arrangement of Dewey decimal classification (DDC 23)

DDC 23 is composed of the following major parts in four volumes:

≻ Volume 1

- ➤ New Features in Edition 23: A brief explanation of the special features and changes in DDC 23
- ➤ Introduction: A description of the DDC and how to use it
- ➤ Glossary: Short definitions of terms used in the DDC
- ➤ Index to the Introduction and Glossary
- ➤ Manual: A guide to the use of the DDC that is made up primarily of extended discussions of problem areas in the application of the DDC. Information in the Manual is arranged by the numbers in the tables and schedules
- ➤ Tables: Six numbered tables of notation that can be added to class numbers to provide greater specificity Lists that compare Editions 22 and 23: Relocations and Discontinuations; Comparative and Equivalence Tables; Reused Numbers

➤ Volume 2

- DDC Summaries: The top three levels of the DDC
- Schedules: The organization of knowledge from 000–599

➤ Volume 3

• Schedules: The organization of knowledge from 600–999

➤ Volume 4

• Relative Index: An alphabetical list of subjects with the disciplines in which they are treated sub-arranged alphabetically under each entry

2.6. Main Classes of Dewey decimal classification (DDC 23)

- ➤ 000 Computers, information and general reference: Changes in 004-006 to reflect rapidly advancing technical trends and developments
- ➤ 100 Philosophy and psychology: Changes in developmental psychology and expanded schedules for philosophical logic
- ➤ 200 Religion: Changes and expansions to the Eastern church and a start to updating the schedules for Islam

- **>300 Social sciences:** Changes to the Preference order at 302 − 307; the new terminology "Groups of people" affects the whole of this area
- **▶400 Language:** Changes in Table 6 are reflected throughout 400
- ➤ 500 Science and mathematics: Expansions in mathematical logic
- ➤ 600 Technology: Expansions in medicine, specifically for nutrition and therapy (though much of the change in 610 has already been published in WebDewey) 690 "Buildings" is now "Construction of buildings"
- ▶700 Arts and recreation: 710 "Civic and landscape art" is now "Area planning and landscape architecture" 721 "Architectural structure" is now "Architectural materials and structural elements", Architectural structure has been discontinued from 721 to 720, Changed captions at 740 Graphic arts and decorative arts & 760 Printmaking and prints show the relocation of graphic arts from 760 to 740, Cinematography & videography relocated from 778.5 to 777
- **▶800 Literature:** Table 6 changes are reflected throughout literature
- ➤ 900 History and geography: Table 2 geographic changes are reflected throughout the history numbers and historical periods have also been updated to reflect recent changes in several countries

2.7. Tables of Dewey decimal classification (DDC 23)

Except for notation from Table 1 (which may be added to any number unless there is an instruction in the schedules or tables to the contrary), table notation may be added only as instructed in the schedules and tables.

- ➤ Table 1 Standard subdivisions (form, time): 0141 Discourse analysis, 0867 Transgender and intersex people, 0925 collected biography of people by specific gender or sex; age groups; relationships
- ➤ Table 2 Geographic Areas, Historical Periods, Biography: Significant geographic expansions, including expansions for the Ancient world; Italy; Sweden; Canada and several other areas, 368 Scandinavia to 481 (relocated from –363).

- ➤ Kinds of persons is now Groups of people (T1—08) and has been changed throughout the schedule, 704.94 Specific subjects [Iconography] 615.5 Therapeutics & 616 Diseases, 791.43 Motion pictures, Further changes to T1 & T2 Groups of People, , kinds of persons" → "groups of people" T1—08 Groups of people, 305 Groups of people
- ➤ Persons treatment is now Biography (T1 –092) and has been changed throughout the schedule, T1—09 History, geographic treatment, biography.
- ➤ People NOT persons, throughout the schedule unless part of a recognised term (E.g. "stateless persons")
- ➤ T2 Significant geographic expansions, including expansions for the Ancient world; Italy; Sweden; Canada and several other areas
- ➤ **Table 3** Subdivisions for the Arts, for Individual Literatures, for Specific Literary Forms:
 - T3A Subdivisions for Works by or about Individual Authors
 - T3B Subdivisions for Works by or about More than One Author
 - ➤ T3C Notation
- **➤** Table 4 Subdivisions of Individual Languages and Language Families
- ➤ Table 5 Ethnic and National Groups: 699 People who speak or whose ancestors spoke, Galician, 91829 Montenegrins
- ➤ Table 6 Languages: 699 Galician, 9457 Sámi (Saami) languages, 9998 Sign languages (new number with subdivisions)
- ➤ Table 7 Persons: The Glossary also provides helpful definitions of DDC terms and gives users a common language for implementing the DDC. New Features concisely describes what's new in DDC 22, including changes implemented to enhance classifier productivity and a selected list of specific changes to DDC numbers. The 'major updates are Major updates in religion, law, education, food and clothing, graphic arts, cinematography and videography, ancient and modern world, overhaul of groups of

people, a host of new numbers (e.g., bullying, cloud computing, end of Mubārak administration) Structural changes to support machine display and retrieval, and classifier efficiency. 004–006 Data processing-Computer science, 200 Religion, 305-306 Social groups and institutions, 340 Law, Education 370, Mathematics 510, 570 Life sciences-Biology, 610 Medicine and health and 943 Central Europe-Germany, A heading with two separate terms, the first of which is the main topic and the second of which is the major subordinate topic, e.g., 570 Life sciences Biology Main topic and major subordinate topic share the same number and most of the subdivisions.

2.8. Selected Major Updates in DDC 23

297 Islam, 340 Law, 370 Education, Food and clothing, 740 Graphic arts and decorative arts, 777 Cinematography and videography, 796 Athletic and outdoor sports and games. Ripple effect of changes throughout DDC 23, especially for groups of people in 155, 305–306, 331, and 362, Reversal in preference order in 302–307 to topic/group, e.g., friendship in women 302.34082, not 305.4 Women,

2.9. Selected New Numbers in DDC 23

Cloud computing 004.6782, Internet telephony 004.695, Bullying302.343, Phishing 364.1632, Wetland geomorphology 551.417, Raw food diet 613.265, Pilates method 613.7192, RFID-engineering 621.384192, Reindeer—animal husbandry 636.2948, Electronica781.648, Play with robots796.16, 962.055-Administration of Muḥammad HusniMubarak, 1981–2011, 962.056-2011.

2.10. Examples of little changes of DDC 23 number

004.568 Semiconductor storage, 004.6782 Cloud computing, 160.119 Specific systems of classical and nonclassical logic, 176.22 [Ethics of] Human cloning, 281.5 Eastern churches includes significant expansion, 302.343 Bullying, 341.2421 Council of Europe, 341.2422 European Union (expanded), 362.59 [Social problems and services to] Homeless and unemployed people, 362.682 Elder abuse, 393.93 Funerals, 394.1 Eating, drinking; using drugs (Revised and expanded) 491.496 Pahari language,

511.314 Modal logic, 511.317 Conditional logic, 511.318 Probabilistic logic, 514.746 Singularity theory, 523.49 Trans-Neptunian objects, 615.8514 Biofeedback therapy, 623.8282 Fishing boats, 641.8153 Crepes, pancakes, waffles, 663.29 [Beverage technology of] Nongrape wine, 665.37 Biodiesel fuel, 740 Graphic arts and decorative arts, (Graphic arts relocated from 760), 777 Cinematography and videography, New number and subdivisions relocated from 778.5), 781.648 Electronica, 796.8157 Taekwondo, 869.9 Galician literature, 891.496 Pahari literatures, 894.57 Sámi (Saami) literatures, 930 History of ancient world (revised and expanded), 940 – 990 History of modern world, of extraterrestrial worlds

2.11. Specialized Services of Dewey decimal classification (DDC 23)

- > WebDewey 2.0: **OCLC** launch WebDewey 2.0 expects to http://dewey.org/webdewey/ in late summer 2010. The new system will include a generic user interface script to support access to Dewey data in different languages, and access to different terminology sets. The current WebDewey, design goals include a modern, simple user interface; support for search, browse, number building, and personalization; a generic user interface script to support access to Dewey data in different languages, and access to different terminology sets; and local control over display of personalization, history of numbers, hierarchy information, and connection to OPACs.
- ➤ **Dewey.info:** In mid-August 2009, OCLC launched dewey.info (http://dewey.info), an experimental web service to explore the possibilities of applying linked data and semantic web principles to DDC data. The DDC Summaries are now available in eleven languages as the initial data under the Creative Commons BY-NC-ND 3.0 license. The license allows for noncommercial use and redistribution of the unmodified data, it's some of feature are mention in below
 - Access to the top three levels of the DDC in eleven languages
 - Access to Abridged Edition 14 (assignable numbers and captions) in three languages

- ➤ Actionable URIs for every class
- ≥ Classification semantics encoded in SKOS
- Representations for machines (RDF) and for humans (XHTML+RDFa)
- ➤ Data is reusable under a Creative Commons BY-NC-ND license

2.12. Mappings

On July 25, 2008, we temporarily suspended mapping new Library of Congress Subject Headings to DDC numbers to make room for a project to add DDC numbers to the authority records for BISAC (Book Industry Standards and Communications) subject headings. We plan to resume LCSH-DDC mappings in September 2009.

2.13. Learning opportunities: Online resources

- ➤ Dewey.Info: http://dewey.info/
- ➤ World Digital Library Home: http://www.wdl.org/en/
- Dewey Browse of WorldCat: http://deweybrowser.oclc.org/ddcbrowser2/
- Dewey services from OCLC: http://www.oclc.org/uk/en/dewey/about/default.htm
- ➤ The DDC Blog: http://ddc.typepad.com/
- OCLC RSS Feeds and Podcasts: http://www.oclc.org/uk/en/rss/default.htm
- European Dewey User group: http://www.slainte.org.uk/edug/news.htm
- ➤ DDC 23 webinar: http://tinyurl.com/3cyqn7q
- ➤ 025.431: The Dewey Blog: http://ddc.typepad.com
- ➤ DDC 23 Introduction, Glossary, New Features, and Relocations and Discontinuations available for download at: http://www.oclc.org/us/en/dewey/versions/print/default.htm

3. Conclusion

The last century has seen some of the most dramatic and rapid changes in our society; knowledge has increased, technology has advanced and boundaries have been pushed out. The Dewey decimal classification schedules are designed to allow all areas of knowledge to be represented; when knowledge, technology and understanding change, the schedules are expanded, contracted and modified to reflect this. It is nearly eight years since the current edition of Dewey (22) was introduced, and many areas are inadequately represented, as so much has changed since 2003.

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