UNIT 5: DEWEY DECIMAL CLASSIFICATION (DDC)

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5.1 LEARNING OBJECTIVES

After going through this unit you will be able to

- Know about the basic structure of DDC;
- Classify the document by using printed version of DDC;
- Know the different tools for online classification of the document;
- Find out the ways as to how a document can be classified by using web.

5.2 INTRODUCTION

This unit will give an overview of the 22nd edition of Dewey Decimal Classification (DDC). All the important points of DDC are summarized in this unit. 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 original schedules of the 22nd edition of the DDC. Emphasis is also given to listing out the online tools that can be used for classification of the document.

5.3 DEWEY DECIMAL CLASSIFICATION

The library classification system provides a system for organizing the knowledge embodied in books, CD, web, etc. It supplied a notation (in case of DDC, it is Arabic numerals) to the document. The Dewey Decimal Classification (DDC) system is a general knowledge organization tool that is continuously revised to keep pace with the development of knowledge. It is the most widely used classification scheme in the world. Libraries in more than 135 countries use the DDC to organize their collection. It is also used over the web for organizing the web resources for the purpose of browsing.

The DDC scheme was conceived by Melvil Dewey in 1873 to arrange the documents of the Amherest College Library. The first edition entitled “A Classification and subject index for cataloguing and arranging the books and pamphlets of a library” was published in 1876. It appeared in the form of a small book of 44 pages. The Decimal Classification Editorial Policy Committee (EPC) was established in 1937 to serve as an advisory body to the Dewey Decimal Classification. In 1988, Online Computer Library Center, Inc (OCLC) acquired the DDC. The editorial headquarters was located at the Library of Congress in the Decimal Classification Division. The editors prepare the proposed schedule revisions and expansions, and forward the proposals to EPC for review and recommended action. Nowadays, DDC is published by Online Computer Library Center, Inc in full and abridged editions. The abridged edition targets the general libraries

having less than 20,000 titles. Both the full and abridged editions are available in print as well as in electronic version.

5.4 INTRODUCTION TO 22nd EDITION OF DDC

The edition 22 is the first edition of the DDC, which is produced in the context of the web environment. DDC 22 is composed of the following major parts in four volumes.

a) Volume 1: It includes special features of edition 22, introduction regarding how to use the DDC, glossary, index to the introduction and glossary, a manual (guide to the use of the DDC), and six numbered tables. It also has the lists that compare editions 21 and 22 with the list of relocated, discontinued and reused numbers.

b) Volume 2: It includes DDC summaries (the top three levels of the DDC), and schedules (from 000-599). The summaries will help you to visualize at a glance the structure and scope of various subjects as laid down in DDC.

The first summary contains ten main classes. The first digit in each three-digit number represents the main class. For example, 600 represents technology.

The second summary contains the hundred divisions, ten for each main class. The second digit in each three-digit number indicates the division. For example, 600 is used for general works on technology, 610 for medicine and health, 620 for engineering, 630 for agriculture. The third summary contains the thousand sections. The third digit in each three-digit number indicates the section. Thus, 610 is used for general works on medicine and health, 611 for human anatomy, 612 for human physiology, 613 for personal health and safety.

c) Volume 3: It includes the organization of knowledge schedules from 600-999.

d) Volume 4: It includes a relative index. The relative index (it relates subjects to discipline) contains an alphabetical list of subjects with the disciplines in which they are treated as sub-arranged alphabetically under each entry.

5.5 UNDERSTANDING THE STRUCTURE OF DDC

The Dewey Decimal Classification (DDC) system uses simple decimal notation to divide recorded knowledge into 10 main classes at the broadest level which together cover the entire world of knowledge. Each main class is further divided into ten divisions, and each division into ten sections giving 100 divisions and 1,000 sections. All the numbers for the divisions and sections have not been used.

5.5.1 Tables

The six tables in the DDC are as following

T1 Standard Subdivisions

T2 Geographic Areas, Historical Periods, Persons

T3 Subdivisions for the Arts, for Individual Literatures, for Specific Literary Forms

T4 Subdivisions of Individual Languages and Language Families

T5 Ethnic and National Groups

T6 Languages

The notation from T1 can be added to any numbers unless there is an instruction in the schedules or tables to the contrary. The other table notations may be added only when instructions are given in the schedules or tables.

5.5.2 Summaries

DDC has three summaries. The first summaries includes 10 main classes, the second summary includes 100 divisions and the third summary includes 1000 sections.

a) First Summary: The Main Classes of DDC are

000 Computer science, information & general works

100 Philosophy & psychology

200 Religion

300 Social sciences

400 Language

500 Science

600 Technology

700 Arts & recreation

800 Literature

900 History & geography

A brief explanation of each of the class is given below.

000: Class 000 is the most general class. It includes the works that are not limited to any one specific discipline or the works that are related to information and knowledge. It includes encyclopaedias, newspapers, general periodicals, computer science, library and information science, journalism, etc.

100: Class 100 covers Philosophy, Parapsychology and occultism, and Psychology.

200: Class 200 is devoted to Religion.

300: Class 300 covers the social sciences that include Sociology, Anthropology, Statistics, Political science, Economics, Law, Public administration, Social problems and services, Education, Commerce, Communications, Transportation, Custom (including folk literature), etc.

400: It comprises languages, linguistics, and specific languages.

500: It includes Natural sciences and Mathematics.

600: Class 600 includes technology.

700: It covers arts in general, fine and decorative arts, music, and the performing arts. It also includes recreation, including sports and games.

800: It covers literature, and includes rhetoric, prose, poetry, drama, etc.

900: It is devoted to History and Geography.

b) Second Summary: Again, each of the 10 Main Classes is subdivided into 10 Divisions resulting in 100 Divisions on the whole. The entire second summary is reproduced bellow for

your reference. You should remember the first and second summary of DDC fully.

000 Computer science, knowledge & systems
010 Bibliographies
020 Library & information sciences
030 Encyclopedias & books of facts
040 [Unassigned]
050 Magazines, journals & serials
060 Associations, organizations & museums
070 News media, journalism & publishing
080 Quotations
090 Manuscripts & rare books

100 Philosophy
110 Metaphysics
120 Epistemology
130 Parapsychology & occultism
140 Philosophical schools of thought
150 Psychology
160 Logic
170 Ethics
180 Ancient, medieval & eastern philosophy
190 Modern western philosophy

200 Religion
210 Philosophy & theory of religion
220 The Bible
230 Christianity & Christian theology
240 Christian practice & observance
250 Christian pastoral practice & religious orders
260 Christian organization, social work & worship
270 History of Christianity
280 Christian denominations
290 Other religions

300 Social sciences, Sociology & Anthropology
310 Statistics
320 Political science
330 Economics
340 Law
350 Public administration & military science
360 Social problems & social services
370 Education
380 Commerce, communications & transportation
390 Customs, etiquette & folklore
400 Language
410 Linguistics
420 English & Old English languages
430 German & related languages
440 French & related languages
450 Italian, Romanian & related languages
460 Spanish & Portuguese languages
470 Latin & Italic languages
480 Classical & modern Greek languages
490 Other languages

500 Science
510 Mathematics
520 Astronomy
530 Physics
540 Chemistry
550 Earth sciences & geology
560 Fossils & prehistoric life
570 Life science; Biology
580 Plants (Botany)
590 Animals (Zoology)
600 Technology

610 Medicine & health
620 Engineering
630 Agriculture
640 Home & family management
650 Management & public relations
660 Chemical engineering
670 Manufacturing
680 Manufacture for specific uses
690 Building & construction

700 Arts
710 Landscaping & area planning
720 Architecture
730 Sculpture, ceramics & metalwork
740 Drawing & decorative arts
750 Painting
760 Graphic arts
770 Photography & computer art
780 Music
790 Sports, games & entertainment

800 Literature, Rhetoric & Criticism
810 American literatures in English
820 English & Old English literatures
830 German & related literature
840 French & related literatures
850 Italian, Romanian & related literatures
860 Spanish & Portuguese literature
870 Latin & Italic literatures
880 Classical & modern Greek literature
890 Other literatures

900 History
910 Geography & travel
920 Biography & geography
930 History of ancient world (to ca. 499)
940 History of Europe
950 History of Asia
960 History of Africa
970 History of North America
980 History of South America
990 History of other areas

c) Third Summary: In the third summaries, each one of the 100 divisions is further subdivided into 10 sections resulting in 1000 sections. For the copyright issue, the third summary is not included here in this unit. But, you can find the complete summaries of DDC 22nd edition over OCLC website (http://www.oclc.org/dewey/resources/summaries/default.htm), and Chopac.org (http://chopac.org/cgi-bin/tools/ddc22.pl). The Chopac.org provides the DDC summaries of 22nd edition in a very easy to browse, and search structure. You can also use this interface to obtain the main class number of any document.

You can also find the Dewey Decimal Classification System (13th Abridged) in the website of Near North District School Board (http://www-lib.nearnorth.edu.on.ca/dewey/ddc.htm).

5.5.3 Schedules

Schedules contain the schedules of Class Numbers assigned in numeric order from 000 to 999. To follow the correct use of the Schedules, it is necessary to understand the various notes and instructions suggested in different entries. So, let's explore the schedule in some details.

Entries in the schedules and tables are composed of DDC number in the left margin, a heading describing the class that the number represents, and often one or more notes. All entries, numbers, headings, and notes should be read in the context of hierarchy. The first three digits of schedule number appears only once, when first used, in the number column. They are repeated at the top of each page where their subdivisions continue. Subordinate numbers appear in the number column, beginning with a decimal

point. The numbers and notes in parentheses provide options to standard practice. Numbers in square brackets represent the topics that have been reallocated or discontinued, or unassigned. Square brackets are also used for standard subdivision concepts that are represented in another location.

Only a fraction of the potential DDC numbers is included in the schedules. It is often necessary to build or synthesize a number that is not specifically listed in the schedules. If you turn the third page of the schedule (Vol 2), you will see that entries start with the notation “000” at the top of the page and a summary of all divisions and sections bellow it. In the 5th page you will see the first entry that is “001” which stands for knowledge, and bellow it the numbers and descriptions and different notes to arrive at the correct class number of a document.

5.5.4 Relative Index

The volume 4 contains the Relative Index. It is an alphabetical list of all the subjects given in the Schedules and Tables. It is called the Relative Index because it brings together under the name of the subject the various aspects of a subject which are scattered in the schedules according to the disciplines. This index not only arranges the concepts and their terms in an alphabetical sequence but also shows the relation between the terms and the contexts in which the subjects appear in the Schedule. It is a key to the Schedules as well as an independent approach to classification. In the index, all possible subjects are included under main divisions and sub-divisions so that the classifier finds it easy to search out the possible subjects under the alphabetical list of relative index. The numbers that are given for subjects in the index are readymade numbers, but they are not the same as those of the schedule. The classifier has to finally decide the number himself.

5.6 STEPS FOR CLASSIFYING WITH DDC

While doing the classification of a document one should procede to the class number in the following ways

a) Determine the Subject: First, try to determine the subject of the book or document in your hand. The title often provides a clue to the subject, but it should never be the sole source of analysis. The subject which the book deals with can be determined by going through the table of contents, chapter headings, the preface or introduction, and the book jacket or the accompanying materials.

If a work includes multiple subjects, class it under the subject that is being acted upon (rule of application). The rule of application takes precedence over any other rule. For instance, class an analytical work dealing with Shakespeare' influence on Keats with the subject Keats. Class a work (book) on two subjects with the subjects receiving fuller treatment. If two subjects receive equal treatment, class the work with the subject whose number comes first in the DDC schedules (first-of-two rule). For example, history dealing equally with the United States and Japan, should be classed under history of Japan, because 952 Japan precedes 973 United States (even if in the title of the work United States appears first, and it is discussed first in the contents of the work). Class a work in which three or more subjects are treated equally but are all subdivisions of a broader subject in the first higher number that includes them all (rule of three). For instance, a history of Portugal (946.9), Sweden (948.5), and Greece (949.5) is classed with the history of Europe (940).

b) Determine the Discipline: After determining the subject the classifier should try to determine the disciplinary focus and, if possible, the approach or form of the work.

If a work is dealing with more than one discipline, interdisciplinary number should be provided to the work.

If you are not able to determine the subject and the discipline of the book in hand, you can consult "The Relative Index". It will help by suggesting the discipline(s) in which a subject is normally treated.

c) Consult the Schedule: The schedules are the only place where all the information about coverage and use of the numbers may be found. So, once the subject has been determined and information on the discipline has been found, the classifier should turn to the schedules. The summaries, headings and notes within the schedules will provide the necessary guidance to arrive at the appropriate class number.

In the schedule of DDC, special headings, notes, and entries indicate relationships among the topics that violate the notational hierarchy. The notes are usually given at the highest level of application. For example, the scope note at 700 applies to 730 to 736 and to 736.4. So, during the process of classifying a document the classifier has to turn the pages up and down.

Even if the classifier has used "The Relative Index", he should still rely on the structure of the classification schedule to arrive at the proper class number of a work. Even the most promising Relative Index citations must be verified in the schedules.

d) Close and Broad Classification: Close classification means that the content of a work is specified by notation to the fullest extent possible. Broad classification means that the work is placed in a broad class by the use of notation that has been logically abridged. For example, a work on French cooking is classed closely at 641.5944 (641.59 Cooking by place + 44 France from the T1), or broadly at 641.5 (Cooking). The DDC provides the basic options of close versus broad classification. A library should choose between these two option based on the size of its collection and the needs of its users. The abridged edition of the DDC is another source for broad classification.

e) Other Points: It should be noted that DDC uses the convention that no number should have fewer than three digits; zeros are used to fill in the numbers. A decimal point (or dot) follows the third digit in a class

number, after which division by ten continues to the specific degree of classification needed. The “dot” is not used as a decimal point in the mathematical sense; it used to ease the transcription and copying of the class numbers.

A number should never end in a zero anywhere to the right of the decimal point. Again, subdivisions beginning with zero should be avoided if there is a choice between zero and 1-9 at the same point in the hierarchy of the notation (rule of zero).

5.7 EXAMPLES OF CLASSIFYING A DOCUMENT WITH DDC SUMMARIES

Now let’s try to classify some general books practically, wherein we do not require to use seven tables and the details about the Schedules. For classification of such books, the three summaries of DDC and the Relative Index will be enough. Now, for example, take a book whose name is “**A Text Book of Geometry”**

Here, in the title, it is very easy and expressive enough to determine the subject. Geometry is the branch of Mathematics and it will come under science. So, go to the first summary wherein you will find “500 Science”, then consult the second summary, wherein under 500 you will find “510 Mathematics”. Now, in the third summary under “510 Mathematics”, you will find “516 Geometry”. Now, consult the schedule for verification. In the schedule also the 516 is for Geometry. So, the class number of the above book will be “516”.

Now, suppose, in lieu of the above approach you want to move from the Relative Index. In such cases, find the word Geometry in the page number 331 of volume 4. Opposite to the word you will find the number “516” in the following format.

Geometry	516
famous problems	516.204

Now consult the schedule for verification. In page number 515 of volume 2, you will find “516 Geometry”, so the class number of the above book will be “516”.

5.8 CLASSIFICATION OF DOCUMENT BY USING THE WEB

The cost of DDC is very high. Every library in India and in other developing countries cannot afford to have a set of DDC as its own. But the classification of the documents in a library is a must. To meet this end, librarians can use some tools and techniques to have a class number of a document they have procured in their library. There are some excellent tools over the web that share the class numbers. Some of these tools and techniques are discussed bellow. They will provide the readymade class number of a document and will save the time of the classifier. We may not require to follow these options if we have a set of DDC. We are to only follow the options listed bellow in the event of not having a set of DDC. We can also follow these options to verify the class number obtained by consulting the DDC on our own.

5.8.1 Classify: An Experimental Classification Web Service

OCLC Research experimental classification service launched "Classify" (http://classify.oclc.org/classify2/) which is targeted to support the assignment of class number and subject heading by using the web. The interface can be used both by a machine as well as human being. It provides access to more than 36 million collectively built records from a large pool of related resources. Each record in the database contains Dewey Decimal Classification (DDC) numbers, Library of Congress Classification (LCC) numbers, or National Library of Medicine (NLM) Classification numbers, and subject headings from the Faceted Application of Subject Terminology (FAST).

In the database of Classify (http://classify.oclc.org/classify2) by inputting any one or in combination of some basic information related to the document, the class number or subject heading can be obtained. The inputted information may be of the following types-

a) ISBN: You can use the 10 or 13 digit ISBN. The ISBN should be used without hyphens in between. You can find more about ISBN over: http://www.isbn-international.org/

b) OCLC #: Each bibliographic record in the WorldCat has a unique number that range from 1 to 9 digits in length. You can also use this number to find out the information from the database. More about OCLC # is available over: http://www.worldcat.org/links/default.jsp

c) Barcode / The Universal Product Code (UPC): You can use the 12 digits UPC number found in the document. You can know more about Barcode over: http://www.gs1us.org/

d) International Standard Serial Number (ISSN): You can use the eight digits ISSN with or without hyphen (as it is appeared in the document). You can know more about ISSN over: http://www.issn.org

e) Title and / or Author: You can also use full title of the document or some portion of it or its author or both the title and the author as a combined search.

f) Faceted Application of Subject Terminology (FAST): You can also use the FAST controlled vocabulary that is based on the Library of Congress Subject Headings (LCSH). You can collect more information about FAST over: http://www.oclc.org/research/activities/fast/

If you go to (http://classify.oclc.org/) web address and enter the ISBN / ISSN or any standard number correctly in the interface it sometimes shows a "No data found for the input argument" error. But, if you use the title and some portion of the authors' name of the same document it shows the result. It happens probably because sometimes people perhaps do not entered those fields in the records of the database, while preparing it.

Entering some portion of the title and the first author's surname (or sometimes the forename) of the document in the interface mostly leads to the relevant document and class number. You can use this option as your first approach to obtain the class number of the document or its subject heading.

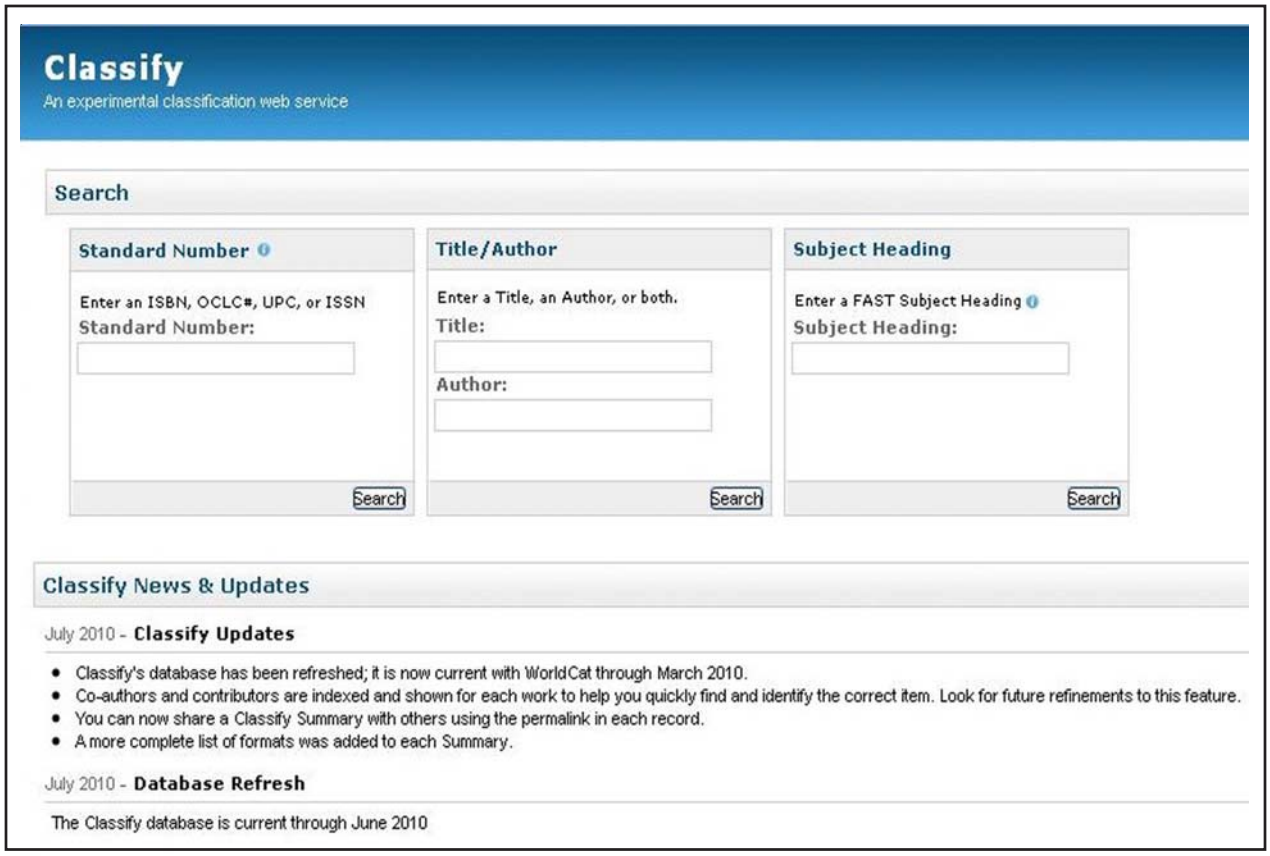


Fig. 1 : Screenshot of Classify

5.8.2 DeweyBrowser

The DeweyBrowser **(http://deweybrowser.oclc.org)** provides access to approximately 2.5 million records from the OCLC Worldcat database. The DeweyBrowser helps to access those resources. You can also use this interface to obtain readymade class number of a document in your library. Just make a search by entering the complete title of the document in the search box of the site to have its class number.

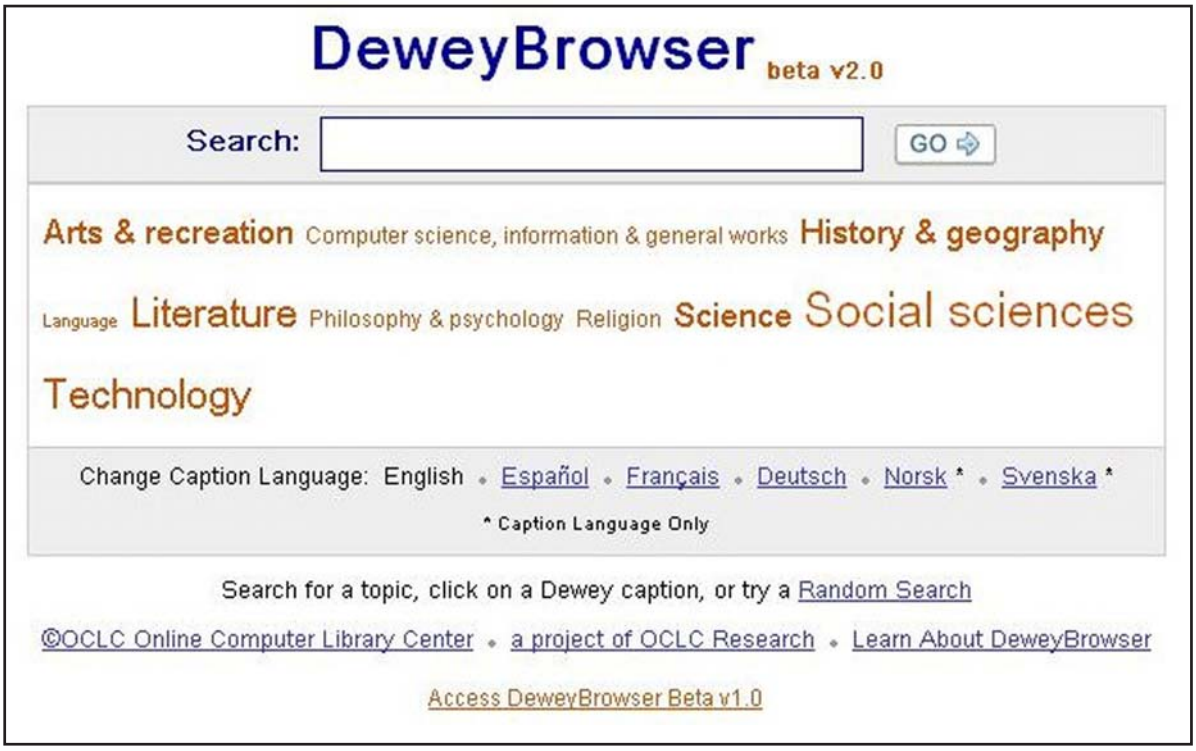


Fig. 2 : Screenshot of DeweyBrowser

5.8.3 ISBNdb.com

ISBNdb.com **(http://isbndb.com/)** is a database of books that is built by taking data from hundreds of libraries across the world. It is developed by Andrew Maltsev. He has also a company named Ejelta LLC (http://ejelta.com/), based in San Gabriel, CA. This ISBNdb.com is one of the outputs of the company. You can enter the keywords, book title, author, publisher, topic or ISBN of the document in its search box to have its class number. After displaying the result by the interface, click on the most relevant title under the heading of "Books Matching ('your enter title')" and consult the "Dewey Class:" under "Classification:" heading. Here you will find the classification number of the document you are looking for.

If you don't find the heading "Classification:" or you find the heading "Classification:" but don't find the "Dewey Class:" then

you should move to the appropriate title under “Libraries this book has an entry in:”. Now under the “MARC Record” you should consult the number against: 092: $a: or 082. This will be your classification number of the document you were looking for.

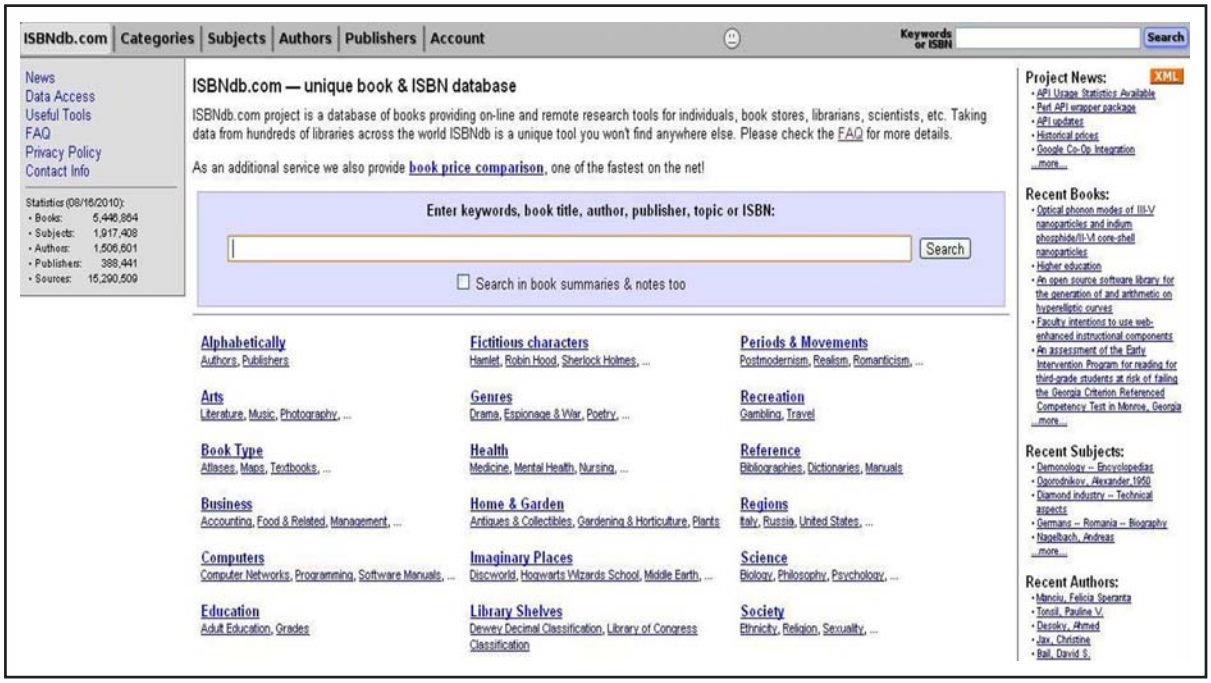


Fig. 3 : Screenshot of ISBNdb.com

5.8.4 Library of Congress Online Catalogue

To classify document by using Library of Congress Online Catalogue (http://catalog.loc.gov/), enter the address http://catalog.loc.gov/ in the address bar of your browser, and then click on “Alternative Interface to the LC Online Catalog (Z39.50)”. It will lead you to a new screen, from where you have to opt for “Advanced Search (multiple terms using Boolean operators)”. In the new page you have arrived at (it will look just like the following) you can search for class numbers by entering different details about the document in your library. Your search term may be the name of the author, title, series, ISBN, ISSN, publisher and many others to choose from. After submission of the details in the interface you have to

click on “Submit Query” and then should navigate to “More on this record”. Now, against the “Dewey No.:”, you will find the class number of the document you are searching for. Please note that for some titles you will not be able to find DDC number in this database, as it was mainly designed by using the Library of Congress Classification number.

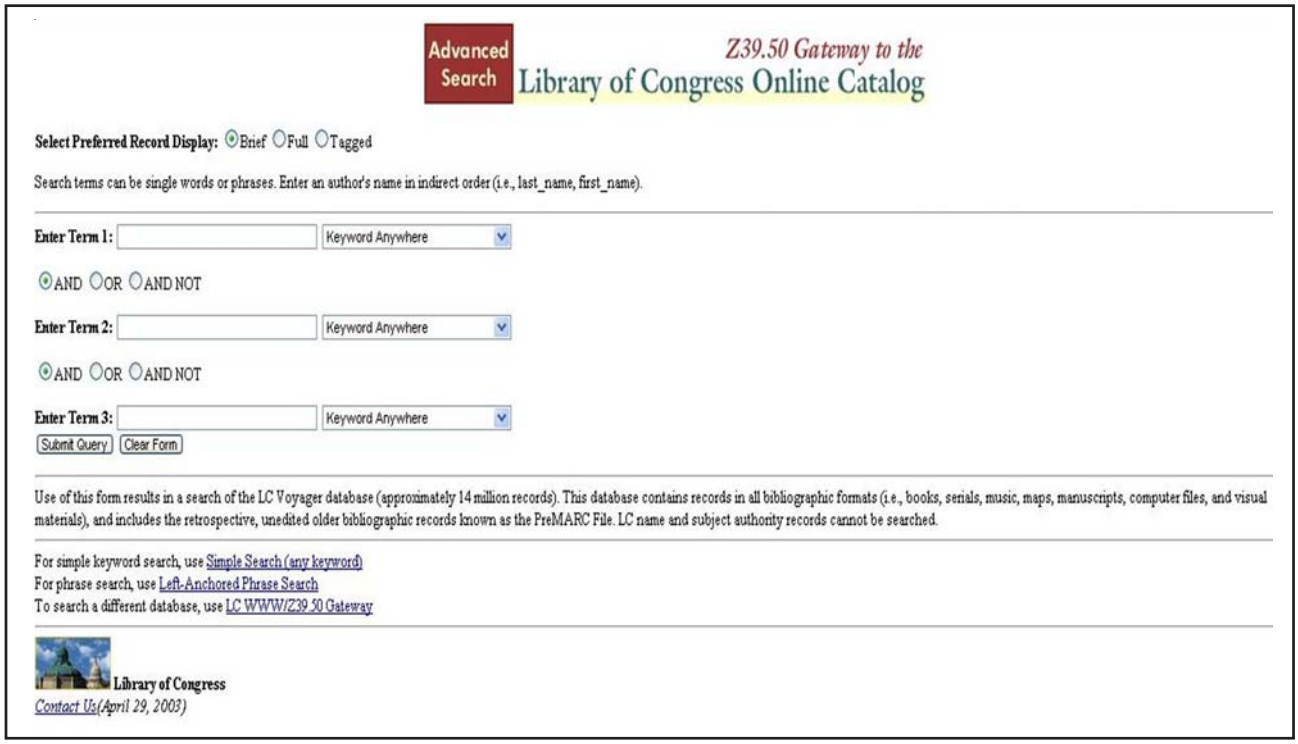


Fig. 4 : Screenshot of Library of Congress Online Catalog



EXERCISE

Type the title, author and ISBN of ten books recently acquired by the central library where your study center is located and classify those titles by following the different online methods listed above.

The WebDewey also offers easy-to-use, World Wide Web-based access to the Dewey Decimal Classification (DDC) and related information, with searching and browsing capabilities. One can also find Library of

Congress Subject Headings (LCSH) intellectually and statistically mapped to Dewey numbers; and links from the mapped LCSH to the corresponding LCSH authority records. It is also an excellent tool for online classification of the document, but the bad thing is that it is a paid service. It costs from $ 225-$575 per year.



CHECK YOUR PROGRESS

Q 1: Classify the Following Books

a)	System Analysis	b)	Library Operation
c)	Critical Philosophy	d)	Western Philosophy
e)	Christian Theology	f)	Islam
g)	Social Institutions	h)	Political Science
i)	Applied Linguistics	j)	Natural Sciences
k)	History of Science	l)	Text Book of Engineering
m)	Horticulture	n)	Architecture
o)	Music	p)	American Poetry
q)	World Civilization	r)	Historical Atlases



5.9 LET US SUM UP

In this unit you have learnt how to classify a document by using the DDC summaries as well as by using different online tools and techniques. Sometimes a book itself may contain the classification number. In such cases, you can simply copy down that classification number from Cataloguing in Publication (CIP) data. The CIP will provide classification number, subject headings, and notes. This type of data is very common in the verso of the title page of many books published from U.S., Australia,

British, and Canada. So, if you have a book published from the above countries, try to find the CIP data and copy it to your document.

The unit takes into account the Dewey Decimal Classification (DDC) that includes the structure of the DDC consisting of Tables, Summaries, Schedules and Relative Index. Classification of document by using the web is another important point of discussion in the unit. In this section the relevant matter includes “Classify”, Dewey Browser, ISBNdb.com and Library of Congress Online Catalog. Each of these concepts has been exercised to give an idea about the use of the web for classification.



5.10 FURTHER READINGS

1) OCLC (2010). Classify: An experimental classification web service. Available over web at: http://classify.oclc.org/classify2/
2) OCLC (2003). Dewey Decimal Classification and Relative Index, 22nd Edition. Ohio: Online Computer Library Center, Inc.



5.11 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1:

a)	System Analysis	003
b)	Library Operation	025
c)	Critical Philosophy	142
d)	Western Philosophy	190
e)	Christian Theology	230
f)	Islam	297
g)	Social Institutions	300
h)	Political Science	320
i)	Applied Linguistics	418

j)	Natural Sciences	500
k)	History of Science	509
l)	Text Book of Engineering	620
m)	Horticulture	635
n)	Architecture	720
o)	Music	780
p)	American Poetry	811
q)	World Civilization	909
r)	Historical Atlases	911



5.12 PROBABLE QUESTIONS

A) Classify the Following Books Using Summaries

a)	Industrial Relation	b)	Social Services
c)	Economics	d)	International Economics Law
e)	Public Administration	f)	Co-education
g)	Cartography	h)	Textbook of Physics
i)	Chemical Physics	j)	Analytical Chemistry
k)	Inorganic Chemistry	l)	Organic Chemistry
m)	Geo-physics	n)	Economic Geology

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