

**PRINCIPLES FOR THE DISPLAY OF CATALOGER-  
CREATED METADATA**

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# GENERAL

## General principle 1

### Functions of the catalog.

OPAC displays must be designed to serve the functions of the catalog. As defined in the Paris Principles,<sup>1</sup> these are:

#### 2. Functions of the catalogue

The catalogue should be an efficient instrument for ascertaining

2.1 whether the library contains a particular book<sup>2</sup> specified by

- (a) its author<sup>3</sup> and title, or
- (b) if the author is not named in the book, its title alone, or
- (c) if the author and title are inappropriate or insufficient for identification, a suitable substitute for the title; and

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<sup>1</sup> *Statement of Principles*, annotated ed. with commentary and examples by Eva Verona. International Conference on Cataloguing Principles, 1961, Paris. London: IFLA Committee on Cataloguing, 1971. p. xiii.

<sup>2</sup> The original footnote to the term *book* in the Paris Principles read: "In this Statement, the word "book" should be taken to include other library materials having similar characteristics." Thus the intent was always for these functions to apply to catalogues that included films, sound recordings, posters, etc. These days catalogues also contain records for Web sites and CD-ROMs.

The term *book* as used in the Paris Principles means the same thing as *edition* in 2.2 b. and it incorporates both the concept of *expression* and the concept of *manifestation* as defined in FRBR. See the Glossary for the FRBR definitions of *expression* and *manifestation*.

<sup>3</sup> From here on in this document, the term *author* will be used to refer to authors, composers, choreographers, actors, photographers, costume designers, painters, in short, all of the various types of creators whose names are placed in 100 or 700 fields in the MARC 21 format. It should be borne in mind, however, particularly when designing labels and names for indexes, that library users probably use the term *author* much more narrowly than do librarians. Most users would not consider Humphrey Bogart to be the *author* of one of his films. This lack of coincidence in language between users and librarians can cause serious communication problems in OPACs. It should be noted that at the time of the Paris Principles, and in Cutter's time, as well, the term *author* included corporate bodies, which were also considered to be authors.

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- 2.2 (a) which works by a particular author and  
(b) which editions<sup>4</sup> of a particular work are in  
the library.

Since the Paris Principles covered only descriptive cataloging, we must go back to Charles Ammi Cutter's "Objects" or functions of the catalog to find the goals a catalog must meet in order to support subject searching; in toto, these state:

### OBJECTS

1. To enable a person to find a book of which either
  - (A) the author        }
  - (B) the title         } is known.
  - (C) the subject       }
2. To show what the library has
  - (D) by a given author
  - (E) on a given subject
  - (F) in a given kind of literature.
3. To assist in the choice of a book
  - (G) as to its edition (bibliographically).
  - (H) as to its character (literary or topical).

### MEANS

1. Author-entry with the necessary references (for A and D).
2. Title-entry or title reference (for B).
3. Subject-entry, cross references, and classed subject-table (for C and E).
4. Form-entry (for F).
5. Giving edition and imprint, with notes when necessary (for G).
6. Notes (for H).<sup>5</sup>

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<sup>4</sup> As noted above, the terms *edition* and *book* as used in the Paris Principles are used as synonyms and incorporate both the concept of *expression* and the concept of *manifestation* as defined in FRBR. Two items that represent the same work, but have differences in content would be considered two *editions* by the Paris Principles, and two *expressions* by FRBR. When the content and type-setting stay the same but the publisher changes between two items, FRBR would consider the two items to be two *manifestations* of the same *expression*, while the Paris Principles would simply treat them as two different *editions*. It should be remembered, however, that at the time the Paris Principles were adopted, the means of reproduction had not yet proliferated, a process that has been accelerated with the advent of digitization. When the Paris Principles referred to *editions* in 2.2 b, the primary intent was to allow users to select among different *expressions*, rather than to allow users to select among multiple *manifestations* all containing exactly the same *expression*.

It is generally held that in order for a catalog to be an "efficient instrument", it is not enough for it simply to retrieve; it ought, in addition to retrieving, display together the works of an author or corporate body, the editions of a work and the works on a subject. If the catalog retrieves five editions of a work, but displays them dispersed among 1,000 other records that don't represent that work, the catalog is not an "efficient instrument."

The FRBR contains elaborate tables that attempt to indicate which elements of the descriptive record help the user to find, identify, select and/or obtain a particular work, a particular expression or a particular manifestation, as well as works that are related by the fact that they have the same author or associated corporate body or are about the same subject or are related works (such as supplements, sequels, adaptations and the like). OPAC displays help to carry out these functions as follows:

<p>Find, identify, select and/or obtain particular work</p>	<ol style="list-style-type: none"> <li>1. Work heading in summary bibliographic display</li> <li>2. Information in the single-record display that identifies the principal author or corporate body and the title proper (if identical to uniform title)</li> <li>3. Information in the single-record display that indicates which libraries hold an item and where it is physically located</li> </ol>
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<sup>5</sup> Charles A. Cutter. "Rules for a Printed Dictionary Catalogue," in *Public Libraries in the United States of America. Part II* (Washington, D.C.: Govt. Print. Off., 1876), 10.

<p>Find, identify, select and/or obtain particular expression</p>	<ol style="list-style-type: none"> <li>1. Work heading in summary bibliographic display, by virtue of gathering all of the expressions together into one display so that the user can browse through them and select an expression</li> <li>2. Display of subsidiary author added entries in headings displays that include name headings</li> <li>3. Display of expression-specific titles (that differ from the uniform title) in headings displays that include title headings</li> <li>4. Information in the single-record display that identifies and describes the expression, including its subsidiary authors (in a transcribed statement of responsibility or note<sup>6</sup>), if any, its edition statement, if any, its series, if any, and its extent. Additionally, publication information such as publisher and publication date, and physical format information <i>when associated with an actual change in content</i>. Otherwise, see below under manifestation.</li> <li>5. Information in the single-record display that indicates which libraries hold an item and where it is physically located</li> </ol>
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<sup>6</sup> The participant or performer note can contain performers on sound recordings (511 in MARC 21; 323 in UNIMARC).

<p>Find, identify, select and/or obtain particular manifestation</p>	<ol style="list-style-type: none"> <li>1. Work heading in summary bibliographic display, by virtue of gathering all of the manifestations of expressions together into one display so that the user can browse through them and select one manifestation</li> <li>2. Information in the single-record display that identifies and describes the manifestation, including its publisher and publication date and a description of its physical format</li> <li>3. Information in the single-record display that indicates which libraries hold an item and where it is physically located</li> </ol>
<p>Demonstrate same author or associated corporate body relationship</p>	<ol style="list-style-type: none"> <li>1. Display of author and corporate body headings in headings displays that include name headings</li> <li>2. Summary bibliographic displays under a single name heading</li> </ol>
<p>Demonstrate same subject relationship</p>	<ol style="list-style-type: none"> <li>1. Display of subject headings in headings displays that include subject headings as well as <i>see</i> and <i>see also</i> references</li> <li>2. Display of classification numbers in the context of the classification system as a whole</li> </ol>
<p>Demonstrate related work relationship</p>	<ol style="list-style-type: none"> <li>1. Work heading in summary bibliographic display, especially clear if works about and related works are separately identified and displayed</li> </ol>

With the advent of electronic documents accessible over the Internet, the functions of the catalog involve not just ascertaining whether a given library contains a particular work, but helping the user to gain access to the content of the various editions (manifestations of expressions) of a particular work sought (or at least ascertaining whether a given library licenses access to particular manifestations located remotely and shared by many libraries). However, the continuing need to represent these remote access digital works in a catalog, using complex displays to enable ready scanning and efficient selection, should be readily apparent to anyone who has ever used a Web search engine.

The introduction of limiting and of keyword-in-record searching in OPACs has made it possible for users to search on elements of the bibliographic record that were not directly accessible in most card catalogs, such as publisher, publication date, keywords in notes, and the like. While this type of searching can provide added power for knowledgeable and wary users, it has also undermined the Paris Principles and Cutter's Objects, since such searching bypasses authority files and fails to display together work headings used as added entries with work headings used as main entries. Thus such searching can easily fail to assemble author, corporate body, work and subject collocations for the user. Such searching also fails to lead users to such collocations from name, title and term variants they may have used. Finally, such searching fails to demonstrate relationships among author names (real name(s) and/or pseudonym(s)), corporate names (earlier and later names), subjects (broader, narrower and related subjects), and works (related works and works about the work).

## **General principle 2**

**Effective and efficient displays of large retrievals should be available.**

OPACs should be capable of summarizing, sorting and displaying thousands of headings and records quickly and efficiently (see, for example, **Figure 33**). Popular authors publish many works.<sup>7</sup>

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<sup>7</sup> For example, 7,983 bibliographic records at the University of California, Los Angeles Libraries (UCLA) have name headings for William Shakespeare.

Popular subjects have many works written about them.<sup>8</sup> Popular works go into multiple editions.<sup>9</sup> Users may have to search for an author with a common name (e.g. John Jones) without much information about the author desired. Users may have to search for a corporate name or journal title that is made up entirely of common words. Keyword-in-record searches frequently retrieve thousands of bibliographic records.

### General principle 3

#### **Display what was searched.**

Whatever data elements have been searched should eventually appear in the resultant displays. For example, if the user conducts a search using an index that includes note fields, all indexed note fields should appear in the single-record display of each retrieved record (see, for example, **Figure 19, examples 3A and 3B**). The commands, indexes and terms used in the user's search should appear somewhere on the results screen, to remind the user what search retrieved the record or records being displayed.<sup>10</sup>

### General principle 4

#### **Emphasize author, corporate body, work, subject or other search terms sought in resultant display.**

In deciding what to emphasize in a display, i.e. what should catch the user's eye first, what should be toward the top of the display and/or what should be displayed prominently in the display, the user should be kept firmly in mind. The user is usually looking for a particular author, a particular corporate body, a particular work, or a particular subject. What should be emphasized in any display is the result of the last search or selection by the user, that is, the author, corporate body, work or subject heading last searched and/or selected by the user. The result of the user's last

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<sup>8</sup> For example, 11,910 bibliographic records at UCLA have the term *chemistry* in a subject heading. 2,228 have the subject heading *Chemistry*. 3,424 bibliographic records have the terms *Civil, War, United, States,* and *History* in subject heading fields.

<sup>9</sup> For example, 460 bibliographic records at UCLA represent either editions of Homer's *Iliad* or works related to it or about it.

<sup>10</sup> Display of the search performed by the user is not illustrated in the examples in the guidelines because 1) it was felt to be more important to list all of the possible searches that could lead to a given display being illustrated and 2) because the representation of the search will necessarily vary from system to system depending on the commands and/or indexes and/or searches available and what they are called.

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action should never be obscured by system logos, HELP icons, diagnostic information and the like (see **Figure 16**).

### General principle 5

#### **Highlight terms matched.**

In all displays, the words used in the user's original search should eventually be highlighted where they appear in subsequent displays of headings or bibliographic records matched as a result of that search (see **Figure 17, examples 1 and 3B, and Figure 19, example 1**).

### General principle 6

#### **Treat display, sorting, and indexing as separate and independent functions.**

It should be possible to index and display a particular subfield, but not sort on it. For example, it should be possible to index and display other title information (i.e., subtitle) but not sort work headings by it (see the definition of *work heading* in the glossary). It should also be possible to display but not index a particular subfield. For example, it should be possible to include and display name-title headings in a name index without being required to index in the name index the terms found in the title subfield of the heading (see **Figure 2**). It should be possible to display parentheses in headings and use them to identify subelements for sorting (see **Heading objective 3**), but not require users to type them in to retrieve headings that contain them.

### General principle 7

#### **Respect filing indicators and symbols.**

Designers of displays of all types should respect filing indicators and symbols in the MARC 21 format. These filing indicators and symbols are meant to prevent titles and other headings from sorting on articles such as *a*, *an* or *the* in English, *la*, *les*, *un*, or *une* in French, etc. When used properly, these filing indicators and symbols ensure that the heading for the film *La strada* will display as *La strada*, but sort as if it were *Strada*, wherever it is

sorted upon. Machine algorithms should never be applied to identify articles, as their linguistic use is too complex to be reduced to an algorithm. The same word can function as an article at the beginning of one title, and function as a non-article at the beginning of another. Human recognition is required to tell the difference and the decision is encoded using filing indicators and symbols in the MARC 21 format.

### **General principle 8**

**The order for sorting of headings or records should be based on the language(s) of the catalog.**

For languages of significance to the library, the order of sorting of headings or records should be based on the language of the catalog. National or regional standards for sorting should be followed where these exist. Thus, Spanish sort orders should be followed in Spanish libraries or collections of Spanish literature, German sort orders should be followed in German libraries or collections of German literature, etc. A default sequence should be specified for any script that is not of particular importance to the library, based on a multiscript standard such as the Unicode Collation Algorithm. When *alphabetical order* is specified in this document, it should be understood to mean the correct alphabetical order for the language of the catalog. Specifications for sorting should include rules for all scripts (see **Figure 35.**)

### **General principle 9**

**Provide compact summary displays.**

Designers of displays should try to summarize the results of a user's search as compactly as possible without impeding readability or scannability, to minimize the need for the user to move through many screens to select the author, corporate body, work or subject he or she seeks. The use of boxes, tables and excessive white space should be avoided (see **Figures 6, 12 and 16.**)

### **General principle 10**

**Provide logical compression.**

If compression is practiced to summarize the results of a search, it should be as logical as possible. It should never fail to display the end of the main heading in the initial results display. The resulting initial results display should not fail to display the portion of a heading that matched a user's search, even if that portion is found in a subdivision of the main heading (see **Figures 6 and 12**).

### **General principle 11**

**Avoid repetition of the same heading or bibliographic record in a single display.**

In headings displays, the same heading should not display more than once. If one heading has multiple postings, it should display once with the number of postings next to it. In addition, ideally, the heading would not be repeated with each *see also* reference displayed under it or with each of its subdivisions (see **Examples 1B and 1C in Figure 1**, and **Figures 11 and 12**). The same bibliographic record should never appear twice in any list of bibliographic records attached to a single heading. The display of the results of any search that retrieves the same record twice or more should display that record only once. The process of preventing this from happening is sometimes called *deduping*.

### **General principle 12**

**Create a zero-results display that can help a user reformulate a search if necessary.**

When the user's search retrieves no results, this may be because the library does not contain the work, author or corporate body sought, or does not contain works on the subject sought. However, it may also be that the user needs help formulating the search. When the user has done an exact-beginning search or keyword-in-heading search, consider placing the failed search in the context of the index as a whole (see **Figures 25, 26 and 31**). If the user has done a keyword-in-heading, keyword-in-record or phrase search, show the user the search that failed, along with the message that it did not retrieve any records. Ask the user to check the search for any typographical errors or misspellings. Show the user the number of records that matched each keyword (with a suggestion that any that matched nothing be dropped), and

suggest other kinds of searches and various kinds of HELP messages that are available.

### **General principle 13**

**Preserve punctuation and case as set by catalogers in all displays.**

The system should never display headings in all upper case, drop periods, or change the punctuation or case set by catalogers in displays of either headings or bibliographic records. When titles or subject headings are displayed in upper case, information is lost; the user can no longer tell which words in a title or subject heading are proper names and which are not. This can sometimes cause ambiguity of meaning. Punctuation, such as the parentheses used to indicate qualifiers in Anglo-American cataloging, may be necessary to identify sorting elements (see **Heading principle 3**).

### **General principle 14**

**Design the graphics, help icons, home pages or introductory screens of the OPAC for its primary audience.**

The primary audience for the OPAC should be borne firmly in mind when designing graphics, help icons, home pages or introductory screens and so on. For example, inviting graphics such as pictures of book covers and selectable visual icons for popular subjects and genres, large type, and simple language can all help to encourage children to enjoy consulting the OPAC in a children's library. On the other hand, the same graphics and language might be considered annoying or condescending in a science and technology library serving computer scientists.

### **General principle 15**

**Do not duplicate records for display purposes.**

Generate all single-record displays from the MARC record for the item displayed. Never make a permanent, separate, editable display copy of the MARC record. As soon as there are two records for a given item, discrepancies between the two records are sure to creep in as changes are made in one and not in the

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other, leading to confusion on the part of users and staff whenever the two records give conflicting information.

### General principle 16

**Display bibliographic data with maximum fidelity to conventions for the written forms of languages.**

Diacritics and special characters can be crucial for the understanding of bibliographic records (see **Figure 15**). Scripts that are written from right-to-left must be displayed that way, even in a left-to-right environment. Where both Western-influenced and traditional layout are conventionally accepted, either layout may be used. For example, Chinese and Japanese are traditionally written vertically, but horizontal layout is also conventionally acceptable. Shaping of letters must be supported for scripts that require it. Where standards for the layout of data in a particular script or family of scripts have been established, follow them if possible. It should be noted that UNICODE is rapidly becoming the underlying international standard for the correct encoding and subsequent display of diacritics, scripts and special characters.

### General principle 17

**Create displays in the language(s) of the catalog.**

To the extent possible, display messages, HELP screens, display constants and the like should be in the language or languages of the catalog. In multilingual catalogs, users should be given a choice concerning their preferred language among those languages supported by the catalog.

### General principle 18

**Bear in mind the needs of visually impaired users.**

Bear in mind the needs of visually impaired users when you choose your library management system supplier and design your OPAC. Consult with users, and test the OPAC with different access technologies, for example, speech synthesis, screen magnification and soft braille display.

## GENERAL RECOMMENDATIONS

- GR.1.** The initial search display (the first screen a user sees when entering the OPAC) should offer the user the best possible default search for each of the following (see **General principle 1**):
- GR.1.a.** A search for a particular author<sup>11</sup> or corporate body or conference name; in other words, a search for the works associated with a particular person or corporate body or conference name
  - GR.1.b.** A search for a particular work of which author (or corporate body) and title are known (allowing the user to search using both author (or corporate body) and title terms)<sup>12</sup>
  - GR.1.c.** A search for works on a particular subject, including works about people, corporate bodies, places, other works, etc., and including works in a particular form or genre
  - GR.1.d.** A search for works that take a particular disciplinary approach (as encoded using a classification scheme) or with a particular call number or in a range of call numbers (producing a display of the location numbers, i.e., a shelf list display)
- GR.2.** Every display in an OPAC should make it clear to the user how the present display was reached, how to retrace one's steps, and what the options are for subsequent displays. Every display should also show the name of the database and the owning library or other organization.

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<sup>11</sup> See footnote 3 concerning the broad definition of *author* used in various cataloging communities. Note that the user who chooses this option could be interested in works by the particular author or corporate body, works about the particular author or corporate body, or both.

<sup>12</sup> The user who chooses this option could be interested in a particular work, works about the particular work, or works related to the particular work, such as films based on a novel.

- GR.3.** If a graphical user interface is being employed, each icon that represents a command or function available to the user should have a clear and concise textual caption readily available to any user.
- GR.4.** Headings displays and summary displays of bibliographic records should always be numbered. The numbers should be permanently assigned for the course of a user's session, to allow the user at any point to return to a previous headings display or a previous summary display of bibliographic records, and to ask to have the display begin part of the way through, e.g., a quarter of the way through or halfway through, using line numbers. In addition, the user should be allowed to ask for a long display of either headings or bibliographic records to be summarized by a display of every *n*th record, e.g. every 5th record or every 10th record or every 100th record. (It is recognized, however, that it may not be possible to number a display that places a user's search in the context of an entire index.)
- GR.5.** Under any given heading, or in response to a keyword-in-record search, it should be possible to view a numbered summary display of bibliographic records attached to a single heading or matched on a keyword-in-record search. The objective of a summary display should be to summarize in alphabetical order (or in the optional order selected by the user) the results of a user's search as compactly as possible without impeding readability or scannability, to minimize the need for the user to move through many screens to select the author, corporate body, work or subject he or she seeks. The use of boxes, tables and excessive white space should be avoided. The element sorted on should appear first in any given record in the resultant display. If the user then changes sorting options, the displays should change so that the element now sorted on always appears first in any given record in the resultant display (see **General principles 4 and 9**; see also **Figure 16**).
- GR.6.** Location information (e.g. library, branch, call number, etc.) and information about physical format that affects the use of the material (e.g. a GMD such as *microform*) should be prominently and clearly indicated in displays. Consider including it at the end of each bibliographic record that is summarized in a summary bibliographic record display. Including location information in summary bibliographic displays may not be possible, however, in any library that has location complexities such as many branches, many copies in different locations (such as both open and closed stacks, or both

reference and stacks), items shelved under barcodes in remote storage, or in union catalogs serving many libraries (see also **Figure 17**).

- GR.7.** Commands for navigating through displays should be as simple, but as powerful, as possible. Scrolling and selection are no substitute in large catalogs, or even for inspecting large retrievals in small catalogs. Users should be given some other way besides scrolling to navigate through large retrievals. At any point it should be possible to return to the first headings display, or return to the first summary display of bibliographic records. A command or selectable function for each of the following should be provided if possible:
- GR.7.a.** for displaying a single record
  - GR.7.b.** for displaying a specified range of headings in a headings display using line numbers, including headings that may have originally displayed on more than one screen (It is recognized, however, that permanent line numbering may not be possible in any search that displays the user's search in the context of an index as a whole.)
  - GR.7.c.** for displaying a specified range of records in a summary display of bibliographic records using line numbers, first letter(s), number(s) or publication dates, including records that may have originally displayed on more than one screen
  - GR.7.d.** for beginning a headings display at a particular heading, using line numbers, first letter(s) in an alphabetical display, or first number(s) in a numerical display
  - GR.7.e.** for beginning a summary display of bibliographic records at a particular record, using line numbers, first letter(s) of work headings in an alphabetical display, or first publication date in a chronological display
  - GR.7.f.** for displaying a selected set of records in a summary display of bibliographic records, using a list of the line numbers of each record, including records that may have originally displayed on more than one screen

- GR.7.g.** for summarizing a long headings display by displaying every *n*th heading, e.g. every 5th heading or every 10th heading (each 5th etc. heading to be displayed with its line number from the original headings display, e.g. 5., 10., 15., etc.)
- GR.7.h.** for summarizing a long summary display of bibliographic records by displaying every *n*th record, e.g. every 5th record or every 10th record (each 5th etc. record to be displayed with its line number from the original bibliographic record display, e.g. 5., 10., 15., etc.) (see **Figure 18**)
- GR.7.i.** for returning to the first headings display
- GR.7.j.** for returning to a particular headings display
- GR.7.k.** for returning to the first summary display of bibliographic records
- GR.7.l.** for returning to a particular summary display of bibliographic records

## HEADING DISPLAYS

### Heading<sup>13</sup> principle 1.

The following are usually better represented by a list of headings than by an immediate display of bibliographic records (see **Figure 1**):

- a particular author or corporate body<sup>14</sup>
- a particular work
- a particular subject (in either alphabetical or classified array)

#### Reasons:

A user's search may easily match on more than one author or corporate body (as when two or more authors share the same name), more than one work, or more than one subject. When this happens, presentation of the headings

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<sup>13</sup> See the glossary for a definition of *heading*.

<sup>14</sup> See footnote 3.

allows the user to select the author, corporate body, work or subject sought, before viewing relevant bibliographic records.

A sought author or corporate body may not always be the principal author or corporate body. A headings display gathers all of the works of that person or corporate body regardless of whether he, she or it had principal responsibility. By way of contrast, immediate display of bibliographic records will gather together only the works for which he, she or it had principal responsibility (see **Figure 40**).

A particular work may easily be represented by more than one bibliographic record for different manifestations of different expressions<sup>15</sup> of it, as well as for works related to it and works about it. The work heading<sup>16</sup> has the effect of displaying together all manifestations of all expressions of a work, as well as works related to it and works about it.

A particular subject (or author or work as subject) may be rather complex with many subject subdivisions that enable a user to select or reject particular categories of works on the subject, such as encyclopedias, works on a narrow aspect of the topic, works with a particular geographic or chronological focus, etc.

Exception:

If a keyword-within-record search is done, and only one bibliographic record is retrieved, an immediate display of that record should occur.

## Heading principle 2

### **Integrate cross references in displays.**

Displays of headings should always integrate *see* and *see also* references from any available authority file(s). *See* references should be integrated into one alphabetical sequence of headings

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<sup>15</sup> Wherever the phrase *manifestations of expressions of a work* appears in this text, it should be taken to mean one or more manifestations of one or more expressions of the same work.

<sup>16</sup> See glossary. In Anglo-American cataloging, the work heading consists of one of the following: 1) the principal author or corporate body associated with the work and its uniform title, if there is one, or its title if it does not have a uniform title; or (for works without a principal author or corporate body) 2) its uniform title or its title, if it does not have a uniform title. Unfortunately, creation of work headings is optional in AACR2R, and not all libraries have embraced that option.

and *see* references. *See also* references connected with a particular heading should be made available anywhere that heading is displayed. *See* and *see also* references should be selectable, so that users need not redo a search when they match on a *see* or *see also* reference of interest. In general, the syndetic structure that places a heading in the context of the subject system from which it is drawn should be readily accessible from that heading wherever it appears (either in a headings display as a retrieved heading, or as a *see also* reference, or in a single bibliographic record) without the user having to redo the search, access different software or change files to see it (see **Figure 3**).

### Heading principle 3

#### **Respect sorting elements.<sup>17</sup>**

When headings are segmented into sorting elements, headings displays should be sorted first on the first element of the heading. The second element of the heading should be used only to subarrange headings that begin with the same first element. Examples of segmented headings include: a) a name or subject heading with subdivisions; b) a subordinate corporate body entered under a parent body; c) a serial uniform title with a qualifier; or d) a part of a work entered under the name of the work as a whole (see **Figure 4**).

### Heading principle 4

#### **Never arbitrarily truncate a heading or a sorting element for either sorting or display in uncompressed displays.**

Use every character that is present in the heading or sorting element other than those specifically designated as non-sorting (see **General principle 7**) in determining where to place it. Otherwise, sequences that are bewildering to users will result, or users will fail to find what they are looking for because of a failure to comprehend the fact that sort order is only partially applied. Never truncate the display of any individual uncompressed heading in a headings display. Always display the full heading, including all subdivisions and qualifiers (but see also **General**

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<sup>17</sup> See glossary for definition of *sorting elements*. These may be identified by punctuation, such as parentheses and commas, or by subfield codes in the MARC formats.

**principle 10** if compressed displays are desired). Never take a term in a multi-term heading and display it without the context of the rest of the heading, e.g. in a uniterm index.

### **Heading principle 5**

**Provide a default, easily scannable, logical sort in every display of two or more headings.**

Sorting of headings should be in alphabetical order unless a different order would be more logical (e.g. chronological subdivisions and works in a numbered series, as below). Never display two or more headings in more than one alphabet (unless clearly organized, as in **Name heading principle 1** and **Work heading principle 1**), nor in random order, nor in first-in-last-out order. Sorting of headings in a headings display should be done as logically as possible. For example, history headings should sort in chronological order,<sup>18</sup> and the works in a series with numbered volumes should display in volume number order regardless of any variation of volume designation, with an option to display works by work headings (see **Figure 7**). Headings sorted numerically should always be in ascending order, such that 2 sorts before 10. As already stated, all other headings should sort alphabetically (see also **Heading principle 3**).

### **Heading principle 6**

**Maintain an attachment between a heading and the bibliographic records that contain it.**

As a default, allow the user to display in separate groups just the bibliographic records attached to each heading. Only as an option, allow the user to gather the bibliographic records attached to more than one heading into a single group that can be sorted into alphabetical order by work heading. The latter option allows the user to gather more than one heading into a single group with display (or printing) of all bibliographic records in the group in one alphabetical list at the end of the gathering session. Never make this latter the only option, or even the default, for users who wish to view the records under more than one heading, as it has the effect of impairing the complex logical structure of the catalog

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<sup>18</sup> Chronological order, earliest to latest, should be the default, but an option to resort to latest to earliest might be useful for some library users.

and preventing the user's easy navigation of that structure (see **Figure 36**).

## HEADING DISPLAY RECOMMENDATIONS

- H.1. After any headings search, it should be possible to view a numbered summary display of multiple headings matched, prior to display of bibliographic records linked to a selected heading (see **Heading principles 1 and 2**).
- H.2. In headings displays, *see* and *see also* references should be selectable, such that a user does not have to redo a search if a reference represents the author, corporate body, work or subject sought, but such that the user is informed of the fact that the library is using a different name or term than that originally input in the search (see **Heading principle 2**).
- H.3. In headings displays, display the number of postings attached to each heading or *see* reference. List the number of postings next to each *see also* reference heading as well. In the latter case, consider giving the number of postings for both a heading alone and a heading with all of its subdivisions.
- H.4. Apply normalization conservatively in display algorithms so as not to impede the operation of those sorting elements that are identified by means of punctuation such as parentheses or periods (see **Heading principle 3**).

## NAME HEADING DISPLAYS

### Name heading principle 1

**Display works about an author<sup>19</sup> or corporate body with the works of the author or corporate Body.**

To promote serendipity, and to help users who wish to see works about a person or corporate body but did an author or corporate body search to find them, works about an author or corporate body should be shown to users looking for that particular author or corporate body, but they should be clearly labelled and

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<sup>19</sup> See footnote 3.

displayed in a separate group from the works of the author or corporate body. This separate group might either be displayed (clearly labelled) after the group of works by that author or corporate body, or this separate group might just be made available for display in the form of a hyperlink or an icon. Of course, if the user specifically did a subject search for a particular person or corporate body, the group of *works about* should appear before the group of *works by* (or the latter might just be made available for display in the form of a hyperlink or an icon) (see **Figure 8**).

## **Name heading principle 2**

**Display the hierarchical relationship between a corporate body and its subordinate body(ies).**

A corporate heading for a main body has a hierarchical relationship with the subordinate bodies entered under it. Whenever the corporate heading for the main body is displayed, all of the subordinate bodies for that main body that are represented in the catalog should be available for display as well (see **Figure 12**).

## **NAME HEADING DISPLAY RECOMMENDATIONS**

- N.1. Display of multiple name headings, including cross references
  - N.1.1. Retrieved in any type of search
    - N.1.1.1. When persons have been entered under multiple bibliographic identities (real name(s) and/or pseudonym(s)), allow users the option of selecting a personal name heading and all of its related bibliographic identities; when the user chooses this option, sort all postings to the heading and its related bibliographic identity headings into a single alphabetical list of works (see **General principle 1**, **Heading principle 2**, and **Name heading principle 1**; see also **Figure 23**).
    - N.1.1.2. Allow users the option of viewing the authority record for a particular name heading in order to

benefit from any notes it might contain. For example, the authority record might contain biographical information that would help the user to decide whether the person is the one sought or not (see **Figure 24**). If the authority record is in a different file or is accessible by different software, this fact should be made invisible to the user. The user should never be made to re-key a search and/or change software or file in order to view the authority record associated with a heading of interest. The authority record should be immediately accessible (without further searching) from any heading in a single bibliographic record, or any heading in a headings list.

**N.1.1.3.** Display of a heading matched should include display of its subject subdivisions (see **Subject heading principle 1**; see also **Figure 8, Example 3**).

**N.1.1.4.** Display of a corporate body heading matched should include display of its subordinate bodies (see **Name heading principle 2**).

**N.1.2.** Retrieved in a keyword-within-heading search

**N.1.2.1.** Display headings matched in alphabetical order, sorted according to the principle of sorting elements (see **Heading principle 3**).

**N.1.2.2.** Consider beginning the display at headings beginning with the first keyword the user typed in, showing the other headings matched in alphabetical order above and below (see **General principle 12**; see also **Figure 25**).

**N.1.3.** Retrieved in an exact-beginning search

**N.1.3.1.** Display headings in alphabetical order, sorted according to the principle of sorting elements (see **Heading principle 3**).

**N.1.3.2.** Consider providing a summary display of headings matched that places the user's search in context in

the entire name index next to the heading that most closely matches the search, such that users can scroll up and down the name index, beginning at the name heading that matches the initial search most closely, but eventually reaching headings that did not match the initial search at all (see **General principle 12**; see also **Figure 26**).

**N.1.4.** Retrieved in a phrase search of headings

**N.1.4.1.** Display headings matched in alphabetical order, sorted according to the principle of sorting elements (see **Heading principle 3**).

**N.2.** Display of the works under a single selected name heading

**N.2.1.** Works of the particular person or corporate body should be displayed in alphabetical order by uniform title, where present, otherwise by title on item (see **Multiple bibliographic principle 1**; see also **Figures 27 and 40**).

**N.2.2.** Give users the option of asking for a display in which each record begins with its work heading, or, in libraries in which work headings are not used, by principal author or corporate body if there is one. This will have the effect of providing a single alphabetical list of the titles on which the person or corporate body worked, but in libraries in which principal author or corporate body is part of the work heading, it should be clear from the displays on which works the person or corporate body was a principal author or corporate body (so part of the work heading) and on which the person or body was a subsidiary or alternative author or corporate body (so not part of the work heading) (see **Figure 40**).

**N.2.3.** The initial results display should be a summary bibliographic display. The objective of the summary display should be to summarize in alphabetical order (or in the optional order selected by the user) the results of a user's search as compactly as possible without impeding readability or scannability, to minimize the need for the user to move through many screens to select the work(s) sought. The use of boxes, tables and excessive white space should be avoided. The summary bibliographic display should include uniform

title, if present; the default elements to be included should be uniform title, title proper, other title information (subtitle), part title and number, and date. In the option described in **N.2.2**, the work heading should be included in the summary display (see **General principle 9**).

**N.2.4.** Works about the particular person or corporate body selected should be clearly labelled and displayed in a separate group or made available for display in the form of a hyperlink or an icon (see **Name heading principle 1**).

**N.2.5.** Once a particular work has been selected, the display of manifestations of expressions of that work should be the same as that described in the **Work heading display recommendations** section below.

**N.2.6.** If relator terms<sup>20</sup> are used in the catalog, offer users the option of categorizing the works under a given person's name first by function performed by that person on a given work. For example, in a catalog of films, under one person's name display in two alphabetical lists a) films directed by that person and b) films for which that person wrote the screenplay. In a music catalog, under one person's name display in two alphabetical lists a) works composed by that person and b) works performed by that person (see **Figure 41**). Note that this may require displaying some of the same works twice or more when the person has performed two or more functions on the same work.

## WORK HEADING DISPLAYS

### Work heading principle 1

**Display works about a work or related to a particular work with the work.**

To promote serendipity, and to help users who wish to see works about a work but did a work search to find them, works about a work should be shown to users looking for that particular work, but they should be clearly labelled and displayed in a separate group from the manifestations of the expressions of the work

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<sup>20</sup> See Glossary.

itself. This separate group might either be displayed (clearly labelled) after the group of manifestations of expressions of that work, or this separate group might just be made available for display in the form of a hyperlink or icon. Of course, if the user specifically did a subject search for a particular work, the group of *works about* should appear before the group of *editions of* (or the latter might just be made available for display as a hyperlink or an icon) (see **Figure 8**).

### Work heading principle 2

#### **Create clear displays of serial works that have changed title.**

Displays of serial works that have changed title over time should clearly indicate to users the chronological relationships among all of the titles and make it easy for a user looking for a particular volume to select the record that will describe that volume (see **Figure 10**).

### Work heading principle 3

#### **Display the hierarchical relationship between a work and its parts.**

The numbered and/or named parts of a work have a hierarchical relationship to the work as a whole. Whenever the heading for the work is displayed, all of the numbered and/or named parts of that work that are represented in the catalog should be available for display as well (see **Figure 13**).

#### **WORK HEADING DISPLAY RECOMMENDATIONS**

- W.1.** Display of manifestations of expressions of a single work, works related to it, works containing it and works about it
  - W.1.1.** Display together in one group the manifestations of expressions of a work, including manifestations of expressions contained in other larger works. If uniform titles contain language subfields, or if the primary language of a particular expression can be determined and displayed some other way, arrange next by language and then by date of

publication.<sup>21</sup> Otherwise, arrange chronologically by date of publication (see **Multiple bibliographic principle 1**). Allow users the option of resorting by date in either ascending (earlier to later) or descending (later to earlier) chronological order. Allow users the option of resorting by the title on the item; this might be particularly useful in music libraries. In humanities libraries it might be useful to allow a resort of the various expressions of a particular textual work by editor, illustrator, translator, etc., if relators are present to allow identification of these functions. In musical sound recording libraries, it might also be useful to allow a resort of the various sound recording expressions of a particular work by performer or principal performer (see **Figure 37**).

- W.1.2.** If possible, physical location information (e.g. library, branch, call number, etc.) should be prominently and clearly indicated in the display (see **GR.6**).
- W.1.3.** Clearly label and display in a separate group works about the work or make them available for display in the form of a hyperlink or an icon (see **Work heading principle 1**).
- W.1.4.** Clearly label and display in a separate group works related to the work or make them available for display in the form of a hyperlink or an icon (see **Work heading principle 1**).
- W.1.5.** Ensure that all of the numbered and/or named parts of a given work are available for display as well (see **Work heading principle 3**).

## **W.2.** Serials

- W.2.1.** Display all linked titles (e.g. earlier and later titles) (see **Work heading principle 2**) and clearly label them.
- W.2.2.** In the display of an individual serial record, clearly distinguish between the statement of volumes published and the listing of volumes held by the library, since users are known to confuse the two.

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<sup>21</sup> Note that non-verbal works such as music or still or moving images should *not* be subarranged by language.

**W.2.3.** Holdings should be clearly and concisely stated in as much detail as is considered necessary.

**W.3.** Items in a Series

**W.3.1.** Display the items in a numbered series in volume number order, giving users the option of asking for a display by work heading (see **Heading principle 5**).

## **SUBJECT AND GENRE/FORM HEADING DISPLAYS**

### **Subject heading principle 1**

**Display the hierarchical relationship between a heading and its subject subdivision(s).**

A heading has a hierarchical relationship to another heading that begins with the same main heading but has subsequent subject subdivisions. Whenever the main heading is displayed, all of the subject subdivisions for that heading that are represented in the catalog should be available for display as well. If the option of compression is followed (see **General principle 10**), this will happen as a matter of course. If compression is not employed, respect for sorting elements (see **Heading principle 3**), should lead to grouping of subdivided headings with their parent headings (see **Figure 11**; see also **Figure 8, Example 3**).

### **SUBJECT AND GENRE/FORM HEADING DISPLAY RECOMMENDATIONS**

**S.1.** Display of multiple subject and genre/form headings, including cross references

**S.1.1.** Retrieved in any type of search

**S.1.1.1.** Display of a heading matched should include display of its subject subdivisions, or such a display should be possible upon selection of the heading (either from a compressed display or from a hot-linked single-record display) (see **Heading principle**

**1, General principle 9 and Subject heading principle 1).**

**S.1.1.2.** Allow users the option of selecting a subject heading and all narrower terms under it. When the user chooses this option, sort all postings to the heading, its subdivisions, and its narrower headings with their subdivisions into a single alphabetical list of bibliographic records (see **Figure 28**).

**S.1.1.3.** When users retrieve headings drawn from several subject heading and/or genre/form lists (e.g. LCSH and MeSH), clearly label the headings as to source and keep their postings separate (see **Figure 29**). Optionally, allow users to display a merged hit list in which two headings from two subject heading lists that are either identical or have been mapped to each other using syndetic structure are shown as one heading, unlabelled as to source, with the bibliographic records attached shown in one alphabet.

**S.1.1.4.** Allow users the option of viewing the authority record for a particular subject heading in order to benefit from any scope notes it might contain (see **Figure 30**).

**S.1.2.** Retrieved in a keyword-within-heading search

**S.1.2.1.** Display headings matched in alphabetical order, sorted according to the principle of sorting elements (see **Heading principle 3**).

**S.1.2.2.** Consider beginning the display at headings beginning with the first keyword the user typed in, showing the other headings matched in alphabetical order above and below.

**S.1.3.** Retrieved in an exact-beginning search

**S.1.3.1.** Display headings in alphabetical order, sorted according to the principle of sorting elements (see **Heading principle 3**).

**S.1.3.2.** Consider providing a summary display of headings matched that places the user's search in context in the entire subject index next to the heading that most closely matches the search, such that users can scroll up and down the subject index beginning at the subject heading that matches the initial search most closely, but eventually reaching headings that did not match the initial search at all (see **General principle 12**; see also **Figure 31**).

**S.1.4.** Retrieved in a phrase search of headings

**S.1.4.1.** Display headings matched in alphabetical order, sorted according to the principle of sorting elements (see **Heading principle 3**).

**S.2.** Display of works under a single selected subject or genre/form heading

**S.2.1.** If there is more than one work with the same subject heading, the default order for a summary bibliographic display should be by work heading<sup>22</sup>, including uniform title, if present. The default elements to be included should be work heading, title proper, other title information (subtitle), part title, designation and/or number, and date. Libraries that do not use work headings may need to state more explicitly that the default elements should begin with principal author or corporate body and then the title elements as given above (see also **GR.5** concerning summary bibliographic displays and **GR.6** concerning physical location information and physical format information; see also **Multiple bibliographic principle 1**; see **Figure 17, example 2, and Figure 27**). Allow libraries that do not collect multiple-edition works, such as science and technology libraries, to have the option of choosing a display default that puts works in chronological order with the most recent works first. (Note that this default sort should be avoided in general and humanities libraries, since this will separate the manifestations of the expressions of a particular work (if it is a multiple-manifestation/expression work) in any case in which the user has retrieved more than one work). Always offer users the option of resorting records in either inverse or direct chronological order by publication date, or by title.

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<sup>22</sup> See footnote 16.

- S.2.2.** The initial results display should be a summary bibliographic display. The objective of the summary display should be to summarize in alphabetical order (or in the optional order selected by the user) the results of a user's search as compactly as possible without impeding readability or scannability, to minimize the need for the user to move through many screens to select the work(s) sought. The use of boxes, tables and excessive white space should be avoided. The summary display should consist of at least the work heading, the title on the item, and the date of publication (see **General principle 9**).
- S.2.3.** Works about a particular work selected should be clearly labelled and displayed in a separate group made available for display in the form of a hyperlink or an icon (see **Work heading principle 1**).
- S.2.4.** Once a particular work has been selected the display of manifestations of expressions of that work should be the same as that described in the **Work headings display recommendations** section above.

## **WORKS ABOUT AND EXAMPLES OF A GENRE OR FORM HEADING DISPLAYS**

### **Genre/form principle 1**

**Display works about a particular genre or form with examples of the genre or form.**

To promote serendipity, and to help users who do a genre/form search because they are interested in works about the genre/form rather than examples of it, works about a particular genre or form should be shown to users looking for examples of that genre or form, but they should be clearly labelled and displayed in a separate group from examples of that genre or form. This separate group might either be displayed (clearly labelled) after the group of examples of that genre or form, or this separate group might just be made available for display in the form of a hyperlink or an icon (see **Figure 9**).

## **WORKS ABOUT AND EXAMPLES OF A GENRE OR FORM HEADING DISPLAY RECOMMENDATIONS**

- G/F.1.** Clearly label and display in separate groups works about a genre or form and examples of a genre or form or make one of the groups available for display in the form of a hyperlink or an icon (see **Genre/form principle 1**).
- G/F.2.** Allow users the option of viewing the authority record for a particular genre or form heading, in order to benefit from any scope notes it might contain (see **Figure 32**).

## **CLASSIFICATION DISPLAYS**

### **Classification principle 1**

**Display the hierarchical relationship between a classification number and the entire classification.**

In classification schemes commonly used in many libraries, such as the Dewey Decimal Classification (DDC), the Universal Decimal Classification (UDC) and the Library of Congress Classification (LCC), a particular classification number has a hierarchical relationship to the entire classification from which it is derived. Whenever the particular classification number is displayed, its context in the classification scheme as a whole should be available for display as well. In this case it will be necessary to display classification numbers that are not represented in the catalog (see **Figure 33**). Providing good quality classification access can be particularly valuable in multilingual settings, since classification provides a kind of subject access that is language-neutral.

### **CLASSIFICATION DISPLAY RECOMMENDATIONS**

- C.1.** Display of multiple call numbers (see **GR.1.d**).
- C.1.1.** Display each call number and shelfmark in shelflist order (see **Figure 38**).

**C.1.2.** The summary display of the item attached to each call number should consist of at least the work heading,<sup>23</sup> the title on the item, and the date of publication (see **General principle 9**).

**C.2.** Display of multiple classification numbers.

**C.2.1.** Display multiple classification numbers in hierarchical order. Display should result from a classification search (see **GR.1.d**) or the selection of a classification number from a single-record display (see **SB.1.d**; also see **Figure 34**) or the selection of the option of exploring the classification scheme by starting with the classification number(s) used on records with a single subject heading (see **Figure 33**).

**C.2.1.1.** Displays should translate any given classification number into the language of the catalog user, using effective captions designed for the public rather than for technical services staff. Consider using subject heading(s) associated with the classification number for these translations.

**C.2.1.2.** Displays of the classification should place any given classification number in the context of the entire classification hierarchy and allow movement up and down the classes and subclasses of a hierarchy as well as across coordinate elements of an array in the hierarchy (see **Classification principle 1**; see also **Figure 33**).

**C.2.2.** Display of works under a selected classification number

**C.2.2.1.** If there is more than one work with the same classification number, the records should display in order by work heading<sup>24</sup>, including uniform title, if present. The default elements to be included should be work heading, title proper, other title information (subtitle), part title, designation and/or number, and date. Libraries that do not use work headings may need to state more explicitly that the default elements

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<sup>23</sup> See footnote 16.

<sup>24</sup> See footnote 16.

should begin with principal author or corporate body and then the title elements as given above (see **Multiple bibliographic principle 1** and **Figure 27**); if the library has used shelfmarks consistently such that sorting by shelfmark will have the same effect as sorting by work heading, it will not be necessary to do anything more than sort by shelfmark.<sup>25</sup>

**C.2.2.2.** The initial results display should be a summary display. The objective of the summary display should be to summarize in alphabetical order (or in the optional order selected by the user) the results of a user's search as compactly as possible without impeding readability or scannability, to minimize the need for the user to move through many screens to select the work(s) sought. The use of boxes, tables and excessive white space should be avoided. The summary display should consist of at least the work heading, the title on the item, and the date of publication (see **General principle 9**).

**C.2.2.3.** Once a particular work has been selected, the display of manifestations of expressions of that work should be the same as that described in the **Work headings display recommendations** section above.

**C.2.3.** Display of classification number in a single bibliographic record

**C.2.3.1.** Distinguish in displays between the use of the classification number for subject access and the use for shelf location. This becomes particularly important when items are actually located either on the Internet or in remote storage, and the classification number provides useful subject access only, without serving as a location device (see **Figure 34**).

## TITLE SEARCH DISPLAYS

### TITLE SEARCH DISPLAY RECOMMENDATIONS

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<sup>25</sup> See glossary for definitions of these terms.

## T.1. Display of multiple title headings

The following display recommendation for title heading indexes is intended to prevent the same record from displaying twice under very similar titles (for example, when the uniform title is nearly identical to the title transcribed from the item and just differs by the addition of a qualifier). It may not be possible to carry out this recommendation with MARC 21 records in systems that do not maintain very tight control over uniform title main entries (see **Figure 39**).

For records with work headings consisting of title alone (in the MARC 21 format, for records with 130 fields or with no 1XX fields):

- a) Display cross references found in 130 authority records (MARC 21) (see **Heading principle 2**).
- b) Display any transcribed title (245 in MARC 21) that is NOT superseded by a uniform title (130 in MARC 21).
- c) If a uniform title IS present, do NOT display the transcribed title as a heading unless 1) it is so designated (1st indicator 1 in the MARC 21 format) and 2) it does not match a 430 *see* reference on a 130 authority record (MARC 21).

### T.1.1. Retrieved in a keyword-within-heading search

**T.1.1.1.** Display headings matched in alphabetical order, sorted according to the principle of sorting elements (see **Heading principle 3**).

**T.1.1.2.** Consider beginning the display at headings beginning with the first keyword the user typed in, showing the other headings matched in alphabetical order above and below.

### T.1.2. Retrieved in an exact-beginning search

- T.1.2.1. Display headings in alphabetical order, sorted according to the principle of sorting elements (see **Heading principle 3**).
- T.1.2.2. Consider providing a summary display of headings matched that places the user's search in context in the entire title index next to the heading that most closely matches the search, such that users can scroll up and down the title index, beginning at the title heading that matches the initial search most closely, but eventually reaching headings that did not match the initial search at all (see **General principle 12**).

**T.1.3.** Retrieved in a phrase search of headings

- T.1.3.1. Display headings matched in alphabetical order, sorted according to the principle of sorting elements (see **Heading principle 3**).

**T.2** Display of the works under a single selected title heading

- T.2.1. If there is more than one work with the same title heading, the records should display in order by work heading<sup>26</sup>, including uniform title, if present. The default elements to be included should be work heading, title proper, other title information (subtitle), part title, designation and/or number, and date. Libraries that do not use work headings may need to state more explicitly that the default elements should begin with principal author or corporate body and then the title elements as given above (see **Multiple bibliographic principle 1** and **Figure 27**).
- T.2.2. The initial results display should be a summary display. The objective of the summary display should be to summarize in alphabetical order (or in the optional order selected by the user) the results of a user's search as compactly as possible without impeding readability or scannability, to minimize the need for the user to move through many screens to select the work(s) sought. The use of boxes, tables and excessive white space should be avoided. The summary display should

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<sup>26</sup> See footnote 16.

consist of at least the work heading, the title on the item, and the date of publication (see **General principle 9**).

**T.2.3.** Works about a particular work selected should be clearly labelled and displayed in a separate group or made available for display in the form of a hyperlink or an icon (see **Work heading principle 1**).

**T.2.4.** Once a particular work has been selected, the display of manifestations of expressions of that work should be the same as that described in the **Work headings display recommendations** section above.

## MULTIPLE BIBLIOGRAPHIC RECORD DISPLAYS

### Multiple bibliographic principle 1

**Provide a default, easily scannable, logical sort in every display of two or more bibliographic records.**

The default order for a summary bibliographic display should be by work heading<sup>27</sup>, including uniform title, if present. The default elements to be included should be work heading, title proper, other title information (subtitle), part title and part number or other designation, and date. Libraries that do not use work headings may need to state more explicitly that the default display should begin with principal author or corporate body and then the title elements as given above. Never display two or more bibliographic records in more than one alphabet (unless clearly organized, as in **Name heading principle 1** and **Work heading principle 1**), or in random order, or in first-in-last-out order (see **Figure 17**). Allow libraries that do not collect multiple-edition works, such as science and technology libraries, to have the option of choosing a display default that puts works in chronological order with the most recent works first.

### MULTIPLE BIBLIOGRAPHIC RECORD DISPLAY RECOMMENDATIONS

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<sup>27</sup> However, note the exception below in Recommendation N.2.1, which calls for sorting the works under an author heading by title (uniform title, if present), with an option to sort by work heading.

**MB.1.** The default order for a summary bibliographic display should be by work heading<sup>28</sup>, including uniform title, if present. The default elements to be included should be work heading, title proper, other title information (subtitle), part title, designation and/or number, and date. Libraries that do not use work headings may need to state more explicitly that the default elements should begin with principal author or corporate body and then the title elements as given above (see also **GR.5** concerning summary bibliographic displays and **GR.6** concerning physical location information and physical format information; note the exception to this rule in **N.2**; see also **Multiple bibliographic principle 1**; see **Figure 17**). Allow libraries that do not collect multiple-edition works, such as science and technology libraries, to have the option of choosing a display default that puts works in chronological order with the most recent works first. (Note that this default sort should be avoided in general and humanities libraries, since this will separate the manifestations of the expressions of a particular work (if it is a multiple-manifestation/expression work) in any case in which the user has retrieved more than one work). Always offer users the option of resorting records in either inverse or direct chronological order by publication date, or by title. Consider offering them the option of sorting the records by the first subject heading or by all subject headings (with records repeated for each) but *only* if it is possible to begin the display of each record or set of records with the subject heading sorted on.

## DISPLAYS FOLLOWING KEYWORD-WITHIN-RECORD AND PHRASE SEARCHES OF BIBLIOGRAPHIC RECORDS

### RECOMMENDATIONS FOR DISPLAYS FOLLOWING KEYWORD-WITHIN-RECORD AND PHRASE SEARCHES OF BIBLIOGRAPHIC RECORDS

**KW1.** Display of multiple records retrieved on cross-field keyword-within-record or phrase searches of bibliographic records

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<sup>28</sup> See footnote 16.

**KW.1.1.** The default order for a summary bibliographic display should be by work heading<sup>29</sup>, including uniform title, if present. The default elements to be included should be work heading, title proper, other title information (subtitle), part title, designation and/or number, and date. Libraries that do not use work headings may need to state more explicitly that the default elements should begin with principal author or corporate body and then the title elements as given above (see also **GR.5** concerning summary bibliographic displays and **GR.6** concerning physical location information and physical format information; note the exception to this rule in **N.2**; see also **Multiple bibliographic principle 1**; see **Figure 17**). Allow libraries that do not collect multiple-edition works, such as science and technology libraries, to have the option of choosing a display default that puts works in chronological order with the most recent works first. (Note that this default sort should be avoided in general and humanities libraries, since this will separate the manifestations of the expressions of a particular work (if it is a multiple-manifestation/expression work) in any case in which the user has retrieved more than one work). Always offer users the option of resorting records in either inverse or direct chronological order by publication date, or by title. Consider offering them the option of sorting the records by the first subject heading or by all subject headings (with records repeated for each) but *only* if it is possible to begin the display of each record or set of records with the subject heading sorted on.

## SINGLE BIBLIOGRAPHIC RECORD DISPLAYS

### Single bibliographic principle 1

**Display fields and subfields in the order set by the cataloger.**

Display designers should not reorder subfields based, for example, on alphabetic order of subfield codes. The MARC 21 format is not designed to work in this fashion, and the meaning of character strings can be distorted by this type of computer algorithm (see **Figure 5**). Field order in a single bibliographic record can contain valuable information both for indexing and display purposes. For example, according to practice in libraries using *Library of Congress Subject Headings* (LCSH), the first 6XX field in MARC 21 contains the primary subject covered by the

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<sup>29</sup> See footnote 16.

book cataloged. If the primary subject is a geographic area (651) that should precede any other subject headings that may cover secondary subjects such as persons (600) or topics (650). Also, the cataloger places the most important note first, regardless of tag number.

**Single bibliographic principle 2****Use the International Standard Bibliographic Descriptions (ISBDs)<sup>30</sup> as international display standards.**

The ISBDs and the catalog codes based on them (such as *The Anglo-American Cataloguing Rules, 2nd Edition Revised* (AACR2R)<sup>31</sup>) include standards for display that have been adopted internationally, and as such they should be followed for the order of the elements of the bibliographic description and for supplying punctuation and display constants for the elements of the bibliographic description in all single-record and summary bibliographic displays. ISBD punctuation was designed to be a language-independent system for identifying the elements of a bibliographic description. ISBD punctuation should be added automatically to displays as required by different national or international cataloging rules and practices, where they have not already been input into the bibliographic record. For example, catalogers using various online systems that use MARC 21 do not type in ISBD punctuation between ISBD areas; instead they rely on systems to supply it to ISBD-based records<sup>32</sup>(see **Figure 14**).

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<sup>30</sup> *ISBD(A): International Standard Bibliographic Description for older monographic publications (antiquarian)*. 2nd rev. ed. Munich ; New York: K.G.Saur, 1991.

*ISBD(CM): International Standard Bibliographic Description for cartographic materials*. rev. ed. London: IFLA Universal Bibliographic Control and International MARC Programme, 1987.

*ISBD(ER): International Standard Bibliographic Description for electronic resources*. Munich: K.G. Saur, 1997.

*ISBD(G): general International Standard Bibliographic Description*. annotated text, rev. ed. Munich; New York: K.G. Saur, 1992.

*ISBD(M): International Standard Bibliographic Description for monographic publications*. rev ed. London: IFLA Universal Bibliographic Control and International MARC Programme, 1987.

*ISBD(NBM): International Standard Bibliographic Description for non-book materials*. rev. ed. London: IFLA Universal Bibliographic Control and International MARC Programme, 1987.

*ISBD(PM): International Standard Bibliographic Description for printed music*. 2nd rev. ed. New York: K.G. Saur, 1991.

*ISBD(S): International Standard Bibliographic Description for serials*. rev ed. London: IFLA Universal Bibliographic Control and International MARC Programme, 1988.

<sup>31</sup> *Anglo-American cataloguing rules*. 2nd ed. 1998 rev. Ottawa; Chicago: Canadian Library Association; American Library Association, 1998.

<sup>32</sup> Leader, character position 18, code a or i in the MARC 21 format. At least one major bibliographic utility in the United States, for example, supplies ISBD punctuation on printed catalogue cards, but does not supply it in machine-readable records sent on tape for downloading into local systems; thus, it is up to local systems to supply it on display. NOTE: Many systems will have older records that were not catalogued according to ISBD and therefore are not meant to have

Display constants called for by the cataloging rules themselves should be supplied by systems as needed.

### Single bibliographic principle 3

**Supply other punctuation or text when necessary.**

When other standards employed by the library require the system to supply punctuation or text in displays, be sure to do so. For example, the system should supply display constants as required by the MARC 21 format, and, e.g., substitute dashes for subfield codes ≠v, ≠x, ≠y, and ≠z in subject heading (6XX) fields, etc.

### Single bibliographic principle 4

**Make the default single-record display the full display.<sup>33</sup>**

Full displays are particularly important for nonbook materials, serials, electronic resources, and collective works containing contents notes. The full display is recommended even for children's libraries (where it is common practice to let computers shorten displays, based on tags in the MARC 21 format). The problem is that the MARC 21 format does not let one label notes either as *IMPORTANT--always display, even to children*, or as *Need not display to children*. Therefore, it is strongly recommended that children's libraries and other types of libraries that desire a record that is not as full as those used in large research libraries (from which most shared cataloging is derived) utilize human editors to edit their cataloging records to meet their specifications, rather than relying on the arbitrary elimination from display of fields by a computer algorithm. Certainly shorter displays should be offered as options in any type of library (to be selected by the user for individual record display, for setting for the entire OPAC session, or for formatting print-outs of records), but it is dangerous to impose it on users as a default, as much

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ISBD punctuation supplied, so it is important that the generation of ISBD punctuation in displays occur only on records coded as ISBD-based.

<sup>33</sup> By full display is meant display of all bibliographic fields; of course, this does not mean that it would be required to display call numbers in the bibliographic record that have not actually been used to locate materials in the library, unless these were to be used in a classified catalogue for provision of subject access under more than one classification number (in which case it would be important to distinguish in displays between a call number that *is* used for location information, and a classification number that is used only for subject access).

important information (important even to children and their parents!) is found in fields that are often left out of short displays (see **Figures 19 and 20**).

### **SINGLE BIBLIOGRAPHIC RECORD DISPLAY RECOMMENDATIONS**

#### **SB.1. Display of a single bibliographic record**

**SB.1.a.** Include all bibliographic (non-coded) fields in the default single-record display, including, in the following order, the work heading, the bibliographic description, and the tracings (i.e. all of the bibliographic fields that make up the bibliographic entry)<sup>34</sup> (see **Single bibliographic principle 4**; see also **Figure 19**). If holdings are available, display them at the bottom of the record, after the tracings.

**SB.1.b.** Give users the option of asking for one or more shorter displays as a setting for the entire session, as a one-time display command or as an option for printing out multiple selected records. Allow users to set the display to include or not include item and holdings information. Always include a clearly visible reset-to-default-display icon or something similar (see **Single bibliographic principle 4**).

**SB.1.c.** Always allow the user the option of requesting a display of the full MARC 21 record that underlies any particular single-record display, including bibliographic, holdings and authority record displays. Remember that librarians from outside the library may not have access to your records except through the OPAC. Also, MARC 21 records have great potential for allowing knowledgeable users increased power to format single-record displays on their work-stations however they would like, including or dropping any type of field, or putting fields in any desired order. Also, bibliographic citation software applied to downloaded records could use MARC 21 tags, indicators and subfield codes to gain power over downloaded data and perform complex record manipulation and record format design. OPACs should offer HELP screens to explain the potential

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<sup>34</sup> See glossary for definitions of **Bibliographic fields**, **Coded data fields**, **Work heading**, **Bibliographic description**, **Tracings** and **Bibliographic entry**.

uses of this display to inquiring users. Always include a clearly visible reset-to-default-display icon or something similar.

- SB.1.d.** Display tracings and classification numbers. Allow users to select any heading in the tracings and navigate from it to its place in the authority file (for subdivisions and *see also* references) and from there to other bibliographic records containing that heading (see **Single bibliographic principle 4**; see also **Figure 20**). Also allow users to select the classification number and navigate from it to its place in the classification scheme (see **Classification principle 1**; see also **Figure 34**). Tracings should display in an order that is consistent from one record to another in the system. Labels, such as *Subjects* and *Other names and titles*, may be useful for clarifying to users what these are. Each heading in the tracings should start on a new line, and be displayed horizontally in a numbered sequence.
- SB.1.e.** Make the default single-record display an unlabelled display, other than the labels recommended above for tracings. There are three reasons to avoid the use of labels for the elements of a bibliographic description:<sup>35</sup> 1) Users usually do not have the vocabulary needed to describe the elements of a bibliographic description, although they can recognize the information when they see it. 2) Often there is no adequate vocabulary to describe the types of data that can occur in a given field. An example is the X00 field in the MARC 21 format. *Author* is a misleading description of a field that can contain musical performers, photographers, collectors of documents, and defendants in court cases. X10 fields in MARC 21 can also be difficult to explain to users. The term *corporate headings* may not be recognizable to very many library users (see **Figure 21**). 3) An unlabelled display is more compact and takes up less space, thus allowing more records to fit on the screen, making it easier to scan multiple records (see **General principle 9**; see also **Single bibliographic principles 2 and 3**, concerning the use

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<sup>35</sup> That is, avoid the use of labels other than those display constants specifically called for by the various cataloging codes, some of which may need to be automatically generated according to the MARC 21 format (see **SB.1.h**).

of ISBD punctuation and display constants to identify the elements of the description; see also **SB.1.f**).

- SB.1.f.** If it is desired to provide users with a labelled display as an option, or if the system used requires it, try to use language that is familiar and readily comprehensible to the users of the library, as well as accurate concerning the likely contents of the labelled field. Explain the labels in a readily available HELP screen. However, it is unlikely that language that is both familiar to users (see below) and accurate can be developed. Thus, for the sake of accurate labelling at least, the only choice would be to label any given field using the name given that field in the cataloging rules or the machine-readable format employed by the library. For example, the accurate label for the first field in each example in **Figure 21** is *Main entry--Personal name*, the MARC 21 name for the 100 field; *Author* is not an accurate label, as the field is not defined so as to contain only authors.<sup>36</sup> Since *main entry* is probably not a phrase understood by many non-librarians, a better solution would be to avoid labelling the 100 field as we recommend. The one exception to this recommendation is that we do recommend the use of labels for the tracings, since the user may not be able to recognize what these are as readily as he or she can recognize the elements of the description. Try to use labels that correspond to the names of the indexes that contain the headings listed. For example, if you have called your subject index *Subject*, label your subject heading tracings as *Subject(s)*.
- SB.1.g.** Display fields in the order set by the cataloger, according to international standards (ISBD and cataloging rules based on them), regardless of the number of the field's tag in the MARC 21 format. Never re-order fields based on numerical tags in the MARC 21 format (see **Single bibliographic principles 1 and 2**).
- SB.1.h.** Support all display constants defined in the MARC 21 format, including those driven by indicators (see **Single bibliographic principles 2 and 3**).

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<sup>36</sup> See footnote 3.

- SB.1.i.** Convert indicators and subfield codes in electronic location and access fields (856 in MARC 21) into human-readable labels preceding the data contained in the field and subfields. This is important since an 856 field may contain any one of the following: 1) a Uniform Resource Locator (URL) for the document described in the record containing the 856 field; 2) a URL for a different format version (different manifestation) of the document described in the record; or even 3) a URL for a manifestation of a different expression or a manifestation of an expression of a different related work. Users of the OPAC should be warned ahead of time about where the URL will take them if they select it, and this can occur only if useful displays of this field and its indicators and subfields are provided. A record can legitimately contain more than one 856 field, and when it does, all should display (see **Work heading principle 1**; see also **Figure 22**).
- SB.1.j.** Systems should supply only ISBD punctuation that is required by cataloging rules and is not already present. All ISBD punctuation already present in the bibliographic record should also display (see **Single bibliographic principle 2**).
- SB.1.k.** If information from circulation, acquisitions, serials check-in and/or bindery systems, etc. is readily available, indicate in the single-record display whether the item is known to be circulating, on order, in a special location or at the bindery.



## FIGURES

### **FIGURE 1.** Comparisons of headings displays with displays that bypass headings displays

**Example 1.** Results of a name search on *Tristram Coffin*.

[These would be possible displays for the following types of search:

keyword-within-heading name search

exact-beginning name search on *Coffin, Tristram*, truncated after *Tristram*

phrase search of headings only on *Coffin, Tristram*

NOTE: Some systems will call a *name* search an *author* search.]

**1A. POOR** (Immediate display of bibliographic records, bypassing heading display (in a system that arranges brief displays by title):

Line no.      Title:

[available  
for selection]

1. The British traditional ballad in North America. c1977.
2. The female hero in folklore and legend. 1975.
3. Folklore from the working folk of America. 1973.
4. Folksong & folksong scholarship. 1964.
5. Indian tales of North America : an anthology for the adult reader. 1961.
6. Mine eyes have seen the glory : a novel. 1964.
7. Not to the swift : a novel. 1961.
8. Our living traditions : an introduction to American folklore. 1968.
9. The passion of the Hawks : militarism in modern America. 1964.
10. The proper book of sexual folklore. 1978.
11. Senator Fulbright. 1967, c1966.
12. The sex kick : eroticism in modern America. c1966.

**FIGURE 1, cont.**

**1B. BETTER** (Immediate display of bibliographic records, bypassing heading display (in a system that arranges brief displays by work heading):

Line no.      Name and title:  
[available  
for selection]

1. Coffin, Tristram, 1912- Mine eyes have seen the glory : a novel. 1964.
2. Coffin, Tristram, 1912- Not to the swift : a novel. 1961.
3. Coffin, Tristram, 1912- The passion of the Hawks : militarism in modern America. 1964.
4. Coffin, Tristram, 1912- Senator Fulbright. 1967, c1966.
5. Coffin, Tristram, 1912- The sex kick : eroticism in modern America. c1966.
6. Coffin, Tristram Potter, 1922- The British traditional ballad in North America. c1977.
7. Coffin, Tristram Potter, 1922- The female hero in folklore and legend. 1975.
8. Coffin, Tristram Potter, 1922- Folklore from the working folk of America. 1973.
9. Coffin, Tristram Potter, 1922- Folksong & folksong scholarship. 1964.
10. Coffin, Tristram Potter, 1922- Indian tales of North America : an anthology for the adult reader. 1961.
11. Coffin, Tristram Potter, 1922- Our living traditions : an introduction to American folklore. 1968.
12. Coffin, Tristram Potter, 1922- The proper book of sexual folklore. 1978.

**FIGURE 1, cont.**

**1C. EVEN BETTER** (Display of the results of the same search by headings matched)<sup>37</sup>:

**Coffin, Tristram**, 1912-

1. Mine eyes have seen the glory : a novel. 1964.
2. Not to the swift : a novel. 1961.
3. The passion of the Hawks : militarism in modern America. 1964.
4. Senator Fulbright. 1967, c1966.
5. The sex kick : eroticism in modern America. c1966.

**Coffin, Tristram** Potter, 1922-

6. The British traditional ballad in North America. c1977.
7. The female hero in folklore and legend. 1975.
8. Folklore from the working folk of America. 1973.
9. Folksong & folksong scholarship. 1964.
10. Indian tales of North America : an anthology for the adult reader. 1961.
11. Our living traditions : an introduction to American folklore. 1968.
12. The proper book of sexual folklore. 1978.

A display that does not repeat the principal author's or corporate body's name in the work heading for each listed work is much more compact and scannable than one that does.

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<sup>37</sup> In most systems, this display would probably take place in two stages, with the headings being displayed first, and the bibliographic records being displayed only after a particular heading was selected. Note the usefulness of the illustrated one-stage approach to display, however, for a user who is not sure which Coffin is the one he or she is looking for. The one-stage display shows the types of work each Coffin writes in the initial results display. The work headings display (1B) does this, too, but takes up more space and is harder to scan. The one-stage display would not be ideal for displaying thousands of records retrieved, but might be a useful option for retrieving a smaller number of records.

**FIGURE 1, Example 1C, cont.**

More common alternate (EVEN BETTER) display:

First screen seen by user:

Line no. [available for selection]	Name:	No. of records:
1.	Coffin, Tristram, 1912-	5
2.	Coffin, Tristram Potter, 1922-	7

Second screen, result of choice of line 2 above:

- Coffin, Tristram Potter, 1922-
1. The British traditional ballad in North America. c1977.
  2. The female hero in folklore and legend. 1975.
  3. Folklore from the working folk of America. 1973.
  4. Folksong & folksong scholarship. 1964.
  5. Indian tales of North America : an anthology for the adult reader. 1961.
  6. Our living traditions : an introduction to American folklore. 1968.
  7. The proper book of sexual folklore. 1978.

**FIGURE 1, cont.**

**Example 2.** Results of a keyword-within-heading search for the name *Cummings*, with given name specified as beginning with *e* (*e* [truncation symbol] in some systems)

**2A. POOR** (Immediate display of bibliographic records, bypassing headings display):

Line no.      Title:  
[available  
for selection]

1. 1 x 1. 1944.
2. The companion to St. Paul's Cathedral. 1869.
3. Complete poems, 1913-1962. 1981.
4. Eimi. 1933.
5. Guidelines for consulting with the Department of Fish and Game on projects subject to CEQA that may affect endangered and threatened species. 1986.
6. Him. 1927.
7. No thanks. 1935.
8. Pots, pans and millions : a study of woman's right to be in business. 1929.
9. Puella mea. 1923.
10. Soil survey of Clay County, Florida. 1989.
11. Tom. 1935.

**FIGURE 1, cont.**

**2B. BETTER** (Immediate display of bibliographic records, bypassing heading display (in a system that arranges brief displays by work heading):

Line no.      Name and title:  
[available  
for selection]

1. Cummings, E. E. (Edward Estlin), 1894-1962. 1 x 1. 1944.
2. Cummings, E. E. (Edward Estlin), 1894-1962. Complete poems, 1913-1962. 1981.
3. Cummings, E. E. (Edward Estlin), 1894-1962. Eimi. 1933.
4. Cummings, E. E. (Edward Estlin), 1894-1962. Him. 1927.
5. Cummings, E. E. (Edward Estlin), 1894-1962. No thanks. 1935.
6. Cummings, E. E. (Edward Estlin), 1894-1962. Puella mea. 1923.
7. Cummings, E. E. (Edward Estlin), 1894-1962. Tom. 1935.
8. Cummings, E. M. The companion to St. Paul's Cathedral. 1869.
9. Cummings, Earle W. Guidelines for consulting with the Department of Fish and Game on projects subject to CEQA that may affect endangered and threatened species. 1986.
10. Cummings, Eddie. Soil survey of Clay County, Florida. 1989.
11. Cummings, Edith Mae Cunliffe, b. 1888. Pots, pans and millions : a study of woman's right to be in business. 1929.

**FIGURE 1, cont.**

**2C. EVEN BETTER** (Displaying first by headings matched produces clearly superior results):

**Cummings, E.** E. (Edward Estlin), 1894-1962.

1. 1 x 1. 1944.
2. Complete poems, 1913-1962. 1981.
3. Eimi. 1933.
4. Him. 1927.
5. No thanks. 1935.
6. Puella mea. 1923.
7. Tom. 1935.

**Cummings, E.** M.

8. The companion to St. Paul's Cathedral. 1869.

**Cummings, Earle W.**

9. Guidelines for consulting with the Department of Fish and Game on projects subject to CEQA that may affect endangered and threatened species. 1986.

**Cummings, Eddie.**

10. Soil survey of Clay County, Florida. 1989.

**Cummings, Edith Mae Cunliffe, b. 1888.**

11. Pots, pans and millions : a study of woman's right to be in business. 1929.

**FIGURE 1, Example 2C, cont.**

More common alternate (EVEN BETTER) display:

First screen seen by user:

Line no. [available for selection]	Name:	No. of records:
1.	Cummings, E. E. (Edward Estlin), 1894-1962.	7
2.	Cummings, E. M.	1
3.	Cummings, Earle W.	1
4.	Cummings, Eddie.	1
5.	Cummings, Edith Mae Cunliffe, b. 1888.	1

Second screen, result of choice of line 1 above:

- Cummings, E. E. (Edward Estlin), 1894-1962.
1. 1 x 1. 1944.
  2. Complete poems, 1913-1962. 1981.
  3. Eimi. 1933.
  4. Him. 1927.
  5. No thanks. 1935.
  6. Puella mea. 1923.
  7. Tom. 1935.

**FIGURE 1, cont.**

**Example 3.** Results of a keyword-within-heading search for a conference in a conference headings index, using the keyword *intelligent*

**3A. POOR** (Immediate display of bibliographic records, bypassing headings display in a system that arranges brief displays by title; note how many entries begin with the word *proceedings*, or begin with ordinal numbers such as *second*):

Line no.      Title:  
[available  
for selection]

1. ANZIIS 94. c1994.
2. Conference on Intelligent Robotics in Field, Factory, Service, and Space (CIRFFSS '94). 1994.
3. First International Conference on Intelligent Systems Engineering, 19-21 August 1992. c1992.
4. First International Conference on Intelligent Systems in Process Engineering, proceedings of the conference held at Snowmass, Colorado, July 9-14, 1995. c1996.
5. Foundations of intelligent systems. c1996.
6. Intelligent Network '96. c1996.
7. Methodologies for intelligent systems. c1994.
8. MFI '94. c1994.
9. Proceedings. c1991.
10. Proceedings. c1993.
12. Proceedings. c1993.
13. Proceedings. c1995.
14. Proceedings of the 1993 International Workshop on Intelligent User Interfaces, January 4-7, 1993, Orlando, Florida. c1992.
14. Proceedings of the 1994 IEEE International Symposium on Intelligent Control, 16-18 August 1994, Holiday Inn Crowne Plaza, Columbus, Ohio, USA. c1994.
15. Proceedings of the 1995 IEEE International Symposium on Intelligent Control, August 27-19, 1995, Monterey Marriott Hotel, Monterey, California, 93940, USA. c1995.
16. Proceedings of the 1996 IEEE International Symposium on Intelligent Control. c1996.
17. Proceedings of the Second World Congress on Intelligent Transport Systems. 1995.

**FIGURE 1, Example 3A, cont.**

18. Safety, reliability, and applications of emerging intelligent control technologies. 1995.
19. Second International Conference on "Intelligent Systems Engineering," 5-9 September 1994, venue, Technical University of Hamburg--Harburg, Germany. c1994.
20. Third International Conference on Intelligent Materials, Third European Conference on Smart Structures and Materials, Lyon, 3-4-5 June 1996, Center of Congress "L'Espace tete d'or." c1996.

**FIGURE 1, cont.**

**3B. BETTER** (Immediate display of bibliographic records, bypassing heading display (in a system that arranges brief displays by work heading):

Line no.      Name and title:  
[available  
for selection]

1.            Australian and New Zealand Conference on **Intelligent** Information Systems (2nd : 1994 : Brisbane, Qld.)  
ANZIIS 94. c1994. Management Library. QA 76.76 E95 A96  
1994
2.            Conference on **Intelligent** Robotic Systems for Space Exploration (3rd : 1991 : Rensselaer Polytechnic Institute)  
Proceedings. c1991. Engineering Library. TL 787 C634 1991
3.            Conference on **Intelligent** Robotics in Field, Factory, Service and Space (1st : 1994 : Houston, Tex.)  
Conference on Intelligent Robotics in Field, Factory, Service, and Space (CIRFFSS '94). 1994. Engineering Library. TJ 210.3 C654  
1994
4.            IEEE **Intelligent** Network Workshop (1996 : Melbourne, Australia)  
Intelligent Network '96. c1996. Engineering Library. TK 5101  
A1 I4829 1996
5.            IEEE International Conference on Multisensor Fusion and Integration for **Intelligent** Systems (1994 : Las Vegas, Nev.)  
MFI '94. c1994. Engineering Library. TJ 210.3 I33 1994
6.            IEEE International Symposium on **Intelligent** Control (1993 : Chicago, Ill.)  
Proceedings. c1993. Engineering Library. TJ 212.2 I2 1993
7.            IEEE International Symposium on **Intelligent** Control (1994 : Columbus, Ohio)  
Proceedings of the 1994 IEEE International Symposium on Intelligent Control, 16-18 August 1994, Holiday Inn Crowne Plaza, Columbus, Ohio, USA. c1994. Engineering Library. TJ 212.2 I2 1994
8.            IEEE International Symposium on **Intelligent** Control (1995 : Monterey, Calif.)  
Proceedings of the 1995 IEEE International Symposium on Intelligent Control, August 27-19, 1995, Monterey Marriott Hotel, Monterey, California, 93940, USA. c1995. Engineering Library. TJ 217.5 I33 1995

**FIGURE 1, Example 3B, cont.**

9. IEEE International Symposium on **Intelligent** Control (1996 : Dearborn, Mich.)  
Proceedings of the 1996 IEEE International Symposium on Intelligent Control. c1996. Engineering Library. TJ 217.5 I33 1996
10. IFAC Workshop on Safety, Reliability, and Applications of Emerging **Intelligent** Control Technologies (1994 : Hong Kong)  
Safety, reliability, and applications of emerging intelligent control technologies. 1995. Remote storage.
11. International Conference on **Intelligent** and Cooperative Information Systems (1993 : Rotterdam, Netherlands)  
Proceedings. c1993. Engineering Library. QA 76.76 E95 I576 1993
12. International Conference on **Intelligent** Manufacturing (1995 : Wu-han shih, China)  
Proceedings. c1995. Engineering Library. TS 155.63 I58 1995
13. International Conference on **Intelligent** Materials (3rd : 1996 : Lyon, France)  
Third International Conference on Intelligent Materials, Third European Conference on Smart Structures and Materials, Lyon, 3-4-5 June 1996, Center of Congress "L'Espace tete d'or." c1996. Engineering Library. TA 418.9 S62 I57 1996
14. International Conference on **Intelligent** Systems Engineering (1st : 1992 : Heriot-Watt University)  
First International Conference on Intelligent Systems Engineering, 19-21 August 1992. c1992. Engineering Library. TA 168 I58 1992
15. International Conference on **Intelligent** Systems Engineering (2nd : 1994 : Technical University of Hamburg-Harburg)  
Second International Conference on "Intelligent Systems Engineering," 5-9 September 1994, venue, Technical University of Hamburg-Harburg, Germany. c1994. Engineering Library. TA 168 I58 1994
16. International Conference on **Intelligent** Systems in Process Engineering (1995 : Snowmass, Colo.)  
First International Conference on Intelligent Systems in Process Engineering, proceedings of the conference held at Snowmass, Colorado, July 9-14, 1995. c1996. Engineering Library. TP 155.75 I554 1995

**FIGURE 1, Example 3B, cont.**

17. International Symposium on Methodologies for **Intelligent** Systems  
(8th : 1994 : Charlotte, N.C.)  
Methodologies for intelligent systems. c1994. Management  
Library. QA 76.76 E95 I582 1994
18. International Symposium on Methodologies for **Intelligent** Systems  
(9th : 1996 : Zakopane, Poland)  
Foundations of intelligent systems. c1996. Management  
Library. QA 76.76 E95 I582 1996
19. International Workshop on **Intelligent** User Interfaces (1993 :  
Orlando, Fla.)  
Proceedings of the 1993 International Workshop on Intelligent  
User Interfaces, January 4-7, 1993, Orlando, Florida. c1992.  
Management Library. QA 76.9 H85 I6 1993
20. World Congress on **Intelligent** Transport Systems (2nd : 1995 :  
Yokohama, Japan)  
Proceedings of the Second World Congress on Intelligent  
Transport Systems. 1995. Engineering Library. TE 228.3 W67 1995

**FIGURE 1, cont.**

**3C. EVEN BETTER** (Again, displaying first by headings matched produces clearly superior results. Results are superior to the display by work heading, as well, because more compact and easier to scan):

Line no.      Name:  
[available  
for selection]

1. Australian and New Zealand Conference on **Intelligent** Information Systems (2nd : 1994 : Brisbane, Qld.)
2. Conference on **Intelligent** Robotic Systems for Space Exploration (3rd : 1991 : Rensselaer Polytechnic Institute)
3. Conference on **Intelligent** Robotics in Field, Factory, Service and Space (1st : 1994 : Houston, Tex.)
4. IEEE **Intelligent** Network Workshop (1996 : Melbourne, Australia)
5. IEEE International Conference on Multisensor Fusion and Integration for **Intelligent** Systems (1994 : Las Vegas, Nev.)
6. IEEE International Symposium on **Intelligent** Control (1993 : Chicago, Ill.)
7. IEEE International Symposium on **Intelligent** Control (1994 : Columbus, Ohio)
8. IEEE International Symposium on **Intelligent** Control (1995 : Monterey, Calif.)
9. IEEE International Symposium on **Intelligent** Control (1996 : Dearborn, Mich.)
10. IFAC Workshop on Safety, Reliability, and Applications of Emerging **Intelligent** Control Technologies (1994 : Hong Kong)
11. International Conference on **Intelligent** and Cooperative Information Systems (1993 : Rotterdam, Netherlands)
12. International Conference on **Intelligent** Manufacturing (1995 : Wu-han shih, China)

**FIGURE 1, Example 3C, cont.**

13. International Conference on **Intelligent** Materials (3rd : 1996 : Lyon, France)
14. International Conference on **Intelligent** Systems Engineering (1st : 1992 : Heriot-Watt University)
15. International Conference on **Intelligent** Systems Engineering (2nd : 1994 : Technical University of Hamburg-Harburg)
16. International Conference on **Intelligent** Systems in Process Engineering (1995 : Snowmass, Colo.)
17. International Symposium on Methodologies for **Intelligent** Systems (8th : 1994 : Charlotte, N.C.)
18. International Symposium on Methodologies for **Intelligent** Systems (9th : 1996 : Zakopane, Poland)
19. International Workshop on **Intelligent** User Interfaces (1993 : Orlando, Fla.)
20. World Congress on **Intelligent** Transport Systems (2nd : 1995 : Yokohama, Japan)

**FIGURE 1, cont.**

**Example 4.** Comparison of the results of two kinds of subject keyword search on *Paris* in a collection of newsreels

**4A. POOR** (Immediate display of bibliographic records matched with a keyword-within-record search on subject heading fields. This search needs to be an option for allowing matching on two or more subject headings<sup>38</sup>, but should never be the default search because 1) it rules out a headings display (which is why we address it in these guidelines for display); and 2) it rules out matches on *see* and *see also* references):

Line no.      Title:  
[available  
for selection]

1.      [Les Copains--students in Paris. Hearst vault material, VMc5762r9A, D65497]. [ca. 1963]
2.      Die Deutsche Wochenschau. [Nr. 543]. [1941-02]
3.      Hearst Metrotone news. [Vol. 1, no. 216]. [1929-11-23]
4.      Hearst Metrotone news. [Vol. 1, no. 254]. [1930-04-09]
5.      Hearst Metrotone news. [Vol. 1, no. 255]. [1930-04-09]
6.      Hearst Metrotone news. [Vol. 3, no. 221]. [1931-12-09]
7.      Hearst Metrotone news. [Vol. 3, no. 274]. [1932-06-11]
8.      [Humez wins over Langlois! Hearst vault material, HVMc3941r7 D32092]. [1955-03-02]
9.      [A new craze dance--the Monkiss. Hearst vault material, HVMc6178r4, D78560]. [1965-12-20]
10.     News of the day. [Vol. 23, no. 209--excerpt. International boxing! Paris, France]. [1951-09-27]
11.     UfA. Nr. 572. [ca. 1942-08]

---

<sup>38</sup> Research has shown that only between 4% and 21% of subject searches match on more than one subject heading. See: Yee, Martha M. and Sara Shatford Layne. *Improving Online Public Access Catalogs*. Chicago: American Library Association, 1998. p. 157.

**FIGURE 1, cont.**

**4B. BETTER** (Headings display of subject headings matched with a keyword-within-heading search):

Line no. [available for selection]	Subject:	No. of records:
1.	Arc de Triomphe de l'Etoile (Paris, France)	1
2.	Bands (Music)--France--Paris.	1
3.	Bicycle racing--France--Paris.	2
4.	Birds--France--Paris.	1
5.	Boxing--France--Paris--Matches.	2
6.	Carnival--France--Paris.	1
7.	Children's zoos--France--Paris.	1
8.	Concerts--France--Paris.	1
9.	Demonstrations--France--Paris.	1

**FIGURE 2. Example of a name-title heading**

A name-title heading for Mark Twain's book *Pudd'nhead Wilson* would look like this:

Twain, Mark, 1835-1910. *Pudd'nhead Wilson*.

It should not be retrieved on a search of name headings for a person named Mark Wilson. However, it should display under the heading for Mark Twain in the name index.

**FIGURE 3. Examples of selectable references**

**Example 1.** Example of a selectable *see* reference:

[This would be a possible display for the following types of search:  
keyword-within-heading subject search for *creativity*  
exact-beginning subject search for *creativity*  
phrase search of headings only for *creativity*]

Line no. [available for selection]	Subject:	No. of records:
12.	Creativity (term used in this catalog: Creative ability)	43

**FIGURE 3, cont.****Example 2.** Displays of related term *see also* references:

This would be a possible display for the user who selected 7 works related to Afro-Americans--Civil rights after the heading *Afro-Americans--Civil rights*, found in any kind of a subject heading search; (the heading itself is compressed; to see subdivisions under it, it would have to be selected in its own right):

Line no. [available for selection]	Subject:	No. of records: Heading alone/ Heading with sub- divisions
1.	Afro-Americans--Civil rights <u>Information about this term</u>	469
	<u>Related works are also found under the broader subjects:</u> <sup>39</sup>	
2.	Civil rights--United States	843/1295
3.	Race discrimination--United States	120/165
	<u>Related works are also found under the narrower subjects:</u> <sup>40</sup>	
4.	Afro-Americans--Suffrage	108/132
5.	Black power--United States	45/60
6.	Civil rights workers--United States	1/127
7.	Poor People's Campaign	7
8.	Selma-Montgomery Rights March, 1965	6/8

---

<sup>39</sup> Could be derived from MARC 21 authority format ≠w code g for *broader term* after the *see also* (5XX) reference.

<sup>40</sup> Could be derived from MARC 21 authority format ≠w code h for *narrower term* after the *see also* (5XX) reference.

**FIGURE 3, Example 2, cont.**

**Alternative:** possible display when the user has selected a single subject heading:

[The selection of the subject heading would be a possible result for the following types of search:

- keyword-within-heading subject search for *bombings*
- exact-beginning subject search for *bombings*
- phrase search of headings only for *bombings*

It would also be a possible result of the selection of the hot-linked subject heading *Bombings* in a single-record display retrieved using any type of search.]

Display that results after the heading has been selected:

**Bombings**

Akerman, M. A. Characterization of explosive devices in luggage. 1993.

CNN presents Acts of terror. c1996.

Johns, Jeffrey F. The changing face of terrorism. 1999.

Macdonald, John M. (John Marshall), 1920- Bombers and firesetters. 1977.

Wharton, Francis, 1820-1889. Dynamiting and extra-territorial crime. 1885.

6 subjects related to Bombings

**When the user selects the hyperlink, the following display could result:**

**Bombings.**

Synonym(s) for this term: Bomb attacks  
Terrorist bombings

Line no. [available for selection]	Subject:	No. of records: Heading alone/ Heading with sub- divisions
Broader subject(s):	<u>Offenses against public safety</u>	2/27
	<u>Political crimes and offenses</u>	48/529
	<u>Political violence</u>	10/120
	<u>Terrorism</u>	453/1823
Narrower subject(s):	<u>Mail bombings</u>	0/1
Related subject(s):	<u>Bombs</u>	3/5

**FIGURE 4. Displays following the principle of sorting elements contrasted with those that do not**

Note that in each of these examples, in a catalog for a library of any size, there would be many more headings than depicted in the example separating headings that users need to view together.

**Example 1.** Display of serial titles.

[This would be a possible display for the following types of search:

keyword-within-heading title search for *health*, limited to serials

exact-beginning title search for *health*, limited to serials

phrase search (in a title headings index) for *health*, limited to serials]

**1A POOR** (Display that does not follow the principle of sorting elements):

1. Health advocate.
2. Health alert.
3. Health (Canberra, Australia)
4. Health care costs.
5. Health care management review.
6. Health (Chicago, Ill.)
7. Health cost review.
8. Health (New York, N.Y. : 1981)
9. Health news.
10. Health reports.
11. Health (San Francisco, Calif.)

**FIGURE 4, cont.**

**1B BETTER** (Display following the principle of sorting elements):

1. Health (Canberra, A.C.T.)
2. Health (Chicago, Ill.)
3. Health (New York, N.Y. : 1981)
4. Health (San Francisco, Calif.)
5. Health advocate.
6. Health alert.
7. Health care costs.
8. Health care management review.
9. Health cost review.
10. Health news.
11. Health reports.

**FIGURE 4, cont.****Example 2.** Display of subject headings

[This would be a possible display for the following types of search:

keyword-within-heading subject search for *power*

exact-beginning subject search for *power*

phrase search (in a subject headings index) for *power*]

**2A POOR** (Display not using sorting elements, uncompressed):

Line no. [available for selection]	Subject:	No. of records:
1.	Power lawn mowers	1
2.	Power (Mechanics)	102
3.	--Congresses	108
4.	--Dictionaries	8
5.	Power of attorney	15
6.	Power (Philosophy)	300
7.	Power presses	9
8.	Power (Social sciences)	226

**2B BETTER** (Display using sorting elements, uncompressed):

Line no. [available for selection]	Subject:	No. of records:
1.	Power (Mechanics)	102
2.	--Congresses	108
3.	--Dictionaries	8
4.	Power (Philosophy)	300
5.	Power (Social sciences)	226
6.	Power lawn mowers	1
7.	Power of attorney	15
8.	Power presses	9

**FIGURE 5. Examples of LCSH headings that are correct only if subfield codes are left in the order input**

[The following subfield codes would be correct for MARC 21.]

Authors, American ≠y 19th century ≠v Biography.

Meaning: A work consisting of a number of biographies of 19th century American authors

Rome ≠x History ≠y Civil War, 49-48 B.C. ≠v Poetry.

Meaning: A collection of poetry on the topic of the Roman Civil War of 49-48 B.C.

**FIGURE 6.** Example of a compressed display of the results of a keyword-within-heading subject search on the term *colonization***Initial results display:**

Line no. [available for selection]	Subject:	No. of records:
1.	Africa--Colonization	147
2.	Afro-Americans--Colonization	240
	<u>information about this term</u>	
3.	Argentina--Colonization	11
4.	Brazil--Colonization	15
5.	Colonization + <sup>41</sup>	195
	<u>information about this term</u>	
	<u>12 subjects related to Colonization</u>	
6.	Jews--Colonization	120
	<u>information about this term</u>	
	<u>1 subject related to Jews--Colonization</u>	
7.	Texas--Colonization	5

Only if the user chose line 5 above, would the following display result:

**Colonization**

Subject 4 of 6

Line no. [available for selection]	Subject:	No. of records:
1.	Colonization	93
2.	--Bibliography	13
3.	--Congresses	1
4.	--Economic aspects	1
5.	--History +	82
6.	--Periodicals	1
7.	--Religious aspects	3
8.	--Terminology	1

---

<sup>41</sup> The '+' symbol is being used in these examples to signal the presence of further subdivisions in displays of subject headings that are compressed to the main heading on the initial results display.

**FIGURE 6, cont.**

The user who chose line 5 could see the following:

**Colonization--History**

Subject 5 of 8

Line no. [available for selection]	Subject:	No. of records:
1.	Colonization--History	76
2.	--19th century	2
3.	--20th century	1
4.	--Congresses	1
5.	--Outlines, syllabi, etc.	1
6.	--Sources	1

NOTE ON COMPRESSION: Some have advocated compressed displays that break down the subdivisions under main heading by categories such as *topical*, *geographic*, *chronological*, and *form/genre*. However, as the above example demonstrates, this would be complex due to the fact that such subdivisions can be combined in so many different ways. For example, would *Colonization--History--19th century--Sources* appear under *topical*, *chronological*, *form/genre*, or all three?

**FIGURE 7. Examples of logical sorting of headings****Example 1.** Chronological sort of LCSH history headings

[These would be possible displays for the following types of search:

keyword-within-heading subject search for *United States history*

exact-beginning subject search for *United States history*

phrase search (of headings only) for subject headings containing *United States history*

It would also be a possible result of the selection of the hot-linked subject heading *United States--History* in a single-record display retrieved using any type of search.]

**1A POOR** (The incorrect chronological sort of LCSH history headings):

Line no. [available for selection]	Subject:	No. of records:
1.	<b>United States--History</b> --1815-1861.	9
2.	--1969-	5
3.	--Civil War, 1861-1865.	45
4.	--Colonial period, ca. 1600-1775.	15
5.	--Revolution, 1775-1783.	25

**1B BETTER** (The correct chronological sort of LCSH history headings):

NOTE: At least one existing system can do this, using an algorithm applied only to  $\neq y$  subfields in 65X fields, whereby these particular subfields are sorted on the first numeric characters encountered, skipping over any alphabetic characters that precede them.

Line no. [available for selection]	Subject:	No. of records:
1.	<b>United States--History</b> --Colonial period, ca. 1600-1775.	15
2.	--Revolution, 1775-1783.	25
3.	--1815-1861.	9
4.	--Civil War, 1861-1865.	45
5.	--1969-	5

**FIGURE 7, cont.**

**FIGURE 7, cont.**

**Example 2.** Two methods of sorting the items in a selected series found by doing any type of title or series search that results in a title headings display; the following two methods of sorting should be available to anyone who selects a particular series from such a display. They should also be available to anyone who selects a hot-linked series heading in a single-record display.

**2A, In volume number order:**

**International series in experimental social psychology**

information about this series

1. v. 1. Cultures in contact. 1982. Education/Psychology Library. GN 496 C84 1982
2. v. 2. Howitt, Dennis. The mass media and social problems. 1982. Education/ Psychology Library. HM 258 H63 1982
3. v. 3. Pearce, Philip L. The social psychology of tourist behaviour. 1982. Education/Psychology Library. G 156 P4 1982
4. v. 4. Colman, Andrew M. Game theory and experimental games. 1982. Education/Psychology Library. QA 269 C59 1982
5. v. 5. Genius and eminence. 1983. Education/Psychology Library. BF 412 G43 1983

**2B, In order by work heading:**

**International series in experimental social psychology**

information about this series

1. Colman, Andrew M. Game theory and experimental games. 1982. (v. 4) Education/Psychology Library. QA 269 C59 1982
2. Cultures in contact. 1982. (v. 1) Education/Psychology Library. GN 496 C84 1982
3. Genius and eminence. 1983. (v. 5) Education/Psychology Library. BF 412 G43 1983
4. Howitt, Dennis. The mass media and social problems. 1982. (v. 2) Education/ Psychology Library. HM 258 H63 1982
5. Pearce, Philip L. The social psychology of tourist behaviour. 1982. (v. 3) Education/Psychology Library. G 156 P4 1982

**FIGURE 8. Examples of displays of works about an author, corporate body or work or related to a particular work**

**Example 1.** Display of the works by and about an author:

[This display should result whenever the Cummings heading has been selected.<sup>42</sup>]

**Cummings, E. E. (Edward Estlin), 1894-1962.**

**Work(s) by:**

Line no. [available for selection]	Title:	No. of records:
1.	1/20	1
2.	1 x 1	2
3.	50 poems	1
4.	73 poems	1
5.	95 poems	1
6.	Anthropos	1
7.	Bal negre	1
8.	By E.E. Cummings	1
9.	Chaire	2
10.	Christmas tree	1
11.	CIOPW	1
12.	Eimi	4
13.	The enormous room	6
14.	Him	2
15.	Hist whist	2
16.	The house that ate mosquito pie	1
17.	I	1
18.	Is 5	1
19.	Kaminguzu shishu	1
20.	Little tree	1
21.	No thanks	3
22.	Puella mea	1
23.	Santa Claus	2
24.	Tom	1

---

<sup>42</sup> It could be selected as the result of a keyword-in-headings search, an exact-beginning search, or a phrase search in a headings index. It could also be selected from a hot-linked single-record display. This is true of all subsequent displays shown in this document that result from selection of a heading.

**FIGURE 8, Example 1, cont.**

25.	Tulips & chimneys	3
26.	W	2

**Work(s) about Cummings, E. E. (Edward Estlin), 1894-1962:**

27. Adams, Robert Martin, 1915-  
Grasshopper's waltz : the poetry of E.E. Cummings. 1947.  
Research Library. PS 3505 C91 A7
28. Attaway, Kenneth R.  
E.E. Cummings' aloofness : an underlying theme in his  
poetry. 1969. Research Library. PS 3505 C91 A88
29. E.E. Cummings : a collection of critical essays. 1972. College Library.  
PS 3505 C91 F7c
30. Friedman, Norman.  
E.E. Cummings : the art of his poetry. 1960. Research Library.  
PS 3505 C91 F7
31. Kennedy, Richard S.  
Dreams in the mirror : a biography of E.E. Cummings. -- 1980.  
College Library. PS 3505 C91 K38
32. Norman, Charles, 1904-  
E.E. Cummings : the magic-maker. 1964. Research Library.  
PS 3505 C91 N7 1964
33. Whicher, Stephen E.  
The art of poetry : Cummings, Williams, Stevens. -- 1982.  
College Library. PS 324 W542

**FIGURE 8, Example 1, cont.**

**Alternative in a Web-based catalog:**

**Cummings, E. E. (Edward Estlin), 1894-1962.**

Line no. [available for selection]	<u>Information about this name</u> Title:	No. of records:
1.	1/20	1
2.	1 x 1	2
3.	50 poems	1
4.	73 poems	1
5.	95 poems	1
6.	Anthropos	1
7.	Bal negre	1
8.	By E.E. Cummings	1
9.	Chaire	2
10.	Christmas tree	1
11.	CIOPW	1
12.	Eimi	4
13.	The enormous room	6
14.	Him	2
15.	Hist whist	2
16.	The house that ate mosquito pie	1
17.	I	1
18.	Is 5	1
19.	Kaminguzu shishu	1
20.	Little tree	1
21.	No thanks	3
22.	Puella mea	1
23.	Santa Claus	2
24.	Tom	1
25.	Tulips & chimneys	3
26.	W	2

**Work(s) about Cummings, E. E. (Edward Estlin), 1894-1962**

**FIGURE 8, Example 1, cont.**

**When the hyperlink is chosen, the following display should result:**

**Work(s) about Cummings, E. E. (Edward Estlin), 1894-1962:**

1. Adams, Robert Martin, 1915-  
Grasshopper's waltz : the poetry of E.E. Cummings. 1947.  
Research Library. PS 3505 C91 A7
2. Attaway, Kenneth R.  
E.E. Cummings' aloofness : an underlying theme in his  
poetry. 1969. Research Library. PS 3505 C91 A88
3. E.E. Cummings : a collection of critical essays. 1972. College Library.  
PS 3505 C91 F7c
4. Friedman, Norman.  
E.E. Cummings : the art of his poetry. 1960. Research Library.  
PS 3505 C91 F7
5. Kennedy, Richard S.  
Dreams in the mirror : a biography of E.E. Cummings. -- 1980.  
College Library. PS 3505 C91 K38
6. Norman, Charles, 1904-  
E.E. Cummings : the magic-maker. 1964. Research Library.  
PS 3505 C91 N7 1964
7. Whicher, Stephen E.  
The art of poetry : Cummings, Williams, Stevens. -- 1982.  
College Library. PS 324 W542

**Example 2.** Useful display of the manifestations/expressions of a work:

[This display should result whenever the Shakespeare heading has been selected.]

**Initial results display:**

**Shakespeare, William, 1564-1616.**

Line no. [available for selection]	Title:	No. of records:
1.	All's well that ends well.	29

2.	Antony and Cleopatra.	84
3.	As you like it.	68
4.	Comedy of errors.	35
5.	Coriolanus.	61
6.	Cymbeline.	40
7.	Hamlet.	529
8.	Henry V.	99
9.	Henry VI.	58

**FIGURE 8, Example 2, cont.**

**When the user chooses line 3, for *As You Like It*, the following display could result:**

**Shakespeare, William, 1564-1616. As you like it.  
Work 3 of 9**

1. Manifestation(s)/expression(s)<sup>43</sup> of As you like it.
2. Work(s) about As you like it.<sup>44</sup>
3. Other work(s) related to As you like it.<sup>45</sup>
4. Performance(s) on sound recording<sup>46</sup>
5. Performance(s) on videorecording<sup>47</sup>
6. Film(s) based on As you like it<sup>48</sup>

---

<sup>43</sup> Despite the fact that FRBR uses the terms *manifestation* and *expression* to cover the concept of different records that contain the same work, the fact remains that these terms constitute part of a technical language familiar only to technical services librarians, and *edition* is a term that is widely used by reference librarians and library users for this concept. In the display examples provided in this text, we have sometimes used *edition*, and sometimes *manifestation/expression*. System designers and librarians will have to decide for themselves which term is most likely to communicate effectively with their OPAC users.

<sup>44</sup> In MARC 21, this would be derived from work headings found in 600, 610 and 611 fields with ≠t subfields, and 630 fields.

<sup>45</sup> In MARC 21, this would be derived from work headings found in 700, 710 and 711 fields with ≠t subfields, and 730 fields.

<sup>46</sup> These could be identified as follows in the MARC 21 format: 1) Work heading same (Shakespeare, William, 1564-1616. As you like it); 2) leader character position 06, code i for nonmusical sound recording.

<sup>47</sup> These could be identified as follows in the MARC 21 format: 1) Work heading same (Shakespeare, William, 1564-1616. As you like it); 2) leader character position 06, code g for projected medium.

<sup>48</sup> These could be identified as follows in the MARC 21 format: 1) Work heading used as 700 added entry (Shakespeare, William, 1564-1616. As you like it) on a record with a different work heading; 2) leader character position 06, code g for projected medium.

**FIGURE 8, Example 2, cont.**

When the user chooses line 1, for *As You Like It*, the following display could result:

**Shakespeare, William, 1564-1616. As you like it.**

Work 3 of 9

Manifestations/expressions:

- 1 As you like it / by William Shakespeare ; translated into modern English with analysis and commentary by Gary S. Michael. 1991.
- 2 As you like it / literary consultant, John Wilders. 1978.
- 3 As you like it / edited by Richard Knowles ; with a survey of criticism by Evelyn Joseph Mattern. 1977.
- 4 As you like it / William Shakespeare ; edited by Agnes Latham. 1975.
- 5 As you like it : an old-spelling and old-meaning edition, prepared by Christine Trautvetter. 1972.
- 6 As you like it / edited by Arthur Quiller-Couch & John Dover Wilson. 1957.
- 7 As you like it / by William Shakespeare ; a facsimile of the first folio text, with an introduction by J. Dover Wilson, and a list of modern readings. 1929.
- 8 As you like it : a comedy / by Mr. William Shakespear. 1734.

\*\*\*\*\*French & English:<sup>49</sup>

- 9 Comme il vous plaira = As you like it / Shakespeare ; introd. traduction et notes par J.-J. Mayoux. 1956.

\*\*\*\*\*Frisian:

- 10 As jiemme it lije meie : in blijspul / uut it Ingels fen William Shakspeare [sic] ; forfryske in mei forkleerjende noten forsjoen troch R. Posthumus. 1842.

\*\*\*\*\*Serbian:

- 11 Mleta ki trgovac ; Kako vam drago ; Ukro ena zlo a : komedije / Viljem Šekspir ; [preveli Velimir Ivojinovi ...et al.]. 1963

\*\*\*\*\*Slovenian

- 12 Kakor vam drago ; Kar ho ete ; Hamlet / W. Shakespeare ; [poslovenil Oton upan i ; prevod pregledal in opombe napisal Janko Moder]. 1968.

---

<sup>49</sup> Derived from ≠1 subfield in 240 field in MARC 21 format.

**FIGURE 8, Example 2, cont.**

**Alternative in a Web-based catalog:**

**Shakespeare, William, 1564-1616.**

**Information about this name**

<b>Line no.</b> [available for selection]	<b>Title:</b>	<b>No. of records:</b>
1.	All's well that ends well.	29
2.	Antony and Cleopatra.	84
3.	As you like it.	68
4.	Comedy of errors.	35
5.	Coriolanus.	61
6.	Cymbeline.	40
7.	Hamlet.	529
8.	Henry V.	99
9.	Henry VI.	58

**Work(s) about Shakespeare, William, 1564-1616**

**FIGURE 8, Example 2, cont.**

**When the user chooses line 3, for *As You Like It*, the following display could result:**

**Shakespeare, William, 1564-1616. *As you like it*.  
Work 3 of 9**

- 1 *As you like it* / by William Shakespeare ; translated into modern English with analysis and commentary by Gary S. Michael. 1991.
- 2 *As you like it* / literary consultant, John Wilders. 1978.
- 3 *As you like it* / edited by Richard Knowles ; with a survey of criticism by Evelyn Joseph Mattern. 1977.
- 4 *As you like it* / William Shakespeare ; edited by Agnes Latham. 1975.
- 5 *As you like it* : an old-spelling and old-meaning edition, prepared by Christine Trautvetter. 1972.
- 6 *As you like it* / edited by Arthur Quiller-Couch & John Dover Wilson. 1957.
- 7 *As you like it* / by William Shakespeare ; a facsimile of the first folio text, with an introduction by J. Dover Wilson, and a list of modern readings. 1929.
- 8 *As you like it* : a comedy / by Mr. William Shakespear. 1734.

\*\*\*\*\*French & English:

- 9 *Comme il vous plaira = As you like it* / Shakespeare ; introd. traduction et notes par J.-J. Mayoux. 1956.

\*\*\*\*\*Frisian:

- 10 *As jiemme it lije meie : in blijspul / uut it Ingels fen William Shakspeare [sic] ; forfryske in mei forkleerjende noten forsjoen troch R. Posthumus. 1842.*

\*\*\*\*\*Serbian:

- 11 *Mleta ki trgovac ; Kako vam drago ; Ukro ena zlo a : komedije / Viljem Šekspir ; [preveli Velimir ivojinovi ...et al.]. 1963*

**FIGURE 8, Example 2, cont.**

\*\*\*\*\*Slovenian

12 Kakor vam drago ; Kar ho ete ; Hamlet / W. Shakespeare ; [poslovenil Oton upan i ; prevod pregledal in opombe napisal Janko Moder]. 1968.

Work(s) about *As you like it*.

Other work(s) related to *As you like it*.

Performance(s) on sound recording

Performance(s) on videorecording

Film(s) based on *As you like it*

**Example 3. Display of works about an author**

[This display should result whenever the Malcolm X heading has been selected.]

**Initial results display:**

**X, Malcolm, 1925-1965.**

Name used in this catalog for:

Little, Malcolm, 1925-1965

**Works by:**

Line no. [available for selection]	Title:	No. of records:
1.	Autobiography of Malcolm X	16
2.	Ballots or bullets [sound recording]	1
3.	By any means necessary	1
4.	The end of white world supremacy	3
5.	Malcolm X on Afro-American history	2
6.	Malcolm X talks to young people	5
7.	The speeches of Malcolm X at Harvard	2

Work(s) about X, Malcolm, 1925-1965

**FIGURE 8, Example 3, cont.**

When the hyperlink is chosen, the following display should result:

**Work(s) about X, Malcolm, 1925-1965:**

Line no. [available for selection]	Topic:	No. of records:
1.	Biographies and other works about	22
2.	X, Malcolm, 1925-1965--Assassination.	5
3.	--Bibliography.	2
4.	--Drama.	6
5.	--Influence.	1
6.	--Juvenile literature.	4
7.	--Philosophy.	1
8.	--Pictorial works.	1

**Alternate display when the user has started with a search for Malcolm X as a *subject*, and has selected the subject heading (600 only) *X, Malcolm, 1925-1965*.**

Line no. [available for selection]	Subject:	No. of records:
--	----------	--------------------

**X, Malcolm, 1925-1965.**

1.	Biography(ies) and other work(s) about	22
2.	X, Malcolm, 1925-1965--Assassination.	5
3.	--Bibliography.	2
4.	--Drama.	6
5.	--Influence.	1
6.	--Juvenile literature.	4
7.	--Philosophy.	1
8.	--Pictorial works.	1

**Work(s) by X, Malcolm, 1925-1965**

**FIGURE 8, cont.****Example 4. Works of a prolific composer**

[This display should result whenever the name heading (*Verdi, Giuseppe, 1813-1901*) has been selected.]

**Initial results display:**

Verdi, Giuseppe, 1813-1901.

Line no. [available for selection]	Work:	No. of records:
1.	Aida	90
2.	Aroldo	4
3.	Attila	11
4.	Ballo in maschera	45
5.	Don Carlos	34
6.	Ernani	23
7.	Falstaff	30
8.	Forza del destino	36
9.	Giorno di regno	5
10.	Lombardi alla prima crociata	10
11.	Luisa Miller	9
12.	Macbeth	33
13.	Messa da Requiem	34
14.	Pezzi sacri	12
15.	Rigoletto	68
16.	Simon Boccanegra	25
17.	Traviata	65
18.	Trovatore	112

**FIGURE 8, Example 4, cont.**

**When line 18 is selected, the next display could consist of:**

**Verdi, Giuseppe, 1813-1901. *Trovatore***

Work 18 of 18

Line no. [available for selection]	Editions, etc.:	No. of records:
1.	Textual music <sup>50</sup>	43
2.	Performance(s) on sound recording <sup>51</sup>	48
3.	Performance(s) on film or video <sup>52</sup>	3
4.	Film(s) and video(s) based on this work <sup>53</sup>	1
5.	Other related work(s) <sup>54</sup>	2
6.	Work(s) about this work <sup>55</sup>	15

---

<sup>50</sup> Bibliographic records with main entry or 700 12 of *Verdi, Giuseppe, 1813-1901. Trovatore*. (including any subsequent subfields) and with leader/06 code c or d.

<sup>51</sup> Bibliographic records with main entry or 700 12 of *Verdi, Giuseppe, 1813-1901. Trovatore*. (including any subsequent subfields) and with leader/06 code j.

<sup>52</sup> Bibliographic records with main entry or 700 12 of *Verdi, Giuseppe, 1813-1901. Trovatore*. (including any subsequent subfields) and with 008/33 code m or v.

<sup>53</sup> Bibliographic records with main entry or 700 1, second indicator other than 2, of *Verdi, Giuseppe, 1813-1901. Trovatore*. (including any subsequent subfields) and with 008/33 code m or v.

<sup>54</sup> Bibliographic records with main entry or 700 1, second indicator other than 2, of *Verdi, Giuseppe, 1813-1901. Trovatore*. (including any subsequent subfields) and without 008/33 code m or v.

<sup>55</sup> Bibliographic records with 600 10 of *Verdi, Giuseppe, 1813-1901. Trovatore*. (including any subsequent subfields) .

**FIGURE 8, Example 4, cont.**

When line 1 is selected, the next display could consist of:

**Verdi, Giuseppe, 1813-1901. *Trovatore***  
Work 18 of 18

Line no. [available for selection]	Textual music:	No. of records:
1.	The complete work	10
2.	Selections <sup>56</sup>	3
3.	Portions of the work <sup>57</sup>	12
4.	Arrangements <sup>58</sup>	1
5.	Chorus scores <sup>59</sup>	1
6.	Librettos <sup>60</sup>	10
7.	Vocal scores <sup>61</sup>	6

---

<sup>56</sup> Presence of subfield k and text *Selections*.

<sup>57</sup> Presence of subfield p or subfield n preceded by a period; *exclude* subfield p or n preceded by a comma.

<sup>58</sup> Presence of subfield or and text *arr.*.

<sup>59</sup> Presence of subfield s and text *Chorus score(s)*.

<sup>60</sup> Presence of subfield s and text *Libretto(s)*.

<sup>61</sup> Presence of subfield s and text *Vocal score(s)*.

**When line 3 is selected, the next display could consist of:**

**Verdi, Giuseppe, 1813-1901. Trovatore**

Work 18 of 18

Textual music

Line no. [available for selection]	Portions of the work:	No. of records:
1.	Ah! che la morte ognori.	2
2.	Ah, si, ben mio.	1
3.	D'amor sull'ali rosee.	1
4.	Deserto sulla terra.	1
5.	Di quella pira	4
6.	Mira d'acerbe lagrime.	1
7.	Miserere.	2
8.	Tacea la notte placida.	1

**FIGURE 9. Examples of displays consisting of both examples of, and works about a particular genre or form**

**Example 1.** Example of a display consisting of both examples of, and works about *computer war games*

[This display should result whenever the *Computer war games* heading has been selected.]

**Computer war games.**

Subject [or 'Genre/form'] 5 of 403

Computer war games:

1. Aces of the Pacific. 1992.
2. Air combat. 1998.
3. Carriers at war. 1992.
4. Civil War explosion game set. 1998.
5. F-15 : the definitive jet combat simulator. 1998.
6. Global domination. 1993.
7. Harpoon challenger pak. 1990.
8. iF-22 : Persian Gulf. 1998.
9. Panzer commander : World War II tank simulator. 1998.
10. Risk the world conquest game. 1991.
11. Semper fi. 1998.
12. Sherman M4. 1992.
13. Star wars rebel assault. 1993.

Work(s) about Computer war games:

14. Bankes, Steven C. Issues in developing the potential of distributed warfare simulation. 1992.
15. Chiu, Ben, 1963- Microsoft Internet gaming zone : Fighter Ace : inside moves. 1998.
16. Dunnigan, James F. The complete wargames handbook : how to play, design, and find them. 1992.
17. Schell, Patrick F. Heuristic strategies for decision making in imperfect information multiplayer games. 1997.
18. Shah, Rawn. Playing wargames on the Internet. 1996.

**FIGURE 9, Example 1, cont.**

**Alternative in a Web-based catalog:**

**Computer war games.**

Subject [or 'Genre/form] 5 of 403

Computer war games:

1. Aces of the Pacific. 1992.
2. Air combat. 1998.
3. Carriers at war. 1992.
4. Civil War explosion game set. 1998.
5. F-15 : the definitive jet combat simulator. 1998.
6. Global domination. 1993.
7. Harpoon challenger pak. 1990.
8. iF-22 : Persian Gulf. 1998.
9. Panzer commander : World War II tank simulator. 1998.
10. Risk the world conquest game. 1991.
11. Semper fi. 1998.
12. Sherman M4. 1992.
13. Star wars rebel assault. 1993.

Work(s) about Computer war games.

The user who chose the hyperlink, could be given the following display:

**Work(s) about Computer war games:**

1. Bankes, Steven C. Issues in developing the potential of distributed warfare simulation. 1992.
2. Chiu, Ben, 1963- Microsoft Internet gaming zone : Fighter Ace : inside moves. 1998.
3. Dunnigan, James F. The complete wargames handbook : how to play, design, and find them. 1992.
4. Schell, Patrick F. Heuristic strategies for decision making in imperfect information multiplayer games. 1997.
5. Shah, Rawn. Playing wargames on the Internet. 1996.

**FIGURE 9, cont.**

**Example 2.** Example of a display consisting of both examples of, and works about journals on the history of science

[This display should result whenever the *Science--History--Periodicals* heading has been selected.]

**Science--History--Periodicals.**

Subject [or Genre/form] 220 of 571

Science--History--Periodicals<sup>62</sup>:

1. Archive for history of exact sciences. Science Library. Q 125 A1 A6
2. Archives internationales d'histoire des sciences. Medical Library. W1 AR3861
3. Berichte zur Wissenschaftsgeschichte. Research Library. Q 125 A1 B454
4. The British journal for the history of science. Science Library. Q 1 B776
5. Indian journal of history of science. Research Library. Q 125 I39

Work(s) about Science--History--Periodicals<sup>63</sup>:

6. Jones, James J. A critical evaluation of current journals in the history of science. 1998. Remote storage.

---

<sup>62</sup> In the MARC 21 format, these would be derived from headings using ≠v for the *Periodicals* subdivision: Science ≠x History ≠v Periodicals.

<sup>63</sup> In the MARC 21 format, these would be derived from headings using ≠x for the *Periodicals* subdivision: Science ≠x History ≠x Periodicals.

**FIGURE 10. Example of a display of a serial that has changed title over time**

[This display should result whenever the serial title heading (*Journal of library automation*) has been selected.]

Line no. [available for selection]		No. of records:
1.	Journal of library automation <sup>64</sup> (1968-1981)	1
2.	<u>Absorbed:</u> JOLA technical communications (1969-1972)	1
3.	<u>Continued by:</u> Information technology and libraries (1982-)	1

---

<sup>64</sup> In the MARC 21 format, this display would have to be generated from 008, character positions 7-10 (date 1) and 11-14 (date 2), 780 and 785 fields in the bibliographic record for the Journal of library automation, as well as the 008 (character positions 7-10 and 11-14) fields found in the bibliographic records for JOLA technical communications and Information technology and libraries (found via the links in the 780 and 785 fields in Journal of library automation).

**FIGURE 11. Example of an uncompressed heading display that includes display of subdivisions**

[This display could be retrieved from any type of subject heading search that results in a display of headings, or it could result from selecting the hot-linked subject heading in a single-record display.]

Line no. [available for selection]	Subject:	No. of records:
1.	Wills.	5
2.	--California.	52
3.	--California--Handbooks, manuals, etc.	2
4.	--Cases.	2
5.	--Forms.	11
6.	--History.	5
7.	--North Carolina.	3
8.	--Scotland.	1
9.	--United States.	5
10.	--United States--Bibliography.	4
11.	--United States--Handbooks, manuals, etc.	2
12.	--United States--History.	5
13.	--United States--Popular works.	10

**FIGURE 12.** Example of a possible display when the user has chosen a heading for a corporate body that has subordinate bodies

[This display should result whenever the corporate heading (*Library of Congress*) has been selected.]

Line no. [available for selection]	Name:	No. of records:
1.	Library of Congress.	704
	<u>information about this name</u>	
2.	-- Aerospace Information Division.	11
	<u>information about this name</u>	
	<u>2 related names</u>	
3.	-- Aerospace Technology Division.	24
	<u>information about this name</u>	
	<u>2 related names</u>	
4.	-- African and Middle Eastern Division.	3
	<u>information about this name</u>	
	<u>2 related names</u>	
5.	-- American Folklife Center (name used in this catalog: American Folklife Center)	12
6.	-- Asian Division.	7
	<u>information about this name</u>	
	<u>2 related names</u>	
7.	-- Catalog Maintenance Division.	3
	<u>information about this name</u>	
	<u>1 related name</u>	
8.	-- Cataloging Distribution Service.	37
	<u>information about this name</u>	
	<u>1 related name</u>	
9.	-- Children's Book Section.	13
	<u>information about this name</u>	
	<u>1 related name</u>	
10.	-- Congressional Research Service.	807
	<u>information about this name</u>	
	<u>1 related name</u>	
11.	-- Copyright Office.	312
	<u>information about this name</u>	

**FIGURE 12, cont.**

12.	--	Descriptive Cataloging Division. <u>information about this name</u> <u>1 related name</u>	13
13.	--	Federal Research Division. <u>information about this name</u>	79

..... [not the complete display]

**FIGURE 13. Examples of displays of the numbered and/or named parts<sup>65</sup> of a work**

**Example 1.** Results of a title search on *theater*, in a collection with a great deal of television material.

[These would be possible displays for the following types of search:  
keyword-within-heading title search  
phrase search of title headings only on *theater*.<sup>66</sup>]

**Initial results display:**

Line no. [available for selection]	Title:	No. of records:
1.	American playwrights theater presents the one acts	2
2.	Bob Hope presents the Chrysler theater (title used in this catalog: Bob Hope presents the Chrysler theatre)	8
3.	Cameo theater	3
4.	CBC television theater	1
5.	Dick Powell's Zane Grey theater	8
6.	Fireside theater (title used in this catalog: Fireside theatre)	2
7.	Gallo star theater	3
8.	General Electric theater	66
9.	Kraft suspense theater	4
10.	Matinee theater	20
11.	Personal appearance theater	8
12.	Repertory theater	11
13.	Texaco star theater	65

---

<sup>65</sup> Parts can be identified in the MARC 21 format by the presence of ≠n or ≠p subfields in 130 or 24X fields *except for musical works*, which use the ≠p subfield consistently for parts, but not the ≠n subfield; sometimes numbers in the ≠n subfield on musical works are part of the title of the work as a whole, not an identification of one of its parts by use of a number.

<sup>66</sup> If the system allows you to do a phrase search with a single word, that is.

**FIGURE 13, Example 1, cont.**

**When line 5 is selected, the next display could consist of:**

1. Dick Powell's Zane Grey theater . Day of the killing. -- [1959-01-08]
2. --Freighter. -- [1958-01-17]
3. --Last raid. -- [1959-02-26]
4. --Legacy of a legend. -- [1958-11-06]
5. --Mission to Marathon. -- [1959-05-14]
6. --Stranger. -- [1958-02-28]
7. --Sundown at Bitter Creek. -- [1958-02-14]
8. --Time of decision. -- [1957-01-18]

**Example 2. Parts of a classic text**

[This display should result whenever the author heading (*Homer*) has been selected.]

**Initial results display:**

Line no. [available for selection]	Name:	No. of records:
1.	Homer.	
	<u>information about this name</u>	
2.	--Carmina minora.	4
3.	--Iliad.	198
4.	--Odyssey.	179

Work(s) about Homer

**When line 3 is selected, the next display could consist of:**

**Homer. Iliad**

Work 2 of 3

1. Edition(s) of Iliad
2. Part(s)
3. Work(s) about
4. Other related work(s)
5. Reading(s) on sound recording
6. Film(s) based on

**FIGURE 13, Example 2, cont.**

**When line 2 is selected, the next display could consist of:**

**Homer. Iliad**

Work 2 of 3

Part(s)

Line no. [available for selection]	Title:	No. of records:
1.	Homer. Iliad. Book 1	3
2.	--Book 1-2	1
3.	--Book 1-3	1
4.	--Book 2	1
5.	--Book 3	1
6.	--Book 6	2
7.	--Book 14	1
8.	--Book 16	1
9.	--Book 24	4

**FIGURE 14. Examples of ISBD displays**

King of the world : Muhammad Ali and the rise of an American hero / David Remnick. -- New York : Random House, c1998. -- xvii, 326 p. : ill. ; 25 cm.

Includes bibliographical references and index.

ISBN 0-375-50065-0

曹雪芹, ca. 1717-1763.

红楼梦 / 曹雪芹, 高鹗著 ; [康桥, 幸子, 归榭校点 ; 程十发等绘].

第1版.

上海 : 上海辞书出版社, 2000.

2 v. (1120 p.) : col. ill. ; 29 cm.

名家彩绘四大名著珍藏本

Hongloumeng

高鹗, ca. 1738-ca. 1815.

康桥.

幸子.

归榭.

程十发.

**FIGURE 15. Examples showing the importance of diacritics and special characters**

**Example 1:**

Frelih, Emil.

ar indijskega juga : potopis / Emil Frelih ; [ilustrirala Breda Varl ; vinjete narisala po originalnih indijskih motivih Marta Frelih]. -- Maribor : Microsag, 1992 (Maribor : Microsag). -- 150 str., [24] str. pril. : ilustr. ; 23 cm.

With the hacek over the initial C of the title, the title means The charm of southern India. However, without the hacek, the title means The tsar of southern India.

**Example 2:**

Degrelle, León.

La campaña de Rusia / León Degrelle ; [versión española de Eugenio Tejada]. -- Barcelona : Luis de Caralt, 1951. -- 429 p. -- (La vida vivida)

Tit. orig.: La Campagne de Russie.

With the tilde over the n in the second word of the title, the title means The Russian campaign, but without it, the title means The Russian bell.

**Example 3:**

Beethoven's piano concerto in B [flat] major, opus 19 is not correctly identified in the catalog if the musical flat symbol is left out of the display.

**FIGURE 16. Example demonstrating the need to display as many records as possible, minimize white space, and display first the element sorted on**

[These displays result when the subject heading (*Subject headings--Motion pictures*) has been selected; it could be selected as the result of a keyword-in-headings subject search, an exact-beginning subject search, or a phrase search on a subject headings index. It could also be selected from a hot-linked single-record display.]

**POOR** (Too much white space and does not display first the element sorted on):

Search for su=("Subject headings Motion pictures") Records Found: 3
--

*Sorted by Author, Title, Date*

1. <u>Subject access to films and videos</u> <1992> <b>Author:</b> Intner, Sheila S. <b>Location:</b> MAIN: Z695.65 .I55 1992
2. <u>Moving image materials : genre terms</u> <1988> <b>Author:</b> Yee, Martha M. <b>Location:</b> GRDS: Z695.64 .Y441 1988
3. <u>Subject headings : International index to film periodicals</u> <1996> <b>Location:</b> MAIN: Z695.64 .S83 1996

**BETTER** (Display of the works under a subject heading that facilitates rapid scanning):

**Subject headings--Motion pictures.**

1. Intner, Sheila S. Subject access to films and videos. 1992.  
Location: MAIN: Z695.65 .I55 1992
2. Subject headings : International index to film periodicals. 1996.  
Location: MAIN: Z695.65 .S83 1996
3. Yee, Martha M. Moving image materials : genre terms. 1988.  
Location: GRDS: Z695.64 .Y441 1988

<sorted by principal author or corporate body, if there is one, then title, then date>

**FIGURE 17. Examples of summary bibliographic displays**

**Example 1.** Example of a summary bibliographic display of bibliographic records retrieved on a keyword-in-record search for *angels flight*

1. **Angel's flight**, southwest corner of 3rd and Hill Streets. 1969. Remote storage.
2. Burton, Jean M. **Angels' flight** Episcopal Church. 1982. Research Library.  
LD 791.7 A68 B955
3. Cameron, Lou, 1924- **Angel's flight**. c1960. Remote storage.
4. Comer, Virginia Linden. **Angel's flight**: a history of Bunker Hill's  
incline railway. c1996. Research Library. Z 233 L6 C66 1996
5. Corboz, Andre, 1928- ["Non-city" revisited. English]. Looking for  
a city in America : down these mean streets a man must go-- : an essay. 1992.  
Remote storage.
6. Flight plan / **Angel's Flight** Centers for Runaways. Remote storage.
7. Holstius, Edward Nils. **Angel's flight**, a novel. 1947. Research Library.  
PR 6015 H738a
8. Ryan, Don. **Angel's flight**. 1927. Research Library. PS 3535 R945a
9. Wheelock, Walt. **Angel's flight**. 1961. Research Library. HE 4491 L8 W57
10. Wheelock, Walt. **Angel's flight**. 1993. Research Library. HE 4491 L8 W57  
1993

Boolean Logic-1&2

<b>ANGELS</b>	TERM APPEARS IN	1192 RECORDS
<b>FLIGHT</b>	TERM APPEARS IN	3514 RECORDS

**FIGURE 17, cont.**

**Example 2.** Examples of summary displays of bibliographic records under the subject heading *Smoking*.

[These displays result when the subject heading (*Smoking*) has been selected; it could be selected as the result of a keyword-in-headings subject search, an exact-beginning subject search, or a phrase search on a subject headings index. It could also be selected from a hot-linked single-record display.]

**2A POOR** (Summary display of bibliographic records for works given the LC subject heading *Smoking* listed by title; the titles are repetitious, often simply duplicating the subject heading).

**Smoking.**

1. Cigarette smoking : a clinical guide to assessment and treatment. -- c1992. Medical Library. W1 ME2379 v. 76 no. 2 1992
2. Cigarette smoking and blood lead levels in occupationally exposed workers. -- 1982. Medical Library. W4C B8095c 1982
3. Cigarette smoking and the use of health services. -- 1983. Medical Library. W4C H849c 1983
4. Report of the scientific director. Medical Library. W1 CO956
5. Science looks at smoking : a new inquiry into the effects of smoking on your health. [1957] Science Library. QP 981 T6 N8
6. Smoke screen : tobacco and the public welfare. -- [1963] Social Sciences Library. HV 5735 N391s 1963
7. Smokers, segars & stickers. [1949] Art Library. NC 1280 F11s
8. Smokiana, historical & ethnographical ... 1890. Research Library. GT 3020 P93s
9. Smoking : a behavioral analysis. [1971] Social Sciences Library. HV 5740 M448s 1971
10. Smoking : psychology and pharmacology. -- 1982. Medical Library. WM 176 A828s 1982
11. Smoking : the artificial passion. -- c1991. Social Sciences Library. HV 5733 K93s 1991
12. Smoking, a habit that should be broken. -- 1979. Social Sciences Library. H 1 P96 no. 573
13. Smoking and aging. -- c1984. Medical Library. QV 137 S6638 1984
14. Smoking and arterial disease. -- 1981. Medical Library. QV 137 S664 1981
15. Smoking and health : a report of the Surgeon General. -- [1979] Medical Library. PA 1242 T6 S57 1979

**FIGURE 17, Example 2A, cont.**

16. Smoking and health : report of the advisory committee to the Surgeon General of the Public Health Service. 1964. Remote storage.
17. Smoking and health bulletin. Reference Stacks.
18. Smoking and oral cancer. 1964. Remote storage.
19. Smoking behavior : motives and incentives. 1973. Medical Library. QV 137 D922s 1973
20. Smoking by minors : a report on the present state of the law. 1969. Remote storage.
21. The smoking digest : progress report on a nation kicking the habit. [1977] Medical Library. WM 176 N277s 1977
22. Smoking, health, and behavior. [1968] Medical Library. QV 137 B644s 1968
23. Smoking in the workplace : a review of arbitration decisions. -- 1988. Law Library. KF 3812 L63 1988
24. Smoking, respiratory symptoms and ventilatory capacity in young men : with a note on physical fitness and acute respiratory infections. -- 1981. Medical Library. QV 137 K96s 1981
25. Smoking, tobacco, and cancer program : 1985 report. -- 1986. Medical Library. QV 137 N209s 1985
26. Smoking, tobacco, and cancer program : annual report, 1983. -- [1984] Medical Library. QV 137 N209s 1983
27. Studies and issues in smoking behavior. [1967] Social Sciences Library. HV 5732 Z13s 1967
28. A study of the influences on smoking behavior of elementary school students [microform]. 1967. Microfilm Collection. HV 5745 M33 1969a
29. Tabacologie et description d'un narguileh unique au monde comme le Saint-Graal du Cycle d'Arthur, etc., sous le nom de Graal sacre de l'humanite par Kirithoglou [pseud.] ... 1869. Research Library. GT 3020 V447t
30. Tabago : a picture-book of tobacco and the pleasures of smoking. 1960. Management Library. SB 273 R4
31. Tobacco : a study of its consumption in the United States. 1940. Research Library. HD 9135 G71t
32. Tobacco & your health : the smoking controversy. [1969] Medical Library. QV 137 D563t 1969
33. Tobacco and alcohol. I. It does pay to smoke. II. The coming man will drink wine. 1869, c1868. Medical Library History Division. HV 5751 F547t 1868
34. Tobacco and its effects : a prize essay showing that the use of tobacco is a physical, mental, moral, and social evil. 1868. Medical Library History Division. HV 5733 G352t 1868
35. Tobacco and its use in Africa. 1930. Research Library. GN 2 F45a no. 29
36. Tobacco and its use in Asia. 1924. Research Library. GN 2 F45a no. 18

**FIGURE 17, Example 2A, cont.**

37. Tobacco Medicaid litigation : snuffing out the rule of law. -- [1997]  
Pamphlets Collection--Smoking Section
38. Tobacco smoke and the nonsmoker. -- 1988. Pamphlets Collection--Smoking  
Section

**2B BETTER** (Bibliographic records in order by work heading. This display by author or corporate body is useful for indicating the nature of the works listed (works by corporate bodies, works of personal authorship, works that are probably anthologies or compilations, works by authors or corporate bodies who have written or produced more than one work on the subject, etc.):

**Smoking.**

1. Ashton, Heather. Smoking : psychology and pharmacology. 1982. Medical Library. WM 176 A828s 1982
2. Brown, Clyde Perry. Cigarette smoking and blood lead levels in occupationally exposed workers. 1982. Medical Library. W4C B8095c 1982
3. California. Office of the Attorney General. Smoking by minors; a report on the present state of the law. [1969] Remote storage.
4. Cigarette smoking : a clinical guide to assessment and treatment. c1992. Medical Library. W1 ME2379 v. 76 no. 2 1992
5. Council for Tobacco Research. Report of the scientific director. Medical Library. W1 CO956
6. Diehl, Harold Sheely, 1891-1973. Tobacco & your health : the smoking controversy. [1969] Medical Library. QV 137 D563t 1969
7. Doyle, Nancy. Smoking, a habit that should be broken. 1979. Social Sciences Library. H 1 P96 no. 573
8. Dunn, William L. Smoking behavior : motives and incentives. 1973. Medical Library. QV 137 D922s 1973
9. Faber, A. D. Smokers, segars & stickers. [1949] Art Library. NC 1280 F11s
10. Fiske, John, 1842-1901. Tobacco and alcohol. I. It does pay to smoke. II. The coming man will drink wine. 1869, c1868. Medical Library History Division. HV 5751 F547t 1868
11. Gibbons, Henry, 1808-1884. Tobacco and its effects : a prize essay showing that the use of tobacco is a physical, mental, moral, and social evil. 1868.
12. Gottsegen, Jack Jacob, 1907- Tobacco, a study of its consumption in the United States. 1940. Research Library. HD 9135 G71t
13. Howson, Christopher Paul. Cigarette smoking and the use of health services. 1983. Medical Library. W4C H849c 1983

**FIGURE 17, Example 2B, cont.**

14. Krogh, David. Smoking : the artificial passion. c1991. Social Sciences Library. HV 5733 K93s 1991
15. Kujala, Pekka. Smoking, respiratory symptoms and ventilatory capacity in young men : with a note on physical fitness and acute respiratory infections. 1981. Medical Library. QV 137 K96s 1981
16. Laufer, Berthold, 1874-1934. Tobacco and its use in Africa. 1930. Research Library. GN 2 F45a no. 29
17. Laufer, Berthold, 1874-1934. Tobacco and its use in Asia. 1924. Research Library. GN 2 F45a no. 18
18. Levy, Robert A. Tobacco Medicaid litigation : snuffing out the rule of law. [1997] Pamphlets Collection--Smoking Section
19. Mausner, Bernard, 1920- Smoking : a behavioral analysis. [1971] Social Sciences Library. HV 5740 M448s 1971
20. McBride, Evalyn West. A study of the influences on smoking behavior of elementary school students [microform]. 1967. Microfilm Collection. HV 5745 M33 1969a
21. National Cancer Institute (U.S.) Smoking, tobacco, and cancer program : 1985 report. 1986. Medical Library. QV 137 N209s 1985
22. National Cancer Institute (U.S.) Smoking, tobacco, and cancer program : annual report, 1983. [1984] Medical Library. QV 137 N209s 1983
23. National Cancer Institute (U.S.). Office of Cancer Communications. The smoking digest : progress report on a nation kicking the habit. [1977] Medical Library. WM 176 N277s 1977
24. National Research Conference on Smoking Behavior (2nd : 1966 : University of Arizona) Studies and issues in smoking behavior. [1967] Social Sciences Library. HV 5732 Z13s 1967
25. Neuberger, Maurine B. Smoke screen : tobacco and the public welfare. [1963] Social Sciences Library. HV 5735 N391s 1963
26. Northrup, Eric. Science looks at smoking : a new inquiry into the effects of smoking on your health. [1957] Science Library. QP 981 T6 N8
27. Pritchett, Robert Taylor. Smokiana, historical & ethnographical ... 1890. Research Library. GT 3020 P93s
28. Reemtsma Cigarettenfabriken, G.m.b.H. Tabago : a picture-book of tobacco and the pleasures of smoking. 1960. Management Library. SB 273 R4
29. Smoking and aging. c1984. Medical Library. QV 137 S6638 1984
30. Smoking and arterial disease. 1981. Medical Library. QV 137 S664 1981
31. Smoking and health : a report of the Surgeon General. [1979] Medical Library. PA 1242 T6 S57 1979
32. Smoking and health bulletin. Reference Stacks.
33. Smoking, health, and behavior. [1968] Medical Library. QV 137 B644s 1968

**FIGURE 17, Example 2B, cont.**

34. Smoking in the workplace : a review of arbitration decisions. 1988. Law Library. KF 3812 L63 1988
35. Tobacco smoke and the nonsmoker. 1988. Pamphlets Collection--Smoking Section
36. United States. Division of Dental Public Health and Resources. Smoking and oral cancer. [1964] Remote storage.
37. United States. Surgeon General's Advisory Committee on Smoking and Health. Smoking and health : report of the advisory committee to the Surgeon General of the Public Health Service. 1964. Remote storage.
38. Vasse, Emmanuel. Tabacologie et description d'un narguileh unique au monde comme le Saint-Graal du Cycle d'Arthur, etc., sous le nom de Graal sacre de l'humanite par Kirithoglou [pseud.] ... 1869. Research Library. GT 3020 V447t

**Example 3.** Summary display of bibliographic records for works retrieved using a keyword-within-record search of fields that could contain conference names (title and other title information (subtitle), statement of responsibility and conference heading fields), using the keyword *intelligent*.

**3A. POOR** (Bibliographic records displayed by title; note how many entries begin with the word *proceedings*, or begin with ordinal numbers such as *second*):

Line no.      Title:  
[available  
for selection]

1. ANZIIS 94. c1994.
2. Conference on Intelligent Robotics in Field, Factory, Service, and Space (CIRFFSS '94). 1994.
3. First International Conference on Intelligent Systems Engineering, 19-21 August 1992. c1992.
4. First International Conference on Intelligent Systems in Process Engineering, proceedings of the conference held at Snowmass, Colorado, July 9-14, 1995. c1996.
5. Foundations of intelligent systems. c1996.
6. Intelligent Network '96. c1996.
7. Methodologies for intelligent systems. c1994.
8. MFI '94. c1994.
9. Proceedings. c1991.
10. Proceedings. c1993.

**FIGURE 17, Example 3A, cont.**

12. Proceedings. c1993.
13. Proceedings. c1995.
14. Proceedings of the 1993 International Workshop on Intelligent User Interfaces, January 4-7, 1993, Orlando, Florida. c1992.
15. Proceedings of the 1994 IEEE International Symposium on Intelligent Control, 16-18 August 1994, Holiday Inn Crowne Plaza, Columbus, Ohio, USA. c1994.
16. Proceedings of the 1995 IEEE International Symposium on Intelligent Control, August 27-19, 1995, Monterey Marriott Hotel, Monterey, California, 93940, USA. c1995.
17. Proceedings of the 1996 IEEE International Symposium on Intelligent Control. c1996.
18. Proceedings of the Second World Congress on Intelligent Transport Systems. 1995.
19. Safety, reliability, and applications of emerging intelligent control technologies. 1995.
20. Second International Conference on "Intelligent Systems Engineering," 5-9 September 1994, venue, Technical University of Hamburg--Harburg, Germany. c1994.
21. Third International Conference on Intelligent Materials, Third European Conference on Smart Structures and Materials, Lyon, 3-4-5 June 1996, Center of Congress "L'Espace tete d'or." c1996.

**3B. BETTER** (Bibliographic records in order by work heading):

Line no.	Name and title:
	[available for selection]
1.	Australian and New Zealand Conference on <b>Intelligent</b> Information Systems (2nd : 1994 : Brisbane, Qld.) ANZIIS 94. c1994. Management Library. QA 76.76 E95 A96 1994
2.	Conference on <b>Intelligent</b> Robotic Systems for Space Exploration (3rd : 1991 : Rensselaer Polytechnic Institute) Proceedings. c1991. Engineering Library. TL 787 C634 1991
3.	Conference on <b>Intelligent</b> Robotics in Field, Factory, Service and Space (1st : 1994 : Houston, Tex.) Conference on Intelligent Robotics in Field, Factory, Service, and Space (CIRFFSS '94). 1994. Engineering Library. TJ 210.3 C654 1994

**FIGURE 17, Example 3B, cont.**

4. IEEE **Intelligent** Network Workshop (1996 : Melbourne, Australia)  
Intelligent Network '96. c1996. Engineering Library. TK 5101  
A1 I4829 1996
5. IEEE International Conference on Multisensor Fusion and  
Integration for **Intelligent** Systems (1994 : Las Vegas, Nev.)  
MFI '94. c1994. Engineering Library. TJ 210.3 I33 1994
6. IEEE International Symposium on **Intelligent** Control (1993 :  
Chicago, Ill.)  
Proceedings. c1993. Engineering Library. TJ 212.2 I2 1993
7. IEEE International Symposium on **Intelligent** Control (1994 :  
Columbus, Ohio)  
Proceedings of the 1994 IEEE International Symposium on  
Intelligent Control, 16-18 August 1994, Holiday Inn Crowne Plaza,  
Columbus, Ohio, USA. c1994. Engineering Library. TJ 212.2 I2 1994
8. IEEE International Symposium on **Intelligent** Control (1995 :  
Monterey, Calif.)  
Proceedings of the 1995 IEEE International Symposium on  
Intelligent Control, August 27-19, 1995, Monterey Marriott Hotel,  
Monterey, California, 93940, USA. c1995. Engineering Library. TJ  
217.5 I33 1995
9. IEEE International Symposium on **Intelligent** Control (1996 :  
Dearborn, Mich.)  
Proceedings of the 1996 IEEE International Symposium on  
Intelligent Control. c1996. Engineering Library. TJ 217.5 I33 1996
10. IFAC Workshop on Safety, Reliability, and Applications of Emerging  
**Intelligent** Control Technologies (1994 : Hong Kong)  
Safety, reliability, and applications of emerging intelligent  
control technologies. 1995. Remote storage.
11. International Conference on **Intelligent** and Cooperative Information  
Systems (1993 : Rotterdam, Netherlands)  
Proceedings. c1993. Engineering Library. QA 76.76 E95 I576  
1993
12. International Conference on **Intelligent** Manufacturing (1995 :  
Wu-han shih, China)  
Proceedings. c1995. Engineering Library. TS 155.63 I58 1995

**FIGURE 17, Example 3B, cont.**

13. International Conference on **Intelligent** Materials (3rd : 1996 : Lyon, France)  
 Third International Conference on Intelligent Materials, Third European Conference on Smart Structures and Materials, Lyon, 3-4-5 June 1996, Center of Congress "L'Espace tete d'or." c1996. Engineering Library. TA 418.9 S62 I57 1996
14. International Conference on **Intelligent** Systems Engineering (1st : 1992 : Heriot-Watt University)  
 First International Conference on Intelligent Systems Engineering, 19-21 August 1992. c1992. Engineering Library. TA 168 I58 1992
15. International Conference on **Intelligent** Systems Engineering (2nd : 1994 : Technical University of Hamburg-Harburg)  
 Second International Conference on "Intelligent Systems Engineering," 5-9 September 1994, venue, Technical University of Hamburg-Harburg, Germany. c1994. Engineering Library. TA 168 I58 1994
16. International Conference on **Intelligent** Systems in Process Engineering (1995 : Snowmass, Colo.)  
 First International Conference on Intelligent Systems in Process Engineering, proceedings of the conference held at Snowmass, Colorado, July 9-14, 1995. c1996. Engineering Library. TP 155.75 I554 1995
17. International Symposium on Methodologies for **Intelligent** Systems (8th : 1994 : Charlotte, N.C.)  
 Methodologies for intelligent systems. c1994. Management Library. QA 76.76 E95 I582 1994
18. International Symposium on Methodologies for **Intelligent** Systems (9th : 1996 : Zakopane, Poland)  
 Foundations of intelligent systems. c1996. Management Library. QA 76.76 E95 I582 1996
19. International Workshop on **Intelligent** User Interfaces (1993 : Orlando, Fla.)  
 Proceedings of the 1993 International Workshop on Intelligent User Interfaces, January 4-7, 1993, Orlando, Florida. c1992. Management Library. QA 76.9 H85 I6 1993
20. World Congress on **Intelligent** Transport Systems (2nd : 1995 : Yokohama, Japan)  
 Proceedings of the Second World Congress on Intelligent Transport Systems. 1995. Engineering Library. TE 228.3 W67 1995

**FIGURE 18. Example of the value of display navigation**

Consider a user at the reference desk in a large research library who has a very incomplete citation for the book he or she seeks. He or she knows the book is about California, has *gold* in the title, and that the author's name begins with *K*. A keyword-in-record search reveals 1,060 items with keywords *gold* and *California*. The reference librarian first asks to display every 100th record in the retrieval, with the following results:

1. 1933 map of Nevada County, the "banner gold county" of California. 1933.
101. Brothers Figaro (Musical group) Gypsy beat [sound recording]. p1990.
201. Clarke, A. B. (Asa Bement), 1817-1882. Travels in Mexico and California : comprising a journal of a tour from Brazos Santiago, through central Mexico, by way of Monterey, Chihuahua, the country of the Apaches, and the River Gila, to the mining districts of California. c1988.
301. Edman, J. A. The auriferous black sands of California. 1907.
401. Gonzales, Carmen. Suites of gold : top California insurance companies pay no Federal income taxes while insurance execs pay themselves millions. 1988.
501. Johnson, Theodore T. (Theodore Taylor), b. 1818. Sights in the gold region, and scenes by the way. 1849.
601. May, Robin. The gold rushes : from California to the Klondike. 1977.
- ..., etc.

Then the reference librarian asks to display every record from 501 on by 10:

501. Johnson, Theodore T. (Theodore Taylor), b. 1818. Sights in the gold region, and scenes by the way. 1849.
511. Kelley, Robert L. Gold vs. grain : the hydraulic mining controversy in California's Sacramento Valley. 1959.
521. Kip, Leonard, 1826-1906. California sketches, with recollections of the gold mines. 1850.
- ..., etc.

Then the reference librarian asks for the record display to begin at 501, and at line 516, the user recognizes the book he or she is looking for:

Ketchum, Liza, 1946- The gold rush. c1996.

**FIGURE 19. Examples of single-record displays**

**Example 1.** Example of the value of including notes in the default single-record display

The user is looking for the latest edition of Guyton's Basic human physiology, and does a name-title keyword-in-record search on *Arthur Guyton human*, retrieving the following results:

- Guyton, Arthur C.
1. Basic human physiology. 1971.
  2. Basic human physiology. 1977.
  3. Function of the human body. 1964.
  4. Function of the human body. 1969.
  5. Function of the human body. 1974.
  6. Human physiology and mechanisms of disease. 1982.
  7. Human physiology and mechanisms of disease. 1987.
  8. Human physiology and mechanisms of disease. 1992.
  9. Human physiology and mechanisms of disease. 1997.

**FIGURE 19, Example 1, cont.**

Only if the bibliographic records display the notes (and only if the user is suspicious and checks the full bibliographic record display for every item retrieved above) will the user discover, upon looking at the 1982 edition of *Human physiology and mechanisms of disease*, that this text changed its title between 1977 and 1982:

Guyton, Arthur C.

Human physiology and mechanisms of disease / Arthur C. Guyton. -- 3rd ed. -- Philadelphia : Saunders, 1982.

x, 709 p. : col. ill. ; 28 cm.

Rev. ed. of: *Basic human physiology*. 2nd ed. 1977.  
Includes bibliographies and index.

**FIGURE 19, Example 1, cont.**

Subjects:     1. Human physiology.  
              2. Physiology, Pathological.

Academic discipline: QT 104<sup>67</sup>

Copies held:

Medical Library:     Location:     QT 104 G989b 1982<sup>68</sup>

Select anything above that is underlined to find related works by the same author or corporate body or on the same subject.

[If an underlined heading is selected, give the user the following set of choices:

1. Go directly to other works by the selected author or corporate body or about the selected subject.
2. Show subjects similar to the selected subject and more information about the term used for the subject.
3. Show other works by that author or corporate body under other names<sup>69</sup> and more information about the name used for the author or corporate body.]

Show other editions<sup>70</sup> of this work

Back to last/first index display

Back to last/first display of bibliographic records

NOTE: The hyperlink for other editions should display only if the catalog has other records with the same work heading (Guyton, Arthur C. Human physiology and mechanisms of disease.) Since AACR2R treats a revised edition with a different title as a new related work (with a changed work heading), this hyperlink

---

<sup>67</sup> Selection of this hyperlink should lead the user into the classification. See **Classification principle 1** and **Classification display recommendations**.

<sup>68</sup> Selection of this hyperlink should lead the user into the shelf list, arranged by call number. See **Classification display recommendations**.

<sup>69</sup> *Other names* of the author should be referred to only when the author has in fact written under one or more bibliographic identities (i.e., real name(s) or pseudonym(s)) (see **Figure 23**). *Other names* of a corporate body should be referred to only when the corporate body has one or more earlier and/or later names (see **Figure 24**).

<sup>70</sup> See footnote 43.

will probably not be as helpful as most users might expect it to be in the case of such revised editions.

**FIGURE 19, cont.**

**Example 2.** Displays of a record for a newsreel with and without its notes

**2A POOR** (Display without notes):

Die Deutsche Wochenschau. [videorecording] [Nr. 511]. -- Germany :  
[s.n.], 1940[-06 or 1940-07]

**2B BETTER** (Display with notes):

Die Deutsche Wochenschau. [videorecording] [Nr. 511]. -- Germany :  
[s.n.], 1940[-06 or 1940-07]

Newsreel.

**SUMMARY:** Battle of France: air bombing of strategic sites prepares the way for troops. The right wing of the Army launches its offensive from Amiens to Rouen and LeHavre; the infantry spreads out, passing fires set by the retreating French; soldiers stop to milk abandoned cows. Cavalry advances quickly in the Somme region; artillery pounds the Weygand line; fresh reserves arrive for the push to the coast; General von Kluge leads the Army in Rouen, where soldiers fight fire in the historic cathedral. Germans feed residents of occupied towns; work crews begin clean-up efforts; Hitler pays them a surprise visit; the central Army offensive aims at Paris; resisters are disarmed and many prisoners taken at Noyon.

**FIGURE 19, cont.**

**Example 3.** Displays of one of a number of records retrieved by a title keyword-within-record search on *American scholar*, with and without its notes

**3A POOR** (Display without notes):

Emerson, Ralph Waldo, 1803-1882.

Emerson on transcendentalism / Ralph Waldo Emerson ; edited, with an introduction, by Edward L. Ericson -- New York : Ungar, 1986. -- xiii, 109 p. ; 20 cm. -- (Milestones of thought)

Subjects: 1. Transcendentalism (New England)

Other names and titles: 1. Ericson, Edward L.

Academic discipline: PS 1602

Copies held:

Research Library: Location: PS 1602 E7 1986  
Not checked out

**3B BETTER** (Display with notes):

Emerson, Ralph Waldo, 1803-1882.

Emerson on transcendentalism / Ralph Waldo Emerson ; edited, with an introduction, by Edward L. Ericson -- New York : Ungar, 1986. -- xiii, 109 p. ; 20 cm. -- (Milestones of thought)

Contents: Nature -- The American scholar -- The Divinity School address -- The transcendentalist.

**FIGURE 19, Example 3B, cont.**

Subjects: 1. Transcendentalism (New England)

Other names and titles: 1. Ericson, Edward L.

Academic discipline: PS 1602

Copies held:

Research Library: Location: PS 1602 E7 1986  
Not checked out

**Select anything above that is underlined to find related works by the same author or corporate body or on the same subject.**

**[If an underlined heading is selected, give the user the following set of choices:**

- 1. Go directly to other works by the selected author or about the selected subject.**
- 2. Show subjects similar to the selected subject and more information about the term used for the subject.**
- 3. Show other works by that author or corporate body under other names<sup>71</sup> and more information about the name used for the author or corporate body.]**

**Show other editions<sup>72</sup> of this work**

**Back to last/first index display**

**Back to last/first display of bibliographic records**

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<sup>71</sup> 'Other names' of the author should be referred to only when the author has in fact written under various pseudonyms. (See **Figure 23**).

<sup>72</sup> See footnote 43.

**FIGURE 20. Examples demonstrating the value of displaying tracings**

**Example 1.** A user interested in scholarly works on Native American costumes and textiles has done a subject search and finds the following book under the subject heading *Textile fabrics--Guatemala*. If the single-record display includes a list of other headings on this record, he or she may be stimulated to find more books of interest by searching under the Heard Museum of Anthropology and Primitive Art, or, if the system allows this, by navigating from this display to the entries under the Museum:

Dieterich, Mary G.

Guatemalan costumes : the Heard Museum collection / text by Mary G. Dieterich, Jon T. Erickson, Erin Younger ; prepared in coordination with an exhibition by the Heard Museum, April 28, 1979. -- Phoenix, Ariz. (22 E. Monte Vista Rd., Phoenix 85004) : The Museum, c1979. -- 95 p. : ill. (some col.) ; 28 cm.

Bibliography: p. 94-95.

**FIGURE 20, Example 1, cont.**

- Subjects:     1. Costume--Guatemala--Exhibitions.  
              2. Textile fabrics--Guatemala--Exhibitions.  
              3. Decoration and ornament--Guatemala--Exhibitions.

Other names and titles:

1. Erickson, Jon T.
2. Younger, Erin.
3. Heard Museum of Anthropology and Primitive Art.

Academic discipline: GT 639

Copies held:

College Library:     Location:     GT 639 D53

Select anything above that is underlined to find related works by the same author or corporate body or on the same subject.

[If an underlined heading is selected, give the user the following set of choices:

1. Go directly to other works by the selected author or about the selected subject.
2. Show subjects similar to the selected subject and more information about the term used for the subject.
3. Show other works by that author or corporate body under other names<sup>73</sup> and more information about the name used for the author or corporate body.]

Show other editions<sup>74</sup> of this work

Back to last/first index display

Back to last/first display of bibliographic records

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<sup>73</sup> See footnote 69.

<sup>74</sup> See footnote 43.

**FIGURE 20, cont.**

**Example 2.** A user who is interested in paper crafts has heard about a book called *Paper circus* and looks it up by title. If the single-record display includes a list of all the subject headings added to this record, the user may notice the subject heading *Paper work* and find more books of interest by doing a subject search on that heading, or by navigating from this display, if the system allows this:

West, Robin.

Paper circus : how to create your own circus / by Robin West ; photographs by Mark Wieland ; drawings by Priscilla Kiedrowski. -- Minneapolis : Carolrhoda Books, c1983. -- 72 p. : ill. (some col.) ; 25 x 22 cm.

Summary: Instructions for building a model circus complete with ringmaster, using construction paper and articles found around most homes.

**FIGURE 20, Example 2, cont.**

Subjects:                   1. Circus--Models.  
                                  2. Models and modelmaking.  
                                  3. Handicraft.  
                                  4. Paper work.

Academic discipline:       GV 1817

Copies held:

Arts and Crafts:        Location:       GV 1817 W47 1983

**Select anything above that is underlined to find related works by the same author or corporate body or on the same subject.**

**[If an underlined heading is selected, give the user the following set of choices:**

- 1. Go directly to other works by the selected author or about the selected subject.**
- 2. Show subjects similar to the selected subject and more information about the term used for the subject.**
- 3. Show other works by that author or corporate body under other names<sup>75</sup> and more information about the name used for the author or corporate body.]**

**Show other editions<sup>76</sup> of this work**

**Back to last/first index display**

**Back to last/first display of bibliographic records**

NOTE 1: The hyperlink for other editions should display only if the catalog has other records with the same work heading (West, Robin. Paper circus.)

NOTE 2: Selecting the hot-linked subject heading *Circus--Models* could have any one of the following results:

---

<sup>75</sup> See footnote 69.

<sup>76</sup> See footnote 43.

**FIGURE 20, Example 2, cont.****Recommended default:**

Place the user in a list of the subdivisions under the main heading *Circus*, beginning with *Models*.

Subject:	No. of records:
Circus--Models	1
--Pictorial works	3
--Poetry	2
--Posters +	1
--Quebec (Province)	2
--Romania	1
--Rome	5
--Social aspects +	2
--United States +	15

**FIGURE 20, Example 2, cont.**

**Other options to offer the user:**

**Option 1.** Placing the user at the top of a list of the results of a keyword-within-heading search on the main heading only, *Circus*. (A compressed display: except where the keyword matches on a subdivision, headings with subdivisions appear only after the main heading is selected.)

Line no. [available for selection]	Subject:	No. of records:
1.	Barnum and Bailey <b>Circus</b> (name used in this catalog: Barnum and Bailey)	1
2.	<b>Circus</b> + <u>information about this term</u> <u>6 subjects related to Circus</u>	259
3.	<b>Circus</b> animals + <u>information about this term</u> <u>2 subjects related to Circus animals</u>	5
4.	<b>Circus</b> Flaminius (Rome, Italy) +	7
5.	<b>Circus</b> in art +	10
6.	<b>Circus</b> in literature	3
7.	<b>Circus</b> owners + <u>information about this term</u> <u>1 subject related to Circus owners</u>	10
8.	<b>Circus</b> performers + <u>information about this term</u> <u>5 subjects related to Circus performers</u>	20
9.	<b>Circus</b> , Piccadilly (London, England) (name used in this catalog: Piccadilly Circus (London, England))	5
10.	Hartford <b>Circus</b> Fire, Hartford, Conn., 1944 <u>information about this term</u> <u>1 subject related to Hartford Circus Fire, Hartford, Conn., 1944</u>	1
12.	Monty Python's flying <b>circus</b> (Television program)	3
13.	Performers, <b>Circus</b> (term used in this catalog: Circus performers)	20

**FIGURE 20, Example 2, cont.**

14.	Piccadilly <b>Circus</b> (London, England) <u>information about this term</u>	5
15.	Women <b>circus</b> performers + <u>information about this term</u> <u>2 subjects related to Women circus performers</u>	32

**Option 2.** Placing the user in the index in the context of headings beginning with *circus*. (A compressed display: headings with subdivisions appear only after the main heading is selected.)

Subject:	No. of records:
Circus + <u>information about this term</u> <u>6 subjects related to Circus</u>	259
Circus animals + <u>information about this term</u> <u>2 subjects related to Circus animals</u>	5
Circus Flaminius (Rome, Italy) +	7
Circus in art +	10
Circus in literature	3
Circus owners + <u>information about this term</u> <u>1 subject related to Circus owners</u>	10
Circus performers + <u>information about this term</u> <u>5 subjects related to Circus performers</u>	20
Circus, Piccadilly (London, England) (name used in this catalog: Piccadilly Circus (London, England))	5

**FIGURE 20, Example 2, cont.**

**Option 3.** Immediate display of any other bibliographic records that have the heading *Circus--Models*.

**Example 3.** A user has been browsing through the films of Ingmar Bergman, and reading through the record for Magic Flute. The hyperlinked entry for Mozart's opera intrigues the user and leads him or her to wonder what recordings of this opera are in the library.

Magic flute (Motion picture : 1974)

The magic flute [motion picture] / directed, adapted for the screen and produced by Ingmar Bergman. -- New York, N.Y. : Distributed by the Surrogate Releasing Company, 1975. -- 2 reels (134 min.) : sd., b&w ; 16 mm.

Opera by Wolfgang Amadeus Mozart.

Credits: Director of photography, Sven Nykvist.

Conductor, Eric Ericson, with the Swedish State Broadcasting Network Symphony. Cast: Ulrik Gold (Sarastro); Josef Kostlinger (Tamino); Erik Saeden (speaker); Birgit Nordin (Queen of the Night); Irma Urrila (Pamina); Hakan Hagegard (Papageno); Elisabeth Erikson (Papagena); Ragnar Ulfung (Monostatos); Britt Marie Arunn, Kirsten Vaupel, Birgitta Smiding (three ladies); Urban Malmberg, Erland von Heilne, Ansgar Krook (three youths); Gosta Pruzelius, Ulf Johansson (two priests).

Credits supplied from the New York times review of Nov. 12, 1975.

Playing time on release in the U.S. was 134 min., according to the New York times review of Nov. 12, 1975.

Genre/form(s):                   1. Operas.  
  2. Features.

Other names and titles:       1. Bergman, Ingmar, 1918- direction<sup>77</sup>

Related works:                   1. Mozart, Wolfgang Amadeus, 1756-1791. Zauberflöte.

---

<sup>77</sup> A relator term (see Glossary).

**FIGURE 21. Examples of poorly functioning field labels in a single-record display**

**Example 1.** Defendant in a court case as main entry

Author: Borden, Lizzie, 1860-1927, defendant.  
Title: Trial of Lizzie Borden / edited, with a history of the case, by Edmund Pearson.

**Example 2.** Collector as main entry

Author: Morgan, J. Pierpont (John Pierpont), 1837-1913, collector.  
Title: The John Pierpont Morgan collection of the signers of the Declaration of Independence, 1761-1803.  
Notes: 150 items  
Financier and collector.  
Correspondence, documents, and portraits of the 56 signers of the Declaration of Independence.

**Example 3.** Performer as main entry

Author:<sup>78</sup> Pavarotti, Luciano.  
Title: Favorite arias [sound recording]  
Publisher: Santa Monica, CA : LaserLight, c1996.  
Physical description: 1 sound disc : digital, stereo. ; 4 3/4 in.  
Notes: Compact disc.  
Contents: Fra poco a me ricovero / Donizetti -- Un di felice eterea ; Anninai donde vieni? ; Libiamo, libiamo ne leite calici ; Lunge da lei ... de miei bollenti spiriti / Verdi -- Ludia perdona / Donizetti -- Nessun dorma / Puccini.

---

<sup>78</sup> At least one music library in the U.S. has their local system use the presence of ≠4 prf in the 100 field to cause the single-record display label to change from *Author:* to *Performer:*

**FIGURE 22. Example of a display of an electronic location and access field**

Andreoni, James.

The simple analytics of the environmental Kuznets curve [electronic resource] / James Andreoni, Arik Levinson. -- Cambridge, MA : National Bureau of Economic Research, 1998. -- (NBER working paper series ; no. 6739)

System requirements: Adobe Acrobat Reader.

Mode of access: World Wide Web. URL: <http://www.nber.org/papers/w6739>  
-- Electronic format type: PDF -- File size: 154,000 bytes.

Title from initial page of PDF file. Viewed on: April 8, 1999.

"Issued in September 1998."

Document formatted into pages and illustrated; contains 20 pages.

Electronic text of: Andreoni, James. The simple analytics of the environmental Kuznets curve. 20 p. : ill. ; 22 cm.

- Subjects:
1. Pollution--Economic aspects--Econometric models.
  2. Income distribution--Environmental aspects--Econometric models.
  3. Consumer behavior--Environmental aspects--Econometric models.
  4. Economic development--Environmental aspects--Econometric models.
  5. Environmental economics--Econometric models.

Other names and titles:

1. Levinson, Arik.
2. National Bureau of Economic Research.

Academic discipline: HB 1

Copy(ies) held:

Kennedy School of Government: Location: NAT 348 6739  
[Shelved at Circ Desk]

**FIGURE 23.** Example of a display of an author who uses multiple bibliographic identities (real name(s) and/or pseudonym(s)) that allows users the option of viewing all of the works of the author

[This display should result whenever the name heading (*McBain, Ed, 1926-*) has been selected.]

**McBain, Ed, 1926-**

Line no. [available for selection]		No. of records:
1.	McBain, Ed, 1926- <i>For works of this author written under other names, search also under.</i> <sup>79</sup>	18
2.	Cannon, Curt, 1926-	1
3.	Collins, Hunt, 1926-	1
4.	Hannon, Ezra	1
5.	Hunter, Evan, 1926-	15
6.	Marsten, Richard, 1926-	4
7.	ALL OF THE ABOVE	

---

<sup>79</sup> This text is derived from a 663 field in the MARC 21 authorities format found *only* in the authority record for Evan Hunter; to construct this display, it would be necessary to follow a reference to the Evan Hunter record from a 663 field in the Ed McBain record. Since authority records for authors that use only *one* pseudonym do not have 663 fields, and since some see also references are made because a needed see reference for one person is the form of name used for another person, it may not be possible to generate this display automatically and some human intervention may be necessary.

**FIGURE 24. Examples of authority record displays**

These displays should result from selecting the information about this name hyperlink in a previous display

**Example 1. Personal name example:**

**Arbuckle, Roscoe, 1887-1933.**

Name used in this catalog:	Arbuckle, Roscoe, 1887-1933.
Name(s) not used:	Arbuckle, Fatty, 1887-1933 Goodrich, William, 1887-1933
Note(s): <sup>80</sup>	Halliwell's Filmgoer's comp., 1980 (Roscoe "Fatty" Arbuckle: b. 1887; d. 1933; actor; also directed films as William Goodrich)

**Example 2. Corporate name example:**

**Harvard University.**

Name used in this catalog:	Harvard University.
Name(s) not used:	Garvardskii universitet Ha-fo ta hsueh President and Fellows of Harvard College Harvard Universitesi
Earlier name <sup>81</sup> also used:	<u>Harvard College (1636-1780)</u>
Note(s):	f. in 1636, named for John Harvard, incorporated in 1650 Dict. of Am. hist., 1976 (Harvard University; f. 1636 as college; 1780 became university)

---

<sup>80</sup> The 680 field in the MARC 21 authority format is specifically defined as a note that can be displayed to the public.

<sup>81</sup> In MARC 21, the earlier name relationship can be identified by means of code 2 in the ≠w control subfield in the 510 field holding *Harvard College (1636-1780)* in this authority record.

**FIGURE 25.** Example of a headings display that begins with the first keyword the user typed in

Keyword-in-heading search for *Stewart Do* [truncation symbol]

Line no. for selection	No. of records	
1.	6	Cutting, Mary Stewart Doubleday, 1851-1924.
2.	2	Dean, Donald Stewart, 1916-
3.	4	Kettle, D. S. (Douglas Stewart)

YOUR SEARCH: Stewart Do#

4.	1	Stewart, Donald, 1911-1966.
5.	2	Stewart, Donald Ogden, 1894-
6.	1	Stewart, Donald Ogden, 1894---Drama.
7.	2	Stewart, Douglas.
8.	1	Stewart, Douglas Day.

Move up by 1    by 10    by 100    by []  
Move down by 1    by 10    by 100    by []

**FIGURE 26.** Example of a summary display of headings matched that places the user's search in context in the entire index next to the heading that most closely matches the search

exact-beginning search for *Stewart Don*

No. of  
postings

- 1 Stewart, Cecil
- 1 Stewart, David J., d. 1966.
- 1 Stewart, Dick

**STEWART DON** IS NOT USED AS A NAME IN  
OUR CATALOG; COULD ONE OF THESE NEARBY  
NAMES SATISFY YOUR QUERY?

- 1 **Stewart, Donald**, 1911-1966.
- 1 **Stewart, Donald** Ogden, 1894-
- 2 Stewart, Douglas.
- 1 Stewart, Douglas Day.

Move up by 1    by 10   by 100   by []  
Move down by 1   by 10   by 100   by []

NOTE: Once you place a user in the entire index in this fashion, it is probably no longer possible to assign permanent line numbers as is recommended in A.8. Instead, headings must be selected either by point-and-click methods, or by means of temporarily assigned line numbers that last only as long as the screen is displayed.

**FIGURE 27. Examples of displays with and without uniform titles**

[These displays should result whenever the Emerson heading has been selected.]

**POOR** (Display of works written by Ralph Waldo Emerson without uniform titles;  
The American scholar, and An oration ... are the same work, but they  
appear far apart in this display)

**Emerson, Ralph Waldo, 1803-1882.**

1. L'ame anglaise. 1934.
2. The American scholar. 1901.
3. Collected poems & translations. c1994.
4. The collected works of Ralph Waldo Emerson. 1971-1994.
5. Compensation. 1927.
6. English traits. 1902.
7. English traits. 1966.
8. Fortune of the republic. 1880, c1878.
9. Friendship. 1972.
10. Man the reformer. 1841. Microform.
11. Napoleon, or, The man of the world. 1947.
12. Nature. 1836.
13. Nature. 1991.
14. An oration, delivered before the Phi Beta Kappa Society at Cambridge,  
August 31, 1837. 1838.

**FIGURE 27, cont.**

**BETTER** (Display of works of Ralph Waldo Emerson with uniform titles)

**Emerson, Ralph Waldo, 1803-1882.**

1. [American scholar]. An oration, delivered before the Phi Beta Kappa Society at Cambridge, August 31, 1837. 1838.
2. The American scholar. 1901.
3. Collected poems & translations. c1994.
4. The collected works of Ralph Waldo Emerson. 1971-1994.
5. Compensation. 1927.
6. English traits. 1902.
7. English traits. 1966.
8. [English traits. French]. L'ame anglaise. 1934.
9. Fortune of the republic. 1880, c1878.
10. Friendship. 1972.
11. Man the reformer. 1841. Microform.
12. Napoleon, or, The man of the world. 1947.
13. Nature. 1836.
14. Nature. 1991.
15. An oration, delivered before the Phi Beta Kappa Society at Cambridge, August 31, 1837 [Title used in this catalog: *American scholar*]

Selection of line 15 should lead the user to the editions of *The American scholar* collocated above.

**FIGURE 27, cont.**

**EVEN BETTER** (Compressed display of works of Ralph Waldo Emerson using uniform titles to collocate all editions of each work)

**Emerson, Ralph Waldo, 1803-1882.**

**Work(s) by:**

Line no. [available for selection]	Title:	No. of records:
1.	American scholar	2
2.	Collected poems & translations	1
3.	The collected works of Ralph Waldo Emerson	1
4.	Compensation	1
5.	English traits	3
6.	Fortune of the republic	1
7.	Friendship	1
8.	Man the reformer	1
9.	Napoleon, or, The man of the world	1
10.	Nature	2

**Work(s) about Emerson, Ralph Waldo, 1803-1882.**

**FIGURE 28.** Example of a display that would allow the user to ask for a term with all narrower terms under it

[This would be a possible display for the user who selected 16 subjects related to Crabs after the heading *Crabs*, found in any kind of a subject heading search.]

**Crabs.**

	<u>Crabs.</u> <sup>82</sup>	13
	Synonyms: Brachyura	
Narrower subject(s):	<u>Blue crabs</u>	3
	<u>Dungeness crab</u>	1
	<u>Fiddler-crabs</u>	1
	<u>Freshwater crabs</u>	2
	<u>Gecarcinidae</u>	1
	<u>Ghost crabs</u>	1
	<u>Hermit crabs</u>	5
	<u>Leucosiidae</u>	1
	<u>Portunidae</u>	1
	<u>Sand-crabs</u>	1
	<u>Tanner crabs</u>	1
	<u>CRABS AND ALL NARROWER SUBJECTS UNDER IT</u>	31
Broader subject(s):	<u>Decapoda (Crustacea)</u>	14
Related subject(s):	<u>Cookery (Crabs)</u>	1
	<u>Crab culture</u>	1
	<u>Crab meat</u>	1
	<u>Crabbing</u>	3

---

<sup>82</sup> This line represents a compressed display of all works with the subject heading *Crabs*, as well as all works with subdivisions under *Crabs*; see the discussion of compression in **General Principles 9 and 10**.

**FIGURE 29.** Examples of displays that label subject headings as to their source for use in catalogs that derive their subject headings from more than one list or thesaurus

**Example 1.** Two subject heading lists use different terms for the same concept

[This would be a possible display for the following types of search:

keyword-within-heading subject search for *cancer*

exact-beginning subject search for *cancer*

phrase search (of headings only) for *cancer*

It would also be a possible result of the selection of the hot-linked subject heading *Cancer* in a single-record display retrieved using any type of search.]

Line no. [available for selection]	Subject:	No. of records attached:
12.	<b>Cancer</b> (term used by the Library of Congress)	33
13.	<b>Cancer</b> (term used by the National Library of Medicine for the same subject: Neoplasms) <sup>83</sup>	553

---

<sup>83</sup> The examples are derived from MARC 21, which uses the second indicator in subject heading tags (6XX) in bibliographic records to indicate the subject heading system or thesaurus used, e.g.:

650 \_0            Library of Congress Subject Headings (LCSH)

650 \_2            Medical Subject Headings (MeSH)

Additional thesauri or lists may be identified using second indicator 7 and a code for the thesaurus or list in a ≠2 subfield. In the authorities format, subject heading system or thesaurus is identified in the 008 field, character position 11; additional systems may be coded as z in character position 11, and represented by a code for the list or thesaurus in the ≠f subfield of the 040 field of an authority record.

**FIGURE 29, cont.**

**Example 2.** Two subject heading lists use the same term for the same concept

[This would be a possible display for the following types of search:

keyword-within-heading subject search for *irrigation*

exact-beginning subject search for *irrigation*

phrase search (of headings only) for *irrigation*

It would also be a possible result of the selection of the hot-linked subject heading *Irrigation* in a single-record display retrieved using any type of search.]

Line no. [available for selection]	Subject:	No. of records attached:
2.	<b>Irrigation</b> (term used by the Library of Congress)	78
3.	<b>Irrigation</b> (term used by the National Library of Medicine)	3

**FIGURE 30. Example of a subject authority record with useful scope notes**

This display could be shown to anyone who selected Information about this term in a previous display

**Labor**

Term used in this  
catalog:

Labor

Synonym(s) for this term: Labor and laboring classes

Broader subject(s):

Manpower

Narrower subject(s):

Judaism and labor  
Labor service  
National socialism and labor  
Semiskilled labor  
Skilled labor  
Unskilled labor

Related subject(s):

Work  
Working class

Note(s):

Here are entered works on the collective human activities involved in the production and distribution of goods and services. Works on the physical and mental exertion of individuals to produce or accomplish something are entered under Work.

**FIGURE 31. Example of a failed exact-beginning subject search on *chaos theory* placed in the context of alphabetically close subject headings**

Line no. [available for selection]	Subject:	No. of records attached:
1.	Chaos (Christian theology) <u>Information about this term</u> <u>1 subject related to Chaos (Christian theology)</u>	3
2.	Chaos (Christian theology) in literature	2
3.	Chaos (Theology) (term used in this catalog: Chaos (Christian theology))	3
4.	Chaos, Deterministic (term used in this catalog: Deterministic chaos)	3
5.	Chaos in systems (term used in this catalog: Chaotic behavior in systems)	266
6.	Chaos, Quantum (term used in this catalog: Quantum chaos)	9

**CHAOS THEORY** IS NOT USED IN OUR CATALOG; COULD ONE OF THESE NEARBY SUBJECTS SATISFY YOUR QUERY?

7.	Chaotic behavior in systems <u>Information about this term</u> <u>7 subjects related to Chaotic behavior in systems</u>	266
8.	Chaotic behavior in systems in literature	1
9.	Chaotic motion in systems (term used in this catalog: Chaotic behavior in systems)	266
10.	Chaouia (Berber people) <u>Information about this term</u> <u>3 subjects related to Chaouia (Berber people)</u>	2

**Move up by 1 by 10 by 100 by []**  
**Move down by 1 by 10 by 100 by []**

NOTE: Once you place a user in the entire index in this fashion, it is probably no longer possible to assign permanent line numbers as is recommended in A.8. Instead, headings must be selected either by point-and-click methods, or by means of temporarily assigned line numbers that last only as long as the screen is displayed.

**FIGURE 32. Example of a genre/form authority record with useful scope notes**

This display could be shown to anyone who selected Information about this term in a previous display

**Operas**

Term used in this  
catalog:

Operas

Synonym(s) for this term:

Operettas  
Puppet operas  
Singspiels

Broader subject(s):

Dramatic music

Note(s):

Here are entered musical works composed in this form. Works about opera are entered under the heading Opera.

**FIGURE 33. Examples of possible use of a subject heading search to lead a user into the classification**

**Example 1.** A mock-up of a possible subject heading search to lead a user into the Library of Congress classification

The user begins by doing a keyword-within-heading subject heading search for the term *water*, and is given the following initial compressed display:

Line no. [available for selection]	Subject:	No. of records
1.	Water.	82,332
2.	Water and architecture.	3
3.	Water and civilization.	4
4.	Water balance (Hydrology)	35
5.	Water banking	4
6.	Water bed industry	1
7.	Water beds (Furniture)	2
8.	Water beetles.	3
9.	Water birds.	371
10.	Water buffalo.	9

**FIGURE 33, Example 1, cont.**

The user, seeing how many postings there are under the term *water*, selects the heading and selects its hyperlink (or selects line 1). One of the options offered is: *Identify the works on this subject by academic discipline.*<sup>84</sup> The user chooses this option and gets the following initial results display:

**Water.**

Line no. [available for selection]	Disciplinary approach:	No. of records
1.	Geography and anthropology (G)	7,333
2.	Physical geography (GB)	6,271
3.	Social sciences (H)	10,987
4.	Economic history (HC-HD)	4,332
5.	Science (Q)	9,867
6.	Chemistry (QD)	12,433
7.	Natural history, biology (QH)	11,326
8.	Botany (QK)	431
9.	Microbiology (QR)	5,332
10.	Agriculture (S)	7,768
11.	Animal culture (SF)	10
12.	Technology (T)	210
13.	Hydraulic and ocean engineering (TC)	6,001
14.	Environmental technology, sanitary engineering (TD)	29
15.	Photography (TR)	2

This is a list of the general classification categories found on the bibliographic records that contain the LC subject heading *Water*. The user can now select one or more desired disciplines above. At the point that the user has selected a discipline, the user should be offered at least three options: (1) look through the bibliographic records already retrieved that have the desired disciplinary focus; or (2) browse through the shelf list (i.e. the list of call numbers assigned to items in the collection), starting at one of the selected classification categories; or (3) browse through the classification scheme itself starting at the selected classification category.

---

<sup>84</sup> Or, perhaps, *Identify the works on this subject by area of study, such as art, engineering, etc.*

**FIGURE 33, Example 1, cont.**

**Sample display if the user chooses the first option and asks to see Physical geography (GB):**

**Physical geography (GB)**

1. GB 661 Advances in hydroscience. 1964-
2. GB 661.2 Bowen, Robert. Surface water. 1982.
3. GB 665 Lanz, Klaus. The Greenpeace book of water. 1995.
4. GB 671 Wendt, Herbert, 1914- Quellen, Strome, Meere. English. The romance of water. 1969.

**At any point, the user should have the ability to select any classification number and see its hierarchy. For example, if the user selected the hyperlink for GB 653 or selected line 1. in the above display, one option available to the user should be the following display:**

1. G Geography and anthropology
2. GB Physical geography
3. GB 651-2998 Hydrology. Water
4. GB 653-653.2 Collected works (Nonserial)
5. **GB 653 Individual authors**

**At any point, it should be possible to return to a subject heading display as well. For example, one option should also be to select a classification number and then select the option of seeing a list of all subject headings assigned to materials with that classification number.**

**FIGURE 33, cont.**

**Example 2.** A mock-up of a possible subject heading search to lead a user into the Dewey Decimal Classification<sup>85</sup>

The user begins by doing a keyword-within-heading subject heading search for the term *water*, and is given the following initial compressed display:

Line no. [available for selection]	Subject:	No. of records
1.	Water.	2,327
2.	Water and architecture.	3
3.	Water and civilization.	4
4.	Water balance (Hydrology)	35
5.	Water banking	4
6.	Water bed industry	1
7.	Water beds (Furniture)	2
8.	Water beetles.	3
9.	Water birds.	371
10.	Water buffalo.	9

---

<sup>85</sup> The Dewey Decimal Classification (DDC) system is Copyright 1996-1999 OCLC Online Computer Library Center, Incorporated. Use of the DDC in an online system is subject to a license agreement with OCLC.

**FIGURE 33, Example 2, cont.**

The user, seeing how many postings there are under the term *water*, selects the hyperlink for the heading (or selects line 1). One of the options offered is: *Identify the works on this subject by academic discipline*. The user chooses this option, and gets the following initial results display:

**Water.**

Line no. [available for selection]	Disciplinary approach:	No. of records
1.	<b>300 Social sciences</b>	2
2.	333 Economics of land and energy	205
3.	341 International law	17
4.	343 Military, tax, trade, industrial law	22
5.	346 Private law	270
6.	363 Other social problems and services	658
7.	<b>500 Natural sciences and mathematics</b>	8
8.	541 Physical and theoretical chemistry	12
9.	546 Inorganic chemistry	40
10.	551 Geology, hydrology, meteorology	122
11.	553 Economic geology	105
	<b>600 Technology (Applied sciences)<sup>86</sup></b>	
12.	620 Engineering and allied operations	3
13.	627 Hydraulic engineering	18
14.	628 Sanitary and municipal engineering	845

**Sample display if the user chooses the 14th option and asks to see bibliographic records in the Sanitary and municipal engineering discipline (628):**

1.	628.1	Viessman, Warren. Water supply and pollution control. 1998
2.	628.161	Water quality monitoring network design. 1999
3.	628.162	Stevenson, David G. Water treatment unit processes. 1997
4.	628.3	Rendell, Frank. Water and waste water project development. 1999

..., etc.

---

<sup>86</sup> To ensure comprehensibility, it might be a good idea to include in the display any X00 number that has subordinate numbers in the display, even if the X00 number itself does not have postings. They are bolded here to make them stand out and to help organize the display a little better.

**FIGURE 33, Example 2, cont.**

**At any point, the user should have the ability to select any classification number and see its hierarchy. For example, if the user selected line 1 and asked to see its hierarchy, the following display should result:**

1. 600 Technology (Applied sciences)
2.       620 Engineering and allied operations
3.           628 Sanitary and municipal engineering
4.               628.1 Water supply

**FIGURE 34. Example of display of a classification number in a single bibliographic record**

Bower, Tom.

Klaus Barbie, the "Butcher of Lyons" / by Tom Bower. -- 1st American ed. -- New York : Pantheon Books, c1984. -- 255 p., [16] p. of plates : ill. ; 25 cm.

Bibliography: p. 239-240.  
Includes index.

Subjects:     1. Barbie, Klaus, 1913-  
              2. World War, 1939-1945--Atrocities.  
              3. War criminals--Germany--Biography.

Academic discipline: D 804 G4

Copies held:

College Library:	Location:	D 804 G4B68 1984
		Not checked out
Research Library:	Location:	D 804 G4B68 1984
		Checked out; due April 13, 2000
Remote Storage:	Location:	A0012613600
		Not checked out

**FIGURE 35.** Spanish sort order for a Spanish language catalog

Nystrom, J. Warren  
Nystrom-Hamilton, Louise  
Nystul, Mike  
Nysztor, Zoltan  
Nyx, Nestor  
Nze Abui, R. Maria  
Nzekw, Onvora  
Nzombe, Shepherd  
Nzouankeu, Jacques Mariel  
Ñacle Garcia, Angel  
Ñaco del Hoyo, Toni  
Ñapus  
Ñato, Calisto  
Ñiguez, Antonio  
Ñiguez, Paco  
Ñiguez Bernal, Antonio

**FIGURE 36.** An optional function to allow users to create bibliographies by allowing selection of the bibliographic records under more than one heading

See **Figure 6** for searching that precedes this initial results display:

Line no. [available for selection]	Subject:	No. of records:
1.	Africa--Colonization	147
2.	Afro-Americans--Colonization <u>information about this term</u>	240
3.	Argentina--Colonization	11
4.	Brazil--Colonization	15
5.	Colonization + <sup>87</sup> <u>information about this term</u> <u>12 subjects related to Colonization</u>	195
6.	Jews--Colonization <u>information about this term</u> <u>1 subject related to Jews--Colonization</u>	120
7.	Texas--Colonization	5

---

<sup>87</sup> The '+' symbol is being used in these examples to signal the presence of further subdivisions in displays of subject headings that are compressed to the main heading on the initial results display.

**FIGURE 36, cont.**

User exercises the option to collect the bibliographic records posted under both line 3 and line 4:

Default:

Argentina--**Colonization**

Line no.      Name and title:  
[available  
for selection]

1.            Brougnes, A. (Auguste). Extinción del pauperismo agrícola por medio de la colonización en las provincias del Rio de la Plata con un bosquejo jeográfico é industrial. -- 1855. Research Library. F 2808 B84
2.            Cervera, Manuel María, 1863- Boceto histórico del Dr. Manuel M. Cervera sobre colonización argentina y fundación de Esperanza. -- [1956] Research Library. F 3011 E87 C47 1956
3.            Dawe, Oliver, 1922- Piedras de Afilar : the unfulfilled dream of a 19th-century Scottish botanist in South America. -- c1988. Research Library. F 3021 B86 D39 1988
4.            Delegación de Asociaciones Israelitas Argentinas. Archivo DAIA : Delegación Asociaciones Israelitas Argentinas. -- 1986- Research Library. F 3021 J5 D42 1986
5.            Díaz Molano, Elías. Nicasio Oroño, colonizador. -- c1977. Research Library. F 2976 O76 D5
6.            Jefferson, Mark Sylvester William, 1863-1949. Peopling the Argentine pampa. -- [1971] Research Library. HD 1516 A6 J3
7.            Konetzke, Richard, 1897- La emigración española al Rio de la Plata durante el siglo 16. -- 1952. Research Library. F 2841 K6
8.            Martínez de Gorla, Dora Noemí. La colonización del riego en las zonas tributarias de los ríos, Negro, Neuquén, Limay y Colorado. -- 1994. Research Library. HD 1516 A7 M37 1994
9.            Pellegrine, Rodolfo F. En la nueva Argentina : colonia modelo : proyecto de colonización. -- 1951. Research Library. HD 478 P364e

**FIGURE 36, cont.**

10. The River Plate (South America) as a field for emigration : with particulars in reference to the various project for its colonization & European settlement, including the schemes for populating the Grand Chaco and central Argentina railway territory, Patagonia, Bahla Blanca and other parts of the Argentine confederation. [1871?] Remote storage.
11. Tur, Carlos M. Colonias y colonizadores. -- 1972. Research Library. HD 475 T87

**Brazil--Colonization**

Line no. Name and title:  
[available  
for selection]

- 1 Almeida, Anna Luiza Ozorio de. Colonização dirigida na Amazônia. -- 1992. Research Library. HD 499 A44 A44 1992
- 2 Almeida, Anna Luiza Ozorio de. Colonização dirigida na Amazônia. The colonization of the Amazon. -- 1992. Research Library. HD 499 A44 A4413 1992
- 3 Bosi, Alfredo, 1936- Dialética da colonização. -- 1992. Research Library. F 2510 B67 1992
- 4 Brazil. Conselho de imigração e colonização. Revista de imigração e colonização. 1940- Research Library. JV 7460 A3
- 5 Cortês, Geraldo de Menezes, 1911- Migração e colonização no Brasil. 1958. Research Library. JV 7462 C81m
- 6 Ferrez, Gilberto. Colonização de Teresópolis; a sombra do dedo de Deus 1700-1900, da fazenda March a Teresópolis. 1970. Remote storage. F 2651 T4 F4
- 7 Fonseca, Célia Freire A. A economia européia e a colonização do Brasil : a experiência de Duarte Coelho. -- 1978. Research Library. HC 187 F732e 1978
- 8 Jurema, Aderbal. O sentido da colonização portuguesa no Brasil : conferência pronunciada no dja [sic] 2 de Maio de 1942 ... -- 1942. Remote storage.
- 9 Lessa, Luis Carlos Barbosa. Era de Aré : raízes do Cone Sul. -- c1993. Research Library. F 2217 L47 1993
- 10 Metcalf, Alida C., 1954- Family and frontier in colonial Brazil : Santana de Parnaíba, 1580-1822. -- 1992. Research Library. HQ 594.15 S24 M48 1992

**FIGURE 36, cont.**

- 11 Mueller, Charles Curt. Colonization policies, land occupation and deforestation in the Amazon countries. -- [1992] Research Library. HD 499 A44 M838 1992
- 12 Novais, Fernando A. Estrutura e dinâmica do antigo sistema colonial (séculos XVI-XVII). -- 1977. Remote storage.
- 13 Paiva, José Maria de. Colonização e catequese, 1549-1600. -- 1982. Research Library. F 2524 P3 1982
- 14 Santos, José Vicente Tavares dos. Matuchos : exclusão e luta : do sul para a Amazônia. -- 1993. Research Library. HD 499 A44 S26 1993
- 15 Wilkening, Eugene A. Sociological aspects of colonization as viewed from Brazil, 1967. Remote storage.

Option:

Argentina--Colonization  
 Brazil--Colonization  
 IN ONE ALPHABET

Line no. Name and title:  
 [available  
 for selection]

- 1. Almeida, Anna Luiza Ozorio de. Colonização dirigida na Amazônia. -- 1992. Research Library. HD 499 A44 A44 1992
- 2. Almeida, Anna Luiza Ozorio de. Colonização dirigida na Amazônia. The colonization of the Amazon. -- 1992. Research Library. HD 499 A44 A4413 1992
- 3. Bosi, Alfredo, 1936- Dialética da colonização. -- 1992. Research Library. F 2510 B67 1992
- 4. Brazil. Conselho de imigração e colonização. Revista de imigração e colonização. 1940- Research Library. JV 7460 A3
- 5. Brougues, A. (Auguste). Extinción del pauperismo agrícola por medio de la colonización en las provincias del Rio de la Plata con un bosquejo jeográfico é industrial. -- 1855. Research Library. F 2808 B84
- 6. Cervera, Manuel María, 1863- Boceto histórico del Dr. Manuel M. Cervera sobre colonización argentina y fundación de Esperanza. -- [1956] Research Library. F 3011 E87 C47 1956

**FIGURE 36, cont.**

7. Cortês, Geraldo de Menezes, 1911- Migração e colonização no Brasil. 1958. Research Library. JV 7462 C81m
8. Dawe, Oliver, 1922- Piedras de Afilar : the unfulfilled dream of a 19th-century Scottish botanist in South America. -- c1988. Research Library. F 3021 B86 D39 1988
9. Delegación de Asociaciones Israelitas Argentinas. Archivo DAIA : Delegación Asociaciones Israelitas Argentinas. -- 1986- Research Library. F 3021 J5 D42 1986
10. Díaz Molano, Elías. Nicasio Oroño, colonizador. -- c1977. Research Library. F 2976 O76 D5
11. Ferrez, Gilberto. Colonização de Teresópolis; a sombra do dedo de Deus 1700-1900, da fazenda March a Teresópolis. 1970. Remote storage. F 2651 T4 F4
12. Fonseca, Célia Freire A. A economia européia e a colonização do Brasil : a experiência de Duarte Coelho. -- 1978. Research Library. HC 187 F732e 1978
13. Jefferson, Mark Sylvester William, 1863-1949. Peopling the Argentine pampa. -- [1971] Research Library. HD 1516 A6 J3
14. Jurema, Aderbal. O sentido da colonização portuguesa no Brasil : conferência pronunciada no dia [sic] 2 de Maio de 1942 ... -- 1942. Remote storage.
15. Konetzke, Richard, 1897- La emigración española al Rio de la Plata durante el siglo 16. -- 1952. Research Library. F 2841 K6
16. Lessa, Luis Carlos Barbosa. Era de Aré : raízes do Cone Sul. -- c1993. Research Library. F 2217 L47 1993
17. Martínez de Gorla, Dora Noemí. La colonización del riego en las zonas tributarias de los ríos, Negro, Neuquén, Limay y Colorado. -- 1994. Research Library. HD 1516 A7 M37 1994
18. Metcalf, Alida C., 1954- Family and frontier in colonial Brazil : Santana de Parnaíba, 1580-1822. -- 1992. Research Library. HQ 594.15 S24 M48 1992
19. Mueller, Charles Curt. Colonization policies, land occupation and deforestation in the Amazon countries. -- [1992] Research Library. HD 499 A44 M838 1992
20. Novais, Fernando A. Estrutura e dinâmica do antigo sistema colonial (séculos XVI-XVII). -- 1977. Remote storage.
21. Paiva, José Maria de. Colonização e catequese, 1549-1600. -- 1982. Research Library. F 2524 P3 1982
22. Pellegrine, Rodolfo F. En la nueva Argentina : colonia modelo : proyecto de colonización. -- 1951. Research Library. HD 478 P364e

**FIGURE 36, cont.**

23. The River Plate (South America) as a field for emigration : with particulars in reference to the various project for its colonization & European settlement, including the schemes for populating the Grand Chaco and central Argentina railway territory, Patagonia, Bahla Blanca and other parts of the Argentine confederation. [1871?] Remote storage.
24. Santos, José Vicente Tavares dos. Matuchos : exclusão e luta : do sul para a Amazônia. -- 1993. Research Library. HD 499 A44 S26 1993
25. Tur, Carlos M. Colonias y colonizadores. -- 1972. Research Library. HD 475 T87
26. Wilkening, Eugene A. Sociological aspects of colonization as viewed from Brazil, 1967. Remote storage.

NEVER let either situation be the default for the user who displays the bibliographic records under line 3, and then asks to see a display of the bibliographic records under line 4.

**FIGURE 37. An optional function to allow users to resort the manifestations of expressions of a particular work by the title on the item**

**Mussorgsky, Modest Petrovich, 1839-1881. Kartinki s vystavki**  
Work 18 of 18

Line no. [available for selection]	Editions by title on item:	No. of records:
1.	Bilder einer Ausstellung.	8
2.	Pictures at an exhibition.	25
3.	Pictures from an exhibition.	5
4.	Tableaux d'une exposition.	5

**FIGURE 38. Call numbers displayed in shelflist order**

An example of a display that could result when a mathematician, who is familiar with the LC classification in his field, does a call number search on the call number QA 297 (representing numerical analysis). The work headings are not in perfect alphabetical order because over time this library has changed from creating shelfmarks locally to simply using Library of Congress shelfmarks as is (when available).

Line no. [available for selection]	Call no.	Work:
1.	QA 297 A188n	Acton, Forman S. Numerical methods that work. [1970] Math Library <sup>88</sup>
2.	QA 297 A188n 1990	Acton, Forman S. Numerical methods that work. -- c1990. Math Library
3.	QA 297 A32 1987	ACM Conference on the History of Scientific and Numeric Computation (1987 : Princeton, N.J.) Conference proceedings : papers presented at the conference, Princeton, New Jersey, May 13-15, 1987. -- c1987. Math Library
4.	QA 297 A327	Acta numerica. c1992- Math Library
5.	QA 297 A38 1990	Advances in numerical analysis / 1991-1992. Math Library
6.	QA 297 A4 1986	Al-Khafaji, Amir Wadi. Computerized numerical analysis. -- c1986. Math Library
7.	QA 297 A44 1975	Allen, Bronwyn. Numerical investigation of infinite stochastic matrices / 1975. Math Library
8.	QA 297 A512 1978	American Mathematical Society Short Course on Numerical Analysis (1978 : Atlanta, Ga.) Numerical analysis. -- 1978. Math Library
9.	QA 297 A52 1977	Anderssen, R. S. Some numerical aspects of improperly posed problems, or, Why regularization works and when not to use it. -- 1977. Math Library

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<sup>88</sup> Display includes records that were catalogued pre-ISBD, so are not in ISBD format.

**FIGURE 38, cont.**

- |     |                  |  |
|-----|------------------|--|
| 10. | QA 297 A552o     | Anderssen, R. S. On the numerical differentiation of data 1972. Math Library   |
| 11. | QA 297 A57 1995  | AMS-SIAM Summer Seminar in Applied Mathematics (25th : 1995 : Park City, Utah) The mathematics of numerical analysis. -- c1996. Math Library |
| 12. | QA 297 A652 1971 | Applications of number theory to numerical analysis. Applications de la théorie des nombres à l'analyse numérique. 1972. Math Library        |
| 13. | QA 297 A66       | Apple Computer, Inc. Apple numerics manual. -- 1986. Research Library  |
| 14. | QA 297 A66       | Applied numerical mathematics : transactions of IMACS. c1985- Math Library   |
| 15. | QA 297 A85 1983  | Atkinson, Laurence. An introduction to numerical methods with Pascal. -- c1983. Math Library   |
| 16. | QA 297 A876 1978 | Atkinson, Kendall E. An introduction to numerical analysis. -- c1978. Math Library   |
| 17. | QA 297 A876 1989 | Atkinson, Kendall E. An introduction to numerical analysis. -- c1989. Math Library   |

**FIGURE 39. Illustration of display of multiple title headings**

**Example 1.** Results of a keyword-in-heading search of a title headings index on the term *rebel*:

**1A. POOR** (Inclusion in the title headings index of titles that are coded not to be traced in the MARC 21 format, in a system that does not follow **Heading principle 3**, respect sorting elements):

Line no. [available for selection]	Title:	No. of records:
1.	Benjamin Franklin. [Part 3], The <b>rebel</b> . <sup>89</sup>	1
2.	Crossroads (Television program : 1955-1957). <b>Rebel</b> .	1
3.	<b>Rebel</b> . Absolution. <sup>90</sup>	1
4.	<b>Rebel</b> . Calley Kid.	1
5.	<b>Rebel</b> de solitario.	1
6.	<b>Rebel</b> . Executioner.	1
7.	<b>Rebel</b> girls.	1
8.	<b>Rebel</b> . Gun city.	1
9.	<b>Rebel</b> in the mountains: the Fidel Castro story. Hearst vault material, HVMc5035r1, 151198, HVMc5013r2. 150193. <sup>91</sup>	2
10.	<b>Rebel</b> . Johnny Yuma at Appomattox.	2
11.	<b>Rebel</b> . Miz Purdy.	1
12.	<b>Rebel</b> (Motion picture) (Title used in this catalog: Call me genius). <sup>92</sup>	3
12.	<b>Rebel</b> of the road (Title used in this catalog: Hot rod).	1
13.	<b>Rebel</b> Patagonia.	1
15.	<b>Rebel</b> rabbit.	2
16.	<b>Rebel</b> . Rattler.	1
17.	<b>Rebel</b> strike leader John Grunau. Hearst silent vault material, INT2580]. <sup>93</sup>	1

<sup>89</sup> 245 00 in the MARC 21 bibliographic format, with no 130 field.

<sup>90</sup> 245 00 in the MARC 21 bibliographic format with a 130 field.

<sup>91</sup> 730 02 in the MARC 21 bibliographic format.

<sup>92</sup> 430 \_0 in the MARC 21 authorities format.

<sup>93</sup> 245 00 in the MARC 21 bibliographic format.

**FIGURE 39, Example 1A, cont.**

18.	<b>Rebel</b> students demonstrate at University of California, Berkeley, and at Oakland's Tribune--California. Hearst vault material, HVMc6037r1, 217331].	3
19.	<b>Rebel</b> (Television program : 1959-1962). Absolution. <sup>94</sup>	1
20.	<b>Rebel</b> (Television program : 1959-1962). Calley Kid.	1
21.	<b>Rebel</b> (Television program : 1959-1962). Executioner.	1
22.	<b>Rebel</b> (Television program : 1959-1962). Gun city.	1
23.	<b>Rebel</b> (Television program : 1959-1962). Johnny Yuma at Appomattox.	2
24.	<b>Rebel</b> (Television program : 1959-1962). Miz Purdy.	1
25.	<b>Rebel</b> (Television program : 1959-1962). Rattler.	1
26.	<b>Rebel</b> (Television program : 1959-1962)--television promo. <sup>95</sup>	1
27.	<b>Rebel</b> (Television program : 1959-1962). Uncourageous.	1
28.	<b>Rebel</b> (Television program : between 1974 and 1975?) (title used in this catalog: Texas wheelers. Rebel) <sup>96</sup>	1
29.	<b>Rebel</b> . Uncourageous.	1
30.	<b>Rebel</b> with a cause (Title used in this catalog: Loneliness of the long distance runner).	3
31.	<b>Rebel</b> without a cause.	2
32.	<b>Rebel</b> without a cause--trailer].	5
33.	The <b>rebel</b> yell.	1
34.	Rough riders (Television program). Last <b>rebel</b> .	1
35.	Texas Wheelers. <b>Rebel</b> .	1

<sup>94</sup> 130 0\_ in the MARC 21 bibliographic format.

<sup>95</sup> See footnote 91.

<sup>96</sup> 246 in the MARC 21 bibliographic format converted into a see reference to the work heading on the bibliographic record.

**FIGURE 39, Example 1B, cont.**

**1B. BETTER** (Inclusion in the title headings index of titles that are coded not to be traced in the MARC 21 format, in a system that does follow **Heading principle 3**, respect sorting elements):

Line no. [available for selection]	Title:	No. of records:
1.	Benjamin Franklin. [Part 3], The <b>rebel</b> . <sup>97</sup>	1
2.	Crossroads (Television program : 1955-1957). <b>Rebel</b> .	1
3.	<b>Rebel</b> . Absolution. <sup>98</sup>	1
4.	<b>Rebel</b> . Calley Kid.	1
5.	<b>Rebel</b> . Executioner.	1
6.	<b>Rebel</b> . Gun city.	1
7.	<b>Rebel</b> . Johnny Yuma at Appomattox.	2
8.	<b>Rebel</b> . Miz Purdy.	1
9.	<b>Rebel</b> . Rattler.	1
10.	<b>Rebel</b> . Uncourageous.	1
11.	<b>Rebel</b> (Motion picture) (Title used in this catalog: Call me genius). <sup>99</sup>	3
12.	<b>Rebel</b> (Television program : 1959-1962). Absolution. <sup>100</sup>	1
13.	<b>Rebel</b> (Television program : 1959-1962). Calley Kid.	1
14.	<b>Rebel</b> (Television program : 1959-1962). Executioner.	1
15.	<b>Rebel</b> (Television program : 1959-1962). Gun city.	1
16.	<b>Rebel</b> (Television program : 1959-1962). Johnny Yuma at Appomattox.	2
17.	<b>Rebel</b> (Television program : 1959-1962). Miz Purdy.	1
18.	<b>Rebel</b> (Television program : 1959-1962). Rattler.	1
19.	<b>Rebel</b> (Television program : 1959-1962)--television promo. <sup>101</sup>	1
20.	<b>Rebel</b> (Television program : 1959-1962). Uncourageous.	1
21.	<b>Rebel</b> (Television program : between 1974 and 1975?) (title used in this catalog: Texas wheelers. Rebel) <sup>102</sup>	1

<sup>97</sup> See footnote 89.

<sup>98</sup> See footnote 90.

<sup>99</sup> See footnote 92.

<sup>100</sup> See footnote 94.

<sup>101</sup> See footnote 91.

<sup>102</sup> See footnote 95.

22.	<b>Rebel</b> de solitario.	1
<b>FIGURE 39, Example 1B, cont.</b>		
23.	<b>Rebel</b> girls.	1
24.	<b>Rebel</b> in the mountains: the Fidel Castro story. Hearst vault material, HVMc5035r1, 151198, HVMc5013r2. 150193. <sup>103</sup>	2
25.	<b>Rebel</b> of the road (Title used in this catalog: Hot rod).	1
26.	<b>Rebel</b> Patagonia.	1
27.	<b>Rebel</b> rabbit.	2
28.	<b>Rebel</b> strike leader John Grunau. Hearst silent vault material, INT2580]. <sup>104</sup>	1
29.	<b>Rebel</b> students demonstrate at University of California, Berkeley, and at Oakland's Tribune--California. Hearst vault material, HVMc6037r1, 217331].	3
30.	<b>Rebel</b> with a cause (Title used in this catalog: Loneliness of the long distance runner).	3
31.	<b>Rebel</b> without a cause.	2
32.	<b>Rebel</b> without a cause--trailer].	5
33.	The <b>rebel</b> yell.	1
34.	Rough riders (Television program). Last <b>rebel</b> .	1
35.	Texas Wheelers. <b>Rebel</b> .	1

**1C. BEST** (Exclusion from the title headings index of titles that are coded not to be traced in the MARC 21 format in a system that does respect sorting elements); excluding titles that catalogers have determined need not be traced has the effect of making a much more compact index and one that is easier to scan; in addition, this display meets second function of the catalog (see **General Principle 1**) better than the other displays, because it is the only one that collocates the entire television program *The Rebel* (a work in parts or "episodes"):

Line no. [available for selection]	Title:	No. of records:
1.	Benjamin Franklin. [Part 3], The <b>rebel</b> . <sup>105</sup>	1

<sup>103</sup> See footnote 91.

<sup>104</sup> See footnote 93.

<sup>105</sup> See footnote 89.

2. Crossroads (Television program : 1955-1957). Rebel. 1

**FIGURE 39, Example 1C, cont.**

3.	<b>Rebel</b> (Motion picture) (Title used in this catalog: Call me genius). <sup>106</sup>	3
4.	<b>Rebel</b> (Television program : 1959-1962). Absolution. <sup>107</sup>	1
5.	<b>Rebel</b> (Television program : 1959-1962). Calley Kid.	1
6.	<b>Rebel</b> (Television program : 1959-1962). Executioner.	1
7.	<b>Rebel</b> (Television program : 1959-1962). Gun city.	1
8.	<b>Rebel</b> (Television program : 1959-1962). Johnny Yuma at Appomattox.	2
9.	<b>Rebel</b> (Television program : 1959-1962). Miz Purdy.	1
10.	<b>Rebel</b> (Television program : 1959-1962). Rattler.	1
11.	<b>Rebel</b> (Television program : 1959-1962)--television promo. <sup>108</sup>	1
12.	<b>Rebel</b> (Television program : 1959-1962). Uncourageous.	1
13.	<b>Rebel</b> (Television program : between 1974 and 1975?) (title used in this catalog: Texas wheelers. Rebel) <sup>109</sup>	1
14.	<b>Rebel</b> de solitario.	1
15.	<b>Rebel</b> girls.	1
16.	<b>Rebel</b> in the mountains: the Fidel Castro story. Hearst vault material, HVMc5035r1, 151198, HVMc5013r2. 150193. <sup>110</sup>	2
17.	<b>Rebel</b> of the road (Title used in this catalog: Hot rod).	1
18.	<b>Rebel</b> Patagonia.	1
19.	<b>Rebel</b> rabbit.	2
20.	<b>Rebel</b> strike leader John Grunau. Hearst silent vault material, INT2580]. <sup>111</sup>	1
21.	<b>Rebel</b> students demonstrate at University of California, Berkeley, and at Oakland's Tribune--California. Hearst vault material, HVMc6037r1, 217331].	3
22.	<b>Rebel</b> with a cause (Title used in this catalog: Loneliness of the long distance runner).	3
23.	<b>Rebel</b> without a cause.	2
24.	<b>Rebel</b> without a cause--trailer].	5
25.	The <b>rebel</b> yell.	1

<sup>106</sup> See footnote 92.

<sup>107</sup> See footnote 94.

<sup>108</sup> See footnote 91.

<sup>109</sup> See footnote 95.

<sup>110</sup> See footnote 91.

<sup>111</sup> See footnote 93.

**FIGURE 39, Example 1C, cont.**

26.	Rough riders (Television program). Last <b>rebel</b> .	1
27.	Texas Wheelers. <b>Rebel</b> .	1

**Example 2.** Results of a keyword-in-heading search of a title headings index on the term *young*:

**2A. POOR** (Inclusion in the title headings index of titles that match see references)

Line no. [available for selection]	Title:	No. of records:
...		
76.	Dick van Dyke show (1961-1966). <b>Young</b> man with a shoehorn.	1
77.	Dying <b>young</b> .	1
78.	Family affair (Television program). <b>Young</b> man from Bolivia.	1
79.	F.B.I. (Television program). <b>Young</b> warriors.	1
70.	Forever <b>young</b> --trailer.	1
71.	General Electric theater. You're only <b>young</b> once.	1
72.	Girl was <b>young</b> .	2
73.	Go west <b>young</b> woman.	1
74.	Hearst Metrotone news. Vol. 6, no. 203--outtakes. <b>Young</b> transients, New York City, HCOc56r5, XD4.	2
...		
722	<b>Young</b> America (Motion picture : 1932)	1
723	<b>Young</b> America (Motion picture : 1942)	1
724	<b>Young</b> America (Television program). Pilot.	1
725	<b>Young</b> and handsome.	2
726	<b>Young</b> and healthy	1
727	<b>Young</b> and innocent <sup>112</sup>	1
728	<b>Young</b> and innocent <sup>113</sup> (Title used in this catalog: Girl was <b>young</b> )	2
729	<b>Young</b> and the brave--trailer.	1

<sup>112</sup> 245 10 with a 130 field in the MARC 21 bibliographic format; only one record has this title on the item.

<sup>113</sup> 430 \_0 in the MARC 21 authorities format on the authority record for Girl was young (130); two records are linked to this authority record.

**FIGURE 39, Example 2A, cont.**

730	Young and the damned.	4
731	Young and the damned--trailer.	1
733	The young and the rest of us (Title used in this catalog: Murphy Brown. Young and the rest of us)	1

**2B. BETTER** (Exclusion from the title headings index of titles that match see references, even when they have been coded to be traced)

Line no. [available for selection]	Title:	No. of records:
...		
76.	Dick van Dyke show (1961-1966). Young man with a shoehorn.	1
77.	Dying young.	1
78.	Family affair (Television program). Young man from Bolivia.	1
79.	F.B.I. (Television program). Young warriors.	1
70.	Forever young--trailer.	1
71.	General Electric theater. You're only young once.	1
72.	Girl was young.	2
73.	Go west young woman.	1
74.	Hearst Metrotone news. Vol. 6, no. 203--outtakes. Young transients, New York City, HCOc56r5, XD4.	2
...		
722	Young America (Motion picture : 1932)	1
723	Young America (Motion picture : 1942)	1
724	Young America (Television program). Pilot.	1
725	Young and handsome.	2
726	Young and healthy	1
727	Young and innocent (Title used in this catalog: Girl was young).	2
728	Young and the brave--trailer.	1
729	Young and the damned.	4

**FIGURE 39, Example 2B, cont.**

730	<b>Young</b> and the damned--trailer.	1
731	The <b>young</b> and the rest of us (Title used in this catalog: Murphy Brown. <b>Young</b> and the rest of us)	1

**FIGURE 40. Value of display by title rather than work heading under a single selected name heading**

The recommended default display by title and the recommended optional display by work heading of the works listed under the personal name heading for Virginia E. Johnson.

Default:

**Johnson, Virginia E.**

Line no.      Title:  
[available  
for selection]

1.              CRISIS : heterosexual behavior in the age of AIDS. -- 1988. Research Library. RA 644 A25M38 1988
2.              Ethical issues in sex therapy and research. -- 1977-1980. Medical Library. HQ 31 E84 1977
3.              Heterosexuality. -- 1994. Research Library. HQ 21 M46156 1994
4.              Homosexuality in perspective. -- 1979. Research Library. HQ 76 M393h 1979
5.              Human sexual inadequacy. [1970] Research Library. RC 556 M37 1971x
6.              Human sexual inadequacy. French. Les Méseententes sexuelles et leur traitement. 1971.
7.              Human sexual response. [1966] Medical Library. QP 251 M393h 1966
8.              Human sexuality. -- c1985. Medical Library. HQ 21 M423h 1985
9.              Human sexuality. -- c1988. Medical Library. HQ 21 M423h 1988
10.             Masters and Johnson on sex and human loving. c1988. Research Library. HQ 21 M46158 1988
11.             The pleasure bond: a new look at sexuality and commitment. [c1974] Research Library. HQ 21 M393p
12.             Textbook of sexual medicine. -- 1979. Medical Library. WM 611 K81t 1979

Work(s) about Johnson, Virginia E.

**FIGURE 40., cont.**

Option:

**Johnson, Virginia E.**

**DISPLAY BY NAME AND TITLE**

Line no.      Name and title:  
[available  
for selection]

1.            Ethical issues in sex therapy and research. -- 1977-1980. Medical Library. HQ 31 E84 1977
2.            Kolodny, Robert C. Textbook of sexual medicine. -- 1979. Medical Library. WM 611 K81t 1979
3.            Masters, William H. CRISIS : heterosexual behavior in the age of AIDS. -- 1988. Research Library. RA 644 A25M38 1988
4.            Masters, William H. Heterosexuality. -- 1994. Research Library. HQ 21 M46156 1994
5.            Masters, William H. Homosexuality in perspective. -- 1979. Research Library. HQ 76 M393h 1979
6.            Masters, William H. Human sexual inadequacy. [1970] Research Library. RC 556 M37 1971x
7.            Masters, William H. Human sexual inadequacy. French. Les Mésententes sexuelles et leur traitement. 1971.
8.            Masters, William H. Human sexual response. [1966] Medical Library. QP 251 M393h 1966
9.            Masters, William H. Human sexuality. -- c1985. Medical Library. HQ 21 M423h 1985
10.          Masters, William H. Human sexuality. -- c1988. Medical Library. HQ 21 M423h 1988
11.          Masters, William H. Masters and Johnson on sex and human loving. c1988. Research Library. HQ 21 M46158 1988
12.          Masters, William H. The pleasure bond: a new look at sexuality and commitment. [c1974] Research Library. HQ 21 M393p

Work(s) about Johnson, Virginia E.

**FIGURE 40., cont.**

Compare with direct display of bibliographic records:

A keyword within record search on Masters and Johnson displayed by work heading does not differentiate among works by Johnson, works about Johnson (14 below), and works by a different Masters and a different Johnson (3 below).

Line no.      Name and title:  
[available  
for selection]

1.            Ethical issues in sex therapy and research. -- 1977-1980. Medical Library. HQ 31 E84 1977
2.            Kolodny, Robert C. Textbook of sexual medicine. -- 1979. Medical Library. WM 611 K81t 1979
3.            Masters, Robert W. Barnaby, a play for children of all ages, in two acts. [1950] Children's Library. PN 6120 A5 M392b
4.            Masters, William H. CRISIS : heterosexual behavior in the age of AIDS. -- 1988. Research Library. RA 644 A25M38 1988
5.            Masters, William H. Heterosexuality. -- 1994. Research Library. HQ 21 M46156 1994
6.            Masters, William H. Homosexuality in perspective. -- 1979. Research Library. HQ 76 M393h 1979
7.            Masters, William H. Human sexual inadequacy. [1970] Research Library. RC 556 M37 1971x
8.            Masters, William H. Human sexual inadequacy. French. Les Mésententes sexuelles et leur traitement. 1971.
9.            Masters, William H. Human sexual response. [1966] Medical Library. QP 251 M393h 1966
10.          Masters, William H. Human sexuality. -- c1985. Medical Library. HQ 21 M423h 1985
11.          Masters, William H. Human sexuality. -- c1988. Medical Library. HQ 21 M423h 1988
12.          Masters, William H. Masters and Johnson on sex and human loving. c1988. Research Library. HQ 21 M46158 1988
13.          Masters, William H. The pleasure bond: a new look at sexuality and commitment. [c1974] Research Library. HQ 21 M393p
14.          Robinson, Paul A., 1940- The modernization of sex : Havelock Ellis, Alfred Kinsey, William Masters, and Virginia Johnson. -- 1989. Education/Psychology Library. HQ 18.3 R565m 1989

**FIGURE 41. Optional display of a person's works using relator headings or codes**

The user has exercised the option of having the works of Thelonious Monk displayed by function performed:

**Monk, Thelonious.**

Composed by:

1. [Instrumental music. Selections; arr.] Thelonious Monk. -- c1978. Music Library. M 32.8 M643 I63 1978
2. [Piano music. Selections] Thelonius Monk's piano originals : revealing instincts of the genius of jazz. -- c1958. Music Library, Sheet Music Collection.
3. Thelonious Monk : play-a-long book & recording set. -- c1993. Music Library. MT 68 M686 S41 1993
4. Thelonious Monk live in Paris [sound recording]. -- p1964. Music Library, Recorded Music Collection. France's Concert FCD 135

Performed by:<sup>114</sup>

1. Solo Monk [sound recording]. -- c1992. Music Library, Recorded Music Collection. Columbia CK 47854
2. Standards [sound recording]. -- c1989. Music Library, Recorded Music Collection. Columbia CK 45148
3. Thelonious Monk plays Duke Ellington [sound recording]. -- c1987. Music Library, Recorded Music Collection. Riverside RLP-201

Work(s) about Monk, Thelonious

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<sup>114</sup> These works were separated from the others on the basis of the presence of a ≠4 *prf*relator code.

## GLOSSARY

**Access point:** A name, term, code, etc., using which a bibliographic entry may be searched and identified. Includes headings and classification numbers. Can include coded data in systems that provide access using coded data. See also **Bibliographic entry**, **Classification numbers**, **Coded data field**, and **Headings**.

**Alternative author or corporate body:** An author or corporate body that is not primarily responsible for a work and is not a subsidiary author responsible for a particular expression of a work. An example of an alternative author or corporate body would be the second author or corporate body of three that have collaborated in the writing or production of a work of multiple authorship. Alternative and subsidiary authors, if traced, can be found in 700, 710 or 711 fields in the MARC 21 format. See also **Principal author or corporate body** and **Subsidiary author or corporate body**.

**Authority heading** see **Heading--Uniform heading**.

**Authority record:** A record for a heading (for a person, corporate body, work, topical subject, geographic place, genre or form), containing a uniform heading, variant and/or related headings if applicable, notes containing various types of information, and coded data.

**Bibliographic description:** A description of an item that embodies a particular manifestation of a particular expression of a particular work. The bibliographic description of the item contains information that can help to identify the work, including its principal author or corporate body (if it appears in a transcribed statement of responsibility) and its title (either the title by which the work is identified in a work heading, or a variant title, depending on what appears on the item). Secondly, it contains information identifying the expression, including its subsidiary authors or corporate bodies (in a transcribed statement of responsibility or note), if any, its edition statement, if any, its series, if any and its extent. Thirdly, it contains information identifying the manifestation, including its publisher and publication date, a description of its physical format. The bibliographic description also contains notes composed by the cataloger as necessary to supplement the above.

**Bibliographic entry:** The portion of the bibliographic record that is designed to be displayed to catalog users; includes the work heading, the bibliographic description, and the tracings, in that order.

**Bibliographic field:** A field in a machine-readable format that holds bibliographic information in textual form, and is designed for display to catalog users. See also **Coded data field**.

**Bibliographic record:** A record that describes a particular manifestation of an expression of a work, containing the work heading, the bibliographic description, other access points besides the work heading which are displayed as tracings, the classification number, and coded data. See also **Work heading**, **Bibliographic description**, **Access point**, **Tracings**, **Classification number** and **Coded data field**.

**Call number:** The set of letters and/or numbers identifying a particular item in a library collection and indicating its location. Usually includes a **Classification number** and a **Shelfmark**.

**Classification number:** Notational letters and numbers taken from a classification schedule such as the Library of Congress Classification, the Universal Decimal Classification or the Dewey Decimal Classification, and used to denote a particular class in that classification system. Can be used as an access point in the OPAC, but the notational letters and numbers may require translation into the subject matter they represent in order to have any meaning for catalog users.

**Coded data field:** A field containing coded data designed primarily for machine processing rather than being designed to be displayed to catalog users. If displayed, the coded data should first be translated or expanded to be understood by catalog users.

**Combined index search:** A search that combines words from two or more indexes; for example, a search using a name and a genre heading in a single search.

**Compression:** A technique for condensing long displays. An example of compression as applied to a subject heading search on LC subject headings would be to display main headings only in the initial results display and display subdivisions only after a user had selected a particular main heading.

**Controlled heading** see **Heading--Uniform heading**.

**Display constant:** Text that must be generated automatically by OPAC software for displays in order to comply with display requirements that originate in cataloging rules and/or the MARC 21 format. For example, in MARC 21, the 508 creation/production credits note must have the display constant 'Credits:' generated by OPAC software in order to comply with AACR2R cataloging rules for this note.

**Established heading** see **Heading--Uniform heading**.

**Exact beginning searching:** A type of search in which the user types in a string of characters that the system matches against headings in a headings index in which headings are linked to bibliographic records. Matching the user's string is done in the exact order in which the user typed them, with the first word of the search being matched against the first word of the heading. The display that results is a display of headings. (Also known as Scanning, Browsing, or List searching.)

### **An example of exact-beginning searching**

**Example 5.** An exact-beginning search that looks for headings beginning with a particular word

**Step 1:** The user does an exact-beginning search on *night* in the subject heading index.

**Step 2:** The OPAC produces the following initial results display:

A portion of an exact-beginning search summary display that places the user's search in the context of the entire subject index, including headings not matched in the initial search

Subject Headings beginning nearest: NIGHT

Line no. [available for selection]	Subject:	No. of records:
1.	Nigerija (name used in this catalogue: Nigeria)	15
2.	<b>Night</b> . (term used on books catalogued by the Library of Congress)	1
3.	<b>Night</b> clubs (term used in this catalogue: Music-halls (Variety-theaters, cabarets, etc.))	25
4.	<b>Night</b> of Broken Glass, Germany, 1938 (term used in this catalogue: Germany History Kristallnacht, 1938.)	15
5.	<b>Night</b> photography. (term used on books catalogued by the Library of Congress)	1
6.	--California--San Francisco.	1
7.	--Florida--Sebring.	2
8.	--France.	1
9.	--France--Le Mans.	6

10. **Night** blindness. (term used on books catalogued by the National Library of Medicine) 2

**Step 3.** The user navigates through the headings display, selecting one or more headings of interest and inspecting the bibliographic records attached to those headings. When a heading with more than one posting is selected, a summary display of bibliographic records results, listing all bibliographic records with that heading. When a heading with one posting is selected, a single-record display of that bibliographic record results.

**Expression:** The intellectual or artistic realization of a work in the form of alphanumeric, musical, or choreographic notation, sound, image, object, movement, etc., or any combination of such forms. An *expression* is the specific intellectual or artistic form that a *work* takes each time it is "realized." *Expression* encompasses, for example, the specific words, sentences, paragraphs, etc. that result from the realization of a *work* in the form of a text, or the particular notes, phrasing, etc. resulting from the realization of a musical *work*. The boundaries of the entity *expression* are defined, however, so as to exclude aspects of physical form, such as typeface and page layout, that are not integral to the intellectual or artistic realization of the *work* as such.

Variant texts incorporating revisions or updates to an earlier text, abridgements or enlargements of an existing text, or the addition of parts or an accompaniment to a musical composition, translations from one language to another, musical transcriptions and arrangements, and dubbed or subtitled versions of a film are expressions of the same work. (FRBR 3.2.1, 3.2.2).

**Filter** see **Limit**

**Global change:** In automatic data processing, the changing in a database of every occurrence of a heading or of some other specified string of characters, or of every occurrence of it in a specified location in a record, from one form to another.

**GMD:** Abbreviation for *general material designation*, a term indicating the broad class of material to which an item belongs. Examples in the ISBDs include *sound recording*, *microform*, *cartographic material* and *electronic resource*.

**Heading:** A special type of access point designed to stand on its own, either alone or in a display of multiple headings matched on a search, of which it is one. In the latter capacity, it is designed for sorting, usually in alphabetical order, sometimes in numeric order. A single heading may stand for (or point to) one or thousands of bibliographic records. Examples include a subject heading, an authority controlled name heading (i.e., a uniform name heading), a *see* reference, a *see also*

reference, or a title field (not necessarily controlled; that is, title fields include transcribed titles that have been "traced," or designated as titles that should be used as access points in the catalog). The data contained in the publication, distribution, etc. area are not headings. The data contained in note fields are not headings. The data contained in MARC 21 coded data fields are not headings. Call numbers are not headings. See also **Access point**, **Coded data field**, **Call number**, **Classification number**.

There are four types of heading: 1) Uniform headings (or controlled or established headings); 2) uniform headings based on transcribed forms which cannot be linked to authority files in most systems; 3) transcribed headings that are not controlled; and 4) variant headings that take the form of *see* references to uniform headings

**Uniform heading:** A heading for a person, corporate body, work, topical subject, genre or form established in a form to be followed without variations in displays of bibliographic records within a given catalog. Uniform headings are headings that are established by catalogers and represented by authority records that can also contain *see* and *see also* references. Also known as Authority heading, Established heading and Controlled heading.

Uniform headings defined in the MARC 21 format include:

Authority file:

- 100, 500 (personal name heading)
- 100 ≠t, 500 ≠t (personal name-title work heading)
- 110, 510 (corporate name heading)
- 110 ≠t, 510 ≠t (corporate name-title work heading)
- 111, 511 (conference name heading)
- 111 ≠t, 511 ≠t (conference name-title work heading)
- 130, 530 (uniform title work heading)
- 150, 550 (topical subject heading)
- 151, 551 (geographic heading)
- 155, 555 (genre/form heading)

Bibliographic records:

- 100, 600, 700, 800 (personal name heading)<sup>115</sup>
- 600 ≠t, 700 ≠t, 800 ≠t (personal name-title work heading)
- 110, 610, 710, 810 (corporate name heading)<sup>116</sup>
- 610 ≠t, 710 ≠t, 810 ≠t (corporate name-title work heading)

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<sup>115</sup> 400 fields may occur in older records.

<sup>116</sup> 410 fields may occur in older records.

111, 611, 711, 811 (conference name heading)<sup>117</sup>  
611 ≠t, 711 ≠t, 811 ≠t (conference name-title work heading)  
130, 240, 243, 630, 730, 830 (uniform title work heading)  
650 (topical subject heading)  
651 (geographic heading)  
655 (genre/form heading)

**Uniform heading based on a transcribed form:** A uniform heading based on a transcribed form is a heading that is created from a transcribed field in a bibliographic record. Because it is a transcribed field, it is important to protect it from global change. However, it is a heading, as well, and as such, should be included in the appropriate headings indexes.<sup>118</sup>

Uniform headings based on transcribed forms defined in the MARC 21 format include:

Bibliographic records:

245 if same as uniform title found in 240 or 130 (title transcribed from item)  
440 (series transcribed from item)

Note that the 245 field (when first indicator is 0 and a 1XX is present) and the 490 field in the MARC 21 format are NOT uniform headings; these fields contain a title or series statement transcribed from an item, but either traced differently, or not placed under authority control at all, and therefore not designed to be made into a heading in the catalogue.

**Transcribed heading that is not controlled:** An uncontrolled heading that is created from a transcribed field. Because it is a transcribed field, it is important to protect it from global change. However, it is a heading, as well, and as such, should be included in the appropriate headings indexes.

Transcribed headings that are not controlled defined in the MARC 21 format include:

Bibliographic records:

---

<sup>117</sup> 411 fields may occur in older records.

<sup>118</sup> To be strictly accurate, this is an odd hybrid between a controlled and an uncontrolled heading. Each can be superseded by a controlled heading if so desired, so if one hasn't been, the implication is that it is *both* controlled and transcribed. In particular, the 440 is actually a controlled series heading. If it were not, it would be put in a 490 field in MARC 21.

- 245 when 1XX present and first indicator is 1; OR when 1XX NOT present and first indicator is 0 (title transcribed from item) other than uniform titles as above
- 246 (alternate title); should be treated as a variant title (see below) when a uniform title has been established
- 247 (former title or title variations); should be treated as a variant title (see below) when a uniform title has been established

Note that the 245 field (when first indicator is 0 and a 1XX is present) and the 490 field in the MARC 21 format are NOT uniform headings; these fields contain a title or series statement transcribed from an item, but either traced differently, or not placed under authority control at all, and therefore not designed to be made into a heading in the catalog.

Note also that the 740 field in the MARC 21 format now contains NONUNIFORM or uncontrolled work headings for works contained in the work cataloged. [This field also contains many variant title added entries since it formerly filled the role currently filled by the 246 field (see below).]

**Variant heading:** A heading in a form other than that established as the uniform heading. Generally such a heading is either based on a variant name sometimes used by a person or corporate body itself, or sometimes used by others to identify a person, corporate body, work, topical subject, geographic place, genre or form, or sometimes constructed on a pattern different from that used to establish the uniform heading.

Variant headings should be included in headings files but should always take the form of selectable *see* references so that users need not re-key their searches, but so that they are informed that the variant form was not chosen as the form for the uniform heading. Variant forms in the MARC 21 format include:

Authority file:

- 400 (personal name *see* reference)
- 400 ≠t (personal name-title work *see* reference)
- 410 (corporate name *see* reference)
- 410 ≠t (corporate name-title work *see* reference)
- 411 (conference name *see* reference)
- 411 ≠t (conference name-title work *see* reference)
- 430 (uniform title *see* reference)
- 450 (topical subject *see* reference)
- 451 (geographic heading *see* reference)

455 (genre/form heading *see* reference)

**Bibliographic records:**

242 (translation of title by cataloging agency)

246 (alternate title); should be treated as a variant title when a uniform title has been established

247 (former title or title variations); should be treated as a variant title when a uniform title has been established

**Index:** A list arranged in some order (usually alphabetical) and usually consisting of some specified type of data (e.g. names, titles, subjects) that can be searched and that points to bibliographic, authority or holdings record(s); examples of indexes: name index; title index; subject index; genre index; call number index; barcode index.

**Initial results display:** The first display offered to a user in response to a search that the user has done in the OPAC.

**Initial search display:** The first display offered to a user on entering an OPAC that indicates the kinds of searching that are available.

**Item:** 1) A single exemplar of a manifestation. It is in many instances a single physical object (e.g., a copy of a one-volume monograph, a single audio cassette [sic], etc.). There are instances, however, where the entity defined as item comprises more than one physical object (e.g. a monograph issued as two separately bound volumes, a recording issued on three separate compact discs, etc.) (FRBR 3.2.4).

2) The FRBR use of the term **Item** should be distinguished from the use of this term in circulation systems to mean one physical object, especially one bar-coded physical object, such as a particular volume of a journal. In contrast, theoretically according to the FRBR definition the entire run of a serial could be treated as an **Item** when it is described using one bibliographic record.

**Keyword:** A set of characters bounded by spaces on either side (e.g., a word or a number). When referring to a search method, a search in which the order of the terms entered doesn't matter.

**Keyword-within-heading searching:** A type of search in which the user types in keywords that the system matches against the words in a single heading in a headings index in which headings are linked to bibliographic records. The matching of keywords to words in the heading is done without regard to order. The display that results is a display of headings.

## Two examples of keyword-within-heading searching

Examples of keyword-within-heading searches on two keywords, *waste* and *fuel* (user is interested in the use of waste products for fuel):

**Example 1.** A keyword-within-heading search that looks for two keywords to occur within the same heading subfield:

650 \_0 ≠a Waste products as fuel ≠v Abstracts.

Recommended initial results display: Summary display of headings matched

**Step 1:** The user does a keyword-within-heading search on *waste* and *fuel* in the subject heading index.

**Step 2:** The OPAC produces the following initial results display (a summary display of headings matched):

Line no. [available for selection]	Subject:	No. of records:
1.	Organic <span style="border: 1px solid black; padding: 2px;">waste</span> as <span style="border: 1px solid black; padding: 2px;">fuel</span> (term used in this catalogue: Waste products as fuel)	15
2.	<span style="border: 1px solid black; padding: 2px;">Waste</span> as <span style="border: 1px solid black; padding: 2px;">fuel</span> (terms used in this catalogue: Refuse as fuel)	13
3.	Waste products as fuel	12
4.	<span style="border: 1px solid black; padding: 2px;">Waste</span> products as <span style="border: 1px solid black; padding: 2px;">fuel</span> <a href="#">information about this term<sup>119</sup></a> <a href="#">5 subjects related to Waste products as fuel<sup>120</sup></a>	25
5.	<span style="border: 1px solid black; padding: 2px;">Waste</span> products <span style="border: 1px solid black; padding: 2px;">fuel</span> production equipment industry <a href="#">information about this term</a> <a href="#">1 subject related to Waste products fuel production equipment industry</a>	12
6.	<span style="border: 1px solid black; padding: 2px;">Waste</span> tires as <span style="border: 1px solid black; padding: 2px;">fuel</span> <a href="#">information about this term</a> <a href="#">1 subject related to Waste tires as fuel</a>	1
7.	Wood <span style="border: 1px solid black; padding: 2px;">waste</span> as <span style="border: 1px solid black; padding: 2px;">fuel</span>	2

<sup>119</sup> This is a hyperlink to the authority record for this heading; see **Heading principle 2 and Recommendation S.1.1.4.**

<sup>120</sup> This is a hyperlink to the see also references for this heading; see **Heading principle 2.**

information about this term1 subject related to Wood waste as fuel

**Step 3:** The user navigates through the headings display, selecting one or more headings of interest and inspecting the bibliographic records attached to those headings. When a heading with more than one posting is selected, a summary display of bibliographic records results, listing all bibliographic records with that heading. When a heading with one posting is selected, a single-record display of that bibliographic record results.

**Example 2.** A keyword-within-heading search that looks for two keywords to occur within the same heading field:

650 \_0 ≠a Reactor **fuel** reprocessing ≠x **Waste** disposal.

Recommended initial results display: Summary display of headings matched

**Step 1:** The user does a keyword-within-heading search on *waste* and *fuel* in the subject heading index.

**Step 2:** The OPAC produces the following initial results display (a summary display of headings matched):

Line no. [available for selection]	Subject:	No. of records:
1.	Organic <b>waste</b> as <b>fuel</b> (term used in this catalogue: Waste products as fuel)	15
2.	Reactor <b>fuel</b> reprocessing-- <b>Waste</b> disposal <u>information about this term</u> <u>1 subject related to Reactor fuel reprocessing--Waste disposal</u>	3
3.	<b>Waste</b> as <b>fuel</b> (terms used in this catalogue: Refuse as fuel)	13
4.	Waste products as fuel)	12

5.	<b>Waste</b> products as <b>fuel</b> <u>information about this term</u> <u>5 subjects related to Waste products as fuel</u>	25
6.	<b>Waste</b> products <b>fuel</b> production equipment industry <u>information about this term</u> <u>1 subject related to Waste products fuel production equipment industry</u>	12
7.	<b>Waste</b> tires as <b>fuel</b> <u>information about this term</u> <u>1 subject related to Waste tires as fuel</u>	1
8.	Wood <b>waste</b> as <b>fuel</b> <u>information about this term</u> <u>1 subject related to Wood waste as fuel</u>	2

**Step 3.** The user navigates through the headings display, selecting one or more headings of interest and inspecting the bibliographic records attached to those headings. When a heading with more than one posting is selected, a summary display of bibliographic records results, listing all bibliographic records with that heading. When a heading with one posting is selected, a single-record display of that bibliographic record results.

**Keyword-within-record searching:** A type of search in which the user types in keywords that the system matches without regard to order against all words in a single bibliographic record, or all words in a group of fields within a single bibliographic record, such as all fields containing subject terms or all title fields. The only possible result of such a search would be a direct display of bibliographic records matched, since the search can easily match words that are not in a heading field, or words that are in more than one heading field. Heretofore, systems have not applied this kind of searching to authority records, so generally cross-references are not matched on or retrieved when this kind of search is done.

**Example 1.** A keyword-within-record search that looks for two keywords to occur within particular fields within the same bibliographic record (here, within the subject heading fields):

```
110 1_ ≠a United States. ≠b Congress. ≠bHouse. ≠b Committee on
      Government Operations. ≠b Environment, Energy, and
      Natural Resources Subcommittee.
245 10 ≠a United States waste trade with Mexico and Canada.
650 _0 ≠a Hazardous waste management industry ≠z United States.
650 _0 ≠a Fuel trade ≠z United States ≠x Corrupt practices.
```

Only possible initial results display: Summary display of bibliographic records matched, here shown in order by work heading (with date order as an option that can be selected by the user)

**Step 1:** The user does a keyword-within-record search on *waste* and *fuel* in the subject heading fields.

**Step 2:** The OPAC produces the following initial results display (a summary display of bibliographic records):

1. Actinide recovery from waste and low-grade sources. 1982.
  2. Agriculture, biomass, wind, new developments. 1976.
  3. California Energy Commission. Nuclear fuel reprocessing and high level waste disposal. 1977-
  4. California. Legislature. Assembly. Committee on Environmental Safety and Toxic Materials. Hearing on public health and environmental impacts of waste-to-energy facilities in the San Gabriel Valley. 1985.
  5. Cervinka, Vaclav. Farming, the energy resource. 1979.
  6. Cheremisinoff, Paul N. Energy from solid wastes. 1976.
  7. A Chinese biogas manual. 1979.
- ..., etc.
95. United States. Congress. House. Committee on Government Operations. Environment, Energy, and Natural Resources Subcommittee. United States waste trade with Mexico and Canada. 1993.

Resort by date

**Step 3:** The user looks through the bibliographic records retrieved. When a bibliographic record is selected, a single-record display results.

**Example 2.** A keyword-within-record search that looks for two keywords to occur within any fields within the same bibliographic record:

- 245 00 ≠a Disposal of radioactive **waste**.
- 260 \_\_ ≠a Paris : ≠b Nuclear Energy Agency, Organisation for Economic Co-operation and Development, ≠c c1992.
- 505 0\_ ≠a A comparison of sorption databases used in recent performance assessments / I.G. McKinley and A. Scholtis -- The selection and use of a sorption database for the geosphere model in the Canadian nuclear **fuel** waste management

program / T.T. Vandergraaf, K.V. Ticknor, and T.W. Melnyk  
...

Only possible initial results display: Summary display of bibliographic records matched, here shown in order by work heading (with date order as an option that can be selected by the user)

**Step 1:** The user does a keyword-within-record search on *waste* and *fuel*.

**Step 2:** The OPAC produces the following initial results display (a summary display of bibliographic records):

1. An analysis of the back end of the nuclear **fuel** cycle with emphasis on high-level **waste** management. 1977.
  2. Biomass handbook for the biomass conversion demonstration program. 1980.
  3. Bottiger, R. Ted. Municipal solid **waste** and energy resource recovery in Washington State. 1979.
  4. California. Air Resources Board. Project Assessment Branch. Staff report on a procedure relating to the determination of agricultural/forestry **waste** emission offset credits. 1987.
  5. California. Legislature. Assembly. Select Committee on Energy Alternatives in Agriculture. Transcript. 1982.
  6. Cassebeer, Jon Sabey. Wet air oxidation of biomass **waste** waters. 1983.
  7. Disposal of radioactive **waste**. 1992.
- ..., etc.

#### Resort by date

**Step 3:** The user looks through the bibliographic records retrieved. When a bibliographic record is selected, a single-record display results.

**Limit:** A restriction placed on a search statement that causes only a subset of the results to be retrieved, based on categories such as language, date, publication type (e.g. serials) or physical format. (Also known as a qualifier or a filter.)

**Main entry:** See **Bibliographic entry, Principal author or corporate body and Work heading.**

**Main heading:** A heading to which subsequent elements are added in the form of subdivisions and other subelements. In the LC subject heading *Water--Bibliography*, the main heading is *Water* and the subdivision is *Bibliography*. In the subject heading *Darrow, Clarence, 1857-1938--Religion*, the main heading is *Darrow, Clarence, 1857-1938*, and the subdivision is *Religion*. In the corporate heading *United States. Federal Bureau of Investigation*, the main heading is *United States* and the subordinate body is *Federal Bureau of Investigation*. In the uniform title *Odyssey. Book 1*, the main heading is *Odyssey* and the part heading is *Book 1*.

**Manifestation:** The physical embodiment of an expression of a work. A manifestation represents all the physical objects that bear the same characteristics, in respect to both intellectual content and physical form. When the production process involves changes in physical form, the resulting product is considered a new manifestation. Changes in physical form include changes affecting display characteristics (e.g., a change in typeface, size of font, page layout, etc.), changes in physical medium (e.g., a change from paper to microfilm as the medium of conveyance), and changes in the container (e.g., a change from cassette to cartridge as the container for a tape). Where the production process involves a publisher, producer, distributor, etc., and there are changes signaled in the product that are related to publication, marketing, etc. (e.g. a change in publisher, repackaging, etc.), the resulting product may be considered a new manifestation (FRBR 3.2.3).

**Normalization:** A procedure that is often built into computer programs that match searches, sort retrievals, or look for duplicate records; normalization removes such things as punctuation marks, capitalization, or diacritics from strings of text before matching them to see if they are identical.

**Phrase searching:** A type of search in which the user types in a string of characters that the system matches against headings or other fields in bibliographic records; matching the user's string is done in the exact order in which the user typed them, but without regard for the first words of fields or headings; if only headings are searched this way, the result should be a display of headings from the headings index linked to bibliographic records; if non-heading fields are searched this way, the only possible result would be a direct display of bibliographic records matched.

### **Two examples of phrase searching**

Examples of phrase searches on the phrase *waste as fuel* (user is interested in the use of waste products for fuel):

**Example 6.** A phrase search on headings that looks for the phrase to occur within a heading:

650 \_0 ≠aWood **waste as fuel**.

Recommended initial results display: Summary display of headings matched

**Step 1:** The user does a phrase search on *waste as fuel* in the subject heading index.

**Step 2:** The OPAC produces the following initial results display (a summary display of headings matched):

Line no. [available for selection]	Subject:	No. of records:
1.	Organic <b>waste as fuel</b> (term used in this catalogue: Waste products as fuel)	15
	<b>Waste as fuel</b> (terms used in this catalogue:	
2.	Refuse as fuel	13
3.	Waste products as fuel)	12
7.	Wood <b>waste as fuel</b> <u>information about this term</u> <u>1 subject related to Wood waste as fuel</u>	2

**Step 3:** The user navigates through the headings display, selecting one or more headings of interest and inspecting the bibliographic records attached to those headings. When a heading with more than one posting is selected, a summary display of bibliographic records results, listing all bibliographic records with that heading. When a heading with one posting is selected, a single-record display of that bibliographic record results.

**Example 7.** A phrase search that looks for the phrase to occur within any fields within the same bibliographic record:

245 00 ≠a Utilizing wood residue for energy generation in  
northwestern Montana : ≠b a feasibility assessment / ≠c  
Charles E. Keegan III ... [et al.].

260 \_\_ ≠a Ogden, Utah : ≠b U.S. Dept. of Agriculture, Forest Service,  
Intermountain Research, ≠c c1987.

650 0\_ ≠a Wood waste ≠z Montana.

650 0\_ ≠a Renewable energy sources ≠z Montana.

650 0\_ ≠aWood waste as fuel ≠z Montana.

Only possible initial results display: Summary display of bibliographic records matched, here shown in order by work heading (with date order as an option that can be selected by the user)

**Step 1:** The user does a phrase search of bibliographic records on *waste as fuel*.

**Step 2:** The OPAC produces the following initial results display (a summary display of bibliographic records):

1. Feasibility study on the expanded use of agricultural and forest waste in commercial products. c1999.
2. Utilizing wood residue for energy generation in northwestern Montana : a feasibility assessment. 1987.

Resort by date

NOTE how, by limiting the search to bibliographic records, the user has inadvertently missed a very useful cross reference to be found in the authority file. Compare with Example 6.

**Step 3:** The user looks through the bibliographic records retrieved. When a bibliographic record is selected, a single-record display results.

**Postings:** A number that displays next to a heading in a headings display and represents the number of bibliographic records that are linked to that particular heading (see **Figure 37** for an example; the heading *Nigeria* has 15 postings in that example; 15 bibliographic records have been given that heading).

**Principal author or corporate body:** The person or corporate body chiefly responsible for the creation of the intellectual or artistic content of a work; as such, the person or corporate body that is used in conjunction with the title to make a work heading that identifies the work and can be used in citing the work. Some cataloging codes still consider corporate bodies to be capable of authorship (e.g., PPIAK); for those codes, the term **Principal author** would be sufficient. Principal author or corporate body is identified by means of a 100, 110 or 111 field in the MARC 21 format. See also **Alternative author or corporate body** and **Subsidiary author or corporate body**.

**Qualifier:** A word or phrase<sup>121</sup> added by a cataloger to a heading in order to distinguish it from another heading that uses the same terms for a different item or concept, such as two subject headings established for two homonyms, or two different journals that have the same title. Examples:

Subject headings for a term that is used quite differently in different fields of study:

Power (Mechanics)  
Power (Philosophy)  
Power (Social sciences)

Two journals with the same title:

Health (Chicago, Ill.)  
Health (New York, N.Y. : 1981)

(See also **Limit**.)

**Related work:** A work that is a different work from another work but has some sort of historical or other relationship to it. Examples are sequels, adaptations, film versions of novels, plays or operas, indexes, supplements, etc.

**Relator terms:** Terms added to name headings on bibliographic records in some specialized libraries that indicate the function performed by a person named in the heading. For example, a heading added to a film record describing a film directed by John Ford can be formulated as follows:

Ford, John, ≠d 1894-1973. ≠e direction

The ≠e subfield contains a relator term.

**Retrieval:** The results of a search. The retrieval may consist of no bibliographic records, one bibliographic record, many bibliographic records, one heading or many headings.

**Scroll:** To move continuously down or up a list without encountering a page or screen break.

**Search:** A method for matching a user's input terms against the database.

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<sup>121</sup> The word or phrase will be parenthetical in LCSH or AACR2R.

**Secondary author or corporate body** see **Alternative author or corporate body** and **Subsidiary author or corporate body**

**Shelfmark:** The combination of letters and numbers in a call number that creates a unique number for a particular item in a library collection, differentiating it from all other items in the same classification number. The shelfmark often stands for the work heading.

**Single-record display:** A display of a single bibliographic or authority record.

**Sorting elements:** Segments of a heading. In the following heading there are four sorting elements:

Lincoln, Abraham, 1809-1865--Drama

The four sorting elements are:

Lincoln  
Abraham  
1809-1865  
Drama

**Subdivision:** A subsequent element or subelement added to a main heading. In the LC subject heading *Water--Bibliography*, the main heading is *Water* and the subdivision is *Bibliography*.

**Subordinate body:** A corporate body that forms an integral part of a larger body in relation to which it holds an inferior hierarchical rank (AACR2R). When a subordinate body is identified by means of the larger body, the larger body is the main heading. See **Main heading**.

**Subsidiary author or corporate body:** A person or group who modifies a work but not significantly enough to create a new work, instead creating a new expression of the same work. Examples include translators, commentators and performers of musical works. See also **Alternative author or corporate body** and **Principal author or corporate body**.

**Summary display of headings matched:** A display that lists in alphabetical (or other) order all of the headings matched on a particular search.

**Summary display of bibliographic records:** A display that lists in some order (e.g., alphabetical or by publication date) all of the bibliographic records under a single heading or all of the bibliographic records matched on a keyword-in-record search.

**Syndetic structure:** The network of *see* and *see also* references that shows the generic and specific relationships among the headings used.

**Tracings:** A listing in a single bibliographic record of all of the headings, other than the work heading, that will retrieve that bibliographic record. Includes subject headings, name headings, series headings and title headings. See **Figure 20, Example 1**, for an example of tracings in a bibliographic record.

**Transcribed heading that is not controlled** see **Heading--Transcribed heading that is not controlled**.

**Uniform heading** see **Heading--Uniform heading**.

**Uniform title:** A title substituted for the title transcribed from the item in order to bring together all of the manifestations of all of the expressions of a work, despite changes in title. A uniform title may constitute the work heading in its entirety (for a work entered under title), or it may constitute a portion of the work heading (for a work entered under a principal author or corporate body).

**Variant heading** see **Heading--Variant heading**.

**Work:** A distinct intellectual or artistic creation. A *work* is an abstract entity. Paraphrases, rewritings, adaptations for children, parodies, musical variations on a theme and free transcriptions of a musical composition, adaptations of a work from one literary or art form to another (e.g., dramatizations, adaptations from one medium of the graphic arts to another, etc.), abstracts, digests and summaries represent new works (FRBR 3.2.1).

**Work heading:** A heading for a work; defined differently in different countries and in different libraries. In the Anglo-American cataloging world, the work heading consists of one of the following: 1) the principal author or corporate body associated with the work, and its uniform title, if there is one, or its title, if it does not have a uniform title; or (for works without a principal author or corporate body) 2) its uniform title, or its title, if it does not have a uniform title. (Also known as Main entry.)

In Anglo-American cataloging, a work that is identified by its principal author or corporate body and its title can be represented by any of the following MARC 21 fields or combinations of fields; sometimes, to make a *heading* for a comprehensive name-title index, more than one field would have to be combined to make a *name-title heading*; note that a work may be represented partially by controlled headings and partially by uncontrolled headings:

**Authority:**

- 1XX and a ≠t subfield (Headings with subfield for Title of a work)
- 4XX and a ≠t subfield (See From Tracing with subfield for Title of a work)
- 5XX and a ≠t subfield (See Also From Tracing with subfield for Title of a work)

**Bibliographic:**

- 1XX and 240 field, all subfields (Main Entries and Uniform Title)
- 1XX and 245 field (only when no 240 is present), all subfields EXCEPT ≠h, ≠b and ≠c subfields (Main Entries and Title Statement)
- 4XX, all subfields EXCEPT ≠v and ≠x subfields (Series Statements)
- 6XX and a ≠t subfield (Subject Access Fields with subfield for Title of a work)
- 7XX and a ≠t subfield (Added Entries with subfield for Title of a work)
- 80X-840 and a ≠t subfield, all subfields EXCEPT ≠v subfield (Series Added Entries with subfield for Title of a work)

Headings for works identified only by title can be found in the following MARC 21 fields:

**Authority:**

- 130 (Heading--Uniform title)
- 430 (See From Tracing--Uniform title)
- 530 (See Also From Tracing--Uniform title)

**Bibliographic:**

- 130 (Main Entry--Uniform title)
- 245, all subfields EXCEPT ≠b and ≠c subfields (Title Statement)
- 440, all subfields EXCEPT ≠v and ≠x subfields (Series Statement/Added Entry--Title)
- 630 (Subject Added Entry--Uniform Title)
- 730 (Added Entry--Uniform Title)
- 830, all subfields EXCEPT ≠v (Series Added Entry--Uniform Title)

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