

## Response to

On the Record: Report of the Library of Congress Working Group on the Future of Bibliographic Control

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## Response to

## On the Record: Report of the Library of Congress Working Group on the Future of Bibliographic Control

#### Introduction

On the Record, the report from the Working Group on the Future of Bibliographic Control, describes a new technological environment in which libraries have exciting opportunities for making information resources available and useful to new and demanding audiences. The Working Group has spent a year studying how best to exercise bibliographic control within this environment. The opening sentence of the report's introduction sums up conclusions with which the Library of Congress agrees: "The future of bibliographic control will be collaborative, decentralized, international in scope, and Web-based." The report's recommendations for achieving that future are clear and compelling. They will profoundly influence the Library of Congress and libraries around the world.

The report has rather modest origins. In April 2006, the Library of Congress announced that it would no longer support series authority records. Many in the library community responded quickly with concern, charging LC with inadequate consultation. This tumult led us to form a broadly representative group to look, not just at the narrow concern of series authorities, but at the long-term future of bibliographic control as a whole. I am pleased that the concern arising out of our somewhat unpopular decision has now led to a report that is sure to have a positive, catalytic effect. The Working Group's report is a call to action, and it lays the groundwork for a community-wide effort to shape bibliographic control for the 21<sup>st</sup> century and beyond.

The Working Group submitted this report on January 9, 2008, following an extensive solicitation of the views of librarians, technologists, vendors, and others with a stake in the outcome. At its first meeting, the Working Group decided to hold three regional sessions over the course of a year, and chose locations that would facilitate expression of different kinds of interests needed in the discussion. The Library of Congress established a Web site for the Working Group, which enabled anyone with an opinion or comment to contribute to the process. The Google Company hosted a meeting in California devoted to users and uses of bibliographic data. The American Library Association hosted a meeting in Chicago on standards and structures for bibliographic information. The Library of Congress hosted a meeting in Washington on the economics of bibliographic systems. All three regional sessions became available to the broader public via Webcasts, and the Working Group posted presentations by speakers on its Web site. In addition to discussions on the national level, the process also generated important discussions within local institutions.

It seems fair to say that all libraries understand that the digital environment in which we now work requires changing the way we think about bibliographic control. As publishers have moved into the digital arena, they have necessarily created metadata for controlling manuscripts and their distribution. Vendors have added metadata to serve their own administrative purposes. Conventions for social "tagging" have gained great popularity in diverse fields. Scholars are

joining amateur enthusiasts in the Web environment to describe digital objects. The results of all these activities are far more rich and robust than could be provided by any single library's cataloging work. Libraries can and should take advantage of such metadata creation by others, both to avoid duplication of effort and to reduce costs. The experience of working on the Web and seeing how quickly Web resources are adopted by students, faculty, and the general public underscores the desirability of making changes in our conception of bibliographic control.

## Analyzing the Working Group's Report

When I received the report of the Working Group on the Future of Bibliographic Control, I turned to three sources for help in analyzing how the Library of Congress should respond to the recommendations. I sought assistance from the Management Team of our Acquisitions and Bibliographic Access Directorate, from an internal working group that has been giving thought to bibliographic control as part of our Library Services unit's strategic planning efforts, and from Thomas Mann, the LC reference librarian who has been most vocal in criticizing changes proposed in our system of bibliographic control. I asked all of these professionals to react to each recommendation with an explanation of why it should or should not be implemented.

Mr. Mann continues to be skeptical of the need for implementing many of the proposed changes, but the two groups I consulted give strong endorsement to the recommendations of the Working Group. These internal groups at LC have now spent several months carefully analyzing what we already are doing and can do in the future to advance the agenda recommended in the Working Group's report. I am grateful to all involved. I particularly thank Beacher Wiggins, our director of Acquisitions and Bibliographic Access, and Bruce Knarr, coordinator of our internal working group on bibliographic control, for leading their respective groups in developing such detailed and thoughtful analyses.

On the basis of this internal analysis, the Library of Congress accepts and endorses the recommendations of the Working Group on the Future of Bibliographic Control. We are eager to work with colleagues nationally and internationally to achieve the vision that is so compellingly drawn in *On the Record*. This response is not an official program statement from the Library of Congress, nor is it an implementation plan. It is an endorsement of the concepts proposed by the Working Group and the Library's current thinking about actions that can be taken immediately.

Our internal staff groups assigned priorities for implementing the recommendations, identified possible starting dates for each, and estimated the cost of achieving results. Although I have not included these products from the groups in this document, I expect to make good use of the staff's projections as I work with all of the directors within Library Services to determine budgetary and staffing priorities for the next few years. Included in this document for each recommendation in *On the Record* are LC's response and rationale and a brief summary of current and planned actions.

### The Library of Congress: Its Roles and Responsibilities

Two themes emerged in all three of the responses developed from within LC. First, our staff is deeply committed to the principles of free and open access for all. In responding to the

recommendations, staff members eschewed even the hint that bibliographic data could be proprietary. They worried about small and often underfunded institutions that are unable to participate in the OCLC collaborative, and they wanted to provide safety mechanisms enabling these libraries to benefit from the bibliographic data generated by LC. Second, our staff recognizes the role played historically by the Library of Congress in providing high-quality, accessible bibliographic data. We have created bibliographic records for LC's collections with the firm and clear understanding that we also were contributing those records to many libraries around the world. We take pride in honoring our legacy by continuing in this role. At the same time, our staff is devoted to the recognition that LC must make a greater investment in new initiatives if it is to continue to play an important role. These early years of the 21<sup>st</sup> century will be a crucial time for reshaping bibliographic activity by advancing new theories, testing them, and disseminating the results for the benefit of the broader community.

The Library of Congress has devoted its cataloging expertise over the last hundred years to providing bibliographic data for books and journals that are likely candidates for acquisition by American libraries. However, vast resources in our own special collections are not represented in our online catalog, and we are delighted with the Working Group's conclusion that the time has come to focus on unique, previously uncataloged collections. Technological advances are enabling us to take innovative approaches toward making these valuable resources more widely available.

Similarly, the call from the Working Group to increase our emphasis on adapting existing bibliographic data, expanding bibliographic cooperation, and developing standards that facilitate work in the digital environment strikes a responsive chord at the Library of Congress. We have initiated a host of experiments and pilot projects in these areas, but the strong endorsement of the Working Group will encourage us to pull our informal efforts into a cohesive plan for future progress.

We greatly appreciate the hard work and excellent report of the Working Group. We look forward to continuing our collaboration with the group, all of whose members have graciously agreed to serve as informal advisors to us as we set priorities for implementation, develop new business models, and explore new possibilities for collaboration. I am grateful to all of the participants for their dedicated pursuit of a way forward, and I am greatly pleased with the response of my Library of Congress colleagues. I am convinced that our collective determination will lead to the creation of a bibliographic system that is even more useful for connecting our users to the information they need.

Deanna B. Marcum Associate Librarian for Library Services June 1, 2008

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

- 1.1 Eliminate Redundancies
- 1.1.1 Make Use of More Bibliographic Data Available Earlier in the Supply Chain.

1.1.1.1 All: Be more flexible in accepting bibliographic data from others (e.g. publishers, foreign libraries) that do not conform precisely to U.S. library standards.

## LC Response and Rationale

Support, because acceptance of slightly variant data will reduce costs of bibliographic access and allow much greater coverage of the world's information and publications.

## Action: Current

Even now, LC is taking advantage of data from publishers, vendors, and libraries. For example, the Electronic Cataloging in Public (ECIP) program uses information supplied in electronic format by publishers to create bibliographic data. LC uses Text Capture and Electronic Conversion (TCEC) programs to capture ONIX data of tables of contents, summaries, abstracts, etc. from publisher data and link it to associated bibliographic records. LC catalogers routinely search for and use bibliographic data from foreign libraries. LC developed a processing program (Z-processor) to search library catalogs and convert retrieved data to a basic bibliographic record.

The Library is exploring shelf-ready projects with its East Asian, Latin American, and Spanish vendors, which involves accepting some degree of variance from MARC 21 and LC subject application (the Casalini shelf-ready project, predicated on conformity to the PCC core-level standard for books, is relatively expensive and the project excludes serials, atlases, law, and incomplete multipart sets). LC loads 70,000 to 90,000 vendor records, from more than thirty book vendors, each year in various degrees of conformity to MARC 21 and AACR2; the LC overseas office in New Delhi uses vendor-supplied IBC records (from vendor USB for English - 1,793 IBCR in fiscal 2007; from Star Publishers for Hindi - 569 IBCR in fiscal 2007) that include only title field, imprint and subfield a of the collation field.

Music catalogers use AllMusic (from All Media Guide, Inc.) as a source for music cataloging.

LC participates in the ongoing "Big Heads" discussions on accepting data that varies from AACR/MARC 21.

#### Action: Planned

LC expects to accept more shelf-ready books with varying data; we have tasked the Cataloging Policy and Support Office (CPSO) within the Acquisitions and Bibliographic Access (ABA) Directorate to look at potential areas of flexibility.

We believe it would be useful to share our experience using bibliographic data from publishers, vendors, and foreign libraries with others in the community. A useful project would be to analyze the kinds of modifications that are being made to records, which of those modifications

are essential to meeting the needs of particular users, and which modifications are unnecessary.

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

- 1.1 Eliminate Redundancies
- 1.1.1 Make Use of More Bibliographic Data Available Earlier in the Supply Chain
- 1.1.1.2 All: Analyze cataloging standards and modify them as necessary to ensure their ability to support data sharing with publisher and vendor partners.

## LC Response and Rationale

Support, because revision of cataloging standards is essential to allow libraries to share data with non-library sources; work is underway.

## Action: Current

LC believes that the analysis suggested in 1.1.1.1 will identify other changes catalogers can make to data received from publishers and vendors.

The Electronic Cataloging in Publication (ECIP) program requirements were modified in 2001 to permit more publishers to participate, which enabled LC to implement ECIP as the default CIP application in 2007.

### Action: Planned

LC expects to continue Library of Congress Subject Headings (LCSH) development in conjunction with other established vocabularies, including those used by publishers and vendors, and will consider the potential for data sharing in its reviews of cataloging standards.

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

- 1.1 Eliminate Redundancies
- 1.1.1 Make Use of More Bibliographic Data Available Earlier in the Supply Chain

# 1.1.1.3 All: Develop standard crosswalks for the conversion of vendor data to library system formats.

## LC Response and Rationale

Support, because this is an aspect of revision of standards to allow vendors to participate in more bibliographic access. Work is underway.

### Action: Current

LC developed a crosswalk to convert ONIX 1.0 data to MARC and has also developed

conversion tools such as MARCMaker, MARCBreaker, and the MARC to XML/XML to MARC Conversion Utilities. LC endorsed the MARCEdit suite (maintained at Oregon State University Libraries) of crosswalks between MARC or MARCXML and plain text, Dublin Core, EAD, and MODS and MARC RTP (Record Translation Program, Australia), and many other free and commercial conversion tools. LC provides crosswalks and conversion tools between MARC and other metadata formats. The suite of MARC to MARCML tools are freely available from the Library's standards Web sites.

Beginning in 1985, LC worked with UNESCO to develop ISISMarc, a data entry interface tool for MARC and UNIMARC, for use with the UNESCO CDS/ISIS information storage and retrieval software. UNESCO makes this software available at no charge in developing areas.

## Action: Planned

Although the crosswalk from ONIX to MARC is outdated (ONIX is now in version 2.1), LC should update it and further publicize this and other crosswalks for sharing with the library community. LC will explore upgrading MARCMaker and MARCBreaker since many librarians are familiar with these programs.

#### Recommendation

- 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.
- 1.1 Eliminate Redundancies
- 1.1.1 Make Use of More Bibliographic Data Available Earlier in the Supply Chain
- 1.1.1.4 All: Develop managed processes for creating and sharing conversion programs so that programming is not done redundantly at multiple institutions.

## LC Response and Rationale

Support, because eliminating redundant programming work will conserve scarce and highly sought-after programming resources.

### Action: Current

The Library supported ISIS, a MARC record generator developed some years ago under the auspices of UNESCO. As mentioned in 1.1.1.3 LC provides, for community download, conversion tools in the form of XSLT stylesheets and Javascripts for converting between several metadata formats, including MARC. For standards for which the Library has a maintenance and Web site responsibility (e.g., MARC, MODS, METS, SRU, PREMIS, etc.) a listing of software tools available from LC or any other source is published on the Web site.

## Action: Planned

A clearinghouse (perhaps as simple as a monitored Web site) could be established so that libraries could list conversion programs they use or develop, and provide pertinent data about the program, e.g. whether the program is a commercially available or freeware developed by the

library, and conditions under which the program can be used. We note that OCLC has a software toolkit for mapping elements across different schema used in large and diverse collections of metadata records, called the Crosswalk Web Service.

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

- 1.1 Eliminate Redundancies
- 1.1.1 Make Use of More Bibliographic Data Available Earlier in

the Supply Chain

# 1.1.1.5 All: Work with publishers and other resources providers to coordinate data sharing in a way that works well for all partners.

## LC Response and Rationale

Support, because all members of the information community must have incentives if they are to share data effectively.

## Action: Current

LC is receiving ONIX data from over 20 sources currently, representing approximately 75% of items published in the US. ONIX providers are already set up to facilitate the exchange of data with their ONIX partners. Some of those partners also subscribe to LC's MARC Distribution Service and receive regular MARC feeds from LC. LC also receives and processes vendor files regularly. An ONIX to MARCXML conversion is on the Library's Web site for free download and use by others.

### Action: Planned

Consider establishing a working group or governance mechanism to guide projects to share data.

## Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

- 1.1 Eliminate Redundancies
- 1.1.1 Make Use of More Bibliographic Data Available Earlier in

the Supply Chain

# 1.1.1.6 All: Demonstrate to publishers the business advantages of supplying complete and accurate metadata.

### LC Response and Rationale

Support. Much of this work has been done. The publishing community is aware of the business advantages and produces huge quantities of data in ONIX and other formats, but only six percent of US publishers have implemented ONIX to date. Just as LC receives error reports from users of the LC catalog, publishers also receive error reports about their data from authors and readers

who see the publisher's data on Amazon, Barnes & Noble, or other sources. Publishers that have not adopted ONIX are generally smaller houses that do not have resources to maintain their own ONIX databases. LC would like to see incentives for medium-sized publishers to implement ONIX either in-house or via ONIX aggregators.

#### Action: Current

The Book Industry Standards and Communications (BISAC) Metadata Committee is working on two fronts. The Product Data Certification Program (PDCP) seeks to have publishers submit data that follows Book Industry Study Group's (BISG) Product Data Best Practices. Publishers submit files, which are "graded" on many data points, both a presence/absence of required data and anecdotal evaluation of the quality of the data. The Committee is currently developing the Product Recipients Certification Program that ensures publishers' data are handled in a timely manner and displayed correctly by the recipient (Amazon, etc.). LC participates on the committee and participates in the PDCP by writing software to do the presence/absence grading of the program.

## Action: Planned

Explore economic models to enable ONIX technical service providers (data aggregators) to provide ONIX data for medium-sized publishers.

#### Recommendation

- 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.
- 1.1 Eliminate Redundancies
- 1.1.2 Re-purpose Existing Metadata for Greater Efficiency

1.1.2.1 All: Develop workflow and mechanisms to use data and metadata from network resources, such as abstracting and indexing services, Amazon, IMDb, etc., where those can enhance the user's experience in seeking and using information.

### LC Response and Rationale

Support, because users are very interested in enhancements to the conventional library catalog. Our use statistics show that digital tables of contents linked to LC catalog records have received more than 20 million visits since 1995.

## Action: Current

LC has contacted Amazon and A&I services, and we hope to see more collaboration as a result. The LC Bibliographic Enrichment Advisory Team links publisher information (abstracts, author bios, reviews, Tables of Contents (TOC), sample texts) to records in the LC online catalog.

The Copyright Office is currently utilizing registration data supplied on electronic registration forms completed by Copyright remitters. LC is developing a program to use application data supplied by ISSN requesters to provide Initial Bibliographic Control Records (IBCs) for U.S.

serials and other continuing resources.

Cultivating partnerships for the exchange of data may offset the expense of purchasing metatdata from aggregators, for example, exchanging controlled data such as authority records and controlled subject headings for descriptive metatdata As an example, LC currently has a contract partnership with ProQuest whereby ProQuest provides a full-time employee to LC: half-time is spent on creating ISSN metadata and half-time on using that metatdata to create records for the *Urich's* periodicals directory and database.

### Action: Planned

Explore possible business models that would enable A&I services to share their data with libraries.

#### Recommendation

- 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.
  - 1.1 Eliminate Redundancies
  - 1.1.2 Re-purpose Existing Metadata for Greater Efficiency

1.1.2.2 All: Use metadata supplied by sound recording, motion picture, and other audio-visual distribution sources.

## LC Response and Rationale

Support, because this is a cost-effective way to provide bibliographic access to audiovisual materials. Work is underway at LC.

## **Action: Current**

In January 2007, LC began a pilot to create bibliographic records for popular music CDs with metadata leased from the *AllMusic* services of All Media Guide, LLC.

### Action: Planned

The internal working group on bibliographic control, formed as part of Library Services' strategic plan, recommended ways in which these metadata can be used in our processes. The Library will fully explore these recommendations.

### Recommendation

- 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.
- 1.1 Eliminate Redundancies
- 1.1.2 Re-purpose Existing Metadata for Greater Efficiency

1.1.2.3 All: Use descriptive cataloging provided by book vendors and non-U.S. libraries whenever available.

## LC Response and Rationale

Support, because book vendors can provide descriptive data that is accurate and generally much timelier than other sources can provide, often as part of approval plan agreements (no added cost to libraries); work is underway.

## Action: Current

LC adapts full bibliographic records from the Latvian national union catalog (project began in 2007; Latvian cataloging conforms to MARC21, AACR, LCSH and is partially anglicized; ABA translates the Latvian subject headings). LC also uses vendor IBCR from vendors for New Delhi acquisitions (see also response to 1.1.1.1). These projects did not require additional funding. LC purchases core-level records from Casalini Libri for about half of the Italian books that Casalini supplies to LC.

### Action: Planned

LC is working to accept core-level bibliographic description from Eulyoo, China Publications Trading Corp., Kinokuniya, and Japan Publications Trading Corp.

#### Recommendation

- 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.
- 1.1 Eliminate Redundancies
- 1.1.3 Fully Automate the CIP process

1.1.3.1 LC: Develop content and format guidelines for submission of ONIX data to the CIP program and require publishers participating in the program to comply with these guidelines.

### LC Response and Rationale

Support, with a caveat. We agree that more complete automation of the CIP process is a worthwhile goal. We note, however, that the results of a recent CIP survey showed that ONIX data are used by less than 10% of CIP publishers. Those relatively few publishers produce the majority of CIP titles, and they account for more than 80% of the publications in the CIP program.

One possibility would be to explore a different submission mechanism that would allow ONIX to be the preferred submission format but continue to accept ASCII or formats widely used by publishers such as Adobe Design and Quark Express for a limited period, perhaps 5 years. We need to know more about the costs of re-tooling ECIP to accept ONIX data. An OCLC pilot project to accept ONIX metadata from publishers, convert it into MARC, and create base-level records (equivalent to enriched IBC records) holds the possibility for making it easier for publishers who create ONIX data to apply for CIP.

## **Action: Current**

LC participates in ONIX development with BIC/BISAC.

LC is participating in the OCLC Pilot Advisory Board for the pilot to accept ONIX data from

publishers, convert it into MARC records, and make those records available in WorldCat. These will be basic, IBC-type records, as ONIX data are not geared towards library catalog use, but rather publishing industry use. When the pilot makes ONIX-derived records available, LC will examine them to see if they are suitable for use as the basis for CIP cataloging records.

## Action: Planned (i.e., Alternative Recommendation)

Encourage CIP publishers to include the LCCN permalink to their CIP records in data they submit to Amazon.com, Bowker, Borders, and other sellers.

Recommendation

1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

1.1 Eliminate Redundancies

1.1.3 Fully Automate the CIP process

1.1.3.2 LC: Develop a mechanism to accept these data in a fully automated fashion so that the descriptive portion of the bibliographic record is created prior to cataloging.

## LC Response and Rationale

Do not support, because incompatibilities between ONIX and ECIP programming and publishers' workflows make this unworkable at this time. Creation of the descriptive portion of the record prior to cataloging is an efficiency to strive for, although not all resources will lend themselves easily to this treatment. We can envision a scenario whereby batches of data supplied by publishers of U.S. commercial imprints in the CIP program could be converted into bibliographic records, checked against authority files, exceptions noted, and the remaining access points and the subject cataloging could then be provided by catalogers. To the extent possible, this kind of batch processing could be applied to widely held commercially available resources. Perhaps, a future separate work stream could be developed for publishers who can supply ONIX metadata.

Another consideration for acquiring automated descriptive data is that foreign publishers do not generally participate in CIP. The CIP Review Group's recommendation 6H was to explore ways to include CIP data from foreign publishers. This should be explored through national libraries that have CIP operations.

Action: Current

None at this time.

Action: Planned (i.e., Alternative Recommendation)

LC will continue to participate in ONIX development and to be alert for opportunities to capture data from ONIX streams.

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

- 1.1 Eliminate Redundancies
- 1.1.4 Re-Examine the Current Economic Model for Data Sharing in the Networked Environment

1.1.4.1 LC: Convene a representative group consisting of libraries (large and small), vendors, and OCLC to address costs, barriers to change, and the value of potential gains arising from greater sharing of data, and to develop recommendations for change.

## LC Response and Rationale

Support, because such a conference would serve as a starting point to identify common ground in revising current economics of data sharing; and frank discussion is needed to break the logiam caused by existing economic model.

## Action: Current

LC has experience with hosting invitational conferences, such as the Bicentennial Conference of 2000; CONSER Summit in March 2004; and a publishers' day in September 2004.

## Action: Planned

Examine possibilities for conference funding.

- Recommendation 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.
  - 1.1 Eliminate Redundancies
  - 1.1.4 Re-Examine the Current Economic Model for Data Sharing in the Networked Environment

## 1.1.4.2 LC: Promote widespread discussion of barriers to sharing data.

#### LC Response and Rationale

Support, because the conference supported in 1.1.4.1 is only the beginning of a process. The conference outcomes will require ongoing action probably over several years. In addition, there is a need for a continuing conversation about ways to optimize data sharing. A Web clearinghouse, listsery, or wiki should be set up for this purpose.

We also note that most of today's users want a lot more than the bibliographic data—they want access to digitized objects. Also, they want a lot more than the bibliographic data we now provide. For examples, hundreds of tags are not unusual in settings where social tags are used, so some users have expectations for hundreds of subject headings, not just the few LC provides. The barriers that need to be taken into consideration are barriers on the part of some authors and

publishers to making digitized objects available and the barriers to providing the voluminous metadata that users ideally want. It seems that we are in a transitional environment from old business models for sharing data to newer models that might be more receptive to the kind of data sharing that would benefit libraries.

Action: Current

No action yet underway.

Action: Planned

Please see 1.1.4.1.

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

- 1.1 Eliminate Redundancies
- 1.1.4 Re-Examine the Current Economic Model for Data Sharing in the Networked Environment

1.1.4.3 LC: Reevaluate the pricing of LC's product line with a view to developing an economic model that enables more substantial cost recovery.

## LC Response and Rationale

Support. LC is already looking at the economic models of its cost-recovery activities. Our interest is in making the process more transparent, rather than enabling more substantial cost recovery.

Action: Current LC is investigating options under current and likely future federal enabling legislation. Current plans are to split CDS staff/activities into a cost-recovery arm under Business Enterprises (BE) and another set of mission-critical functions that will be freely available.

<u>Action: Planned</u> Determine which products will be cost-recovery under BE, and which can be made available at no charge; proceed to make those available, e.g. via Web.

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

- 1.1 Eliminate Redundancies
- 1.1.5 Develop Evidence about Discovery Tools to Guide Decision-Makers

1.1.5.1 LC: All: Make use of existing, and gather additional, evidence on user behavior to establish empirically the correlation between user behavior and the content of

## bibliographic records.

## LC Response and Rationale

Support, because LC's mission is to serve the end user, and libraries need to know more than they currently do about their customers' expectations and habits in using our products. The critical need is for ongoing, continuous, widely discussed research. Therefore we would encourage establishing a central clearinghouse for research studies on user behavior. LC urges library and information science schools to make this a research focus and to collaborate with commercial enterprises that have an incentive to undertake this research.

### Action: Current

LC has not undertaken much work that specifically addresses this recommendation. An LC cooperative cataloging team cooperated with Dr. Robert Ellett in his research on use of PCC records. The Outsell, Inc.-commissioned report on user behavior touched only briefly on the correlation between user behavior and the content of bibliographic records.

### Action: Planned

LC plans to user-test records produced according to the forthcoming Resource Description and Access (RDA) standard as part of its testing to determine if implementation is warranted.

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

1.2 Increase Distribution of Responsibility for Bibliographic Record Production and Maintenance1.2.1 Share Responsibility for Creating Bibliographic Records

1.2.1.1 LC, library and publishing communities: Share responsibility for creating original cataloging according to interest, use, and ability. Consider categories of materials for which responsibilities can be distributed and categories of metadata that can be appropriately provided by each of the participants.

## LC Response and Rationale

Support, because this is a vision of the ideal state of bibliographic data production.

### Action: Current

The Program for Cooperative Cataloging (PCC) has issued its new five-year strategic direction; LC like other libraries makes heavy use of vendor-supplied data for IBC and some finished cataloging data; the CIP program encourages publisher summaries for both juvenile and adult works; the LC Bibliographic Enrichment Advisory Team (BEAT) links publisher-provided data (table of contents data, sample text, author info) to LC Online Catalog records.

## Action: Planned

Increase PCC production; CIP Review Group is working to increase use of publisher summaries; BEAT projects continue. LC intends to explore further work with BISAC Metadata Committee. LC thinks there is a better immediate payoff in working with vendors than directly with publishers (please see response to 1.1.3.1 on incompatibility between ONIX and ECIP, for instance).

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

1.2 Increase Distribution of Responsibility for Bibliographic Record Production and Maintenance1.2.1 Share Responsibility for Creating Bibliographic Records

1.2.1.2 LC: Analyze the Library's use of PCC-produced data and determine how to take full advantage of the shared product.

## LC Response and Rationale

Support, because using PCC-produced data is our most efficient and cost-effective means of providing high-quality, timely catalog access to LC collections. It is essential for LC to take optimal advantage of PCC data.

### Action: Current

LC is not making optimal use of this rich store of data. In autumn 2000, LC reported that it had adapted only seven percent of all BIBCO-produced bibliographic records to represent its own collections. The rate of use appeared to be trending upward, considering that 40 percent of all BIBCO records adapted by LC had been contributed during the previous twelve months. Since that time, LC has instituted many changes to cataloging workflows and searching policy.

LC adapts CONSER records for about 25% of its own serial cataloging.

## Action: Planned

The proposed cataloging and acquisitions reorganization expressly takes advantage of available copy, including PCC-produced data. In the meantime, LC should conduct a new analysis of its use of PCC data, both bibliographic and authority, to represent LC's collections and consider how to optimize use of PCC data. Determine the rate at which PCC records (BIBCO, CONSER, and PCC authority records) are used to represent LC collections. Consider whether the available PCC data are used appropriately; a low rate of 'PCC adapts' may indicate that LC is overlooking some available PCC copy (staff have a copy search program that highlights existence of a PCC record; therefore this may be an awareness issue), or it may mean that the PCC provides cataloging of categories of material that LC does not acquire—actually indicating better service to the larger community. Institute changes to policies and workflows to optimize use of PCC-produced data. 'Optimal' use of PCC data means that the data are used as much as possible and by the appropriate level of staff.

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

1.2 Increase Distribution of Responsibility for Bibliographic Record Production and Maintenance

1.2.1 Share Responsibility for Creating Bibliographic Records

1.2.1.3 LC: Recognize the impact of LC practice on other libraries. Changes in practice must be openly arrived at with sufficient opportunity for public input, and widely announced with sufficient time to allow other libraries to consider the ramifications, if any, for their own practices and workflows.

## LC Response and Rationale

Support, because this is an essential responsibility for LC in its role as a leader in bibliographic access and a courtesy to our many partners in that enterprise.

#### Action: Current

LC regularly informs and seeks input from other groups such as the CIP Advisory Group, PCC, North American Serials Interest Group (NASIG), ALA groups, and other national and international associations. CDS product announcements are issued 90 days in advance of any change; changes to LC Rule Interpretations and LC Descriptive and Subject Cataloging Manuals are also announced well in advance.

## Action: Planned

LC will continue to provide opportunity for community input to its planning and decisions.

## Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

1.2 Increase Distribution of Responsibility for Bibliographic Record Production and Maintenance1.2.2 Examine Current Original Cataloging Programs and Sub-Programs at the Library of Congress

1.2.2.1 LC: Identify all distinct cataloging programs and operations within the Library of Congress; determine the relative importance of each to the Library and to other libraries; use these determinations to inform management decisions as to priority, continuation, or reshaping of programs, etc.

## LC Response and Rationale

Support, because this is a first step in allocating LC cataloging and acquisitions resources. Over

the past two years, the Acquisitions and Bibliographic Access directorate has been working toward this goal.

## **Action: Current**

LC undertakes an assessment of its cataloging activities routinely as part of the budgetary process. The Cataloging in Publication program was reexamined in 2006 with a comprehensive survey. The same survey also included the "annotated card program" (children's literature) and Dewey processing which are major components of CIP.

## Action: Planned

Reorganization of cataloging and acquisitions will prioritize and assign resources appropriately to all programs; Library Services' annual zero-based budgeting exercise also requires ABA to assess relative importance of each activity. LC plans to review the ISSN program, overseas offices in general and their cataloging in particular, and subject treatment of juvenile literature. The reorganization has Overseas Operations as a separate division with a dedicated cataloging liaison at LC-Washington, recognizing the growing importance of cataloging by the overseas offices.

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

1.2 Increase Distribution of Responsibility for Bibliographic Record Production and Maintenance1.2.2 Examine Current Original Cataloging Programs and Sub-Programs at the Library of Congress

1.2.2.2 LC: For those aspects of operations that extend beyond the Library's immediate mission as the Library of Congress, identify other entities or groups with the interest and ability to assume responsibility for them.

## LC Response and Rationale

Support, because this is a follow-on step to 1.2.2.1 (please refer to that recommendation). The Library's mission is to support Congress and to preserve and to provide access to a universal collection of knowledge. This is a very broad mission that has been interpreted by the Library and the greater library community very broadly. We believe that other entities may seek incentives to take on functions that LC has performed in the past.

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

1.2 Increase Distribution of Responsibility for Bibliographic Record Production and Maintenance1.2.2 Examine Current Original Cataloging Programs and Sub-Programs at the Library of Congress

1.2.2.3 LC: Work with interested entities such as PCC, the Association of Research Libraries (ARL), professional organizations, publishers, etc. to plan transition to new distribution of responsibilities.

## LC Response and Rationale

Support, because this is a follow-on step to 1.2.2.1 and 1.2.2.2 (please refer to 1.2.2.1).

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

1.2 Increase Distribution of Responsibility for Bibliographic Record Production and Maintenance1.2.2 Examine Current Original Cataloging Programs and Sub-Programs at the Library of Congress

1.2.2.4 LC: Examine the management of internal pilot projects relating to cataloging programs, including funding, prioritization, assessment for scalability, viability, and internal and external impact. Identify process for moving from project to service program with feedback from broad constituencies and potential partners.

### LC Response and Rationale

Support, because this will enable LC to allocate resources and estimate costs and benefits for initiatives.

## Action: Current

LC has generally followed similar criteria in its recent pilots: pinyin, JACKPHY transition away from RLIN, shelf-ready projects, CONSER standard record.

## Action: Planned

Develop model based on LC's most successful past pilots, e.g. pinyin romanization and JACKPHY transition (with Council on East Asian Libraries and OCLC), and CONSER standard record development/testing/implementation (with CONSER).

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE

1.2 Increase Distribution of Responsibility for Bibliographic Record Production and Maintenance1.2.3 Expand Number of PCC Participants

1.2.3.1 PCC: Assess barriers and incentives to participation by more libraries, including PCC's and LC's abilities to manage a larger scale effort of collaboration.

## LC Response and Rationale

Although this recommendation is aimed at PCC, LC supports it, because PCC contributions are a proven method of increasing the overall supply of high-quality, sharable bibliographic data.

### Action: Current

PCC's Strategic Plan for the next five years, "PCC 2010," gives focus to this recommendation. One of the actions is "Identify the barriers to the contribution of records to the NACO and SACO authority file by organizations outside of North America and recommend solutions." To that end, the PCC Task Group on the Internationalization of Authority Files has been established with the charge to "investigate the feasibility of designing a model for international participation in a global authority file. Assess and document the implications for such an endeavor, including costs ..." The TG's report is due before ALA 2008 Annual Conference.

## Action: Planned

PCC will review and take appropriate steps toward fulfilling this task action, with support from LC as PCC secretariat.

LC stands ready to assist in revising the SACO workflow to encourage greater participation.

#### Recommendation

1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

1.2 Increase Distribution of Responsibility for Bibliographic Record Production and Maintenance1.2.3 Expand Number of PCC Participants

**1.2.3.2** PCC: Reduce personnel and other costs to PCC participants and to LC.

## LC Response and Rationale

Although this recommendation is to PCC, LC supports it, because lower costs will permit wider participation and greater production.

#### Action: Current

PCC's funnel projects were created to reduce the personnel costs for LC by setting up a structure where seasoned PCC catalogers could review and funnel completed records created by smaller institutions that might not create sufficient output in a given year to reinforce their skills to the level of independent contributions.

## Action: Planned

"PCC 2010" has an objective: "Explore a new category of membership that will allow individuals who do not work in a PCC member organization to contribute PCC records." Implementing this objective will allow the use of catalogers who have been previously trained in the PCC tenets to use their skills, even after they leave a PCC institution, thereby reducing training and review costs for LC's cooperative cataloging staff. The first test and action item stemming from this objective is due to be completed in 2008.

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

1.2 Increase Distribution of Responsibility for Bibliographic Record Production and Maintenance1.2.3 Expand Number of PCC Participants

1.2.3.3 PCC: Actively recruit new participants. Develop a "marketing program" for PCC, publicizing its work and benefits.

## LC Response and Rationale

LC supports this recommendation to PCC, because expanding the PCC maximizes a proven, existing community investment.

## Action: Current

The PCC Steering Committee is exploring ways to recruit new members, including crafting a new brochure that can be shared more broadly; having a presence at venues beyond ALA; contracting with a former PCC chair to write an article for *American Libraries* espousing the benefits of PCC in an environment of changing bibliographic control.

## Action: Planned

PCC is planning for a poster session at the 2008 IFLA World Congress—a first time presence for PCC at IFLA. LC cooperative cataloging team trainers are invited to teach a subject cataloging workshop for Canadian librarians in conjunction with IFLA.

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

1.2 Increase Distribution of Responsibility for Bibliographic Record Production and Maintenance1.2.3 Expand Number of PCC Participants

# 1.2.3.4 PCC: Develop management mechanisms to ensure nimble decision-making and planning by PCC.

## LC Response and Rationale

LC supports this recommendation to PCC, because nimble management and governance encourage participation and therefore increase the supply of high-quality, shareable bibliographic data.

### Action: Current

With "PCC 2010," the PCC Steering Committee and Policy Committee are exploring ways to reshape its governing structure to enable improved decision making.

## Action: Planned

In crafting the strategic directions for the next five years, more innovative approaches to addressing the management of the Program are included.

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

1.2 Increase Distribution of Responsibility for Bibliographic Record Production and Maintenance
1.2.4 Increase Incentives for Sharing Bibliographic Records

1.2.4.1 LC, PCC, and OCLC: Explore ways to increase incentives and tools for contributions of new bibliographic records, as well as upgrades or corrections to existing records to the national (and international) shared bibliographic and authority databases.

## LC Response and Rationale

Support, because this would encourage increased contributions of new data and would also reduce the burden of bibliographic file maintenance for LC.

### Action: Current

LC has devised ways to ease the burden of PCC participants contributing records to the shared national databases. These include devising Web tools for the submission of subject and classification proposals; assuming responsibility for maintenance to LC bibliographic records needing changes due to PCC members' creation of/changes to authority records; and expanded training opportunities for authority data creation, including distance education.

## Action: Planned

"PCC 2010" includes an objective, "Identify funding sources to support PCC activities."

#### Recommendation

1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

1.2 Increase Distribution of Responsibility for Bibliographic

Record Production and Maintenance
1.2.4 Increase Incentives for Sharing Bibliographic Records

1.2.4.2 All: Explore tools and techniques for sharing bibliographic data at the network level using both centralized and non-centralized techniques (e.g., OAI-PMH (Open Archive Initiative – Protocol for Metadata Harvesting)).

## LC Response and Rationale

Support, because this exposure will make bibliographic data more widely available at lower cost. LC recognizes that large-scale exposure via OAI-PMH, which is open-source, challenges some organizations' business models.

### Action: Current

The Virtual International Authority File (VIAF) enables retrieval via OAI-PMH. LC also exposes discrete record sets for digitized content (American Memory collections) via OAI-PMH. LC believes that exposing discrete resources, e.g. via OAI-PMH, is less valuable than making an entire universe of resources available, to enable large-scale harvesting.

This recommendation forces us to look at the complex relationship we have with OCLC. LC produces the National Union Catalog of Manuscript Collections and exposes it via ArchiveGrid, currently an OCLC subscription service. LC proposed making NUCMC available free to users via its Web page, with LC paying OCLC for all use through this gateway; we have not received a firm reply from OCLC.

## Action: Planned

Continue OAI and other Web exposure as VIAF expands.

#### Recommendation

1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

1.3 Collaborate on Authority Record Creation and Maintenance

1.3.1 Increase Collaboration on Authority Data

1.3.1.1 LC, PCC: Identify ways to promote wider participation in the distribution of responsibility for creating, enhancing, and maintaining authority data.

## LC Response and Rationale

Support, because this will increase the pool of high-quality, shareable authority data. We support broad library participation in NACO, but we believe that the LC NACO model of a single authority database in not the only viable model. The Virtual International Authority File (VIAF)

is a model that links existing authority records. Its advantages are its international scope and its process that allows libraries to make their data available to others. The ongoing creation and maintenance of authority data remains with the originating institution, so participation involves no additional overhead to regular operations.

## Action: Current

LC devotes more than one full-time equivalent (FTE) staff member to coordinating NACO and SACO contributions. The team developed the "Basic SACO" workshops and taught them at each ALA conference and midwinter meeting for several years until the PCC took over the teaching responsibility. LC contributes resources to review of NACO and SACO contributions.

## Action: Planned

The work of the new Task Group on the Internationalization of the NACO Authority File will support this recommendation.

#### Recommendation

- 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.
- 1.3 Collaborate on Authority Record Creation and Maintenance
- 1.3.1 Increase Collaboration on Authority Data

1.3.1.2 LC, PCC, and library community: Work with other interested parties (e.g., American Library Association (ALA) divisions, state libraries, regional OCLC affiliates) to enhance, expand, and make more affordable training opportunities in the area of authority data creation.

### LC Response and Rationale

Support, because this will compensate for reduced emphasis on authority control in library science curricula and will increase the supply of authority control skills.

#### Action: Current

Catalogers' Learning Workshop (CLW) is the collaborative effort among CDS, PCC, and ALA's Association for Library Collections & Technical Services (ALCTS). CLW supports the training efforts related to cataloging, including authority control and the creation of authority data. It represents the contributions of cataloging experts and seasoned cataloging practitioners who focus on training materials that reinforce skills in authority control. The training materials are made available on a Web portal maintained by CDS and are listed on the CDS Web home page for ease of reference at <a href="http://www.loc.gov/cds/training.html">http://www.loc.gov/cds/training.html</a>. Currently available courses include metadata standards and applications, fundamentals of LCSH, name authorities, series authorities, and LC Classification.

### Action: Planned

CLW initiatives will continue in the coming years, building on previous work. We believe that the training program could also be transformed into online courses, available in modules, to

permit long-distance learning. A trainee at any institution could easily connect to a NACO reviewer/mentor elsewhere. Modules would allow for training in segments or selections, such as personal names only.

#### Recommendation

- 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.
- 1.3 Collaborate on Authority Record Creation and Maintenance
- 1.3.1 Increase Collaboration on Authority Data
- 1.3.1.3 All: Explore the creation of more tools to facilitate authority record creation and to better integrate record sharing within library workflows.

## LC Response and Rationale

Support, because this will help to compensate for the dwindling pool of authority control skills.

## **Action: Current**

As part of *Bibliographic Control of Web Resources: A Library of Congress Action Plan* (2000-2005), LC commissioned Jane Greenberg (UNC Chapel Hill School of Information and Library Science) to design the Automated Metadata Generation (AMeGA) project. LC, British Library, Library and Archives Canada, and National Library of Australia all were impressed with it, but none funded the project on an ongoing basis.

LC is making LCSH available in the Simple Knowledge Organization System standard (SKOS) and encourages applications that would lead to development of authority creation tools.

## Action: Planned

Seek funding for AMeGA or similar project, since funding appears to be the chief obstacle.

## Recommendation

- 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.
- 1.3 Collaborate on Authority Record Creation and Maintenance
- 1.3.1 Increase Collaboration on Authority Data
- 1.3.1.4 LC, PCC, and OCLC: Explore ways to increase incentives to facilitate contributions of new authority records and of upgrades or corrections to existing records in the national (and international) shared bibliographic and authority databases.

## LC Response and Rationale

Support, because PCC has pointed out its importance. Since PCC has raised this issue with OCLC repeatedly, LC suggests adding it to agenda for the conference recommended in 1.1.4.1.

Action: Current

Consider conference planning and appropriate stakeholders.

Action: Planned

Plan for conference to consider this among other issues.

#### Recommendation

1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

1.3 Collaborate on Authority Record Creation and Maintenance

1.3.2 Increase Re-Use of Assigned Authoritative Headings

1.3.2.1 LC: library community, library system vendors, publishers: Investigate convergences of name authority and identity management in various contexts, such as libraries, publishing, and repository management.

## LC Response and Rationale

Support, in theory, because such investigation could lead to reduced costs for authority control and will highlight to non-library organizations the benefits of authority control. On the other hand, we are not convinced that convergence is essential or possible in the early 21<sup>st</sup> century. Various groups have different needs that result in different types of headings for the same entity, or result in headings that may appear to be the same but may not be headings for the same entities at all. A better approach may be to let search and discovery tools provide the convergence, especially as these tools become increasingly sophisticated.

## Action: Current

LC monitors work at libraries that have implemented digital repositories, e.g. Cornell University and the University of Michigan.

The Coalition for Networked Information (CNI) addressed this issue at a workshop on February 25, 2008. LC looks forward to the workshop report but is already aware that the workshop concluded that progress in this area would not be centrally controlled or directed, but each segment of the information community had contributions to make.

### Action: Planned

LC proposes convening stakeholders in an invitational meeting during ALA in 2009, after outcomes of February CNI workshop are widely available, for further discussion.

#### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

- 1.3 Collaborate on Authority Record Creation and Maintenance
- 1.3.2 Increase Re-Use of Assigned Authoritative Headings
- 1.3.2.2 LC: Bring together other communities working on problems of identification of authors and other creators; map the issues; and investigate possibilities for cooperation.

## LC Response and Rationale

Support. Please see LC response to 1.3.2.1; LC sees this as linked.

- Recommendation 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.
  - 1.3 Collaborate on Authority Record Creation and Maintenance
  - 1.3.2 Increase Re-Use of Assigned Authoritative Headings
  - 1.3.2.3 LC: Make the LC Name Authority file available as a Web resource, for downloading or linking to through various Web service interfaces.

### LC Response and Rationale

Support, because this has potential both to reduce costs of authority control and to increase its use by non-library information entities. Linked to 1.1.4.3 (please see).

## Action: Current

The LC Name Authority File (NAF) is available in the LC Online Catalog (<catalog.loc.gov>) and on the Virtual International Authority File, VIAF (<a href="http://orlabs.oclc.org/viaf/">http://orlabs.oclc.org/viaf/</a>). The recent upgrade of the LC ILS was slated to make NAF keyword-searchable.

## Action: Planned

Consider additional ways of making LC NAF available on the Web and whether as fee-based or free service.

## Recommendation 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

- 1.3 Collaborate on Authority Record Creation and Maintenance
- 1.3.3 Internationalize Authority Files

## 1.3.3.1 LC, OCLC, and National Libraries: Pursue more aggressively the development of internationally shared authority files.

## LC Response and Rationale

Support, because international sharing promises authority data that are created by experts in the relevant languages and will increase the pool of authority data. Work is underway at LC, as we encourage international institutions and vendors to contribute authority data to the LC Name Authority File, which is actually an international file.

## Action: Current

LC is a founding member of VIAF, the Virtual International Authority File, and participates in PCC and IFLA theoretical work (FRANAR/FRAD, etc.).

The LC Name Authority and Subject Authority files are actually international files that include records created by libraries in a number of other Anglo-heritage countries.

## Action: Planned

Consider additional ways of making LC NAF available on the Web and whether as fee-based or free service. Consider hosting and maintaining VIAF on an LC server.

#### Recommendation

- 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.
- 1.3 Collaborate on Authority Record Creation and Maintenance
- 1.3.3 Internationalize Authority Files

1.3.3.2 LC, OCLC, and National Libraries: Work actively to advance a uniform approach to linking national and international authority records that represent the same entity.

## LC Response and Rationale

Support, but with the caveat that there are several approaches to linking, and we expect to advance several approaches that encourage exploration and innovation to find out what really works. Please see response to 1.3.3.1.

### Recommendation

## 1. INCREASE THE EFFICIENCY OF BIBLIOGRAPHIC PRODUCTION AND MAINTENANCE.

- 1.3 Collaborate on Authority Record Creation and Maintenance
- 1.3.3 Internationalize Authority Files
- 1.3.3.3 All: Create a file structure that will enable institutions to determine which forms of headings are authorized for use in various languages and for specific geographical audiences.

## LC Response and Rationale

Support. This is linked to 1.3.3.1 and 1.3.3.2; please see response under 1.3.3.1.

### Recommendation

## 2. ENHANCE ACCESS TO RARE, UNIQUE, AND OTHER SPECIAL HIDDEN MATERIALS

2.1.1 Make the Discovery of Rare, Unique, and other Special Hidden Materials a High Priority

2.1.1.1 All: Direct resources to support the discovery of these materials, including resources freed by the institution from economies realized in other areas.

## LC Response and Rationale

Support, because LC considers access to unique, special format collections vital to research.

#### Action: Current

LC has had dedicated staff/units for cataloging special collections for at least 25 years. In 2007 we began efforts for retrospective conversion of the music, rare book, and Asian-language card catalogs—starting with music. (The Asian Division has manuscripts, rare items, and other special formats as well as print.) We are also currently learning to share expertise and workflows among the special collection cataloging units in a broader, more systematic way than the "pinpoint" or ad hoc efforts that prevailed in the past.

LC has benefited from the Junior Fellows Summer Intern Program, using some of the students who spend the summer to process music and sound recordings. Last summer (2007) the 47 interns discovered and documented many hidden collection items in the backlogged copyright and gift collections. This work will facilitate the provision of bibliographic access by LC staff.

We have reassigned some music and sound recording cataloging staff to the Motion Picture, Broadcasting, and Recorded Sound Division at the Packard Campus and expect very shortly to reassign the rest of this specialized staff to the Music Division, in order to simplify workflows and increase production of bibliographic data for these materials.

### Action: Planned

Continue the retrospective conversion of data for music, rare books, and Asian collections. Ensure that special collections are accessible via the LC ILS.

#### Recommendation

- 2. ENHANCE ACCESS TO RARE, UNIQUE, AND OTHER SPECIAL HIDDEN MATERIALS
- 2.1.1 Make the Discovery of Rare, Unique, and other Special Hidden Materials a High Priority
- 2.1.1.2 All: Gather and share data on access paths that guide researchers to unique materials as a means to inform best practices for access in a Web environment.

## LC Response and Rationale

Support, because there is great need for a shared understanding of best practices in providing access to rare and unique materials. LC interprets this recommendation as basically a research initiative leading to formation of a registry of best practices.

### Action: Current

LC increasingly seeks ways to make its special format materials available through common, shared access paths. ABA, through the Special Materials Cataloging Division, contributes to the Library's online *Performing Arts Encyclopedia*, an excellent example of evolving access to digitized and non-digitized rare and unique materials, providing access to digitized audio recordings, sheet music, text articles and resource guides, all through a single portal. Several standalone catalogs to non-digital resources are also available on the *Encyclopedia* site. The *Encyclopedia* thus brings together numerous access paths in a manner that is relatively transparent to the researcher.

Other examples include LC's participation in the MIC (Moving Image Union Catalog), the OAI-driven Sheet Music Consortium, and experiments with social tagging via Flickr for prints and photographs.

### Action: Planned

Implement internal recommendations to increase the accessibility of the Library's special collections. Continue to provide standards to enable access paths; contribute to *Performing Arts Encyclopedia* as it absorbs some American Memory content.

## Recommendation

- 2. ENHANCE ACCESS TO RARE, UNIQUE, AND OTHER SPECIAL HIDDEN MATERIALS
- 2.1.1 Make the Discovery of Rare, Unique, and other Special Hidden Materials a High Priority
- 2.1.1.3 All: Make finding aids accessible via online catalogs and available on the Internet.

## LC Response and Rationale

Support, because this principle has long guided LC and has been reaffirmed by LC management.

### Action: Current

LC provides access in the ILS to finding aids: LC staff create collection-level records in the ILS that link to online finding aids, e.g. in the *Performing Arts Encyclopedia*, that are created according to the Encoded Archival Description (EAD) standard. Similar access is provided by bibliographic access staff of the Prints and Photographs (P&P) Division and Manuscript Division. Many EAD-encoded finding aids are available online at LC, both as searchable text on reading room Web pages and as link entries through the ILS. LC finding aids are also available through the ArchiveGrid union catalog of finding aids.

#### Action: Planned

Explore the best ways to expose EAD data to Web harvesting. More extensive standards development will be undertaken. Broaden the use of EAD encoding, with emphasis on training of custodial collections staff in EAD skills.

#### Recommendation

## 2. ENHANCE ACCESS TO RARE, UNIQUE, AND OTHER SPECIAL HIDDEN MATERIALS

2.1.2 Streamline Cataloging for Rare, Unique, and other Special Hidden Materials, Emphasizing Greater Coverage and Broader Access.

2.1.2.1 All: Adopt as a guiding principle that some level of access must be provided to all materials as a first step to comprehensive access, as appropriate. Allow for different cataloging levels depending on the types of documents, their nature, and richness.

#### LC Response and Rationale

Support, because this is a guiding principle for providing access to both hidden and general collections.

### Action: Current

LC has applied this principle in many efforts since the 1980s. It supported the definition of the PCC core-level standard for rare books in the late 1990s. The massive arrearage reduction efforts of the 1990s, which provided access to approximately 75 percent of the original (1989) arrearage of pictorial items and rare books, more than 60 percent of the moving-image arrearage and more than 50 percent of the sound recording arrearage, were based on this guiding principle.

LC is currently cataloging Korean rare material at core level to put it under bibliographic control, with the intention that the records will be further enhanced at a later date. LC's Nairobi Office produces the *Quarterly Index of African Periodical Literature*, which provides article-level access to scholarly journals published in Africa. The Index is online at <a href="http://lcweb2.loc.gov/misc/qsihtml/qsihome.html">http://lcweb2.loc.gov/misc/qsihtml/qsihome.html</a>. The New Delhi Office microfiches pamphlets, little magazines, gray literature, and ephemera and produces a finding aid available at <a href="http://www.locdelhi.org/pcs/">http://www.locdelhi.org/pcs/</a>.

LC supports the *Handbook of Latin American Studies*, edited in the Hispanic Division, by priority cataloging of titles identified as in scope for the *Handbook*, which has provided article-level description of new work in this area since 1936. *HLAS Online* is exposed via Z39.50 and OpenURL link resolvers, providing access to full text of online articles.

### Action: Planned

Develop and share workflows and technology that make adoption of this guiding principle feasible and practical.

Continue standards development for bibliographic access at appropriate levels.

More can be done through the development and promulgation of automated metadata production, sharable workflows, and best practices. If some collections with narrow subject and predictable data were identified, it might be worth exploring the use of automated subject indexing.

#### Recommendation

- 2. ENHANCE ACCESS TO RARE, UNIQUE, AND OTHER SPECIAL HIDDEN MATERIALS
- 2.1.2 Streamline Cataloging for Rare, Unique, and other Special Hidden Materials, Emphasizing Greater Coverage and Broader Access.
- 2.1.2.2 All: Establish cataloging practices that are practicable and flexible, and that reflect the needs of users and the reality of limited resources.

## LC Response and Rationale

Support, because this is the standards development component related to recommendation 2.1.2.1. Please see the response to 2.1.2.1.

#### Recommendation

- 2. ENHANCE ACCESS TO RARE, UNIQUE, AND OTHER SPECIAL HIDDEN MATERIALS
- 2.1.2 Streamline Cataloging for Rare, Unique, and other Special Hidden Materials, Emphasizing Greater Coverage and Broader Access.
- 2.1.2.3 LC: Encourage adoption of current rules and practices (e.g., DCRM(B) and DACS) for cataloging of unique and rare materials, including options for streamlined cataloging, and shared use of and creation of authority records across collections, as applicable.

## LC Response and Rationale

Support, because Descriptive Cataloging of Rare Materials-Books (DCRM(B)) and Describing Archives: A Content Standard (DACS) provide options for appropriate cataloging; and sharing of authority data pays off in enabling future bibliographic access.

#### Action: Current

The Rare Book Cataloging Team uses DCRM(B) in its cataloging (adopted in October 2007 and recently announced via CDS), and ABA catalogers are providing examples to be published in DCRM(M) for rare music and DCRM(S) for rare serials. The Cataloging Policy and Support

Office in ABA advised on the development of DACS; the Special Materials Cataloging Division has repurposed some travel and training funds in order to send a staff member to intensive DACS training in May 2008.

LC disseminates its practices, as well as adopted standards, through manuals and guidelines on the CPSO Web site and also by including them in *Cataloger's Desktop*.

The NUCMC Team creates a very significant proportion of LC-created name authorities, in the neighborhood of ten percent.

LC supported adoption of the PCC core-level standard for rare books as a means of streamlining rare book cataloging nearly a decade ago. The Rare Book Cataloging Team employs various levels, including Minimal Level Cataloging (MLC) and Collection Level Cataloging (CLC).

The Prints and Photographs Division and CPSO are working with the ACRL Bibliographic Standards Committee to produce the Graphic Materials guidelines as part of the DCRM suite, and CPSO is assisting with the DCRM(S) for serials. Special Materials Cataloging is working with the ACRL committee to publish the Music portion of the DCRM suite and looks forward to implementing this standard as it becomes more involved with Music Division's special collections.

## Action: Planned

Continue to ensure that all collection materials in the LC ILS are under authority control.

Monitor LC use of DACS.

LC upgrade access points on older records to the current authoritative forms.

#### Recommendation

- 2. ENHANCE ACCESS TO RARE, UNIQUE, AND OTHER SPECIAL HIDDEN MATERIALS
- 2.1.2 Streamline Cataloging for Rare, Unique, and other Special Hidden Materials, Emphasizing Greater Coverage and Broader Access.
- 2.1.2.4 All: Consider different levels of cataloging and processing for all types of rare and unique materials, depending on institutional priorities and importance and potential use of materials, while still following national standards and practices.

### LC Response and Rationale

Support, because adherence to national standards and best practices will ensure that currently produced cataloging is shareable and will also ensure that it is useable far into the future. In addition to comments here, please see the responses to 2.1.2.1 and 2.1.2.3.

### Action: Current

LC's normal practice is to develop standards that allow for varying levels of access. LC has also contributed to enhancing the MARC 21 formats to allow for different levels of cataloging for non-print materials.

The NUCMC Team creates collection-level archival cataloging records, but provides full authority control for every access point.

### Action: Planned

Codify streamlined practices in various production units and share them with larger community; study streamlined practices from other institutions for possible application at LC. LC and external staff are working on a project to develop catalog records (MODS) from a cataloging in traditional finding aids that have been converted to the EAD format, a conversion that will be shared with the community. EAD finding aids are well-suited to describe unique materials in special collections.

#### Recommendation

- 2. ENHANCE ACCESS TO RARE, UNIQUE, AND OTHER SPECIAL HIDDEN MATERIALS
- 2.1.3 Integrate Access to Rare, Unique, and Other Special Hidden Materials with Other Library Materials.
- 2.1.3.1 All: Integrate access tools (finding aids, metadata records, databases, authority files, etc.) for unique and rare materials into the information access structures that serve the institution as a whole.

### LC Response and Rationale

Support, because this was part of the rationale for implementing the LC ILS and has been a guiding principle at LC for many years.

#### Action: Current

LC has begun the retrospective conversion of rare books, Asian collections, and music in order to include them in the LC ILS.

The *Handbook of Latin American Studies*, edited in the Hispanic Division, is exposed via Z39.50 and OpenURL link resolvers, providing onsite searchers with access to online full text [for journal articles] when the library owns it. *HLAS Online* records (Vols. 50-onward only) link to LC catalog records via OpenURL in the case of citations for print. A number of other linkages from the catalog to specialized resource description files provide access.

## Action: Planned

Add metadata for resources in American Memory (partial) and the *Performing Arts Encyclopedia* to the LC ILS by converting the *Encyclopedia's* MODS records to MARC 21 and loading into the LC ILS.

Adopt recommendations of internal working group on description of special collections for the strategic planning effort of Library Services. A major recommendation is to explore ways that LC staff and users can access full online text without coming to the LC campus.

Recommendation

2. ENHANCE ACCESS TO RARE, UNIQUE, AND OTHER SPECIAL HIDDEN MATERIALS

2.1.4 Encourage Digitization to Allow Broader Access.

2.1.4.1 LC: Study possibilities for computational access to digital content. Use this information in developing new rules and best practices.

### LC Response and Rationale

Support the overall goal, but since we know that computational access technology already exists and is used by some major search engines, it seems more economical and more efficient for LC to apply its resources to ensuring that more of LC's unique content is exposed to search engines; development of computational indexing will be a long-term, community-wide effort probably led by the commercial sector.

# Action: Current

LC has studied computational indexing in a preliminary way.

Dr. Jane Greenberg's survey of resources for automated metadata generation, commissioned by LC as part of *Bibliographic Control of Web Resources: A Library of Congress Action Plan*, included studies of computational access to digital content.

Stanford University is working on computational analysis of LCSH; LC supported this work by making LCSH files available without charge, in return for feedback on the research results.

#### Action: Planned

Revisit potential of applications identified in Greenberg's AMeGA project.

Recommendation

- 2. ENHANCE ACCESS TO RARE, UNIQUE, AND OTHER SPECIAL HIDDEN MATERIALS
- 2.1.4 Encourage Digitization to Allow Broader Access.
- 2.1.4.2 All: Study usage patterns to inform digitization priorities.

#### LC Response and Rationale

LC supports use of usage patterns as one of several criteria for determining digitization priorities.

### Action: Current

The Library Services strategic plan addresses decisions on digitization priorities. LC considers usage patterns in its decisions on what materials to cover in the BEAT Digital Table of Contents (D-TOC) projects, which digitize tables of contents from print titles and link them to the catalog records for the books.

### Action: Planned

Library Services will work with custodial divisions to determine future digitization priorities based on user studies and research needs.

#### Recommendation

# 2. ENHANCE ACCESS TO RARE, UNIQUE, AND OTHER SPECIAL HIDDEN MATERIALS

2.1.5 Share Access to Rare, Unique, and other Special Hidden Materials.

2.1.5.1 All: Encourage inter-institutional collaboration for sharing metadata records and authority records for rare and unique materials.

### LC Response and Rationale

Support, since researchers need to know about resources at other than their "home" institutions; and since authority control of all library content is a wise investment.

#### Action: Current

The Moving Image Collections (MIC) Project, the Sheet Music Consortium, and the National Union Catalog of Manuscript Collections (NUCMC) are three instances of LC participation in these efforts. More broadly, cooperative efforts with OCLC and RLG have been "standard working procedure" for the metadata producers at LC. Participation in IFLA efforts to standardize metadata sharing via, for instance, an international authority file, is crucial and ongoing.

LC regularly exposes metadata (record sets) for digitized content via OAI-PMH: a set for digitized maps and atlases; record sets for 33 image collections; a set for ephemera; moving images; and sheet music, as well as eleven sets of records for digitized books.

The Cataloging Distribution Service distributes LC ILS records for digitized and analog rare and unique materials as they are added to the catalog.

VIAF encompasses authority data for rare and unique materials at discretion of participating institutions.

#### Action: Planned

Continue; these projects are integrated into regular workflows.

#### Recommendation

# 2. ENHANCE ACCESS TO RARE, UNIQUE, AND OTHER SPECIAL HIDDEN MATERIALS

2.1.5 Share Access to Rare, Unique, and other Special Hidden Materials.

2.1.5.2 All: Encourage libraries and archives to submit records for rare and unique materials to shared databases such as OCLC.

# LC Response and Rationale

Support, since records that are available in a shared database are usable to a wider community of researchers; LC also supports opportunities for libraries to contribute to large specialized databases such as MIC and the Sheet Music Consortium.

#### Action: Current

LC, through the Cataloging Distribution Service, distributes its LC ILS records to OCLC and other customers.

LC is an OCLC member. A significant percentage of LC records for Korean rare material will be copied, entirely or in part, from OCLC.

LC's NUCMC records for unique manuscript repositories are created in OCLC and available through OCLC ArchiveGrid, currently a subscription service.

LC regularly contributes to OAI initiatives.

### Action: Planned

LC will continue to be active in MIC, OAI, and other such specialist organizations that meet the needs of their institutional clientele.

# Recommendation

- 2. ENHANCE ACCESS TO RARE, UNIQUE, AND OTHER SPECIAL HIDDEN MATERIALS
- 2.1.5 Share Access to Rare, Unique, and other Special Hidden Materials.
- 2.1.5.3 All: Examine financial and other incentives and disincentives to the sharing of records for rare and unique materials. Modify systems, practices, and agreements as necessary to increase incentives and decrease disincentives.

# LC Response and Rationale

Support, since analysis of incentives is essential to promote data sharing.

# Action: Current

LC attempts to make data available freely and widely as much as possible.

# Action: Planned

The Cataloging Distribution Service plans to make more records available for LC's rare materials.

Like other research libraries, LC has found that OCLC's revenue structure can act as a disincentive to sharing bibliographic and authority data; LC looks forward to revisiting the utility's pricing policies.

LC has made both NUCMC data and other contributors' data available through its Z39.50 NUCMC gateway. LC is still hopeful that LC's NUCMC and other archival records for unique manuscript sources can be made available without additional charge to the end user or local libraries, e.g. by exposing NUCMC data in OCLC ArchiveGrid. LC is in discussion with OCLC to have OCLC provide this access without charge, i.e., for all use that originates through its NUCMC Gateway Web portal.

#### Recommendation

#### 3. POSITION OUR TECHNOLOGY FOR THE FUTURE

- 3.1 The Web as Infrastructure
- 3.1.1 Develop a More Flexible, Extensible Metadata Carrier

3.1.1.1 LC: Recognizing that Z39.2/MARC are no longer fit for the purpose, work with the library and other interested communities to specify and implement a carrier for bibliographic information that is capable of representing the full range of data of interest to libraries, and of facilitating the exchange of such data both within the library community and with related communities.

# LC Response and Rationale

Support. LC recognizes the need for a more extensible carrier that can accommodate players beyond the library world, but also believes that Z39.2 and the MARC record structure (ISO 2709) will have an important role for the foreseeable future.

#### Action: Current

Beginning in 1991, LC has explored alternatives to the MARC record structure. LC has developed MARCXML to enable use of XML syntax with the MARC element set and has mapped MARC 21 to MADS, MODS, Dublin Core Metadata Element Set, and Digital Geospatial Metadata. XML-based tools for converting between them exist. The MARC-8 character set has been mapped to Unicode UTF-8. CDS offers LC records in MARCXML and the UTF-8 character set and expects to discontinue MARC-8, possibly in 2010. CDS customer surveys will drive the timing.

# Action: Planned

LC is open to participating in development of other, new schema that are not MARC-derived.

#### Recommendation

- 3. POSITION OUR TECHNOLOGY FOR THE FUTURE
- 3.1 The Web as Infrastructure
- 3.1.1 Develop a More Flexible, Extensible Metadata Carrier

3.1.1.2 LC: Contribute resources to support the work of coordinating the definitions and linkages of data elements in nationally and internationally accepted bibliographic standards.

#### LC Response and Rationale

Support, because this is essential to the goal of current and future interoperability.

#### Action: Current

LC is the maintenance agency for MARC 21, Z39.50, the Encoded Archival Description, METS (Metadata Encoding and Transmission Standard), MODS (Metadata Object Description Standard), MIX (Metadata for Images in XML, co-developed with NISO for technical metadata for digital still images), TextMD (XML technical metadata for text-based digital objects,) PREMIS (metadata for preservation of digital objects), and SRU (Search/Retrieval via URL). LC has representatives on the World Wide Web Consortium and the Dublin Core Metadata Initiative community as well as two representatives to the W3C Semantic Web Deployment Working Group. They consult closely with bibliographic experts within ABA, and the hope is that this will bring content and technical infrastructure closer together as the WG develops best practices for Web vocabularies and OWL (Ontology Web Language) usage. LC has embarked on initiatives to provide SKOS representations for vocabularies and data elements used in and across standards, such as RDA, MARC, PREMIS and METS.

# Action: Planned

LC will continue to support the RDA/DCMI collaboration and will commit resources to assist with further evolution of data elements in the standards that LC maintains. A registry being developed that includes SKOS representations of data elements and vocabularies will support their broad reuse across applications.

#### Recommendation

- 3. POSITION OUR TECHNOLOGY FOR THE FUTURE
- 3.1 The Web as Infrastructure
- 3.1.1 Develop a More Flexible, Extensible Metadata Carrier

3.1.1.3 All: Work with vendors to raise awareness of the need to begin developing products that can accept input of data utilizing a variety of metadata formats.

#### LC Response and Rationale

Support. We strongly agree and believe this has long been a good idea. We should at the same time acknowledge existing vendor products on the market that already accept a variety of formats. There are efforts underway to standardize integration between integrated library systems and external applications that build upon and/or extend existing ILS capabilities, including utilization of a variety of metadata formats.

#### Action: Current

As early as the LC Bicentennial Conference on Bibliographic Control in the New Millennium (2000), LC recognized the value of being able to load MARC and non-MARC data. In recent years LC has concentrated on consulting with the publisher community with a view toward eventual direct use of publisher-created data.

# Action: Planned

If RDA continues to seem promising after the testing is completed, RDA implementation may

present opportunities relevant to this recommendation. Include this as an agenda item for the conference recommended in 1.1.4.1.

Recommendation 3. POSITION OUR TECHNOLOGY FOR THE FUTURE

3.1 The Web as Infrastructure

3.1.2 Integrate Library Standards into Web Environment

3.1.2.1 All: Express library standards in machine-readable and machine-actionable formats, in particular those developed for use on the Web.

# LC Response and Rationale

Support, because LC recognizes the Web as the primary contemporary platform for information exchange.

Action: Current

One experiment in this direction is LC's decision to make LCSH available in Resource Description Framework (RDF) using SKOS (Simple Knowledge Organization System), a family of languages expressly developed to represent tools such as thesauri, classification schemes, subject heading systems, and taxonomies for the Semantic Web. Tools rendered in SKOS are both machine-readable and machine-actionable. We hope to make the LC Name Authority File also available in that format soon. It is important to offer and maintain these through LC and brand them as LC tools, to avoid the confusion of third party, incomplete, and outdated snapshots of our data.

An international RDA/MARC Working group has been established by LC, Library and Archives Canada, and the British Library to enable RDA use of MARC since MARC and its derivatives (MARCXML, MODS, MADS) are the pathway to support of the digital library Web interfaces. However, these Web-enabled standards are not only carriers for RDA (and AACR) but are open to all cataloging conventions (rules and vocabularies) while highly accommodating to RDA and AACR.

Action: Planned

Continue to investigate RDA.

Recommendation 3. POSITION OUR TECHNOLOGY FOR THE FUTURE

3.1 The Web as Infrastructure

3.1.2 Integrate Library Standards into Web Environment

3.1.2.2 All: Provide access to standards through registries or Web sites so that the standards can be used by any and all Web applications.

# LC Response and Rationale

Support, since broader access to standards will encourage their use and thus improve quality and interoperability of data.

#### Action: Current

LC maintains registries of standards and of data elements pertinent to individual standards, with cataloging staff as content experts. (See <a href="http://www.loc.gov/standards/">http://www.loc.gov/standards/</a>).

LC supports the effort to establish registries of data elements for RDA/DCMI, as undertaken by Diane Hillmann and Gordon Dunsire.

LS is striving to make LCSH available in SKOS and has developed a prototype in SKOS (main subject concepts in 150, 151, and 155 fields only) and is seeking a sponsor, possibly a metadata registry, to test and host the resulting database. The URL for the prototype is <a href="http://lcsh.info/">http://lcsh.info/</a>.

The full MARC 21 formats are now available on the NDMSO Web site at URL <a href="http://www.loc.gov/marc/">http://www.loc.gov/marc/</a>.

#### Action: Planned

Continue support of registries, particularly as relevant to RDA.

#### Recommendation

- 3. POSITION OUR TECHNOLOGY FOR THE FUTURE
- 3.1 The Web as Infrastructure
- 3.1.2 Integrate Library Standards into Web Environment

3.1.2.3 LC: Begin transitioning LC-managed vocabularies to a platform that is both Web services-friendly and allows files to be downloaded for incorporation into other applications. These vocabularies include the many lists that are used in bibliographic records such as language and geographic codes, resource format codes, etc.

# LC Response and Rationale

Support, since this promises to broaden the use of controlled vocabularies.

# Action: Current

LC has put many of the MARC code lists it maintains (many of which were previously embedded as separate documents within larger documents) on its Web site in XML and HTML formats. These include language codes, relator codes, country codes, and geographic area codes. (See NDMSO Web site at http://www.loc.gov/marc/marcdocz.html).

The Library is working to make LCSH available in SKOS, which could attract more users for LCSH. (Please see response to recommendation 3.1.2.2.) Staff time has been devoted for betatesting the WorldCat API, which will enable searches that return combined results from a local library and OCLC WorldCat.

### Action: Planned

Continue to work across the Library to move LC-managed vocabularies into other syntaxes that enable reuse. The Library will work to add more vocabularies and expand access modes for current ones.

#### Recommendation

- 3. POSITION OUR TECHNOLOGY FOR THE FUTURE
- 3.1 The Web as Infrastructure
- 3.1.3 Extend Use of Standard Identifiers

# 3.1.3.1 LC: Generate standard Web-based identifiers for all data elements and vocabularies that LC maintains.

# LC Response and Rationale

Support, since this will support broader use of controlled data elements and terms on the Web.

### Action: Current

LC has recently launched the LCCN Permalink project, which creates persistent URLs from bibliographic records in LC's online catalog, using the existing LCCN in the records as the base identifier in the URLs. Our expectation is to expand this service to all authority records—name/title, subject, and classification.

The LCSH/SKOS project described in response to recommendation 3.1.2.2 also feeds into this activity.

#### Action: Planned

Estimate resources needed and develop a plan to provide Web-based identifiers for all other LC-maintained vocabularies. In conjunction with the registry work described in 2.1.1.2 and 3.1.2.3, the Library is investigating the assignment of identifiers for data elements in MARC, MODS, and other controlled vocabularies it maintains. Use of RDF and SKOS requires the assignment of such identifiers.

#### Recommendation

- 3. POSITION OUR TECHNOLOGY FOR THE FUTURE
- 3.1 The Web as Infrastructure
- 3.1.3 Extend Use of Standard Identifiers

3.1.3.2 All: Work to include standard identifiers for individual data elements in bibliographic records, both prospectively and retrospectively, wherever such identifiers are defined, and work to identify changes in metadata carrier standards necessary to incorporate and use such identifiers.

# LC Response and Rationale

Support, since standard identifiers are needed to enable broader use of LC's retrospective data online.

# Action: Current

LC, in its contribution to RDA development and implementation planning, has worked to ensure that RDA is backward-compatible so that identifiers can be applied to data elements in existing records at tolerable expense.

# Action: Planned

Continue to support RDA development and subsequent testing; estimate resources needed to assign Web-based identifiers retroactively to data elements in existing LC online records.

LC advocates that other evolving standards, such as MADS/MODS, MARCXML, and Dublin Core, provide for Web-based identifiers and intends to monitor their development with this goal in mind.

#### Recommendation

#### 3. POSITION OUR TECHNOLOGY FOR THE FUTURE

3.2 Standards

3.2.1 Develop a Coherent Framework for the Greater Bibliographic Apparatus

3.2.1.1 LC: Convene a working group of participants in the bibliographic control arena to work together on a high priority basis to develop a shared frame of reference and common design goals for a coordinated renovation of the shared bibliographic apparatus. Identify interdependencies, and validate existing directions against desired outcomes. Matters to be included in these considerations should include but not necessarily be limited to: encoding (ISO 2709, XML), content schematization (MARC, MODS, DCMI Abstract Model (DCAM)), content guidelines (RDA, AACR), content models (FRBR), value lists (controlled vocabularies, authorities).

# LC Response and Rationale

Support.

Action: Current

LC is devoting resources to development and possible implementation of RDA.

Action: Planned

Commission a white paper that sets out the issues and framework. Plan a conference for no earlier than 2010.

#### Recommendation 3. POSITION OUR TECHNOLOGY FOR THE FUTURE

- 3.2 Standards
- 3.2.2 Improve the Standards Development Process

3.2.2.1 All bodies involved in standards development processes: Examine the processes and protocols used in the standards development process. Streamline them where possible, integrating or correlating them to processes in use by other bodies working on related standards to the extent feasible. Open the process to public scrutiny and participation to the extent that it does not unreasonably interfere with the goal of rapid development. Consider developing massive standards in segments so that parts can be put in use and tested before the whole is completed. Aid the work of volunteer developers by hiring more paid consultants and assistants.

# LC Response and Rationale

Support, because the information community needs to offset the investment demanded by standards development in order to attract wider participation. LC has long supported this approach; however, for much of the standards community, public scrutiny challenges business models. LC feels that bibliographic standards development should not be undertaken for profit, but recognizes the need for more funding resources to support this enterprise. Standards development is a complex and collaborative process involving both institutional and individual commitment.

#### Action: Current

LC is contributing to development of RDA and is documenting the resources it devotes, so that LC will be able to consider the resources required for developing this standard as part of the overall expense of adopting a new code for resource description and access.

# Action: Planned

As budget permits, hire external consultants or make more production staff available to help in the standards development process.

#### Recommendation

- 3. POSITION OUR TECHNOLOGY FOR THE FUTURE
- 3.2 Standards
- 3.2.3 Develop Standards with a Focus on Return on Investment
- 3.2.3.1 All: Design data standards with a view toward maximizing machine-processing of data.

# LC Response and Rationale

Support, because this has been a guiding principle for LC since the inception of the MARC development process in the late 1960s.

#### Action: Current

The MARC formats and code lists are designed to facilitate machine processing and manipulation of data; similarly for EAD, MDOS/MADS, METS.

LC is currently creating and distributing subject authority records called "validation records" that represent valid LCSH subject headings plus subdivision strings, including strings with free-floating subdivisions for which subject authority records were not previously made. These "validation records" will improve the "machine validation" capability of many ILS systems.

LC is encouraging publishers to consider library content standards for use with ONIX.

### Action: Planned

Continue this emphasis in development of standards to which LC has input or maintenance responsibilities.

#### Recommendation

#### 3. POSITION OUR TECHNOLOGY FOR THE FUTURE

3.2 Standards

3.2.3 Develop Standards with a Focus on Return on

Investment

# 3.2.3.2 LC: Review record creation practices to ensure that as many data elements as possible are controlled.

#### LC Response and Rationale

LC holds the principle that all access points in the LC ILS, for example, are to be under authority control. LC should ascertain, however, whether there is adequate return on investment in controlling additional data elements, such as publishers; user and usage studies would show this.

#### Action: Current

LC is working to bring all access points on retrospective records in the LC ILS under authority control.

# Action: Planned

LC will continue to invest in authority control of all access points.

#### Recommendation

#### 3. POSITION OUR TECHNOLOGY FOR THE FUTURE

3.2 Standards

3.2.3 Develop Standards with a Focus on Return on

Investment

3.2.3.3 All: Analyze and assess costs and benefits of proposed new or revised standards before undertaking a standardsdevelopment process.

### LC Response and Rationale

Support, because LC is highly conscious of its responsibility to make prudent use of resources in standards development.

# Action: Current

LC will participate in the usability and compatibility testing that is planned jointly with NLM, and NAL before any decision to implement RDA is announced.

# Action: Planned

LC will adopt this recommendation for any new standards development in its purview and supports adoption for all new standards development throughout LC.

#### Recommendation

#### 3. POSITION OUR TECHNOLOGY FOR THE FUTURE

3.2 Standards

3.2.3 Develop Standards with a Focus on Return on

Investment

3.2.3.4 LC: Take a systemwide perspective when moving into new areas of standards work, with a strong focus on improving the efficiencies of the library community generally.

#### LC Response and Rationale

Support, because the library community of users and practitioners is increasingly interdependent and enmeshed with the vendor and content creator communities. We note that in the context of the Library of Congress, "systemwide" means "international."

#### Action: Current

As the maintenance agency for MARC 21, LC ensures that the MARBI revision process always involves vendors extensively.

LC is represented on the World Wide Web Consortium and the Semantic Web Deployment Working Group.

RDA development includes consultations with and outreach to vendors and the non-library information sector.

#### Action: Planned

Continue.

#### Recommendation

#### 3. POSITION OUR TECHNOLOGY FOR THE FUTURE

3.2 Standards

3.2.3 Develop Standards with a Focus on Return on

Investment

3.2.3.5 All: Design data standards with data reuse as a goal, recognizing that all members of the supply chain must be considered during the standards development process.

# LC Response and Rationale

Support, because this will help reduce the cost of bibliographic access. LC's commitment to open source approaches is based in part on the need to facilitate reuse of data.

#### Action: Current

RDA is intended to facilitate reuse of data by various producers and sectors of the information community.

The MARC formats are designed to support data reuse; LC's recent use of data from the National Union Catalog of Latvia is an illustration.

#### Action: Planned

Consider reuse of data whenever planning standards development; consult with external sector as needed to optimize reuse of data.

#### Recommendation

# 3. POSITION OUR TECHNOLOGY FOR THE FUTURE

3.2 Standards

3.2.4 Incorporate Lessons from Use into Standards

Development

# 3.2.4.1 All: Incorporate testing and implementation plans as integral parts of the standards development process.

#### LC Response and Rationale

Support, because testing and planned implementation are essential to successful standards and Page 49 of 79 should normally include a feedback loop for improving the standard based on lessons learned in testing.

LC considers the four recommendations under 3.2.4 to be action steps under 3.2.3.4; please see response to that recommendation.

#### Recommendation

#### 3. POSITION OUR TECHNOLOGY FOR THE FUTURE

- 3.2 Standards
- 3.2.4 Incorporate Lessons from Use into Standards

Development

3.2.4.2 All: Include software engineers and user services experts in the development processes for all information technology standards.

### LC Response and Rationale

Support; please see response to 3.2.3.4. LC supports involving both external and internal consultants, but notes that software engineers and usability experts generally require significant funding. We have found that engineers are accustomed to working from specifications, making it difficult for us to engage software engineers in the early stages, but we continue to seek ways of ensuring their involvement.

#### Recommendation

#### 3. POSITION OUR TECHNOLOGY FOR THE FUTURE

- 3.2 Standards
- 3.2.4 Incorporate Lessons from Use into Standards

Development

3.2.4.3 All: Develop an evidence base that enables the community to validate the assertions that are being made about the need for a standard.

#### LC Response and Rationale

Support; please see response to 3.2.3.4.

#### Recommendation

#### 3. POSITION OUR TECHNOLOGY FOR THE FUTURE

- 3.2 Standards
- 3.2.4 Incorporate Lessons from Use into Standards

Development

# 3.2.4.4 LC: Fund analysis to identify the descriptive practices

# that are needed to support the emerging uses of bibliographic data, such as those seen in new discovery environments.

# LC Response and Rationale

Support; please see response to 3.2.3.4. If LC convenes a working group as recommended in 3.2.1.1, this should be a chief task for that working group.

Recommendation

3. POSITION OUR TECHNOLOGY FOR THE FUTURE

3.2 Standards

3.2.5 Suspend Work on RDA

3.2.5.1 JSC: Suspend further new development work on RDA until a) the use and business cases for moving to RDA have been satisfactorily articulated, b) the presumed benefits of RDA have been convincingly demonstrated, and c) more, large-scale, comprehensive testing of FRBR as it relates to proposed provisions of RDA has been carried out against real cataloging data, and the results of those tests have been analyzed (see 4.2.1 below)

# LC Response and Rationale

LC could not wait until June 1 to take action on this recommendation. In considering the three recommendations under 3.2.5, the Library of Congress, the National Library of Medicine (NLM) and the National Agricultural Library (NAL) met in March 2008 to discuss obstacles to development and implementation of RDA. At this meeting, LC, NAL, and NLM agreed to proceed jointly to develop, complete, test, analyze costs and benefits, and schedule a decision on implementation of RDA, an important international initiative. Testing will include usability testing by bibliographic access production staff as well as compatibility testing with existing records. The three national libraries issued a joint statement on May 1, 2008.

#### Action: Current

The three national libraries, in collaboration with others, are developing the appropriate tests of RDA.

Action: Planned

LC will carry out tests in 2009.

#### Recommendation 3. POSITION OUR TECHNOLOGY FOR THE FUTURE

- 3.2 Standards
- 3.2.5 Suspend Work on RDA

3.2.5.2 JSC: Utilize the time afforded by the previous recommendation to revisit work already completed in light of the criticisms and concerns described above. Actions undertaken should include, but not necessarily be limited to: addressing issues of readability, including language, formatting of examples, and navigation; reconsidering variance from ISBD organization and conventions, articulating the case for variances retained; addressing issues of ease of use, including navigation; and addressing concerns about usability, training, etc.

### LC Response and Rationale

As a member of the Joint Steering Committee for Development of RDA (JSC), LC supports this recommendation; please see 3.2.5.1. LC has offered a cataloger specialist to serve as an editor to improve the language and readability of RDA.

#### Recommendation

- 3. POSITION OUR TECHNOLOGY FOR THE FUTURE
- 3.2 Standards
- 3.2.5 Suspend Work on RDA

3.2.5.3 LC, JSC, and DCMI: Work jointly to specify and commission exploratory work to model and represent a Bibliographic Description Vocabulary, drawing on the work of FRBR and RDA, the Dublin Core Abstract Model, and appropriate semantic Web technologies (e.g., SKOS). Some preparation for this work has already been done in joint discussion of JSC and DCMI.

#### LC Response and Rationale

Support. As stated in LC response to recommendation 3.2.5.1, we expect work on RDA to continue; development of this vocabulary is proceeding simultaneously and is already part of RDA.

#### Recommendation

#### 4. POSITION OUR COMMUNITY FOR THE FUTURE

- 4.1 Design for Today's and Tomorrow's User
- 4.1.1 Link Appropriate External Information with Library Catalogs

4.1.1.1 All: Encourage and support development of systems capable of relating evaluative data, such as reviews and ratings, to bibliographic records.

# LC Response and Rationale

Support, because this is a popular enhancement with many catalog users.

# Action: Current

LC established the Bibliographic Enrichment Advisory Team (BEAT) in December 1992. As of March 2008, the Library, through its BEAT and CIP programs, has added 298,937 Tables of Contents, 359,234 publisher descriptions, 155,389 contributor-supplied biographies, 41,397 sample pages of texts, 44 reading guides, and 11,376 reviews to the Library's bibliographic records. Since 1999 BEAT has added links from LC Online Catalog records to reviews in American Libraries (Reviews of Reference Sources), HLAS Reviews, H-NET Reviews, and MARS Best Annotations and Reviews. Robert Kieft, Haverford College, built on BEAT's work for the RichCat project.

#### Action: Planned

Expand the BEAT projects to link catalog records to reviews from additional scholarly sources.

#### Recommendation

- 4. POSITION OUR COMMUNITY FOR THE FUTURE
- 4.1 Design for Today's and Tomorrow's User
- 4.1.1 Link Appropriate External Information with Library Catalogs

4.1.1.2 All: Encourage the enhancement of library systems to provide the capability to link to appropriate user-added data available via the Internet (e.g., Amazon.com, LibraryThing,Wikipedia, OpenLibrary). At the same time, explore opportunities for developing mutually beneficial partnerships with commercial entities that would stand to benefit from these arrangements.

#### LC Response and Rationale

Support, because such enhancements would lead users to some digital content and alert them to the availability of analog content; would enhance access by allowing end users to retrieve using terms that do not appear in LCSH; and would improve decision-making by providing catalog end users with more information.

#### **Action: Current**

The WPopac Project at Plymouth State University allows users to add tags and comments to LC catalog records (purchased for the project with a Mellon Award for Technology Collaboration), which Plymouth State will redistribute or permit to be downloaded from its library Web site. WPopac is compatible with Flickr, permitting links to images.

LCSH also is the basis of PennTags, LibraryThing, WorldCat, and MIC. LC invited Tim Spalding, developer of LibraryThing, to address staff in April 2007. LibraryThing incorporates LC's catalog files with social tagging and catalog-like data from LibraryThing subscribers.

The recent LC partnership with Flickr has been especially successful, and we expect to experiment with similar partnerships with other entities.

# Action: Planned

Continue to support similar projects through provision of LCSH files at no or reduced charge, participation on advisory groups, and other activities.

#### Recommendation

- 4. POSITION OUR COMMUNITY FOR THE FUTURE
- 4.1 Design for Today's and Tomorrow's User
- 4.1.2 Integrate User-Contributed Data into Library Catalogs

4.1.2.1 All: Develop library systems that can accept user input and other non-library data without interfering with the integrity of library-created data.

# LC Response and Rationale

Support, because preserving the library-created data is essential to both access and reuse in the future. We believe that LC must work with others investigating ways to accomplish the goal behind this recommendation: to make use of both library-created and user-provided data to enhance the catalog user's experience in as seamless a way as possible. This may mean developing interoperability among systems or sources of data rather than the creation of individual library systems uneasily holding disparate types of data from different sources.

#### Action: Current

PennTags at the University of Pennsylvania Libraries and WPopac at Plymouth State University are examples of such projects. LC is especially interested in PennTags because, like LC, Penn is an Ex Libris Group customer.

LC has contributed heavily to development of MIC, Moving Image Collections, which includes a union catalog of metadata, administrative support, and tools needed for contributing metadata, as well as the archives of selected moving images.

#### Action: Planned

Monitor projects that accept user input, generally looking for projects that were developed Page 54 of 79 locally without modifications to the library's ILS. In general, LC feels that the library community has higher priorities than this in seeking enhancements to ILS systems, but locally developed projects are promising.

Implement recommendations about social tagging in the February 2008 Cataloging Policy and Support Office report on pre- and post-coordination of LCSH ("Library of Congress Subject Headings: Pre- vs. Post-Coordination and Related Issues.")

#### Recommendation

- 4. POSITION OUR COMMUNITY FOR THE FUTURE
- 4.1 Design for Today's and Tomorrow's User
- 4.1.2 Integrate User-Contributed Data into Library Catalogs

4.1.2.2 All: Investigate methods of categorizing creators of added data in order to enable informed use of user-contributed data without violating the privacy obligations of libraries.

# LC Response and Rationale

Support.

Action: Current

LC distinctively "brands" LC-produced data when they are distributed to other users, so that added non-LC data are easy to identify.

Action: Planned

LC has no immediate development plans in this area.

#### Recommendation

- 4. POSITION OUR COMMUNITY FOR THE FUTURE
- 4.1 Design for Today's and Tomorrow's User
- 4.1.2 Integrate User-Contributed Data into Library Catalogs

4.1.2.3 All: Develop methods to guide user tagging through techniques that suggest entry vocabulary (e.g., term completion, tag clouds).

# LC Response and Rationale

Support, because the relationship of entry vocabulary to controlled terms is a challenge for all catalogs.

Action: Current

The LC Prints and Photographs Division project to load images to Flickr includes guidance for users to supply tags.

### Action: Planned

The Prints and Photograph Division Flickr project will enable the Library to learn what might be relevant to assist user tagging for content more broadly. Enacting this may depend on system capabilities of whatever front-end search capability LC is able to add to its Voyager ILS.

Implement recommendation to support user tags in the February 2008 Cataloging Policy and Support Office report on pre- and post-coordination of LCSH ("Library of Congress Subject Headings: Pre- vs. Post-Coordination and Related Issues.")

#### Recommendation

- 4. POSITION OUR COMMUNITY FOR THE FUTURE
- 4.1 Design for Today's and Tomorrow's User
- 4.1.3 Conduct Research into the Use of Computationally Derived Data

4.1.3.1 All: Make use of holdings and circulation information to point users to items that are most used and that may potentially be of most interest.

### LC Response and Rationale

Support, as a research topic for the external community. The idea is an interesting one to try to apply at the Library of Congress, given the vast collection and the nature of the user community. This is already implemented by a number of libraries. Amazon.com makes use of such information to suggest additional purchases to its customers; OCLC WorldCat also ranks search results based in part on the number of libraries with holdings for each resource in the retrieval set. See response under 4.1.3.2.

#### Recommendation

- 4. POSITION OUR COMMUNITY FOR THE FUTURE
- 4.1 Design for Today's and Tomorrow's User
- 4.1.3 Conduct Research into the Use of Computationally Derived Data

4.1.3.2 All: Encourage investigation of computational techniques that can support bibliographic control, including those for creating bibliographic data and those for providing

services to users.

# LC Response and Rationale

Support the overall goal, because we know that computational access technology already exists and is used by some major search engines.

#### Action: Current

LC has a staff member on the Advisory Board of the Metadata Research Center of the University of North Carolina School of Information and Library Science.

### Action: Planned

Revisit potential of applications identified in Jane Greenberg's AMeGA project, which was originally sponsored by LC as part of *Bibliographic Control of Web Resources: A Library of Congress Action Plan* (<a href="http://www.loc.gov/catdir/bibcontrol/actionplan.pdf">http://www.loc.gov/catdir/bibcontrol/actionplan.pdf</a>; her final report is available at <a href="http://www.loc.gov/catdir/bibcontrol/lc\_amega\_final\_report.pdf">http://www.loc.gov/catdir/bibcontrol/lc\_amega\_final\_report.pdf</a>).

#### Recommendation

- 4. POSITION OUR COMMUNITY FOR THE FUTURE
- 4.2 Realization of FRBR
- 4.2.1 Develop Test Plan for FRBR

4.2.1.1 LC, OCLC, IFLA Working Group, and Representative System Vendors: Identify what agreements are necessary to support FRBR in bibliographic systems, including the full range of entity relationships defined in the FRBR model.

# LC Response and Rationale

Support. It is possible that RDA testing is the best, most feasible, and economical way to glean the information needed to achieve this, in collaboration with system vendors and OCLC.

# Action: Current

LC, NAL, and NLM, will conduct usability and compatibility testing of RDA during 2009, before implementing the new code in production.

# Action: Planned

LC recommends no further concrete steps until the community can examine the outcomes of the RDA testing.

#### Recommendation

- 4. POSITION OUR COMMUNITY FOR THE FUTURE
- 4.2 Realization of FRBR
- 4.2.1 Develop Test Plan for FRBR

4.2.1.2 LC, OCLC, IFLA Working Group, and Representative System Vendors: Develop and agree upon a schema for the exchange of Work-based data.

#### LC Response and Rationale

Support, since this is essential to a completely FRBR-based system.

# Action: Current

LC has expended and continues to devote significant resources to the development of FRBR.

### Action: Planned

LC recommends no further concrete steps until after results of RDA testing are examined.

#### Recommendation

- 4. POSITION OUR COMMUNITY FOR THE FUTURE
- 4.2 Realization of FRBR
- 4.2.1 Develop Test Plan for FRBR

4.2.1.3 LC, OCLC, IFLA Working Group, and Representative System Vendors: Verify the need to provide distinct metadata at the Expression level and, if appropriate, carry out work similar to that described in 4.2.1.1 and 4.2.1.2 for that entity.

# LC Response and Rationale

Support; please see response under 4.2.1.1 and 4.2.1.2.

#### Recommendation

- 4. POSITION OUR COMMUNITY FOR THE FUTURE
- 4.2 Realization of FRBR
- 4.2.1 Develop Test Plan for FRBR

4.2.1.4 LC, OCLC, IFLA Working Group, and Representative System Vendors: Use the results of the above activity as the basis for promulgating and evaluating FRBR implementations.

### LC Response and Rationale

Support, because FRBR promises improvements in the user experience of the catalog and greater success in finding, identifying, selecting, obtaining, and using library resources.

# Action: Current

LC devotes significant resources to ongoing development of both FRBR and RDA and will be heavily involved in the testing of RDA planned for 2009.

### Action: Planned

Use the outcomes of RDA testing to inform plans to promulgate and evaluate FRBR implementations.

#### Recommendation

- 4. POSITION OUR COMMUNITY FOR THE FUTURE
- 4.3 Optimize LCSH for Use and Reuse
- 4.3.1 Transform LCSH

4.3.1.1 LC: Transform LCSH into a tool that provides a more flexible means to create and modify subject authority data.

# LC Response and Rationale

Support, because this will reduce the cost of creating subject authorities and will enable broader participation in the process.

#### Action: Current

LC commissioned Karen Calhoun to write "The Changing Nature of the Catalog and its Integration with Other Discovery Tools" (<a href="http://www.loc.gov/catdir/calhoun-report-final.pdf">http://www.loc.gov/catdir/calhoun-report-final.pdf</a>) in March 2006 as part of *Bibliographic Control of Web Resources: A Library of Congress Action Plan*. Calhoun made suggestions for sweeping changes to the ways that subject access is provided, including changes to the structure of LCSH. Some of LC's follow-on steps are presented below.

In February 2008, LC accepted a report from CPSO, "Library of Congress Subject Headings: Pre- vs. Post-Coordination and Related Issues," that outlines a path to transforming LCSH by increased use of automated assignment of subject heading strings and machine validation of strings, further simplification of practices, and exploration of using sophisticated search engine capabilities to take optimal advantage of LCSH.

The SACO Web tool is a flexible tool for submitting LCSH proposals in a more streamlined workflow.

LC supported Stanford University Libraries' computational analysis of LCSH by making LCSH files available without charge.

LC is making LCSH available in SKOS, which would heighten awareness of LCSH and encourage the Web community to participate in LCSH development and development of Web applications.

#### Action: Planned

Encourage wider use of SACO Web tool for new LCSH proposals; revisit underlying workflow to achieve additional efficiencies.

Implement recommendations in the report from CPSO, "Library of Congress Subject Headings: Pre- vs. Post-Coordination and Related Issues."

#### Recommendation

- 4. POSITION OUR COMMUNITY FOR THE FUTURE
- 4.3 Optimize LCSH for Use and Reuse
- 4.3.1 Transform LCSH

4.3.1.2 LC: Make LCSH openly available for use by library and non-library stakeholders.

# LC Response and Rationale

Support, because this broadens the role of authority control for subjects and topics at a time when library and non-library information producers work together more closely than in the past.

Making LCSH freely available to developers could play an important role in improving search and retrieval capabilities on the Web.

**Action: Current** 

Individual subject authority records are currently freely available on the Web from the Library, and an unsanctioned version of the entire authority file, named Fred 2.0 (in honor of Fred Kilgour) has been harvested by Simon Spero (a computer programmer working for iBiblio and a graduate student at the University of North Carolina at Chapel Hill), and made freely available on the Internet for research purposes. The value of developers being able to work with the entire body of headings is suggested by the interest in the data sparked by discussion at Spero's presentation on the file at the LITA Open Source Systems Interest Group meeting at ALA Midwinter (January 21, 2007) and on the Next Generation Catalogs for Libraries (NGC4LIB) listserv. Among other postings Eric Lease Morgan described the development of a "word tools" program making use of data from FRED that incorporates "see also" type references into a search system.

The LC Subject Authority File is available for searching and record-by-record retrieval as part of the LC Online Catalog at <a href="http://authorities.loc.gov/">http://authorities.loc.gov/</a>. LC is exploring possible ways to make LCSH freely available for downloading.

Action: Planned

Explore full LCSH/SKOS conversion.

Explore similar development for the LC Name Authority File.

#### Recommendation

- 4. POSITION OUR COMMUNITY FOR THE FUTURE
- 4.3 Optimize LCSH for Use and Reuse
- 4.3.1 Transform LCSH

4.3.1.3 LC: Provide LCSH in its current alphabetical arrangement, and enable its customized assembly into topical thesauri.

# LC Response and Rationale

Support, because availability of customized topical thesauri would broaden the role of controlled subject vocabulary in access to a variety of content. LCSH is not a thesaurus itself, but many information communities rely on thesauri for access to content.

Action: Current

No current activity.

Action: Planned

LC is willing to consider making LCSH files freely available to thesaurus developers.

### Recommendation 4. POSITION OUR COMMUNITY FOR THE FUTURE

4.3 Optimize LCSH for Use and Reuse

4.3.1 Transform LCSH

4.3.1.4 LC: Increase explicit correlation and referencing between LCSH terms and LCC and DDC numbers.

### LC Response and Rationale

Support, and work is well underway, because this not only improves retrieval but also facilitates assignment of subject headings and Dewey/LCC treatment by staff.

# Action: Current

LC is increasing explicit correlations and references between LCSH, LCC, and DCC via the OCLC product "Dewey Correlations" and in the LCSH/LCC Correlations in *Classification Web*. To ensure timely correlations, staff regularly send lists of new LCSH headings and LCC numbers to the Dewey assistant editors who are responsible for establishing the "Dewey Correlations."

#### Action: Planned

Continue to provide correlations.

The February 2008 CPSO report on pre- and post-coordination of LCSH ("Library of Congress Subject Headings: Pre- vs. Post-Coordination and Related Issues") includes a plan for increasing the number of LCC/LCSH mappings using both human and automated effort.

#### Recommendation

### 4. POSITION OUR COMMUNITY FOR THE FUTURE

4.3 Optimize LCSH for Use and Reuse

4.3.2 Pursue De-Coupling of Subject Strings

4.3.2.1 LC: Work with appropriate partners on ways to take advantage of the power of the controlled vocabulary in LCSH, LCC, and DDC. Describe or identify products or schemes that could take advantage of those terminologies in a more accessible environment with broader audiences.

#### LC Response and Rationale

Support, working with OCLC (owner of the Dewey Decimal Classification schema), because such products would improve retrieval of high-quality content for all users in the venues they prefer.

#### Action: Current

LC regularly sends lists of new LCSH headings and LCC numbers to the Dewey Decimal Classification assistant editors for their use in establishing "Dewey Correlations" in timely fashion.

Diane Vizine-Goetz of OCLC is researching says to build in links to the sauri with Microsoft Office<sup>TM</sup> tools.

#### Action: Planned

Consider value-added products that LC could issue based on LCSH.

#### Recommendation

# 4. POSITION OUR COMMUNITY FOR THE FUTURE

4.3 Optimize LCSH for Use and Reuse

4.3.2 Pursue De-Coupling of Subject Strings

# 4.3.2.2 All: Evaluate the ability of LCSH to support faceted browsing and discovery.

# LC Response and Rationale

Support, because faceted access is popular with many information-seekers.

### Action: Current

LC contributed extensive staff time to OCLC's Faceted Application of Subject Terminology (FAST) project over the past ten years.

LC monitors use of LCSH in faceted front-end search tools, e.g. Endeca.

#### Action: Planned

LC expects to partner with users of current front-end search tools toward improving LCSH in that environment.

LC encourages additional research on LCSH by others and encourages such researchers to provide the Library with feedback, in addition to making opportunities available to researchers to work with the Library on these issues.

# Recommendation

# 4. POSITION OUR COMMUNITY FOR THE FUTURE

4.3 Optimize LCSH for Use and Reuse

4.3.3 Encourage Application of, and Cross-Referencing with,

Other Controlled Subject Vocabularies

4.3.3.1 LC and providers of subject vocabularies: Provide references within LCSH, where appropriate, and between LCSH and other established sources of controlled subject headings, such as MeSH, the National Agricultural Libraries Thesaurus, Sears List of Subject Headings, and the Getty Art & Architecture Thesaurus. Make vocabularies cross-searchable and interoperable.

# LC Response and Rationale

Support as a desirable enhancement, although LC won't be in a position to implement this recommendation in the foreseeable future. We believe that it would be more feasible to enable search results to link out to different technologies, based on the subjects provided in each result record, rather than to try to construct a database with all possible linkages to match searches against. An LC staff member has developed automated mapping between MeSH and LCSH. While this mapping is feasible, it is not 100% effective and still requires staff review.

#### Action: Current

LC gave a copy of the LCSH files at no charge to the Multilingual Access to Subjects (MACS) project sponsored by the Conference of European National Librarians.

#### Action: Planned

LC is willing to make LCSH in SKOS available on the Web for downloading freely by researchers and systems applications developers.

### Recommendation

# 4. POSITION OUR COMMUNITY FOR THE FUTURE

4.3 Optimize LCSH for Use and Reuse 4.3.3 Encourage Application of, and Cross-Referencing with, Other Controlled Subject Vocabularies

4.3.3.2 All: Make use of any systems of controlled subject headings that are appropriate to augment subject access for one's collections and users.

#### LC Response and Rationale

Support, because local information providers are in the best position to know which controlled vocabularies will assist their users. LC uses LCSH and other controlled subject heading systems.

#### Action: Current

LC produces LCSH, Thesaurus for Graphic Materials, and some vocabularies in use by the American Folklife Center. It also contributed to the recently launched Ethnographic Thesaurus and to MICFG (Moving Image Genre Form Guide) and RADFG (Radio Genre/Form Terms Guide). The LC ILS includes subject terms from 16 thesauri in addition to LCSH. Six of these are ALA/ACRL terminologies used in ABA's rare materials cataloging.

Electronic Cataloging in Publication records completed by NAL and NLM include subject terms from NAL Agricultural Thesaurus (NALT) and Medical Subject Headings (MeSH). LC retains those terms when loading the records into the LC ILS and when distributing them via the Cataloging Distribution Service.

LC produces the following thesauri that are used to organize and access content outside the LC ILS: Legislative Indexing Vocabulary, used by the Congressional Research Service for legislative files; Global Legal Information Network (GLIN) Subject Terms; Basic Genre Terms for Cultural Heritage Materials (BGTCHM) used for American Memory materials.

# Action: Planned

Explore whether adding MeSH or NALT terms to non-CIP LC records would enhance access for LC's users.

#### Recommendation

#### 4. POSITION OUR COMMUNITY FOR THE FUTURE

4.3 Optimize LCSH for Use and Reuse4.3.3 Encourage Application of, and Cross-Referencing with,

Other Controlled Cybinet Vessbyleries

Other Controlled Subject Vocabularies

4.3.3.3 All: Explore mechanisms to exploit cross-vocabulary linkages to enhance retrieval, without limiting to the headings explicitly provided in individual bibliographic records.

# LC Response and Rationale

Support, since this would improve retrieval for end users. LC considers 4.3.3.1 to be a prerequisite to this recommendation, however.

#### Action: Current

LC is engaged with the MACS project, sponsored by the Conference of European National Librarians. LC awaits further development of the project as links are made in all subject areas across the indexing languages.

LC is working towards more translations of LCSH to assist users worldwide and exploring the possibility of incorporating other language terms in the LCSH online tools and spin-off print products.

#### Action: Planned

LC is willing to offer LCSH files to researchers at no charge.

#### Recommendation

#### 4. POSITION OUR COMMUNITY FOR THE FUTURE

4.3 Optimize LCSH for Use and Reuse

4.3.3 Encourage Application of, and Cross-Referencing with, Other Controlled Subject Vocabularies

4.3.3.4 LC and OCLC: Explore ways of reducing creation costs and improving effectiveness by synchronizing work more closely between DDC, LCSH, and LCC, the main 'universal' library approaches to subject analysis.

# LC Response and Rationale

Support, but with recognition that LC does not own the DDC; closer synchronization depends on OCLC's willingness to pursue it.

# Action: Current

Development of the LC Classification and DDC already involves collaboration with other institutions.

LC sends weekly lists of new LCSH proposals and change proposals to Dewey assistant editors for consideration in establishing a correlation between the LCSH heading and a number in the DDC. The correlation becomes part of the LCSH authority record in *Classification Web*.

# Action: Planned

Explore what work would be needed to reconcile the very different maintenance paths for DDC (twice a year based on exhibits) and LCSH/LCC (continuous updating), which could facilitate adding correlations between Dewey and existing LCSH terms as they are updated for other reasons.

#### Recommendation

#### 4. POSITION OUR COMMUNITY FOR THE FUTURE

4.3 Optimize LCSH for Use and Reuse

4.3.4 Recognize the Potential of Computational Indexing in the Practice of Subject Analysis

4.3.4.1 All: For works where full text is available in digital form, study the extent to which computational analysis and indexing of the digital text can assist catalogers in subject analysis or can supplement or substitute for traditional intellectual subject analysis. (Note: this may vary by genre of work, audience, or access scenarios.)

# LC Response and Rationale

Support the overall goal, but since we know that computational access technology already exists and is used by some major search engines, it seems more economical and more efficient for LC to apply its resources to ensuring that more of LC's unique content is exposed to search engines; development of computational indexing will be a long-term, community-wide effort probably led by the commercial sector.

### Action: Current

The February 2008 CPSO report on pre- and post-coordination of LCSH ("Library of Congress Subject Headings: Pre- vs. Post-Coordination and Related Issues") recommended that LC implement software to suggest subject access points and call numbers for digital texts and estimated that such a capability could be tested by the end of fiscal year 2008 (September 30, 2008).

# Action: Planned

Monitor development of computational analysis. Consider computational analysis as a way to produce summaries for juvenile literature.

Implement recommendation of CPSO report on pre- and post-coordination.

#### Recommendation

- 4. POSITION OUR COMMUNITY FOR THE FUTURE
- 4.3 Optimize LCSH for Use and Reuse
- 4.3.4 Recognize the Potential of Computational Indexing in the Practice of Subject Analysis

4.3.4.2 LC: Based on the results of the previous recommendation, examine the tradeoffs and potential resource savings of using computational analysis and indexing to substitute for some subject analysis.

#### LC Response and Rationale

Support, as a commercial-sector initiative; please see response to 4.3.4.1.

#### Recommendation

- 4. POSITION OUR COMMUNITY FOR THE FUTURE
- 4.3 Optimize LCSH for Use and Reuse
- 4.3.4 Recognize the Potential of Computational Indexing in the Practice of Subject Analysis

# **4.3.4.3** All: Initiate a standards process that allows the various results of computational analysis and indexing to be

# interchanged and shared as part of bibliographic records, in order to permit sharing of metadata without necessarily sharing the underlying resource.

# LC Response and Rationale

Support, because computational analysis of resources may result in access terms that are not part of a controlled vocabulary but could nevertheless improve access for users. A better mechanism for data interchange is needed than currently exists in the various communications formats. (At present the MARC 21 mechanism for communicating non-controlled subject access terms is the 653 field; machines could use more flexible exchange mechanisms.)

Action: Current

None.

Action: Planned

Add to the agenda for the working group recommended in 3.2.1.1.

#### Recommendation

# 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION

- 5.1 Build an Evidence Base5.1.1 Develop Key Measures
- 5.1.1.1 LC: Bring key participants together to agree to implement a set of measures of (a) costs, benefits, and value of bibliographic control for each group of participants, and (b) interdependencies among participants.

# LC Response and Rationale

Support, because a shared methodology for determining costs, benefits, and value of bibliographic control would greatly strengthen stakeholders' communications with funding entities and the public. ARL, as a coordinator of various statistical measures for the research library community, should be included in the discussion.

#### Action: Current

LC has begun to assess costs and benefits of each of its cataloging activities through the implementation of performance-based budgeting for fiscal 2009.

# Action: Planned

Add as an agenda item for the working group recommended in 3.2.1.1.

Implement improved cost-benefit measurements in 2009.

#### Recommendation

- 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION
- 5.1 Build an Evidence Base5.1.1 Develop Key Measures
- 5.1.1.2 LC: Develop a statement of value of LC's services that includes benefits to libraries and to the market sectors that provide services to libraries.

#### LC Response and Rationale

Support, because such a statement would strengthen LC's brand and its communications with its funding and oversight bodies. The statement would also help other libraries as they communicate with their stakeholders.

#### Action: Current

LC is articulating its rationale for increasing free distribution of bibliographic products and tools.

We believe that much of this information already exists in scattered form in congressional testimony, reports, and other media. Bringing all of the information together in a statement of

value will be helpful.

The LC CIP Review Group surveyed the library, vendor (MARC Distribution Service customers), and publisher communities in summer 2006 and issued results of the surveys as part of its 2007 report. The surveys yielded much information on the value of CIP, a major LC service, to these three communities.

CDS surveys customers whenever it considers a change to its product line, to obtain information on the likely value of products.

The value of the Cooperative Acquisitions Program includes bibliographic description as well as the books acquired for participating libraries.

#### Action: Planned

Revise the methodology used by Paul Kantor in his 1995 study of how much money LC cataloging saves the nation's libraries, with a view to repeating the study with a satisfactory methodology.

#### Recommendation

- 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION
- 5.1 Build an Evidence Base5.1.1 Develop Key Measures
- 5.1.1.3 LC: Analyze changes in LC service levels in terms of costs and savings within LC and potential effects on the larger community.

# LC Response and Rationale

Support, because this is necessary for LC to allocate resources to services and will further community acceptance of changes that LC adopts. Providing an analysis of potential savings from changes in LC services will support and help prioritize future changes that LC deems essential.

#### Action: Current

LC considers costs and benefits of changes in general terms and evaluates them by observing effects of changes in overall performance, which includes its mission of providing leadership to the information community. LC provides advance notice of planned changes, through surveys, newsletters, and product announcements. The CIP Review Group surveys, conducted in summer 2006, asked specific questions about the potential impact of possible changes in CIP service. Customer feedback convinced CDS to merge the MARC Distribution Services for Books-Arabic, Books-CJK, Books-Hebrew, and LC Manuscripts into the Books-All subscription MARC Distribution Service and to merge the Copyright Serials subscription into the Copyright Monographs, Documents, and Serials subscription service. The changes were announced 90 days in advance.

LC is currently considering costs and benefits of the AC (Annotated Card) program of special subject analysis and summaries for juvenile literature.

### Action: Planned

Take specific costs, savings, and effects on other stakeholders into account as changes are considered.

#### Recommendation

- 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION
- 5.1 Build an Evidence Base5.1.2 Support Ongoing Research
- 5.1.2.1 All: Encourage ongoing qualitative and quantitative research (and its publication) about bibliographic control, for various types of libraries and over a protracted period of time.

# LC Response and Rationale

Support; managers and other leaders within LC are expected to be both operational leaders and contributors to the research front.

### Action: Current

Engage schools of library and information studies in research. Many LC staff conduct research and report results in professional settings.

#### Action: Planned

Continue.

#### Recommendation

- 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION
- 5.1 Build an Evidence Base
- 5.1.2 Support Ongoing Research

5.1.2.2 All: Through library and information science (LIS) and continuing education, foster a greater understanding of the need for research, both quantitative and qualitative, into issues of bibliographic control.

#### LC Response and Rationale

Support, because both pure and applied research are needed to support sound decision-making. LC assumes that this recommendation is addressed to LIS institutions and library educators.

# Action: Current

LC commissioned research by library science educators for action items in *Bibliographic Control of Web Resources: A Library of Congress Action Plan* (2001)

(<a href="http://www.loc.gov/catdir/bibcontrol/actionplan.html">http://www.loc.gov/catdir/bibcontrol/actionplan.html</a>) Of particular interest, LC supported Jane Greenberg's initial research in Automatic Metadata Generation at the University of North Carolina at Chapel Hill.

LC has made cataloging products freely available for research purposes, in exchange for the results of the research; for example, LC provided a copy of the LCSH files to researchers at Stanford University.

# Action: Planned

Suggest possible research topics to faculty at schools of library and information science. Engage staff in participating with faculty in research projects.

Pursue projects that follow on the results of the Stanford and UNC research projects.

Continue VIAF research, including new models.

#### Recommendation

- 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION
- 5.1 Build an Evidence Base
- 5.1.2 Support Ongoing Research

5.1.2.3 All: Work to develop a stronger and more rigorous culture of formal evaluation, critique, and validation, and build a cumulative research agenda and evidence base. Encourage, highlight, reward, and share best research practices and results.

#### LC Response and Rationale

Support, since the practice of providing bibliographic access should rest on a strong foundation of theory and research.

Action: Current

LC encourages staff to conduct research and publish results.

Action: Planned

Continue the commitment to research and publishing.

#### Recommendation

- 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION
- 5.1 Build an Evidence Base
- 5.1.2 Support Ongoing Research

# 5.1.2.4 All: Promote collaboration among academics, the

practicing library community, and related communities, as appropriate, in the development of research agendas and research design, in order to assess research needs, profit from diverse perspectives, and foster acceptance from the broader information community.

# LC Response And Rationale

Support, since collaboration among educators and practitioners will strengthen the research enterprise and make it more relevant to contemporary challenges in bibliographic access.

# Action: Current

As part of *Bibliographic Control of Web Resources: A Library of Congress Action Plan* (2001), LC commissioned academic research that addressed specific needs identified by the practicing library community.

### Action: Planned

Identify further needs for targeted, highly relevant research projects.

#### Recommendation

- 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION
- 5.1 Build an Evidence Base
- 5.1.2 Support Ongoing Research

# 5.1.2.5 All: Improve mechanisms to publicize and distribute research efforts and results.

# LC Response and Rationale

Support, particularly in regard to making hands-on staff aware of research results that will impact their mission and work.

#### Action: Current

LC has several initiatives to publicize and distribute research, whether conducted within LC or by external researchers. The Office of Scholarly Programs and the Associate Librarian for Library Services hosted the series "Managing Knowledge and Creativity in a Digital Context" in 2004-2005, which featured ten speakers on topics from blogs to quantum computing. The series was broadcast over C-SPAN, and the Webcasts are accessible from the LC public Web site. LC offers a series of lectures for all interested LC staff, "LC's Digital Future and You!" that has presented research by both LC employees and others. Recent topics have included Flickr, the National Digital Newspaper Program, the University of Rochester's eXtensible Catalog, Web 2.0, Solr, Endeca, and Zotero. Most of the presentations are now available as Webcasts on the LC staff and public Web sites. The Associate Librarian and Derrick de Kerckhove, Harissios Papamarkou Chair in Education at the LC Kluge Center, opened the new LC series "Digital"

Natives" on April 7, 2008. The series features four experts on the impact of computers on the learning and thinking of today's youth.

### Action: Planned

Support similar efforts to publicize and distribute research results.

#### Recommendation

- 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION
- 5.2 Design LIS Education for Present and Future Needs
- 5.2.1 Communicate with LIS Educators

5.2.1.1 ALA: Convene a biennial meeting with LIS educators and trainers to discuss new and changing policies, procedures, processes, and practices in bibliographic control.

### LC Response and Rationale

Although this recommendation is directed to ALA, LC supports it, particularly since coursework in bibliographic control is no longer required for many MLS degrees. This is an important way to ensure a place for bibliographic control in LIS education.

# Action: Current

At ALA 2004 Midwinter Meeting, LC, ALCTS, the Association for Library and Information Science Education (ALISE), and OCLC co-sponsored the workshop "Preparing 21st Century Cataloging and Metadata Professionals."

At ALA 2007 Annual Conference, LC, ALCTS CETRC (Committee on Education, Training, and Recruitment to Cataloging), and Catholic University School of Library and Information Science co-sponsored the pre-conference, "What They Don't Teach in Library School," on competencies for a career in cataloging.

### Action: Planned

Participate in the next conference, if invited.

#### Recommendation

- 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION
- 5.2 Design LIS Education for Present and Future Needs
- 5.2.1 Communicate with LIS Educators
- 5.2.1.2 ALA and all information communities: Assess and communicate to LIS programs the levels of demand for qualified professionals in the field of bibliographic control, as well as the knowledge and skills needed by such professionals.

# LC Response and Rationale

LC supports this recommendation to ALA and information communities, because it is critically important that new LIS graduates have some understanding of the skills and knowledge necessary to provide bibliographic access, and because as the current cadre of catalogers approaches retirement, a shortage of these skills is looming.

### Action: Current

As part of *Bibliographic Control of Web Resources: A Library of Congress Action Plan* (< http://www.loc.gov/catdir/bibcontrol/actionplan.pdf>), ALCTS charged a Task Force that in turn charged the LIS Education Task Force, through which LC commissioned Professor Ingrid Hsieh-Yee of Catholic University SLIS to write a paper, "Cataloging and Metadata Education," now available at <http://www.loc.gov/catdir/bibcontrol/CatalogingandMetadataEducation.pdf>. ALCTS accepted the Task Force report and charged a new Task Force for Preparing Metadata and Cataloging Educators and Trainers in 2004.

At ALA 2004 Midwinter Meeting, LC, ALCTS, ALISE, and OCLC co-sponsored the workshop "Preparing 21<sup>st</sup> Century Cataloging and Metadata Professionals," also an outgrowth of the ALCTS Task Force on the LC Action Plan.

At ALA 2007 Annual Conference, LC, ALCTS CETRC (Committee on Education, Training, and Recruitment to Cataloging), and Catholic University School of Library and Information Science co-sponsored pre-conference, "What They Don't Teach in Library School," on competencies for a career in cataloging.

An outgrowth of the CETRC/LC/CUA pre-conference was the formation of the new ALCTS/CCS/CETRC Task Force on Competencies and Education for a Career in Cataloging, which will be the umbrella organization for a Cataloging Education Fellows program; a program to connect cataloging practitioners and employers with library educators; and a clearinghouse with links to available career opportunities in cataloging. An LC staff member leads the Task Force subgroup on the clearinghouse.

#### Action: Planned

Seek further opportunities to communicate the competencies needed by bibliographic access professionals.

Recommendation

- 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION
- 5.2 Design LIS Education for Present and Future Needs
- 5.2.1 Communicate with LIS Educators

5.2.1.3 ALA Committee on Accreditation: Seriously consider the inclusion of specific language in the Curriculum standards that recognizes the central importance of bibliographic control to information and knowledge discovery and management.

# LC Response and Rationale

LC supports this recommendation to ALA, since this could help to reverse the trend of reduced emphasis on bibliographic control in library science curricula.

Action: Current

N/A.

Action: Planned

LC would support language proposed by other stakeholders or would participate in drafting language for the Committee on Accreditation to consider. Expand the agenda of the proposed working group on the framework for the greater bibliographic apparatus to include proposing language to the ALA Committee on Accreditation.

#### Recommendation

- 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION
- 5.2 Design LIS Education for Present and Future Needs
- 5.2.1 Communicate with LIS Educators

5.2.1.4 LIS programs: Require core levels of knowledge for all information professionals in the fundamentals of knowledge organization theory and practice, including application not only in libraries, but also in the broader range of related communities and information activities.

#### LC Response and Rationale

LC supports this recommendation to LIS programs, since a basic shared level of knowledge is an essential plank of the "greater bibliographic apparatus." In addition to content, display, and format standards, all information professionals must be able to interpret the products of this apparatus.

Action: Current

Described under response to recommendation 5.2.1.1.

Action: Planned

Continue to advocate for a core level of knowledge, as presented by Ingrid Hsieh-Yee in her paper "Cataloging and Metadata Education" (previously referenced) and by many other library leaders.

#### Recommendation

# 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION

5.2 Design LIS Education for Present and Future Needs

5.2.1 Communicate with LIS Educators

5.2.1.5 LIS programs: Make available curricula covering advanced knowledge and skills to those who intend to specialize in bibliographic control, as well as to promote and support doctoral students interested in principles of bibliographic control.

# LC Response and Rationale

LC supports this recommendation, since a supply of bibliographic control specialists and researchers is critical to the future of libraries.

### Action: Current

LC commissioned previously referenced paper by Ingrid Hsieh-Yee.

LC staff serve on Ph.D. and tenure review committees as invited.

See also responses to 5.2.1.1, 5.2.1.2, and 5.2.1.4.

# Action: Planned

Review Professor Hsieh-Yee's paper and promote it to designers of LIS curricula.

Promote and publicize the work of the ALCTS/CCS/CETRC Task Force on Competencies and Education for a Career in Cataloging.

#### Recommendation

# 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION

5.2 Design LIS Education for Present and Future Needs5.2.2 Share Educational Materials Broadly via the Internet

# 5.2.2.1 All: Make educational materials available over the Internet, free or at reasonable cost.

#### LC Response and Rationale

Support, because this will contribute to high-quality bibliographic control and is in harmony with the desire to make bibliographic products, tools, and courseware more freely available.

#### Action: Current

The Cataloging Distribution Service underwrote initial development of the Cooperative

Cataloging Training courses in Cataloger's Learning Workshop [ALCTS TF on BICAP] and makes courseware from the Serials Cataloging Cooperative Training Program and CLW available on a cost-recovery basis. The course materials can be ordered as PDF files and reproduced by the ordering institution. LC maintains the CLW Web site (<a href="http://www.loc.gov/cds/order-clw.html">http://www.loc.gov/cds/order-clw.html</a>).

CDS distributes summaries (e.g., "What Is FRBR?" and "LC Classification Outline") free of charge that are used as teaching materials in LIS courses.

# Action: Planned

Continue to offer courseware and expand the offerings available through CLW. In particular, coordinate translations of courses into French and Spanish.

#### Recommendation

- 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION
- 5.2 Design LIS Education for Present and Future Needs5.2.2 Share Educational Materials Broadly via the Internet
- 5.2.2.2 All: Use network capabilities and other distance learning technologies to increase the availability of education for all library staff. In particular, encourage the creation of courses that can be taken at the learners' convenience.

# LC Response and Rationale

Support, because this move will enable practitioners to keep current with new skills and will broaden awareness of bibliographic control among all library workers.

#### Action: Current

LC's first distance learning course was the Cataloger's Desktop Web-Based Training Course, launched by CDS and the Instructional Design and Training Division in May 2003. The course resides at <a href="http://www.loc.gov/cds/desktop/wbt/default.htm">http://www.loc.gov/cds/desktop/wbt/default.htm</a>. Its location on a public Library of Congress server makes it available anytime, anywhere. LC has received positive feedback on the course from those who have taken it domestically and abroad.

LC in 2007 produced several DVDs of classroom training for subject cataloging. These were distributed to the overseas offices cataloging units to support the expansion of their cataloging efforts. The DVDs were well received and could be adapted for general distance learning at little expense.

The Cataloger's Learning Workshop portal leads to some distance learning opportunities at <a href="http://www.loc.gov/catworkshop/distancelearning.html">http://www.loc.gov/catworkshop/distancelearning.html</a>. These include a MARC 21 Tutorial (offered by the University of Southern Mississippi Libraries) and an introduction to the CONSER Standard Record. (Cataloger's Learning Workshop was an outgrowth of the ALCTS Task Force on the LC Action Plan and addresses action item 5.3 of *Bibliographic Control of Web Resources: A Library of Congress Action Plan*.)

The lecture series "LC's Digital Future and You!" has presented research by both LC employees and others and is made available (with a few exceptions) to the community as Webcasts via the LC public Web site.

Action: Planned

Expand distance learning opportunities.

Using Captivate software, cataloging training QuickTips and FAQ will be made available on LC's public Web site.

Explore the use of Elluminate videoconferencing software in order to expand distance training opportunities.

Make DVDs of subject cataloging courses available to larger community.

#### Recommendation

- 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION
- 5.2 Design LIS Education for Present and Future Needs
- 5.2.3 Develop Continuing Education for U.S. Library Profession

5.2.3.1 ALA and ALA Allied Professional Association (ALA-APA): Consider development of a U.S.-wide continuing education program in bibliographic control that could be hosted by a professional association or academic institution.

# LC Response and Rationale

LC supports this recommendation to ALA and ALA-APA, since practice in bibliographic control is evolving rapidly and current professionals need to keep their skills current.

Action: Current

See responses to 5.2.1.1, 5.2.1.2, and 5.2.1.4.

#### Action: Planned

LC stands ready to support ALA's and ALA-APA's efforts, and will support staff participation in CETRC, the ALCTS Committee on Education, and similar committees and initiatives, as appropriate.

#### Recommendation

- 5. STRENGTHEN THE LIBRARY AND INFORMATION SCIENCE PROFESSION
  - 5.2 Design LIS Education for Present and Future Needs
- 5.2.3 Develop Continuing Education for U.S. Library Profession

# 5.2.3.2 ALA and ALA-APA: Develop an economic model that can ensure sustainability of the continuing education program developed in the recommendation above.

# LC Response and Rationale

LC supports this recommendation to ALA and ALA-APA, since even the best-designed program will fail if it is not based on a realistic economic model.

#### Action: Current

LC currently dedicates 16 FTE (full-time equivalent) staff, in addition to an oversight manager, to support the Program for Cooperative Cataloging (PCC). Continuing education is a very important component of the PCC.

LC collaborated with ALCTS from 2001 through 2006 to advance work items in *Bibliographic Control of Web Resources: A Library of Congress Action Plan*. The Task Force developed a curriculum for continuing education.

#### Action: Planned

Continue to support continuing education, whether sponsored by the PCC, ALCTS, ALA-APA or others, principally through contribution of staff time.