Library of Congress to Add Subject Category Codes
to Selected Subject Authority Records

June 1, 2012

No earlier than August 2012, the Policy and Standards Division (PSD) of the Library of Congress will begin an experiment to add subject category codes (MARC 21 tag 072) to authority records for subject headings. It is anticipated that the addition of this information will enhance the usability of LCSH on the Semantic Web; assist catalogers by allowing integrated library systems (ILSs) and resource discovery platforms to provide a list of the subdivisions that are appropriate to headings being assigned; and improve automatic heading string creation and validation in ILSs and resource discovery platforms.

This announcement provides background on the need to include subject category codes in authority records, explains the computer manipulations that they should enable, and also details the parameters of the experiment.

BACKGROUND

Library of Congress Subject Headings (LCSH) consists of approximately 329,000 individually established headings, each of which is represented by an authority record. In addition, untold numbers of headings may be constructed by following the rules for subdivision that are presented within the *Subject Headings Manual* (SHM); there usually are not authority records for these heading strings. Topical and form subdivisions are often contained in free-floating and pattern lists of subdivisions, as are some chronological subdivisions, and have their own authority records. The subdivisions may be applied under headings in specifically defined situations as long as there is no conflict with an established subject heading.

Thirty-four individual SHM instruction sheets contain the pattern and free-floating subdivision lists, representing 34 categories of headings, including for example animals, classes of persons, diseases, names of places, plants and crops, and wars. To construct a heading string, the cataloger determines the category to which the heading belongs and consults the appropriate instruction sheet to find the applicable subdivisions. For example, the heading **Daisies** belongs to the category "plants and crops," so the cataloger would refer to instruction sheet H 1180 and could construct the heading **Daisies—Anatomy** because the subdivision **–Anatomy** appears in that instruction sheet.

The categorization of headings and subsequent assignment of chronological, topical, and form subdivisions cannot be accomplished by computer analysis at this time. This fact limits LCSH's usefulness in the Semantic Web's linked data environment, inhibits automatic creation and validation of heading strings, and also prevents systems from suggesting pertinent subdivisions to catalogers.

The *MARC 21 Format for Authority Data* includes two fields that, when fully implemented, together should allow for computers to match headings with the applicable lists of subdivisions: 072 (Subject Category Code) and 073 (Subdivision Usage). LCSH's subdivision authority records

are already populated with 073 fields, which include the number(s) of the instruction sheet(s) in which the subdivision appears. PSD will now begin experimenting with adding 072 fields to authority records for subject headings. The data in the 072 field will consist of the number(s) of the instruction sheet(s) into which a heading falls. The existence of this data in the 072 and 073 fields should allow computers to create a link between a subject heading and all of the free-floating and/or pattern subdivisions that could be applied to it.

Example 1

Subdivisions
```
073    $a H 1150 $z lcsh[1]
180    $x Age factors
680    $i Use as a topical subdivision under individual diseases
       and types of diseases.


073    $a H 1150 $z lcsh
180    $x Patients
680    $i Use as a topical subdivision under individual diseases
       and types of diseases.
```

Headings
```
072 #7 $a H 1150 $2 lcsh
150    $a Autoimmune diseases


072 #7 $a H 1150 $2 lcsh
150    $a Cancer


072 #7 $a H 1150 $2 lcsh
150    $a Endocrine glands $x Diseases
```

Example 2

Subdivision
```
073    $a H 1103 $z lcsh
180    $x Kinship
680    $i Use as a topical subdivision under ethnic groups for
       works on the group's system of rules governing descent,
       succession, marriage, etc., and determining the
       relationship of individuals.
```

Headings
```
072 #7 $a H 1103 $2 lcsh
150    $a Bira (African people)


072 #7 $a H 1103 $2 lcsh
150    $a Jiman (Australian people)
```

---

[1] Complete information on the 072 and 073 fields, their indicators, and their subfields may be found in *MARC 21 Format for Authority Data*, available at http://www.loc.gov/marc/authority/ecadhome.html.

In the examples above, matching the 072 fields with the 073 fields generates the following headings:

```
Autoimmune diseases $x Age factors.
Autoimmune diseases $x Patients.
Bira (African people) $x Kinship.
Cancer $x Age factors.
Cancer $x Patients.
Endocrine glands $x Diseases $x Age factors.
Endocrine glands $x Diseases $x Patients.
Jiman (Australian people) $x Kinship.
```

PARAMETERS OF THE EXPERIMENT

During PSD's investigation into the possibility of adding 072 fields to LCSH subject authority records, it became apparent that some categories are straightforward and readily lend themselves to this treatment while others are more problematic. For instance, instruction sheet H 1145.5, Bodies of Water, is straightforward because it includes no exceptions; the subdivisions on this list may be applied to all bodies of water established in LCSH. On the other hand, H 1154, Languages, includes some subdivisions that may be applied only under Semitic languages and other subdivisions that may not be applied under Semitic languages, among other exceptions. Therefore, human intervention is required to assign subdivisions from H 1154, and the 072 field will not be added to any language headings at this time.

The experiment will be very limited in scope so that its feasibility can be determined. PSD hopes that the existence of the data in a limited number of authority records will lead programmers to experiment with creating linkages between subject headings and subdivisions. The success or failure of those efforts will help inform PSD's decision on whether the experiment is worthwhile and should continue.

The parameters of the experiment are as follows.
- *Only subject specialists in the Policy and Standards Division may add 072 fields to records for the duration of this experiment, and 072 fields will be added only as time permits*. PSD anticipates that a full-scale project will be launched if this experiment is successful and if the data can be leveraged in the Semantic Web environment. In that case, the project would likely be broadened to include more participants, including SACO institutions.
- *Only straightforward instruction sheets will be included in this experiment*. They include, but are not necessarily limited to the following.

H 1120	Names of families
H 1145.5	Bodies of water
H 1151.5	Types of educational institutions
H 1185	Religions
H 1187	Christian denominations
H 1195	Land vehicles
H 1200	Wars

- *Only proposals that appear on Approved Monthly Lists and established headings that are directly encountered during the process of vetting those proposals will be eligible for the*

inclusion/addition of 072 fields. There will be no attempt at this time to discover and code the records for all of the bodies of water that are established in LCSH, for example.

- *Only subject authority records may include 072 fields; 072 fields may not be added to name authority records at this time*. Instruction sheets for categories of subdivisions that are applied only to name headings are therefore excluded from this experiment (e.g., H 1105, Corporate Bodies; H 1110, Names of Persons).

As part of their ongoing effort to evaluate subject assignment policy, specialists will also begin to examine and make recommendations about the problematic instruction sheets, or about individual subdivisions that appear in them. As problems are resolved, more instruction sheets may be considered for inclusion in the experiment.

The experiment will begin no earlier than August 2012. Subscribers to the MARC Distribution Service (MDS) should not anticipate larger-than-normal weekly distributions as a result, because of the limited nature of the experiment.

Regular updates on the experiment will be provided. Questions may be addressed to policy@loc.gov.