

Cataloging for the 21st Century: A Proposal for Continuing Education for Cataloging Professionals

A response to Action Item 5.3 of the “Bibliographic Control of Web
Resources: A Library of Congress Action Plan”

submitted to

The ALCTS Advisory Task Force on the LC Action Plan
for Bibliographic Control of Web Resources

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by

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Table of Contents

Executive summary	I
Proposal background	1
Current continuing education offerings	2
Needs assessment	5
The proposed program	
Rationale and significance of the program	8
Target audience	10
Objectives	10
Levels of expertise	11
Methods of delivery	12
Program components	14
Contributions by individuals and organizations	24
Timeline	26
Timeline narrative	27
Budget	28
Budget narrative	29
Plan for program evaluation	30
Appendices	32

Cataloging for the 21st Century: A Proposal for Continuing Education for Cataloging Professionals

Executive Summary

This proposal was prepared by the Continuing Education Task Force (CETF) in response to a charge to “prepare a model curriculum for continuing education in cataloging of e-resources and metadata” which should “address a variety of metadata types, interoperability issues; and general principles, practices and workflows for metadata projects” and “recommend specific changes and additions to continuing education programs,” and “cover the period through 2005.” The task force considered the proposal of the LIS Education Task Force (Action Item 5.1) for a revised LIS curriculum to educate new professionals in preparing this report.

Issues considered during proposal development

Survey of the current environment

In addition to reviewing the LIS proposal and using it as a model for organization of this report, the task force surveyed the course listings of a variety of organizations to determine the extent and range of continuing education related to metadata and cataloging e-resources. The surveys revealed ample offerings in MARC-based, AACR2 cataloging of traditional resources, as well as many courses or workshops on cataloging special format materials, including electronic resources. However, there were few courses in emerging metadata standards and protocols. Details of the environmental surveys can be found on the Web at:

<http://darkwing.uoregon.edu/~chixson/cetf/CETFpublic.html>.

Needs assessment

To determine the technical and non-technical needs for continuing education, the CE task force conducted a survey of current cataloging professionals. The appendices at <http://darkwing.uoregon.edu/~chixson/cetf/CETFpublic.html> provide the full range of survey questions and results. The major obstacles reported to pursuing continuing education included lack of time and money, inconvenient location of training, and lack of courses on needed topics. Over half of the respondents indicated that MARC, AACR2, Dublin Core, XML, HTML, knowledge of scanning and digitization tools, and thesaurus design and principles are necessary technical skills. Workflow analysis, team-building, project leadership, time management and negotiation skills were some of the frequently cited non-technical skills needed.

The task force also considered the results of a September 2002 survey conducted by Outsell, Inc. on behalf of OCLC to gauge the training and education needs of library workers. A major focus of the survey was the use of Web-based training for library workers. Details about the survey can be found in the appendices to this proposal. A number of topics identified in the broader OCLC survey as being highly-desirable for continuing education echoed those identified in the CETF survey of catalogers. Among these were cataloging, resource description, creating/organizing a digital library, project management, metadata, technology planning, and innovation and change.

Program Objectives

The program seeks to develop a toolkit that will enable people to deal with the diversity of content and formats that comprise a modern library collection. The core continuing education program outlined in this report seeks to equip catalogers to deal with new types of resources and to recognize their unique characteristics, to evaluate competing approaches to and standards for providing access to resources, to think creatively and to work collaboratively, and to continue to play a significant role in shaping library services.

Levels of expertise

Modeled on the concept of levels of expertise outlined in the LIS proposal, the program presented in this continuing education proposal outlines three levels, with Level 1 being essential for all practicing catalogers, Level 2 being highly desirable for catalogers who plan to continue to practice for the next five to ten years, and Level 3 being recommended for catalogers involved in or soon to be involved in developing and providing access to digital library collections or other non-MARC project implementation and planning.

Methods of delivery

A variety of delivery methods were considered, taking into account the type of information being imparted, the complexity of the topic, the anticipated use of the information, and the cost. Recommended approaches include face-to-face instruction with exercises and discussion, as well as mediated and non-mediated Web-based instruction. To provide coordination to the effort, the proposal also recommends a Web portal to track issues, link to courses, provide ready reference, and put catalogers in touch with one another and with experts in the field. It is recommended that the portal be maintained on a central server, either by the Library of Congress or by ALCTS, and that these groups also provide centralized oversight of the content and design. Possible collaboration with the LIS Web site under development is recommended.

Program Components

One of the main challenges in designing this continuing education curriculum has been that the environment and specific project needs are moving targets. As new standards emerge, courses will need to be added, modified, or deleted. The courses identified in the proposal include:

1. MARC/AACR2 cataloging of electronic resources
(Level 1)
2. Overview of concepts for 21st century bibliographic control, including specific metadata standards and applications
(Level 1)
3. Thesaurus design principles, building a controlled vocabulary, and examination of selected controlled vocabularies
(Level 2)
4. Digital library design, with a project-based component
(Level 3)
5. Philosophy and approach to asset management for the 21st century, including evaluation skills
(Level 2)

Timeline

The proposal covers a period of three and a half years, from June 2003 through the fall of 2006. Several major tasks which will be fundamental to the long-term success of the implementation are scheduled for the first half of 2004. The first substantive deliverable of the Continuing Education Implementation Group (CEIG) will be the course on MARC-based cataloging of electronic resources, which is expected to be based heavily on the work of the Serials Cataloging Cooperative Training Program. Early in 2005, it is expected that the foundations for a Web-based Learning Center will be completed. Throughout 2004 and 2005, development of other courses will be ongoing, as will a process of almost continuous review and modification based on testing of specific courses. All courses will be made widely available in the summer of 2006.

Budget

The budget assumes a great deal of volunteer labor on the part of practicing professionals, students in LIS programs, and recent graduates seeking experience. A small stipend of \$500 to \$1000 is provided for the development of each course. For the

evaluations of courses, it is expected that course developers can include an assessment tool as part of their course design, with \$300 for evaluating each of 5 courses budgeted to cover the administrative costs of collecting the data.

The projected costs connected to the Web-based Learning Center, while significant, assume that at least part of the development effort will be volunteer. Depending on whether paid or volunteer resources are used, the development of the Web site is budgeted between \$1000 and \$2000. Maintenance of the site, including storage and administrative costs for five years, has been budgeted at \$3000, again assuming a significant amount of volunteer labor. The survey for an assessment of the value of the Web site is expected to require some professional assistance and has been budgeted at \$1000.

The final item, Surveys for assessment and refinement of offerings, anticipates up to three surveys conducted at different intervals. Since some professional assistance is expected, each survey has been allocated \$1000.

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Proposal background

This proposal was prepared in response to an action item of the Library of Congress Action Plan for Bibliographic Control of Web Resources. The Library of Congress (LC) asked ALCTS to play a lead role in investigating and implementing many of the Action Items from the Bicentennial Conference on Bibliographic Control in the New Millennium. ALCTS formed an Advisory Task Force on the LC Action Plan for Bibliographic Control of Web Resources, led by Karen Calhoun of Cornell University. This coordinating group convened several more task forces to focus on specific action items, among them a Task Force on Continuing Education for Catalogers related to LC Action Plan Item 5.3 (CETF) in March/April 2002. Under the leadership of Carol Hixson of the University of Oregon, CETF members include Judith P. Cannan of the Library of Congress, Karen Darling of the University of Missouri-Columbia, Cinder Johanson of the Library of Congress, Laura Kimberly of Amigos Library Services, Karen LeTarte of North Carolina State University, Norm Medeiros of Haverford College, and Robin Wendler of Harvard University.

The goals outlined in LC's Action Item 5.3 were to:

Address continuing education needs for library technical services practitioners by (1) identifying and enhancing core competencies (e.g., analytical skills, collaborative and interpersonal skills) among library catalogers; (2) devising and conducting training to enhance practitioners' mind set and values, problem-

solving, operations, management and information technology skills; and (3) promoting the understanding, use and refinement of metadata standards (such as Dublin Core) for describing and managing electronic and digital resources, with the goal of enabling greater participation in the development and refinement of metadata standards used both within and outside libraries.

The 5.3 task force was charged to:

Prepare a model curriculum for continuing education in cataloging of e-resources and metadata. It should address a variety of metadata types, interoperability issues; and general principles, practices and workflows for metadata projects. The proposal should recommend specific changes and additions to continuing education programs, lay out a plan for course content and sequence, and describe an appropriate delivery system for the curriculum. It should cover the period through 2005....

The group was further charged to coordinate closely with the LIS Education Task Force (Action Item 5.1) and consider its proposal for a revised LIS curriculum to educate new professionals. The final report of the 5.1 Task Force was made available December 17, 2002 and has served as a model for the development of the CETF report in many respects.

Current continuing education offerings

As a first step, the task force surveyed the extent and range of continuing education related to metadata and cataloging e-resources available from a variety of organization types. Between July 2002 and February 2003, task force members scrutinized the Web sites of the Council of Regional Groups, ALA-accredited LIS continuing education programs, OCLC affiliated networks, ARL, LAMA, and state and regional library organizations across the United States. We contacted many of the groups directly when information available on the Web was sparse or non-existent. Ample offerings in

MARC-based, AACR2 cataloging of traditional resources are readily available, as are many courses or workshops on cataloging special format materials, including electronic resources. However, there were few courses in emerging metadata standards and protocols. It is expected that this will change as demand for training in specific standards increases. While at the time of the surveys few organizations provided distance learning, cursory reviews now show more options. Details of the environmental surveys can be found on the Web at:

<http://darkwing.uoregon.edu/~chixson/cetf/CETFpublic.html>. A summary of the continuing education activities of each group follows.

The Council of Regional Groups

At the time of the survey, only five of the regional groups offered any courses, usually at their annual meetings or sporadically throughout the year.

ARL and LAMA

ARL and LAMA offer continuing education in the area of personal development, such as the Culture of Assessment Institute, Coaching for Performance, Effective Decision Making, Facilitation Skills Institute, Goal Setting, Human Resources Management Symposium, Leading Change, Library Conflict Management, Measuring Library Service Quality, Motivation, Performance, and Commitment, Power Dynamics and Influencing Skills, Training Skills Online, Organizational Cultures: An Exploration, Infrastructure for Faculty-Library Partnerships, Library Assessment and Benchmarking Institute, Library Planning Models, etc. In addition, they also offer a few courses on XML and Web authoring.

ALA-accredited LIS continuing education programs

As more accredited masters programs expand into distance education, they have begun to offer a greater variety of continuing education courses for practitioners.

Course offerings include: many Web authoring and site design courses, HTML, Java Script, PERL, SQL, XML, a variety of programming languages, database design, and a variety of soft skills such as project management. At the time of the survey, few offerings were available in specific metadata schemes or digital library design or software.

Regional OCLC affiliated networks

The OCLC affiliated networks have the most organized, comprehensive approach of any of the groups surveyed. Regional networks have long offered courses in MARC-based cataloging, particularly as applied within the OCLC framework. Networks continue to offer many courses in MARC and traditional cataloging, as supported by the OCLC system. Other courses include HTML, Web design, cataloging Internet resources, XML, digital library program design, and specific applications such as Access, Powerpoint, etc. Offerings vary by network.

State and regional library associations

State and regional library organizations tend to provide fewer courses or workshops overall, often tying their offerings to their annual conferences or meetings. Rather than an organized approach to continuing education, these groups respond primarily to current demand and take advantage of available training packages, such as CONSER's Serials Cataloging Cooperative Training Program (SCCTP), or the expertise of available individuals within the association. They have a shorter-term focus and tend to provide cataloging-related courses that address a very specific need for controlling a particular type of resource, although there are occasional courses dealing with broader issues of metadata application and digital library design. Offerings vary widely from state to state.

The overall assessment of continuing education for catalogers today is that many of the needed skills are being taught, but finding the appropriate course at a convenient location for an affordable price may not be possible for many catalogers. There is little coordination or planning in the selection of courses, even within the same group. Course offerings on the same topic are scattered among different groups across the country, most courses require in-person attendance, and registration costs vary from the minimal to hundreds of dollars, exclusive of transportation and lodging at the site.

Needs assessment

The Continuing Education Task Force survey

In the spring of 2003, the CE Task Force developed a survey focused on current cataloging professionals in order to get a better understanding of their environment and to gauge their sense of the technical and non-technical needs and obstacles they faced in trying to prepare for providing bibliographic control for new types of resources. A Web survey form was developed and announced on a variety of listservs, including Autocat, SERIALST, OCLC-Cat, ERIL-L, and several others. (See Appendices at <http://darkwing.uoregon.edu/~chixson/cetf/CETFPublic.html> for the full range of survey questions and results). In a two-week period, 187 responses were received. A summary of some of the most significant results follows.

Most respondents indicated that they were catalogers or administrators overseeing cataloging operations. They characterized themselves as being from the following type of library:

- College or university libraries (64.2%)
- Public libraries (11.8%)
- Special libraries (10.2%)
- Other libraries (museum, law, government, corporate, school, etc.) (13.7%)

When asked about obstacles that they perceived in pursuing continuing education, survey respondents had a clear consensus of opinion:

- Not enough time (75.4%)
- Not enough money (69%)
- Inconvenient location (66.8%)
- Training not available on the needed topics (47%)
- Narrow view of job responsibilities (39.6%)
- Inadequate institutional infrastructure or technical support (38%)
- No support for new priorities (32.6%)
- No opportunities for practical application (30.5%)
- Institutional resistance (29.4%)
- Personal resistance (22.5%)
- Stagnant skills (20.8%)

A strong consensus for the types of technical skills or knowledge of standards that catalogers need today or in the near future to be prepared to provide access to electronic or digital resources emerged from survey responses:

- MARC (96.8%)
- AACR2 (90.4%)
- Dublin Core (78.6%)
- XML (73.3%)
- HTML (65.2%)
- Knowledge of scanning and digitization tools (59.4%)
- Thesaurus design and principles (50.2%)
- Knowledge of digital library software (49.7%)
- Web authoring design software (44.9%)
- OAI (23%)
- MODS (16.6%)
- Programming languages in general (16.6%)

On the question of non technical skills or qualities that catalogers need today in order to be prepared to deal with digital projects, the following skills were listed frequently:

- Workflow analysis (78.7%)
- Team-building (74.3%)
- Project leadership (72.7%)
- Time management (71.1%)
- Negotiation skills (60.4%)
- Presentation skills (56.7%)
- Statistical analysis (40.1%)
- Other skills (grant writing, written communication, budgeting, etc.) (13.9%)

OCLC survey

In September 2002, OCLC contracted with Outsell, Inc. to survey libraries about the training and education needs of library workers. A major focus of the survey was the use of Web-based training for library workers. Details about the survey can be found in the Appendices to this report. Some interesting results that have influenced the recommendations made in this report were:

- Instructor-led training, self-directed learning, and conference participation are more popular than distance learning; although Web-based is the most prevalent distance learning mode
- The three staff development methods used the most are professional conferences (50%), informal self-study (46%), and off-site seminars (44%).

Confirming the results of the recent survey of cataloging practitioners conducted by this task force, Outsell found that the most significant problems or drawbacks to getting the continuing education needed for one's job are:

- Having the courses offered in convenient locations and/or at convenient times (88%),
- Enough budget to pay for it (88%), and
- Making time for it (85%)

A number of topics identified in the broader OCLC survey as being highly-desirable for continuing education echoed those identified in the CETF survey of catalogers. Among these were cataloging, resource description, creating/organizing a digital library, project management, metadata, technology planning, and innovation and change.

According to the OCLC survey, and again confirming the results of CETF environmental scan, top current providers of training and education are: library consortia/networks, organization-sponsored in-service or on-the-job training, and professional associations.

Rationale and significance of the program

Today's information environment is changing significantly. More information is available electronically, either as freely available content on the Web or through subscription or licensing arrangements. As the task force learned through its survey, more libraries are expanding the definition of their collections to include a greater number of electronic resources of all types. In addition to collecting licensed and open-access Web resources, many libraries are also exploring or implementing electronic reserves, local archives of electronic dissertations, locally digitized collections of text, images, or sound, and institutional repositories to archive and provide access to the scholarly/research output of the communities they serve. Additionally, many individuals, governmental organizations, academic departments, schools, or other groups are creating, archiving, and making available (publishing) an increasing array of digital content. Libraries – academic, public, special, corporate – have a leadership role to play in these efforts. The traditional mediating roles that libraries have always played in selecting good content,

organizing it, archiving it, helping people discover and access it are even more important today as users try to navigate through a huge quantity of varied content.

In an environment where many information resources are being created outside of the traditional publishing framework and where library users increasingly expect instantaneous access to information, the “one-size-fits-all” approach to bibliographic access is no longer acceptable. Many digital initiatives, in particular, are not well suited to the OPAC and its MARC/AACR2 framework. As libraries grapple with appropriate ways to control and provide access to this expanding universe of information, many of them are turning to their catalogers not only to catalog these new resources but also to provide expertise in designing and implementing new systems. Bibliographic control, with its focus on access, has an especially significant role to play. Rather than trying to catalog the Web, we need to be able to provide systematic access to the growing body of electronic resources that are collected or selected by our institutions. Without this control, many users will be led astray or frustrated by having to sort through huge masses of uncontrolled, unorganized information that will be of marginal use.

Catalogers need knowledge of emerging standards, in addition to a thorough understanding of the principles of authority control, search and retrieval options, and user interfaces. Practicing catalogers must be able to apply the underlying principles of their work in new settings and be able to evaluate different approaches and choose an approach that is right for a particular collection of resources. They need the ability to evaluate and customize different types of controlled vocabularies and descriptive standards for providing the best kind of access to a given set of resources. As recent LIS graduates with greater technical skills but less understanding of or experience in traditional library functions and services join the library workforce, current practitioners will need to be able to communicate with, understand, and lead them effectively. To do so, they will need to be conversant with new standards and approaches and able to fit them into a broader context. To prepare catalogers to be able to play these new and expanded roles, a comprehensive continuing education effort is needed.

Target audience

The target audience for the continuing education curriculum described in this report is practicing catalogers, with or without MLS degrees, from all types of libraries. It is assumed that they have a working knowledge of MARC and AACR2.

Objectives

The program seeks to develop a toolkit that will enable people to deal with the diversity of content and formats that comprises a modern library collection. In addition to knowing how to use existing tools, the program strives to train catalogers to create and implement their own toolkits. The objective is to provide the broadest possible spectrum of tools, tools that allow them to be as creative as they can be.

In any continuing education program, it is essential to provide opportunities for practical application of newly acquired knowledge. The curriculum seeks to provide opportunities for “just-in-time” training for imminent projects, as well as training to serve long-range planning needs.

The core continuing education program outlined in this report will provide opportunities:

- To equip catalogers to be able to deal with new types of resources and to recognize their unique characteristics
- To equip catalogers to be able to evaluate competing approaches to and standards for providing access to resources
- To equip catalogers to think creatively and to work collaboratively with others inside and outside their home institutions
- To ensure that catalogers have a broad enough understanding of the current environment to be able to make their local efforts compatible and interoperable with other efforts

- To prepare catalogers to be comfortable with ambiguity and being less than perfect
- To enable practicing catalogers to put themselves into the new environment and to continue to play a significant role in shaping library services

Additional objectives that could be met through a supplemental curriculum are:

- To equip catalogers with knowledge that will enable them not just to use existing standards but also to develop local standards or local applications, quickly and on-the-fly, for description and access within the context of emerging international standards
- To equip catalogers with enough technical knowledge so that they can evaluate systems effectively, influence the design of new systems and communicate with the technology experts

Levels of expertise

Modeled on the concept of levels of expertise outlined in the LIS proposal (available in the Appendices at <http://darkwing.uoregon.edu/~chixson/cetf/CETFpublic.html>), the program courses are rated as follows:

- Level 1: Essential for all practicing catalogers
- Level 2: Highly desirable for catalogers who plan to continue to practice for the next five to ten years
- Level 3: Recommended for catalogers involved in or soon to be involved in developing and providing access to digital library collections or other non-MARC project implementation and planning

Methods of delivery

A variety of delivery methods have been considered. For each continuing education course, we have recommended a preferred delivery mechanism, taking into account the type of information being imparted, the complexity of the topic, and the anticipated use of the information (hands-on application or theoretical understanding.) Keeping in mind the result of this task force's survey and the related OCLC survey where cost is considered a major obstacle to continuing education, we have also endeavored to be conscious of the cost of a particular approach from the standpoint of the target audience.

Face-to-face instruction

Face-to-face instruction with exercises and discussion works best for more complex topics that people need to apply immediately. When the content is such that presentation is enhanced significantly by group interaction and discussion, face-to-face instruction has been recommended over other delivery mechanisms. The Serials Cataloging Cooperative Training Program (SCCTP) offers an excellent model for face-to-face workshop instruction. The SCCTP model is characterized by a stable curriculum, developed by experts, offered by instructors trained in delivering that specific content, for a variety of prices, in a variety of venues.

Web-based instruction (Mediated and self-directed)

Interactive, self-paced, Web-based instruction works well for theoretical concepts and can also be a cost-effective alternative to presenting complex topics, as long as it is supplemented by other methods to reinforce the content or respond to questions. Course content delivered this way can be either free or available for a fee.

Web-based Learning Center

Since continuing education is a lifelong endeavor and since the topics being covered are a moving target, the curriculum must strive to address the changing needs of catalogers, as well as the volatility of the content. To educate catalogers to work in the digital realm, with electronic resources, and to provide them with the requisite tool kit, we recommend using a total learning or knowledge center approach. The gateway to this learning and knowledge is a Web portal. The learning or knowledge center is the mechanism for coordinating the continuing education program, providing one place where catalogers can learn about the continuing education opportunities available to them. It encompasses a wide variety of mechanisms for presentation and delivery, both mediated and unmediated, free and fee-based. Some of the content of the Learning Center would be connections to Web sites for various standards, lists of frequently asked questions with answers by experts, listing of appropriate courses offered by other organizations or those centrally coordinated through the continuing education program, direct access to sanctioned Web-based training, documents, course evaluations, PowerPoint presentations on selected topics, content-specific or course-related electronic discussions lists, etc. The same content could be delivered in different formats, to support different learning styles, as well as provide ready reference. Each method of acquiring or reinforcing knowledge is an essential element in the continuing education of catalogers.

To make such a Web portal sustainable, we recommend that it be maintained on a central server, either by the Library of Congress or by ALCTS. To be effective and useful, such a Web-based learning center would need centralized oversight or coordination. Such oversight could either be contracted out or handled in-house by ALCTS or the Library of Congress. Practicum students in LIS programs, recent graduates looking for experience, or practicing catalogers seeking professional development opportunities could organize the site, as well as research and maintain appropriate links. The content of sanctioned courses would, of course, be handled by groups or individuals commissioned to develop specific courses. Since the LIS Implementation Group has been charged to develop a Web clearinghouse of cataloging and metadata educational materials, it is worth exploring the possibility of adding a continuing education component to that site rather than developing an entirely separate site.

Program Components: Overview of Courses

In designing a continuing education curriculum, it is necessary to consider both the depth and the breadth of knowledge that attendees can expect to acquire. One of the main challenges in designing this continuing education curriculum is that the environment and specific project needs are moving targets. Because the environment is dynamic and each library's needs are unique, the depth of knowledge that attendees will need to acquire will vary considerably. As new standards emerge, course components will need to be added, modified, or deleted.

The following topics are considered core technical courses for the continuing education curriculum. A more detailed discussion of each course will follow.

Technical (Expertise in cataloging electronic resources, metadata, and digital library design)

1. MARC/AACR2 cataloging of electronic resources

- Continuing and static resources
- Open-access and licensed resources
- Manual and machine-assisted generation of cataloging

2. Overview of basic concepts for 21st century bibliographic control, including specific metadata standards and applications

- Authority control
- Search engines
 - Library catalogs
 - Google, etc.
 - Portal technology/federated searching
- Metadata and how it relates to cataloging
 - Content standards and encoding standards

- Different types (descriptive, technical, administrative)
 - Crosswalks (mapping and conversion)
- Specific metadata standards and applications
 - Dublin Core
 - Exposure to several other standards based on specific project needs
- Interoperability and harvesting
 - Protocols
 - Syntax
- Reference linking and the open URL standard
- Digital libraries

3. Thesaurus design principles, building a controlled vocabulary, and examination of selected controlled vocabularies

- LCSH, AAT, TGM, etc.

4. Digital library design, with a project-based component

- Different types of collections and specific needs
 - Image, text-based, sound, multi-media, etc.
- Review of software options available
- Review of metadata for:
 - Access
 - Storage and preservation
 - Rights management
- Creating a project management roadmap
 - Steps to follow
 - Groups to include
 - Workflow analysis
- Choosing metadata and content standards for effective bibliographic control

In addition to technical skills, catalogers will need to acquire and expand on skills to help them be more flexible and adept at dealing with changing scenarios and priorities. The following are some of the topics that can either be covered in dedicated courses or can be incorporated into the more technical courses.

Non-technical (Leadership and management competencies)

5. Philosophy and approach to asset management for the 21st century, including evaluation skills

- Collaboration and team building
 - Negotiation skills
 - Grant writing
 - Listening and coaching
- Evaluation skills
 - Being able to pick the right tool
 - Knowing how and when to design a local tool
 - Steps to follow
 - Requirements

Some of the other skills that are needed and that can be covered adequately by existing courses or workshops include:

- Time management
- Developing a budget
- Presentation skills
- Statistical analysis
- Written communication
- Basic computer skills
 - Word processing
 - Spreadsheets
 - Database design
 - Web design and construction

Program Components : Detailed Examination of Courses

Technical (Expertise in cataloging electronic resources, metadata, and digital library design)

Course 1

- MARC/AACR2 cataloging of electronic resources
 - Continuing and static resources
 - Open-access and licensed resources
 - Manual and machine-assisted generation of cataloging

Course level

Level 1. In many larger libraries, the expertise for cataloging electronic resources was originally concentrated in select individuals and groups, rather than being widely dispersed. Many catalogers in large libraries have been left out of the loop. As libraries' reliance on electronic resources increases, there is a need to expand the expertise to all catalogers. In smaller libraries, where fewer catalogers are expected to catalog all types of materials, there has often not been sufficient time or easy access to experts in order to learn the finer nuances of cataloging these resources. There is a need for catalogers in smaller institutions to have an opportunity to hone their skills and to interact with other catalogers of electronic resources.

Method of delivery

Because of the complexity of the topic, this is best taught face-to-face, with exercises and ample time for questions and discussion.

Course description and development

It is recommended that this course make use of the relevant content developed by the Serials Cataloging Cooperative Training Program (SCCTP). The SCCTP currently provides training in cataloging electronic serials and cataloging integrating resources. Developing a component of the course that focuses on non-serial electronic resources would be needed to flesh this out. Some of the individuals who helped prepare the content of the SCCTP modules could be commissioned to develop this missing component. Machine-assisted methods of generating cataloging records will also be examined and developers should work with the Program for Cooperative Cataloging and its partners in this area.

Course 2

- Overview of basic concepts for 21st century bibliographic control, including specific metadata standards and applications
 - Authority control
 - Search engines
 - Library catalogs
 - Google, etc.
 - Portal technology/federated searching
 - Metadata and how it relates to cataloging
 - Content standards and encoding standards
 - Different types (descriptive, technical, administrative)
 - Crosswalks (mapping and conversion)
 - Specific metadata standards and applications
 - Dublin Core

- Exposure to several other standards based on specific project needs
- Interoperability and harvesting
 - Protocols
 - Syntax
- Reference linking and the open URL standard
- Digital libraries

Course level

Level 1. An understanding of these concepts is essential for any practicing cataloger, both to be able to communicate with colleagues, as well as to be able to respond to institutional efforts or initiatives. Without this foundation, a cataloger will be tied forever to the past and will find herself becoming increasingly obsolete and unable to help guide her institution in appropriate directions. Catalogers are more frequently being charged to utilize other standards within their libraries or to evaluate their utility for specific projects. Having a more in-depth knowledge of one non-MARC standard, with exposure to several others, is increasingly expected.

Method of delivery

Face-to-face instruction in a workshop setting or through a self-paced Web course are both viable delivery mechanisms. The content can be effectively delivered to different audiences depending upon their financial resources and preferred learning style.

Course description and development

If delivered as an interactive Web course, it is recommended that it be developed by individuals or a group both experienced in the technology as

well as being expert in the content. Collaboration between different individuals or groups strong in the different areas would also be an effective way to develop the course. Introducing catalogers to Dublin Core will provide them with baseline exposure to a simple element set. Such exposure should serve to orient catalogers to the rudiments of a descriptive metadata standard. A second part of this course should introduce attendees to more robust descriptive standards and the projects for which they are best suited. Course development should incorporate existing training mechanisms for various standards. An example of training available in a specific standard is the training in Encoded Archival Description (EAD) provided by the Society of American Archivists.

Course 3

- Thesaurus design principles, building a controlled vocabulary, and examination of selected controlled vocabularies
 - LCSH, AAT, TGM, etc.

Course level

Level 2. Catalogers who continue to work for the next five to ten years will find that they are increasingly challenged to defend the use of controlled vocabularies and/or to play a role in consulting on the development of specialized thesauri or glossaries for different projects.

Method of delivery

Face-to-face instruction in a workshop setting or through a self-paced Web course are both viable delivery mechanisms. The content can be

effectively delivered to different audiences depending upon their financial resources and preferred learning style.

Course description and development

Course development could be undertaken with one of the LIS programs that offers distance education and/or continuing education components. There is not currently a well-developed program that could be tapped, nor a single organization that has identified this as an area of specialization. Consultation with the Library of Congress, the Getty Institute, and some of the other developers of widely available thesauri or controlled vocabularies would improve the content of such a course.

Course 4

- Digital library design, with a project-based component
 - Different types of collections and specific needs
 - Image, text-based, sound, multi-media, etc.
 - Review of software options available
 - Review of metadata for:
 - Access
 - Storage and preservation
 - Rights management
 - Creating a project management roadmap
 - Steps to follow
 - Groups to include
 - Workflow analysis
 - Choosing metadata and content standards for effective bibliographic control

Course level

Level 3.

Method of delivery

Since attendees are likely to have questions, it is recommended that this course be delivered either via face-to-face instruction in a workshop setting or through a mediated Web course. To be most effective, registrants should be preparing for involvement in a metadata project at their institution

Course description and development

This course explores the needs associated with developing digital collections of image, text, sound, and multi-media files. The course should include administrative and technical metadata, and available software options, including open-source and commercial products. Upon completing the course, attendees should be able to lead development of a digital collection at their institution. A number of LIS programs, regional groups, and networks have begun to offer courses to provide assistance in digital library design. Many libraries, including the Library of Congress, have in-house expertise related to digital library design and implementation that could be tapped to develop such a course. Both RLG and OCLC have undertaken work in this area, and OCLC is marketing one of the software packages available for creating and managing digital collections. Course development should tap into the expertise of these groups, as well. A number of individuals and groups have begun to offer workshops to guide people through project development. Course development in this area can be contracted to some of these individuals or groups. As an example of an approach, see the description of a project-

based approach to metadata offered as a workshop by the Southeastern New York Library Resources Council (SENYLRC) on June 17, 2003
<http://www.senylrc.org/coned/2003metadata.htm>

Non-technical (Leadership and management competencies)

Course 5

- Philosophy and approach to asset management for the 21st century, including evaluation skills
 - Collaboration and team building
 - Negotiation skills
 - Grant writing
 - Listening and coaching
- Evaluation skills
 - Being able to pick the right tool
 - Knowing how and when to design a local tool
 - Steps to follow
 - Requirements

Course level

Level 2.

Method of delivery

Delivered either via face-to-face or through a mediated Web course.

Course description and development

This course is designed to assist catalogers in developing the skills necessary to work with institutional constituents as well as colleagues outside the institutional framework. One part focuses on collaboration and team building skills catalogers would employ while working with other institutional constituents, such as faculty members and computing personnel. Focus should be placed on communication skills since external constituents will not necessarily understand library jargon. Another part of the course will teach the collaborative skills necessary to contribute to a project distributed among library and information professionals geographically distant. The curriculum should include instruction on Internet collaboration tools and Web meeting applications. Existing courses from vendors should be examined for relevant segments. The course is designed to provide catalogers with the ability to select the most appropriate metadata standard(s) for digital projects to which they contribute. The course should also help catalogers understand when creating a local element set is the most appropriate solution.

Contributions by organizations (funding and other resources)

Any of the groups surveyed in the CETF's environmental scan are potential collaborators for course development and/or for support of a coordinated continuing education program. As noted in the section on *Current continuing education offerings*, some of the groups are more focused and have begun to develop a long-term approach to continuing education for practitioners. Others highlight short-term needs and trends or general current awareness through annual conferences or general sessions rather than focusing on formal continuing education.

ALCTS has a lead role to play in the development, maintenance and coordination of a continuing education program for catalogers. It has significant resources at its disposal,

both in terms of revenue generated from institutes and pre-conferences, as well as in being able to tap the expertise of a large and well-trained cadre of professionals for course development and committee work. It has a stake in such a program for the long-term viability of the profession, and has a vested interest in appealing to the widest target audience possible as a source of continued revenue. A possible drawback with ALCTS might be too great an emphasis on generating revenue and too great a reliance on a single delivery mechanism, i.e., face-to-face instruction. However, ALCTS could contribute stability, continuity, and a high profile – essential components for a successful program.

OCLC and its affiliated regional networks are likely collaborators in the development of the continuing education program, for many of the same reasons as those outlined for ALCTS above. The regional networks, when viewed collectively, have substantial resources and a continuing education provider infrastructure at their disposal, as well as a high profile and substantial experience with marketing. OCLC and several networks have moved into the forefront for developing Web-based instruction and could contribute significant expertise in this area. Although OCLC and the networks might not be an appropriate coordinator of the continuing education effort, their ability to draw on a large membership to develop and deliver course content is well documented and should be tapped.

Accredited LIS programs, with their expertise as educators and with their increasing development of distance-education programs, can help guide course development and effective delivery of content. As the effort to reform cataloging and metadata education outlined by the 5.1 Task Force takes hold, the LIS programs will be an even stronger partner in continuing education for catalogers.

Professional organizations such as ARL and LAMA can play a vital role in providing courses on soft skills such as leadership training, negotiation skills, and overall project management. Specialized groups and standards-setting bodies such as the Society of American Archivists, the Visual Resources Association, the Dublin Core Metadata Initiative and many others can provide detailed training in specific standards, obviating

the need for another group to produce key parts of a comprehensive continuing education package. The Program for Cooperative Cataloging's Serials Cataloging Cooperative Training Program (SCCTP), with its two modules related to cataloging electronic resources in the MARC-based environment, should also be considered an essential collaborator. SCCTP can also serve as a useful model for delivery of this type of content.

Timeline

<u>Target date</u>	<u>Task</u>
June 2003	Draft report of Continuing Education Task Force (CETF) available for review
August 2003	Comments received from ALCTS Advisory Task Force on the LC Action Plan for Bibliographic Control of Web Resources and the public
September 2003	Final version of CETF report made widely available and task force disbands
September-October 2003	CEIG assembled, charge written, seed money secured
November 2003	Continuing Education Implementation Group (CEIG) charged and begins review of CETF report
December 2003	CEIG appoints developer(s) of Course 1
February 2004	CEIG establishes contact with MetaCat Task Force (LIS Implementation Group)
April 2004	CEIG reviews LIS Web clearinghouse for cataloging and metadata education and considers collaboration
May 2004	CEIG appoints developer(s) of second course
June 2004	First course offered at ALA Annual in Orlando
June 2004	CEIG meets at ALA Annual and delivers first interim report
July 2004	Subgroups begin to work

August 2004	CEIG decides to collaborate on LIS Web Clearinghouse or establish separate Web-based Learning Center
September 2004	CEIG appoints developer(s) of third course
December 2004	Second interim report of CEIG
January 2005	Second course offered at ALA Midwinter
February 2005	CEIG establishes assessment program for courses (surveys, Web forms, evaluations)
February 2005	CEIG appoints developer(s) for remaining courses
March 2005	Continuing education Web-based Learning Center inaugurated (either as separate site or as part of LIS Web Clearinghouse)
June 2005	Third course offered at ALA Annual
July 2005	Third interim report of CEIG
January 2006	Fourth and fifth courses offered at ALA Mindwinter
Spring 2006	Courses modified in response to feedback
Summer 2006	All courses made widely available
Fall 2006	CEIG makes final report and disbands
Ongoing	Review and modification of course content is continuous

Timeline narrative

The proposal covers a period of slightly over three years, from June 2003 through the fall of 2006. Several major tasks which will be fundamental to the long-term success of the implementation are scheduled for the first half of 2004, including reviewing the LIS Web Clearinghouse with an eye toward possible collaboration for the continuing education Learning Center, the delivery of Course 1, and the appointment of developers for the second course. The first substantive deliverable will be the course on MARC-based cataloging of electronic resources. This course is seen as relatively low-hanging fruit because the majority of the course content is already developed and available through the

SCCTP (electronic serials and integrating resources cataloging) and possible developers for the gap content (non-serial, non-integrating electronic resources) can be found among the individuals who participated in the development of the other segments.

Early in 2005, the second course will be offered for the first time and the foundations for a Web-based Learning Center will be completed. This deliverable may be delayed if the work on the LIS Clearinghouse takes longer than expected, since review and possible collaboration with that clearinghouse is an integral part of this effort. Throughout 2005 and 2006, the remaining courses will be delivered. In addition, a process of almost continuous review and modification based on initial delivery of specific courses will be put into place. ALA meetings and annual conferences, with their built-in mechanisms for programs and pre-conferences, provide suitable platforms for initiating courses whose delivery mechanism is face-to-face instruction. The order of the course development beyond the first course will be dependent upon the partners and content developers identified by the CEIG and is therefore not stipulated in the timeline. Securing funding for course developers, rather than relying solely on volunteer effort, should make the ambitious timeline feasible. Evaluation of a continuing education program must be continuous. Markers for evaluation are placed throughout the timeline in acknowledgement of this need. Throughout the implementation process, the CEIG will be tracking on the evaluation efforts of the LIS program. It is recommended that the two groups conduct a joint review of the effectiveness of their efforts at some point in the process, if at all feasible. The final element in the timeline is listed as ongoing, in recognition of the dynamic and volatile environment and the need for frequent updates and modifications to course content and delivery mechanisms.

Budget

Item

Estimated cost

Electronic resource cataloging: final component

\$ 500

Additional course development

4 courses at \$1000	\$ 4000
Evaluations of courses	
5 courses at \$ 300	\$ 1500
Web-based Learning Center	
Development (if joint effort with LIS)	\$ 1000
Development (if undertaken alone)	\$ 2000
Maintenance for five years	\$ 3000
Survey for impact assessment	\$ 1000
Surveys for assessment and refinement of offerings	\$ 3000
Total	\$14,000-15,000

Budget narrative

Unlike the budget for the LIS proposal, this budget assumes a great deal of volunteer labor on the part of practicing professionals, students in LIS programs, and recent graduates seeking experience.

All of the budget items for development of course content could come in considerably lower, if developers are drawn entirely from the ranks of practicing librarians. In order to ensure timely completion of course content, it is recommended that advertisements – job descriptions – be developed stipulating what is needed by when and inviting applications. It would be the purview of the Continuing Education Implementation Group, or its subgroups, to review the applications and select developers. If there were a small stipend attached to the course development, the incentive for completing the work within the desired timeframe would be greater. For the first course, where a significant portion of

the course content is already developed, a stipend of \$500 has been allocated. For the other courses needing full development, a stipend of \$1000 per course is considered appropriate.

For the evaluations of courses, it is expected that course developers can include an assessment tool as part of their course design. The budgeted costs of \$300 for each of 5 courses covers the administrative costs of collecting the data following the initial trial for the course.

The projected costs connected to the Web-based Learning Center are significant, but could be drastically reduced if volunteer labor is successfully recruited. It is assumed that at least part of the development effort will be volunteer, necessitating at most 40 hours of professional Web development time at \$50 an hour. Costs will also be less significant if it is deemed feasible to piggyback on to the Web Clearinghouse under development as part of the LIS implementation. Maintenance of the site for five years (the minimum considered necessary for a continuing education program) has been budgeted at \$50 a month, again assuming a significant amount of volunteer labor to keep it up to date. The \$50 a month will be needed to cover storage and administrative costs at the host site. The survey for an assessment of the value of the Web site is expected to require some professional assistance to develop and analyze and has been budgeted at \$50 an hour for 20 hours.

The final item, Surveys for assessment and refinement of offerings, anticipates up to three surveys conducted at different intervals. Since some professional assistance is expected, each survey has been allocated \$1000, at a rate of \$50 an hour for 20 hours.

Plan for program evaluation

Evaluation of the courses will take place following test delivery of specific components. As each course is tested, registrants will be asked to complete standard evaluations of the

content and the delivery mechanism. The evaluation form will be either hard copy or Web-based, depending upon the delivery mechanism.

In addition to evaluating registrants' satisfaction with the courses, surveys will be sent to administrators at the home institutions of course participants six months to one year following their attendance to gauge the effectiveness of the curriculum from an administrative standpoint. As the CETF survey results on the question of obstacles to continuing education make clear, the success of continuing education is also dependent upon the institutional culture. For catalogers to succeed in transforming themselves, they need institutional support. Institutional support includes not just financial support but also an administrative willingness to grant catalogers time to learn and experiment with new standards and approaches. Library administrators must also be willing to view their catalogers in a new light and provide them opportunities to apply the new skills.

The Web-based Learning Center's effectiveness will be assessed both by periodic review of transaction logs, as well as through focused Web surveys conducted at selected intervals. Following the development of the curriculum and the Web-based Learning Center, continuing education providers listed on the Learning Center will be asked to provide copies of the evaluations or summary reports of data analysis. Feedback from these evaluations will be used in a process of continuous review and refinement of content and delivery mechanisms.

Ongoing review of practitioners' and libraries' needs must be built into the program. Because of the volatility of the environment, periodic surveys of the target audience should be conducted to discover new standards and issues that need to be folded into the curriculum.

Because the continuing education of existing professionals (Task Force 5.3) and education of new professionals (Task Force 5.1) are so closely tied, all initiatives recommended by these task forces that are implemented should jointly undergo a final assessment to gauge their overall contribution to professional development.

Appendices

All appendices are available electronically on the Task Force's public Web site at:

<http://darkwing.uoregon.edu/~chixson/cetf/CETFPublic.html>

The appendices consist of the following documents:

Work of the ALCTS Continuing Education Task Force (Action Item 5.3)

- Continuing Education for Catalogers : Survey for Practitioners (Web survey form)
 - Summary of Survey Results (March 31, 2002)
- Environmental Surveys of Continuing Education Offerings, conducted between July 2002 and February 2003 (Excel Spreadsheets)
 - Survey of Continuing Education Offerings, ALA-MLS Programs
 - Survey of Continuing Education Offerings, ARL-LAMA
 - Survey of Continuing Education Offerings, Council of Regional Groups
 - Survey of Continuing Education Offerings, OCLC Networks
 - Survey of Continuing Education Offerings, OCLC Western
 - Survey of Continuing Education Offerings, State Library Organizations: Eastern U.S.
 - Survey of Continuing Education Offerings, State Library Organizations: Western U.S.

Background Information

- Cataloging and Metadata Education : A Proposal for Preparing Cataloging Professionals of the 21st Century by Ingrid Hsieh-Yee
 - Transmittal Memo from LIS Task Force to LC Action Plan Task Force (December 17, 2002)

- Cataloging and Metadata Education: A Proposal for Preparing Cataloging Professionals of the 21st Century (Nov. 4, 2002)
- Appendix 1. Cataloging and Metadata Education in LIS Programs
- Appendix 2. LIS coverage of cataloging and metadata
- Appendix 3. Topics Recommended to LIS Programs by Metadata Experts in “A Delphi Study on Metadata: Curriculum Implications & Research Priorities”
- Bibliographic Control of Web Resources: A Library of Congress Action Plan Revised May 2003
- Continuing Education Needs of Professional Catalogers: Recommendations from Topical Discussion Group 2 of the Bicentennial Conference
- Library Participation in the Development of Metadata Standards: Recommendations from Topical Discussion Group 8 of the Bicentennial Conference
- Serials Cataloging Cooperative Training Program (SCCTP)
- OCLC Library Training & Education Market Needs Assessment Study (Sept. 2002)