# Report and Recommendations
# of the
# U.S. RDA Test Coordinating Committee

9 May 2011
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Committee Co-Chairs:

Christopher Cole, National Agricultural Library ✦

Jennifer Marill, National Library of Medicine (January 2011--   )

Diane Boehr, National Library of Medicine (acting June 2010-December 2010) ✦

Dianne McCutcheon, National Library of Medicine (2008-May 2010)

Beacher Wiggins, Library of Congress †

Committee Members:

Diane Boehr, National Library of Medicine ✦

Barbara Bushman, National Library of Medicine

Michael Esman, National Agricultural Library

Judith A. Kuhagen, Library of Congress (December 2010--   )

Susan R. Morris, Library of Congress

Regina Romano Reynolds, Library of Congress

Tina Shrader, National Agricultural Library *

Barbara B. Tillett, Library of Congress ‡

✦ Member of the Library of Congress Working Group on the Future of Bibliographic Control

† Member of the Committee of Principals for AACR

*NAL liaison to MARBI (Machine-Readable Bibliographic Information Committee of the American Library Association)

‡ Member of the Joint Steering Committee for Development of RDA

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# Acknowledgements

The U.S. RDA Test Coordinating Committee takes pleasure in acknowledging the support and guidance it has received from many quarters.

The Library of Congress Working Group on the Future of Bibliographic Control, convened in November 2006 by Associate Librarian of Congress Deanna Marcum, examined and publicized community concerns over the content and feasibility of *Resource Description and Access* as it stood in 2007.  The Working Group's considered and forward-looking recommendations[1] were the basic stimulus for the U.S. RDA Test.

The Coordinating Committee enjoyed extraordinary support from NLM technical information specialist Kelly Quinn; Dr. Barbara Rapp of the NLM Office of Health Information Programs Development; NLM Associates Julie Adamo and Kristen Burgess; LC intern Paul Norko; LC contract cataloger Erik Bergstrom; LC senior cataloging policy specialist Dave Reser; and LC Webmasters Julie Mangin, Elizabeth Miller, and Paul Weiss (retired February 2011).  Logistical support was provided by Shirley Gorham and Carol Winfree of the Library of Congress.  University of Michigan School of Information students Lisa Marchessault, Kai Wang, and Yuliang Ma provided support for data cleanup and analysis on their alternative spring break in March 2011.

The Coordinating Committee extends special thanks to Deborah and Richard Fritz, the developers of MARC Report, and Terry Reece, the author of MARCEdit.  Without access to these software tools for analyzing and manipulating MARC records, the test record collection and analysis would have been impossible.  The American Library Association (ALA Publishing) extended access to the *RDA Toolkit* during the test period at no charge to the 26 test organizations.  Mary Menke, head of technical services at Northeastern University Libraries, arranged for Northeastern's Snell Library to host the Train the Trainer session in January 2010.  Additional thanks are due to OCLC, Inc., for its cooperation in addressing the needs of those using OCLC as their test environment.

The Coordinating Committee owes its deepest thanks to the many institutions and individuals who expressed interest in participating in the test, and most particularly to the 23 other formal U.S. RDA Test participants: Backstage Library Works, Brigham Young University, Carnegie Library of Pittsburgh, Clark Art Institute, College Center for Library Automation (Florida), Columbia University, Douglas County Libraries (Colorado), Emory University, George Washington University, GSLIS (Graduate Schools of Library and Information Science) Group, Minnesota Historical Society, Morgan Library and Museum, Music Library Association/OLAC Group, North Carolina State University, North East Independent School District, San Antonio (Texas), Northeastern University, OCLC Metadata and Contract Services, Ohio State University, Quality Books, Stanford University, State Library of Pennsylvania, University of Chicago, and University of North Dakota.

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[1] *On the Record: Report of the Library of Congress Working Group on the Future of Bibliographic Control,* January 9, 2008. http://www.loc.gov/bibliographic-future/news/lcwg-ontherecord-jan08-final.pdf [accessed April 22, 2011].

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## Executive Summary

*Coordinating Committee's charge—*
The senior management at the Library of Congress (LC), National Agricultural Library (NAL), and National Library of Medicine (NLM) charged the U.S. RDA Test Coordinating Committee to devise and conduct a national test of *Resource Description & Access* (RDA). The Coordinating Committee would evaluate RDA by testing it within the library and information environment, assessing the technical, operational, and financial implications of the new code. The assessment would include an articulation of the business case for RDA, including benefits to libraries and end users, along with cost analyses for retraining staff and re-engineering cataloging processes. The Coordinating Committee began its work by reviewing RDA's stated goals.

*RDA Goals—*
The Joint Steering Committee for Development of RDA (JSC) crafted a strategic plan that enumerated a set of goals that was shared with the cataloging and information communities. The U.S. RDA Test sought to determine how well these goals were met. In this report, the Coordinating Committee describes how it devised its test plan, selected test partners, identified materials to be cataloged, crafted questions for various survey instruments, drafted evaluative factors, and analyzed test data— all to demonstrate whether the results were commensurate with goals RDA developers set for the code.

Based on the test findings, the summary statements below indicate whether or not the goals were met. The body of the report presents the findings that led the Coordinating Committee to these conclusions.

- *Provide a consistent, flexible and extensible framework for all types of resources and all types of content.*
  - This goal was met.
- *Be compatible with internationally established principles and standards.*
  - This goal was partially met. The Coordinating Committee looks forward to increased harmonization efforts among JSC, ISBD, and ISSN communities.
- *Be usable primarily within the library community, but able to be used by other communities.*
  - The test did not cover this goal. The Coordinating Committee is aware that other library communities are exploring the use of RDA. The Semantic Web and Dublin Core communities are developing application profiles based on RDA.

- *Enable users to **find, identify, select**, and **obtain** resources appropriate to their information needs.*
  - o This goal was partially met. User comments on RDA records indicate mixed reviews on how well new elements met user needs. The test did not fully verify all the user tasks above.
- *Be compatible with descriptions and access points in existing catalogs and databases.*
  - o This goal was mostly met. The descriptions are compatible with existing catalogs and databases, as are most access points. There will need to be community input on how to resolve some differences in access points.
- *Be independent of the format, medium, or system used to store or communicate the data.*
  - o This goal was met.
- *Be readily adaptable to newly emerging database structures.*
  - o The test did not verify this goal, although there is evidence that RDA data are sufficiently granular to enable new types of displays and better integration with other data sources.
- *Be optimized for use as an online tool.*
  - o This goal was not met.
- *Be written in plain English, and able to be used in other language communities.*
  - o This goal was not met.
- *Be easy and efficient to use, both as a working tool and for training purposes.*
  - o This goal was not met.

The Coordinating Committee believes that RDA should be accountable to its own goals and has drafted a plan that postpones implementation until these goals are substantially met. This belief and the Committee's analysis and assessment of the test data lead the Committee to make the following recommendations regarding the implementation of RDA by the three U.S. national libraries.

*Recommendations—*
**Contingent on the satisfactory progress/completion of the tasks and action items below, the Coordinating Committee recommends that RDA should be implemented by LC, NAL, and NLM no sooner than January 2013. The three national libraries should commit resources to ensure progress is made on these activities that will require significant effort from many in and beyond the library community.**

To achieve a viable and robust metadata infrastructure for the future, the Coordinating Committee believes that RDA should be part of the infrastructure. Before RDA is implemented, however, the activities below must be well underway. In order to allow sufficient lead time for these actions to occur, the Committee recommends that RDA implementation not proceed prior to January 2013. Timeframes in these recommendations assume a start date of July 1, 2011 and represent the Coordinating Committee's best estimates. Many of the activities must occur simultaneously. The timeframes given are for each individual task. Therefore the timeframes given are not sequential.

- Rewrite the RDA instructions in clear, unambiguous, plain English.
  - Work with JSC to prioritize which chapters should be addressed and completed first. Prioritization should be based on comments gleaned during the U.S. RDA Test as identified by the U.S. RDA Test Coordinating Committee.
  - Identify and engage, in collaboration with JSC and the Committee of Principals, a writer to undertake rewrites.
  - Rewrite chapters identified as priorities.
  - Confirm readability of initial chapter rewrites.
  - *Timeframe for completion: within 18 months.*
- Define process for updating RDA in the online environment.
  - *Timeframe for completion: within three months.*
- Improve functionality of the *RDA Toolkit*.
  - Forward to ALA Publishing enhancements needed as gleaned during the U.S. RDA Test and work with ALA Publishing on a timeline for changes.
  - Working with ALA Publishing, identify a process for ongoing usability testing of *RDA Toolkit* enhancements.
  - *Timeframe for completion: within three months.*
- Develop full RDA record examples in MARC and other encoding schemas*.*
  - Work with ALA Publishing to integrate examples into the *RDA Toolkit*.
  - Include examples for special communities (e.g., serials, rare books, music).
  - *Timeframe for completion: within six months.*
- Announce completion of the Registered RDA Element Sets and Vocabularies. Ensure the registry is well described and in synchronization with RDA rules.
  - *Timeframe for completion: within six months.*
- Demonstrate credible progress towards a replacement for MARC.
  - Announce planning statement. (Done; see Appendix M.)
  - Identify the stakeholders, key players and experts needed.
  - Identify tasks and timeline for development.
  - Ensure development is underway.
  - *Timeframe for completion: within 18-24 months.*
- Ensure and facilitate community involvement.
  - Prioritize needed updates to practices, decisions, and documentation.
  - Prioritize and submit changes to JSC for RDA content.
  - Determine community involvement in the process, e.g., the role of Program for Cooperative Cataloging (PCC), OCLC, special interest communities, etc.
  - Determine best method(s) to share decisions with community.
  - *Timeframe for completion: within 12 months.*

- Lead and coordinate RDA training.
  - Prioritize training focus and schedule led by LC.

- o Engage PCC, Association for Library Collections and Technical Services (ALCTS), and other bodies.
  - o *Timeframe for completion: within 18 months.*
- Solicit demonstrations of prototype input and discovery systems that use the RDA element set (including relationships).
  - o Identify groups/organizations/vendors that could provide models.
  - o Determine availability of funding to support prototype efforts.
  - o Engage and produce initial prototypes.
  - o Utilize demonstrations in education and training efforts about the library community's new metadata infrastructure.
  - o *Timeframe for completion: within 18 months.*

*Business case—*
The test revealed that there is little discernible immediate benefit in implementing RDA alone. The adoption of RDA will not result in significant cost savings in metadata creation. There will be inevitable and significant costs in training. Immediate economic benefit, however, cannot be the sole determining factor in the RDA business case. It must be determined if there are significant future enhancements to the metadata environment made possible by RDA and if those benefits, long term, outweigh implementation costs. The recommendations are framed to make this determination prior to implementation.

The Coordinating Committee wrestled with articulating a business case for implementing RDA. For the reasons that are presented in this Executive Summary and other sections of the report, it is, nevertheless, the decision of the Coordinating Committee to recommend implementing RDA. The recommendation to implement is premised on the expectation that the problems uncovered by the test will be addressed as part of the preparation for implementation. The business case for implementing RDA is further based on the community's need for a descriptive cataloging standard that:

- lends itself to easy use in the changing environment in which libraries and other information producers and users operate
- allows the relationships among entities to be expressed with few or no impediments
- enables greater use and flexibility in the digital environment
- better describes formats beyond printed monographs and serials
- enables the descriptive metadata created to be used in a linked data world
- supports labeling of data elements for ease of data sharing, within and beyond the library community
- is non- or less Anglo-centric
- allows existing metadata to be readily re-used.

The U.S. RDA Test demonstrated that RDA can fulfill some of these needs.  In some instances, the promise of fulfillment is greater than the reality of what RDA can currently offer.  At present, several factors impede RDA's meeting all the above needs.  These factors include constraints of today's environment, e.g., systems and the carrier format.  They also include constraints within RDA itself.  This report will more fully address these impediments and propose how to resolve them as part of the path to RDA implementation.

*Findings*—
The test generated widespread interest in the U.S. and international cataloging communities as evidenced by the more than 95 institutions that applied to be testers, high attendance at RDA Test update sessions during ALA conferences, and traffic on discussion lists.  Many institutions reported feeling privileged to be part of the test and noted energized staffs as well as other benefits.  While the Coordinating Committee had no way to determine the effect of participating in the test on the opinions about RDA reported by test participants, some positive results of the test due to the effects of being a participant cannot be ruled out.

The U.S. RDA Test amassed an unexpectedly huge amount of data that provided the Coordinating Committee a wealth of RDA records and survey responses to analyze.  This wealth of data helped to inform the ultimate decision to recommend that the three U.S. national libraries implement RDA no sooner than January 2013.  The data collected will be posted for sharing with the library and information communities for possible further research.  The 26 test partners (including LC, NAL, and NLM) created 10,570 bibliographic records and 12,800 authority records.  More than 8,000 surveys were submitted.

A key question was asked of each test partner institution, each record creator, and anyone in the U.S. community who wished to complete a survey: "Do you think that the U.S. community should implement RDA?"  Answers from institutional test partners were as follows: 34% "yes"; 28% "yes with changes"; 24% "ambivalent"; 14% "no."  Record creators were somewhat more negative: 25% "yes"; 45% "yes with changes"; 30% "no" ("ambivalent" was not offered as a choice for record creators).  Those who responded via the survey that was open to all in the U.S. community whether or not they had taken any RDA training or created any RDA records were the most negative: 12% "yes"; 10% "yes with changes"; 34% "ambivalent"; 44% "no."

The findings are summarized below.  The full findings are in the body of the report.

*Record Creation*
Findings on record creation include analyses of time needed to create RDA records for titles in participants' normal workflows (Extra Original and Extra Copy Sets) and comparative times for creating AACR2 and RDA records as part of an artificial record set cataloged by all participants (Common Original Set).

Record creation times were self-reported and likely subject to a variety of personal approaches to counting and recording time. The overall average time to create an original RDA bibliographic record for the Extra Original Set, exclusive of consultation time and authority work time, was 31 minutes. The range of times reported, however, was from one to 720 minutes. A considerable decrease in record creation time was noted when the Coordinating Committee compared record creation times for the first ten RDA records produced by record creators with record creation times for the 20th record and above.

The overall rate of variance between RDA records was roughly comparable to the overall rate of variance between AACR2 records. RDA records, on average, contained more data elements than did their AACR2 counterparts. Discernible error patterns in both RDA and AACR2 were frequently related to the complexity of the resource cataloged. There were notable patterns of errors around some RDA concepts and instructions, however, such as providing access points for works and expressions manifested, when required. Comments from catalogers indicated that many lacked confidence in their ability to find and interpret all relevant RDA instructions.

*Record Use*

In a survey of library users, most (85%) spoke favorably of the RDA record. They particularly liked the record's clarity and completeness, the elimination of abbreviations and of Latin terminology, and the abandonment of the rule of three and increased number of access points. While there was praise for the RDA record, the overwhelming criticism by the 65% of respondents who had negative comments focused on the dropping of the general material designation and its replacement by the media/carrier/content types whose terminology is difficult to understand. There is a lack of knowledge among many library staff and users as to the options that may be available for translating and displaying these elements on public catalog screens.

*Training & Documentation Needs*

Many training methods were available to RDA test participants. All of the institutions that responded to the question regarding training methods presented their staff with at least three different types of training methods. The staff at five institutions offered as many as seven different training methods.

Of the institutions responding to a question about creating or modifying local documentation for use with RDA, less than half had created documentation to record local policy decisions although some provided information about the test itself and/or about RDA. Some participants noted that any local documentation written in the context of AACR2 or any other content standard would need to be revised if RDA is implemented or even if the library only accepted for purposes of copy cataloging any RDA records created by others. Some participants noted the opportunity to simplify their local documentation.

Although 75% of those responding said that updating documentation would have a "large" or "very large" impact, only 12% of those responding to a question asking if updating documentation would be a benefit or a barrier to implementing RDA said that it would be a "major barrier."

The three national libraries indicated that they had extensive local documentation to be reviewed and revised; much of LC's local documentation is also national documentation.  Various specialized cataloging communities and the utilities were considering their documentation plans.

### *Use of RDA Toolkit*

There were several positive comments related to the *RDA Toolkit.*  The overall impression from the comments, however, was that users struggled to use the *Toolkit* effectively.  Many respondents found the *Toolkit* to be clunky and difficult to navigate.  Respondents were not pleased with the organization (although it was at times unclear if this was the organization of the rules themselves or how they were presented in the *Toolkit).*  Attempting to navigate to particular rules in the text via the table of contents confused many users.

The workflows present in the *Toolkit* were seen as useful in creating initial records because they are written in straightforward language and ease the burden of the FRBR-based arrangement of RDA by ordering the rules by MARC/ISBD area.  While there is potential for development of specific workflows at the local level and by format-specific cataloging communities, it would be a mistake to use the workflows to overcome the shortcomings of RDA and the *Toolkit.*

### *RDA Content*

The text of RDA was compared with AACR2, ISBD, and the *CONSER Cataloging Manual* using two common readability tools (Flesch Reading Ease and Flesch-Kincaid Grade Level).  The comparison indicated that RDA text was the least readable.

Subjective reactions to the RDA content were mixed.  Some participants liked the emphasis on transcription, cataloger judgment, and the new content/media/carrier types, as well as the elimination of abbreviations.  A few described the text as "elegant or "well-written."  A larger number of participants reported confusion about the structure, organization, and vocabulary in RDA and commented that the order of the rules in RDA did not match current cataloging workflows.  The text was described as redundant, circular, and complicated, rather than being a simplified set of rules.  Suggestions for improving the text came from both those who had positive and negative reactions to the content.

While 54% of respondents to the Common Original Set survey indicated encountering difficulties with the RDA content or options, the percentage encountering these difficulties dropped to 14.5% for the Extra Original Set, indicating that over time participants gained a better understanding of RDA.  There was little difference reported in difficulties encountered by different levels of staff.  Participants working in non-textual formats, however, reported a much higher number of difficulties.

### *Systems, Metadata, and Technical Feasibility*

There were no reported problems in systems ingesting and storing RDA records.  While existing systems can import and store RDA-based MARC 21 records, respondents indicated that substantial

local configuration changes would be needed for indexing and record displays for the public.  Many survey respondents expressed doubt that RDA changes would yield significant benefits without a change to the underlying MARC carrier.  Most felt any benefits of RDA would be largely unrealized in a MARC environment.  MARC may hinder the separation of elements and ability to use URIs in a linked data environment.  While the Coordinating Committee tried to gather RDA records produced in schemas other than MARC, very few records were received.

### *Local Operations*

A majority of test partner institutions anticipate some negative impact on local operations in acquisitions, copy cataloging, original cataloging, and bibliographic file maintenance.  Nevertheless, a majority of test partner institutions felt that the U.S. community should implement RDA*.*

One unanticipated result of the test was that at least three institutions trained all or most of their cataloging staff in RDA and decided to continue creating RDA records after the test.  This result increased the impact of a mixed RDA and AACR2 rule environment.

### *Costs and Benefits*

Costs of implementing RDA occur in various areas: subscription to the *RDA Toolkit*, development of training materials and creation/revision of documentation, production time lost due to training and the learning curve, and impact on existing contracts.  Many institutions indicated they did not yet have information to know the costs.  Freely-available training materials and documentation would reduce some of the costs.

Institutions noted various benefits to be weighed against the costs.  These included a major change in how characteristics of things and relationships are identified, with a focus on user tasks; a new perspective on the use and re-use of bibliographic metadata; and the encouragement of new encoding schemas and better systems for resource discovery.

In conclusion, the Coordinating Committee believes that the high level of community interest in the test and test results demonstrates the value of evidence-based decision making in the library community.

## Introduction

The U.S. RDA Test was a response to a recommendation by the Library of Congress Working Group on the Future of Bibliographic Control, that work on Resource Description and Access be suspended. Deanna Marcum, Associate Librarian of Congress for Library Services, had charged the Working Group in November 2006 to develop a set of recommendations on how the library community could better take advantage of metadata and to recommend steps the Library of Congress should take to implement the recommendations.  The Working Group's January 2008 report, *On the Record,* urged suspension of development and implementation of RDA until a business case could be made for adopting the new instructions.

After the Library of Congress accepted *On the Record,* Dr. Marcum met with the leadership of the National Agricultural Library and the National Library of Medicine to discuss concerns that RDA was being adopted without having first been subjected to a systematic review of its impact on library operations and bibliographic control.

On May 1, 2008 the Library of Congress, National Agricultural Library and National Library of Medicine issued a joint statement (see Appendix A) in which they stated that as national libraries they had a "collective responsibility to assist the U.S. library and information community to remain relevant and vital in an increasingly digital future."  In that role they would coordinate a U.S. test of RDA.  The three libraries agreed that they would make a joint decision whether or not to adopt RDA.  The decision would be based upon the evaluation of RDA's utility within the library and information environment and criteria reflecting the technical, operational and financial implications of the new code.  The U.S. RDA Test Coordinating Committee was formed to design, conduct, and evaluate the results of the test.

*Coordinating Committee's charge—*
The senior management at the Library of Congress (LC), National Agricultural Library (NAL), and National Library of Medicine (NLM) charged the U.S. RDA Test Coordinating Committee to devise and conduct a national test of *Resource Description & Access* (RDA).  The Coordinating Committee would evaluate RDA by testing it within the library and information environment, assessing the technical, operational, and financial implications of the new code.  The assessment would include an articulation of the business case for RDA, including benefits to libraries and end users, along with cost analyses for retraining staff and re-engineering cataloging processes.  The Coordinating Committee began its work by reviewing RDA's stated goals.

*RDA Goals—*
The Joint Steering Committee for Development of RDA (JSC) crafted a strategic plan that enumerated a set of goals that was shared with the cataloging and information communities.  The U.S. RDA Test sought to determine how well these goals were met.  In this report, the Coordinating Committee describes how it devised its test plan, selected test partners, identified materials to be cataloged, crafted questions for various survey instruments, drafted evaluative factors, and analyzed test data—

all to demonstrate whether the results were commensurate with goals RDA developers set for the code.

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- *Be usable primarily within the library community, but able to be used by other communities.*
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the Committee's analysis and assessment of the test data lead the Committee to make the following recommendations regarding the implementation of RDA by the three U.S. national libraries.

*Business case—*
The test revealed that there is little discernible immediate benefit in implementing RDA alone. The adoption of RDA will not result in significant cost savings in metadata creation. There will be inevitable and significant costs in training. Immediate economic benefit, however, cannot be the sole determining factor in the RDA business case. It must be determined if there are significant future enhancements to the metadata environment made possible by RDA and if those benefits, long term, outweigh implementation costs. The recommendations are framed to make this determination prior to implementation.

Change can be difficult and disruptive. There will be significant costs in money, time and effort when contemplating a change that affects libraries worldwide. The library community cannot reject change solely on the basis of costs, but it can and must insist that the benefits of such change justify the costs.

The environment in which libraries exist has changed significantly in the past 30 years since AACR2's adoption. The rules used for description and access to materials in library collections needed re-evaluation. The JSC was charged with a very difficult task of reengineering the cataloging rules for this new environment, while minimizing the disruption to existing catalogs and legacy data. One of *RDA's* goals was that *RDA* be readily adaptable to newly emerging database structures and efficient machine manipulation. Cataloging data should be freed from library silos and available for integration with new services in the online world. RDA largely succeeds in this goal in its focus on the intellectual content, in addition to the physical description, of materials, and the element set and Registry of controlled vocabularies for both content and carrier enable better machine manipulation. The use of identifiers allows the relationships among entities to be expressed with few or no impediments. The U.S. RDA Test confirmed that the FRBR *(Functional Requirements of Bibliographic Records)* model as embodied in *RDA* is a framework that can be built upon and has the potential to guide the creation of bibliographic metadata.

The Coordinating Committee wrestled with articulating a business case for implementing RDA. For the reasons that are presented in the Executive Summary and other sections of the report, it is, nevertheless, the decision of the Coordinating Committee to recommend implementing RDA. The recommendation to implement is premised on the expectation that the problems uncovered by the test will be addressed as part of the preparation for implementation. The business case for implementing RDA is further based on the community's need for a descriptive cataloging standard that:

- lends itself to easy use in the changing environment in which libraries and other information producers and users operate
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The U.S. RDA Test demonstrated that RDA can fulfill some of these needs.  In some instances, the promise of fulfillment is greater than the reality of what RDA can currently offer.  At present, several factors impede RDA's meeting all the above needs.  These factors include constraints of today's environment, e.g., systems and the carrier format.  They also include constraints within RDA itself.  This report will more fully address these impediments and propose how to resolve them as part of the path to RDA implementation.

The *RDA* testing effort, detailed below, unearthed many areas where *RDA* needs improvement.  Principal among these is the ambiguous and complex language of the instructions, and the difficulties using the *RDA Toolkit*.  Our community has much to be worried about in defining a new metadata infrastructure that will keep our profession relevant.  If nothing else, cataloging instructions and tools should enable faster, more efficient metadata creation.

The drafting of new cataloging rules and the testing process have energized many in the community, and some are eager to move forward immediately with RDA.  The Committee wants to harness this energy and move forward as well.  The JSC will no longer update AACR2, so continuing to use these rules does not remain a viable long-term option.  No one expects a perfect cataloging code at the first release.  Like AACR2, RDA will need to be modified and updated over time.  At the same time, the Committee believes that the test results reveal serious flaws with the RDA text and the *RDA Toolkit*.  The language of our cataloging instruction and the usability of tools to apply these instructions should not be barriers to their use and application.  These flaws, in addition to the larger concerns of creating a new, modern, innovative metadata infrastructure, must be addressed before the Committee can wholeheartedly recommend community adoption of RDA.

## Recommendations

*Implementation Recommendations to LC/NAL/NLM*

**Contingent on the satisfactory progress/completion of the tasks and action items below, the Coordinating Committee recommends that RDA should be implemented by LC, NAL, and NLM no sooner than January 2013. The three national libraries should commit resources to ensure progress is made on these activities that will require significant effort from many in and beyond the library community.**

To achieve a viable and robust metadata infrastructure for the future, the Coordinating Committee believes that RDA should be part of the infrastructure. Before RDA is implemented, however, the activities below must be well underway. In order to allow sufficient lead time for these actions to occur, the Committee recommends that RDA implementation not proceed prior to January 2013. Timeframes in these recommendations assume a start date of July 1, 2011 and represent the Coordinating Committee's best estimates. Many of the activities must occur simultaneously. The timeframes given are for each individual task. Therefore the timeframes given are not sequential.

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    - *Timeframe for completion: within three months.*
- Improve functionality of the *RDA Toolkit*.
    - Forward to ALA Publishing enhancements needed as gleaned during the U.S. RDA Test and work with ALA Publishing on a timeline for changes.
    - Working with ALA Publishing, identify a process for ongoing usability testing of *RDA Toolkit* enhancements.
    - *Timeframe for completion: within three months.*
- Develop full RDA record examples in MARC and other encoding schemas.
    - Work with ALA Publishing to integrate examples into the *RDA Toolkit*.
    - Include examples for special communities (e.g., serials, rare books, music).
    - *Timeframe for completion: within six months.*
- Announce completion of the Registered RDA Element Sets and Vocabularies. Ensure the registry is well described and in synchronization with RDA rules.

- o *Timeframe for completion: within six months.*
- Demonstrate credible progress towards a replacement for MARC.
  - o Announce planning statement.  (Done; see Appendix M.)
  - o Identify the stakeholders, key players and experts needed.
  - o Identify tasks and timeline for development.
  - o Ensure development is underway.
  - o *Timeframe for completion: within 18-24 months.*
- Ensure and facilitate community involvement.
  - o Prioritize needed updates to practices, decisions, and documentation.
  - o Prioritize and submit changes to JSC for RDA content.
  - o Determine community involvement in the process, e.g., the role of Program for Cooperative Cataloging (PCC), OCLC, special interest communities, etc.
  - o Determine best method(s) to share decisions with community.
  - o *Timeframe for completion: within 12 months.*
- Lead and coordinate RDA training.
  - o Prioritize training focus and schedule led by LC.
  - o Engage PCC, Association for Library Collections and Technical Services (ALCTS), and other bodies.
  - o *Timeframe for completion: within 18 months.*
- Solicit demonstrations of prototype input and discovery systems that use the RDA element set (including relationships).
  - o Identify groups/organizations/vendors that could provide models.
  - o Determine availability of funding to support prototype efforts.
  - o Engage and produce initial prototypes.
  - o Utilize demonstrations in education and training efforts about the library community's new metadata infrastructure.
  - o *Timeframe for completion: within 18 months.*

*Recommendations to the Joint Steering Committee for Development of RDA (JSC)*

    1. Content of RDA

a. In collaboration with the Committee of Principals, identify and engage a writer to undertake rewrites of the RDA instructions in clear, unambiguous, plain English.
*Timeframe for completion: within three months.*

b. In collaboration with the U.S. RDA Test Coordinating Committee, prioritize the chapters to be rewritten based on information gathered during the U.S. RDA Test.
*Timeframe for completion:  within three months.*

c. Begin rewrites of prioritized chapters.
*Timeframe for completion: within twelve months, i.e. within nine months after completing (a) and (b).*

d. Complete and publicize the online registry of RDA element sets and vocabularies.  Ensure that the registry's information remains in synchronization with the RDA instructions.
*Timeframe for completion: within six months.*

e. Clarify boundaries between works, expressions, manifestations, and items.

f. Clarify differences in cataloging resources with different modes of issuance.

g. Specific topics:
    i. Clarify distinctions between Field of activity of the person (RDA 9.15) and Profession or occupation (RDA 9.16) or merge the two elements; identify controlled vocabularies for these elements or the merged single element. (MARC 372 and 374 fields)
    ii. Clarify the identification of elements applying to expressions.
    iii. Discuss the need for identifying specific expressions and consider the possibility of an undifferentiated authorized access point for categories of expressions (e.g., for translations in the same language).
    iv. Revise the instructions for authorized access points for conferences to clarify the requirements when the publications of a conference are being cataloged as a serial.
    v. Clarify the use of RDA ch. 17 in implementation scenarios that still use bibliographic records with attributes for multiple FRBR Group 1 entities.
    vi. Clarify the instructions on production, publication, distribution, and manufacture statements (RDA 2.7-2.10).  Also allow for repetition of these elements, rather than giving notes about changes over time.
    vii. Work with various specialized communities (e.g., moving image, music, rare materials, serials) to revise and add instructions.

viii. For RDA ch. 6 and ch. 9-11, identify if elements (at the instructions for those elements) are included or not included in authorized access points.

ix. At RDA 19.2, 19.3, 20.2, 21.2-21.6, and 22.2-22.4, provide links to the instructions for creating the authorized access points for the persons, families, and corporate bodies associated with the resource.

x. Consider requiring the use of authorized access points for place associated with the corporate body (RDA 11.13) to allow more machine manipulation of this information.

xi. Add more instructions about the use of contents notes and the information included in such notes (e.g., use of performer's name).

xii. Work with the cartographic community regarding appropriate relationship designators for persons, families, and corporate bodies associated with these resources.

2. Process of updating RDA

a. Define and publicize the process for updating RDA in the online environment.
*Timeframe for completion:  within three months.*

b. Make updates much more frequently than in the past.

3. Enhancements in *RDA Toolkit* (Note that recommendations 3a.-3e. are repeated in the Recommendations to ALA Publishing.)

a. Work with ALA Publishing to integrate full examples into the *RDA Toolkit,* including examples for specialized communities (e.g., serials, rare books, music resources). *Timeframe for completion: within six months.*

b. Work with ALA Publishing to resolve the problem that the existing search labeled as "Core" retrieves instructions beyond "Core" and "Core Plus" elements.

c. Work with ALA Publishing to develop a search for only "Core" and "Core if" elements.

d. Work with ALA Publishing to highlight the availability and usefulness of the Element set view so catalogers are aware that they can see all instructions for an element.

e. Work with ALA Publishing on a way to indicate that RDA content and related documentation have been updated.

f. Provide mapping of RDA elements to other metadata schemas: MODS, MADS, METS, Dublin Core, etc.

*Recommendations to ALA Publishing*

To facilitate the implementation of RDA, the U.S. RDA Test Coordinating Committee makes the following recommendations to ALA Publishing.  The Coordinating Committee anticipates that these recommendations can be accomplished within three to six months.

(Note that some of these recommendations are also included in the Recommendations to the JSC.)

- Enhance and further develop the functionality of the *RDA Toolkit*
    - Develop an interactive wizard to assist with the creation of workflows
    - Allow for workflows and other tools to be open simultaneously through the use of separate windows
    - Allow for users/institutions to suppress certain workflows even if made public by the creators (e.g., only show PCC workflows)
    - Improve response time possibly by not loading entire chapters each time a link is selected
    - Further improve the table of contents features
    - Arrange the search results in rule order
    - Resolve the problem that the existing search labeled as "Core" retrieves instructions beyond  "Core" and "Core Plus" elements
    - Allow for use of wildcards in searching
    - Normalize search terms and results
    - Allow for searching of resources in the Tools section
    - Refine/enhance the local annotations and bookmark features to allow for updating and sharing
    - Increase the time allowed before the system times out; leave users on their current page after timing out rather than returning to the introductory screen
    - Resolve connectivity issues related to institutional firewalls and network security
- Work with the JSC to add additional features to the *RDA Toolkit*
    - Develop a single search for only "Core" and "Core if" elements
    - Integrate full examples into the *RDA Toolkit,* including examples for special communities (e.g., serials, rare books, music resources)
    - Provide mapping of RDA elements to other metadata schemes, e.g., MODS, MADS, METS, Dublin Core
- Develop a mechanism for updating the text of RDA in a timely manner including notification to users as to which chapters/rules have been updated
    - Include a mechanism for updating the print version
- Publicize and continue to develop free training on various aspects of the *RDA Toolkit* that were underutilized during the test including the Element Set view and the ability to hide examples

*Recommendations to the Community, Including PCC*
The Coordinating Committee recommends that to the extent possible, there be a coordinated implementation within the U.S. community, using the timeframe laid out in this report.  While recognizing that some testers have already gone forward with RDA and libraries are already existing in a mixed rule environment, the Coordinating Committee believes that minimizing the number of new RDA records being created while the community is still in the process of making critical implementation decisions, developing standards and best practices, and fully training their staffs, is to everyone's advantage.

Libraries are in different places when it comes to familiarity with RDA.  Some have been avidly following the development of the new rules and already subscribed to the *RDA Toolkit*.  Others have taken a wait-and-see attitude until the U.S. community came to a decision.  The Coordinating Committee urges those libraries who have been less involved to take advantage of the next 18 months and begin training their catalogers and working with their public services staff and system vendors to assure everything is in place for a potential January 2013 implementation.

The Coordinating Committee applauds the work the PCC has already done in identifying issues associated with RDA implementation that have an impact on PCC practices.  Where PCC guidelines or best practices are needed, the PCC should ensure these are prepared within the next 12 months, so the decisions can be made available to the community by the proposed implementation date.

*1. Authorities: Recommendations to the community*
The Coordinating Committee suggests that issues associated with authority record creation be given first priority by the PCC and offers particularly detailed recommendations here because this is the area that generated the most controversy during the test.  The Coordinating Committee believes that existing forms of authorized access points should be retained to the extent possible to minimize disruption and database maintenance.  If an existing access point is properly constructed with all the RDA core elements, the access point should not be changed to add newly available information.  Rather, additional information can be added to fields in the authority record that allow the recording of this information without changing the actual authorized access point.  The Coordinating Committee does not support the idea, however, that every existing heading in the National Authority File can be grandfathered in as "RDA-compatible headings" without some evaluation.

Once policies are in place regarding evaluation of AACR2 headings for use as RDA authorized access points, the PCC should work with LC to evaluate the 7XX fields that have been added to authority records and prepare for their update with implementation.  There will be three potential outcomes for these AACR2 authority records:
- the 1XX and 7XX will match, in which case, the 7XX can be deleted and the record re-coded as RDA
- the 1XX and 7XX will differ, and the 1XX is incorrect as an RDA heading

- o Those existing authority records that will need to have the 1XX fields changed when RDA implementation occurs should be identified, so that a batch flip can be done on those records.
- the 1XX and 7XX differ, but there is nothing that makes the 1XX incorrect as an RDA heading
  - o The 1XX should be retained and the 7XX should be removed from these records after the related bibs are identified and necessary Bibliographic File Maintenance (BFM) performed in shared databases and locally. If the 7XX contains information that can be added to another field in the authority record, this information should be added appropriately. The record will be re-coded as RDA.

The PCC will need to make decisions or establish "best practices" about the following:

- the number and category of relationships to include in bibliographic records;
- the use of separate fields (046, 336, 37X, and 38X) in authority records for elements already in the authorized access points and those not eligible for inclusion in authorized access points.

*2. Training: Recommendations to the community*

Training should be made available in a variety of methods including in-person workshops, live Webinars, and prerecorded sessions for viewing at any time. In this time of shrinking budgets, training must be provided in the most cost effective manner possible, while meeting multiple learning styles.

Over the next 18 months, training should be coordinated among LC, PCC, and ALCTS, but extend more broadly, as not all libraries are members of PCC or able to participate in ALCTS-sponsored activities. Local library associations and specialist communities need to be involved, particularly in publicizing free or low cost distance learning opportunities. Specialist communities are encouraged to work with LC, PCC, and/or ALCTS to develop training geared toward their communities.

Methods for developing a cadre of experts need to be determined. The testing revealed that currently the community is relying on two to three people nationally who are identified as having the expertise to answer RDA-related questions in an authoritative and trustworthy manner. While it is not realistic to be able to review every training program, in the current environment where misinformation quickly travels on the Web, it is important to ensure that accurate information is being provided by trainers. Development of RDA train the trainer programs following the SCCTP model should be considered.

A great deal of current training for RDA focuses on the cosmetic differences between AACR2 and RDA in a MARC environment. While this is an understandable approach to easily get staff up-and-running using the new rules, the Coordinating Committee believes this focus has led to a general misunderstanding about RDA and what it is intended to accomplish, leading to many comments from testers that it would be easier to just modify AACR2 with these cosmetic changes. The Coordinating

Committee recommends that training material be developed that specifically focuses on the underlying principles of RDA which include not just FRBR concepts, but the idea that bibliographic description should be regarded as a set of reusable relationship information packets, rather than a monolithic set of individual and indivisible records.

When discussing the new fields for content, media, and carrier, trainers should stress that the terms used in these fields are meant for machine manipulation rather than human eyes and that the MARC 33X fields do not need to be displayed in the user interface; they could be replaced by icons or other terms.

Because many comments dealt with difficulties testers encountered in distinguishing between instructions related to creating the access point in the bibliographic record from the instructions related to creating the authorized access point in an authority record, the Coordinating Committee recommends that training materials and documentation clarify and emphasize the organization of chapters 6, and 9-11.  In these chapters elements identifying the entity are given first.  At the end of each chapter, instructions are given indicating which elements are to be included in authorized access points with links to the specific instructions for those elements.  The training materials should also point out that the instructions for creators and contributors contain links to instructions about using authorized access points to identify the relationships to the resources being cataloged.

Current training materials include only MARC examples.  This made training difficult for the non-MARC testers.  The PCC and LC should work together with the Dublin Core, MODS, VRA, etc., communities to develop training that incorporates examples using non-MARC encoding schemes.  Additional instructions are needed for these communities as to which elements in a particular scheme logically map to RDA core elements, so that these are routinely included in a consistent location in each particular scheme.

Testers commented on the value of authoritative workflows in the *RDA Toolkit* to supplement their training.  The PCC and specialist communities should consider developing authoritative workflows as supplementary documentation for the *Toolkit.*

Library schools should ensure that all of their students are familiar with FRBR concepts and terminology, the International Cataloguing Principles, and the value and potentials of linked data on the Web.  While advanced cataloging students who will be graduating within the next year will need to have some familiarity with AACR2, the schools should be transitioning from teaching using AACR2 to RDA, so that students graduating in 2013 and on are ready to join staff who will be using the new rules.

*3. Local institution systems: Recommendations to the community*

Prior to RDA implementation, systems and public service librarians should be involved in discussions of the impact of RDA on user interfaces and local workflows.  Topics to be considered include:

- MARC issues
    - Have all the MARC updates for the new RDA elements been implemented locally?
- Indexes
    - Will authorized access points containing relationship designators file properly with the headings lacking them?
- Authorized access points
    - If existing authorized access points are converted nationally (by LC or OCLC) to the RDA form, will the local catalog follow suit?
    - Does the library have an authority vendor who can provide these changes in bulk, or does it need to be done manually?

- Copy cataloging
    - Will local libraries accept AACR2 copy cataloging records, or will records be edited partially or fully to RDA description?
    - Will local libraries convert authorized access points on AACR2 copy records to the RDA form?
- Display of content/media/carrier types
    - How will the new content/media/carrier types display in local catalogs?
    - Will they be displayed on brief as well as full record displays?
    - What alternative display options does the local catalog offer, such as icons or alternative text?
    - Can they co-exist with existing GMDs?

Knowing the answers to these questions can help libraries better estimate the lead time needed and the costs that will be incurred for RDA implementation.

*4. Specialist communities: Recommendations to the community*

The Coordinating Committee recognizes that there are internal disagreements within several of the special communities such as music, motion pictures, rare books, cartographic material, serials, and law regarding how well RDA works for their communities. The test did identify a few areas where there seemed to be some unanimity, at least among the testers, about certain rules that did not work well.

From the test findings it appears that the motion picture and sound recording communities found chapter 17 to be particularly problematic and had suggestions for changes. It is recommended these communities work together to submit proposals to the JSC for changing RDA in this area. If done promptly, the needed changes could potentially be in place prior to the 2013 implementation. The recent publication of the OLAC/MLA test group discussion summaries could provide a good starting point for these community discussions.

The rare book community has identified rules for describing extent as one area that seems particularly cumbersome for these materials.  Again, the Coordinating Committee recommends that proposals for changing RDA in this area be submitted promptly to the JSC.

The CONSER community has already begun looking at the usability of the "provider neutral" and "single-record approach" in an RDA environment, as well as some other aspects of the CONSER standard record that are in conflict with certain RDA rules.  They should continue this work and submit proposals to the JSC for changes CONSER believes are needed for serials cataloging.

What still remains unclear is to what extent the specialist communities will adopt RDA, or continue to use their existing manuals as is, or adapt their current guidelines to be more compatible with RDA.  If the generalist who uses RDA for the occasional special item in his or her collection follows one set of descriptive practices and the specialist follows a different set, what is the impact on identification and retrieval?  Organizations like OCLC, Sky River, and the PCC should hold discussions with the specialist communities to address these questions.

While specialized communities can develop best practices for use within their groups without submitting rule change proposals to the JSC, the community as a whole will not realize the full benefit of applying a common standard unless the standard itself is changed.  In today's environment, where use of existing copy is an essential efficiency for many institutions, incorporating desired changes into RDA will help ensure that copy from a variety of sources will be as useful and usable as possible.

*Recommendations to Vendors*
The Coordinating Committee views the vendor community as including suppliers of ILS and related products, metadata providers, and utilities.

One of RDA's goals is to be readily adaptable to newly emerging database structures and efficient machine manipulation.  To further this, RDA focuses on the intellectual content, in addition to the physical description, of materials, and the element set and Registry of controlled vocabularies for both content and carrier enable better machine manipulation.  The use of identifiers allows the relationships among entities to be expressed with few or no impediments.

To take full advantage of the identifiers and linked data, a communication format beyond MARC must be developed.  MARC has admirably served the community for nearly 50 years.  Unfortunately, it has reached the end of design life and cannot reasonably accommodate RDA's new approach to relationships and data structures.  Therefore the Coordinating Committee has recommended that prior to RDA implementation, demonstrated progress be made within an 18 to 24 month timeframe on development of a successor to MARC.  Progress will include the identification of stakeholders, key players and experts needed; the identification of tasks and timeline for development; and that development is underway.

The Coordinating Committee is mindful that most vendors and developers exist in a commercial environment and that decisions on product development must involve a weighing of financial expense against possible return.  It is understandable that development can take some time, however, that should not preclude the commencement of work on applications to take advantage of RDA.  The Coordinating Committee believes that it is crucial that vendors, developers, and metadata utilities play a role in the development of a new communication format.  Not only will a new format play a role in new applications, but vendors can contribute their experience and vision in its development.

A phased adoption of RDA gives vendors an opportunity to plan and deploy new features and products in an orderly manner.  The Coordinating Committee recommends that in the near term, vendors who haven't already done so explore how to permit users to easily link out to the *RDA Toolkit* from within the cataloging interface.  This will enable libraries to easily integrate access to the *Toolkit* into their workflow.

Additionally, integrated library systems changes should include, if they have not already, the new MARC tags such as the 336-338, relationships in $i of bibliographic 7XX fields, $e relationship designators, carrier attributes, as well as many of the new authority fields that might reference a vocabulary, or be tied to other authorized lists (e.g., the country of residence/birth might be tied back to the authority record for that place).  The test found that existing systems were capable of both ingesting and producing MARC records containing the new RDA related elements.  This capability however merely meets the minimum changes related to RDA.

There are many opportunities for enhancements, new features and products and the Coordinating Committee suggests just a few below.

For public interfaces:
- Provide ways to meaningfully display content, media and carrier types.
- Develop displays that support FRBR relationships. The relationships should be clear and easy to follow for public users.
- Support an increasing mix of RDA and AACR2 records by ensuring that records created according to either set of rules are appropriately indexed and displayed.
- Provide a way for displays to accommodate the same information taken from different fields in AACR2 and RDA records.

For input systems or cataloging modules/interfaces:
- Support for relationships between entities and RDA vocabularies, either from RDA or other semantic Web resources.
- Inclusion of vocabulary lists to enable precise and efficient entry of terms.
- Validation profiles to ensure that core elements appropriate for an institution are present, for easier data entry.
- Use of buttons and checkboxes to more easily handle on/off elements.
- Ways to connect or link an authorized element (e.g., a creator, work, expression) to the resource description so that re-typing text strings is no longer needed.
- Easy input of identifiers to obviate the need for typing long text strings (and for typing identifiers).
- Support for FRBR relationships by deriving work and expression records from existing AACR2 records.
- Support (or better support) for global update of headings since it is likely there will be heading changes needed from AACR2 to RDA.
- Future applications where linked entities will only require one change (e.g., to the creator 'record' that is linked to any work/expression/manifestation records such that the actual attributes of the creator are only stored in one place.)
- Systems that can ingest metadata in a variety of formats.

In the longer term, vendors can be exploring innovative approaches and methods for exposing RDA data to the Web.

## Background

On October 22, 2007, the British Library, Library and Archives Canada, Library of Congress, and National Library of Australia issued a joint statement announcing their intention to coordinate their implementation of RDA, expected at that time by the end of 2009 (see Appendix B).  By the beginning of 2008, however, there was growing concern among many within the bibliographic control community in the U.S. about whether RDA (*Resource Description and Access)*, the new cataloging instructions proposed to replace *the Anglo-American Cataloguing Rules, 2nd ed. 2002 rev.* (AACR2R) should be adopted.  On January 9, 2008, the Library of Congress Working Group on the Future of Bibliographic Control, a group of library and information professionals, submitted its final report to Deanna Marcum, Associate Librarian of Congress for Library Services.  The Working Group had been charged by Dr. Marcum with developing a set of recommendations on how the library community could better take advantage of metadata and recommending steps the Library of Congress should take to implement the recommendations.  The Working Group's report, *On the Record,* urged suspension of development and implementation of RDA until a business case could be made for adopting the new instructions.

The report raised the following concerns:
- the promised benefits of RDA were not discernible in the drafts
- it was unclear how well metadata created using RDA  would work with existing metadata
- development of systems to support the adoption of FRBR (Functional Requirements for Bibliographic Records) was not proceeding in parallel with the adoption of RDA
- perceived benefits of adopting RDA might be outweighed by its costs.

On March 10, 2008, Dr. Marcum met with the leadership of the National Agricultural Library and the National Library of Medicine to discuss concerns of the two libraries that RDA was being adopted without having first been subjected to a systematic review of its impact on library operations and bibliographic control.

On May 1, 2008 the Library of Congress, National Agricultural Library and National Library of Medicine issued a joint statement (see Appendix A) in which they stated that as national libraries they had a "collective responsibility to assist the U.S. library and information community to remain relevant and vital in an increasingly digital future."   In that role they would coordinate a U.S. test of RDA.
The decision to implement would be based upon the positive evaluation of RDA's utility within the library and information environment and criteria reflecting the technical, operational and financial implications of the new code.  Included would be:
- an articulation of the business case for RDA, including benefits to libraries and end users
- cost analyses for retraining staff and re-engineering cataloging processes.

The three libraries agreed that they would make a joint decision whether or not to adopt.  They also acknowledged the efforts of the Joint Steering Committee to create RDA and supported continuing collaboration with international partners.

On June 9, 2008, members of the U.S. RDA Test Coordinating Committee met for the first time.  They agreed on the scope and guiding principles of the national test, including a commitment to analyze the benefits and drawbacks of implementation based on objective and empirical evidence wherever possible.  The test would assess the technical, operational and financial feasibility of adopting RDA.  The three libraries agreed to solicit test participants from within the U.S. library community to serve as testers and seek a dialogue with system vendors in order to share information about the test and how the use of test records might assist them in developing systems that support RDA and FRBR.  The three libraries also agreed to serve as a clearinghouse for libraries to share the results and information about the U.S. RDA Test and future implementation plans.

*Criteria for Evaluation*
The Coordinating Committee developed a matrix of the various criteria that would be evaluated by the test.  They included:

General criteria:
- Can catalogers easily use RDA to create records?
- Can system vendors use RDA records created in existing systems?
- Can users find what they want based on the data provided?
- Can libraries use RDA to provide access to a broader range of materials?

Technical feasibility:
-  interoperability of records created using RDA with current AACR2/MARC bibliographic and authority records
- identifying necessary changes to MARC 21 or future metadata schema
- assessing the functionality and integration of the *RDA Toolkit* with other cataloging resources and tools
- identifying necessary system development prior to implementation of RDA

Operational feasibility:
-  impact of using the *RDA Toolkit*  as opposed to current cataloging tools and resources
- impact of RDA-created data on end user access

Financial feasibility (cost/benefit):
- cost of training
- cost of altering workflows
- cost of moving from a paper-based to Web-based subscription support system for managing cataloging documentation
- conversion costs for existing data, if necessary.

*Testing Timeline*

Testing was planned as a nine-month project, although the work actually spanned a full year.  The formal test period would last six months.  The first three months was to be allotted for participants to either begin learning about RDA or enhancing their existing knowledge and familiarizing themselves with the *RDA Toolkit.*  The second three months was to be devoted to record creation (explained in the Methodology Section of this report).  Once the record creation portion of the test was completed, the next three months were to be set aside for the Coordinating Committee to evaluate the test results and report to its respective managers.  The final three month period was to be used to make public the report and recommendations.  The formal testing period was originally planned to begin in March 2009, but was postponed until July 1, 2010 due to several lengthy delays in the release of the *RDA Toolkit*, which was finally made available to the cataloging community on June 23, 2010.  The American Library Association generously provided participating test institutions with free access to the *RDA Toolkit* during the formal test period.

*Meetings*

The Coordinating Committee held an initial meeting for potential participants during the American Library Association Midwinter Meeting in Denver, Colorado, on January 24, 2009.  The 23 institutions that formally partnered with LC, NAL, and NLM in the test were selected in May 2009.

Face-to-face meetings with test participants were held at each subsequent ALA Annual Conference and Midwinter Meeting.  These meetings were open to all ALA attendees.  The Coordinating Committee used these sessions to provide updates about the development of the test methodology and solicit tester feedback.  As well, separate meetings were held with the vendor community beginning with  ALA Annual Conference in June 2009 and continuing at each Annual Conference and Midwinter Meeting following.  On June 28, 2010, the Coordinating Committee hosted a special meeting at the Library of Congress for one representative from each participating test institution to go over testing plans in detail.

*Training*

The Coordinating Committee hosted a one day formal "train the trainer/tester" session before ALA Midwinter Meeting on January 15, 2010 at Northeastern University in Boston.  One or two participants from each of the 26 participating test institutions were invited.  This training session was then made freely available as a nine-module Webcast on the LC Website
http://www.loc.gov/bibliographic-future/rda/trainthetrainer.html

LC also made Webcasts of internal training available to the wider community.  See the bibliography in Appendix G for the full listing.

*Communication*

The Coordinating Committee established a Website (http://www.loc.gov/bibliographic-future/rda) to communicate information to the library and information communities about the test and the testing

process.  As well, Coordinating Committee members provided progress reports about the test at American Library Association meetings and numerous other fora.  The Library of Congress established an RDA help desk via email (LChelp4rda@loc.gov) to answer questions from test participants and the cataloging community at large.

In addition, a collaborative project communication Website, Basecamp, was utilized to facilitate communication and information sharing among the Coordinating Committee, test partners, and vendors.

On December 6, 2010, the Coordinating Committee issued a statement both describing the status of the test and addressing concerns within the cataloging community that headings on RDA records did not match the AACR2 form of entry in the National Authority File.

## Methodology

*Objectives/Evaluative Factors*

To determine how well RDA met its goals in practical applications, the Coordinating Committee drew up a list of factors to be evaluated by the test. Developing these evaluative factors was one of the first tasks the Coordinating Committee accomplished. Early on, the Coordinating Committee determined that these factors would serve as the framework for the test and the analysis that would occur at the end of the test. To that end, careful attention and lengthy deliberation were given to identifying the factors and the associated components needed to ensure that appropriate and sufficient data were produced for the analysis. A further cross check was done at the beginning of the analysis phase to assure that the survey questions adequately covered the factors and would supply expected data.

The evaluative factors consisted of questions that were then grouped into eight categories. The Coordinating Committee determined which survey questions would inform answers to the evaluative factors questions and also identified the following components to track:

- level of personnel involved
- source of the data collected
- nature of the factor
  - ➢ objective (quantifiable)
  - ➢ subjective (impressionistic, e.g., deduced from comments to survey questions)
  - ➢ local environment driven (e.g., determined by needs of a local institution or its constituents)

The resulting eight categories for the evaluative factors were
- record creation
- record use
- training and documentation needs
- use of the *RDA Toolkit*/RDA content
- systems and metadata
- technical feasibility (later merged with systems and metadata)
- local operations
- costs and benefits

To facilitate understanding the Coordinating Committee's analysis, the "Findings" section later in this report is structured according to these categories.

*Assumptions*

Several decisions/assumptions were made prior to the design of the test.
- Test results would be shared with the community.

- Only the *RDA Toolkit* in its initial release would be tested, not any beta versions.
- RDA would be tested in existing library systems.
- All data produced in the test would be freely available to members of the U.S. information community for use or re-use.
- In addition to formal testers, others would be invited to use the U.S. RDA Test methodology and to share their test results with the U.S. RDA Test Coordinating Committee and the community.
- System developers would be invited to explore ways in which RDA records behave in existing library systems and/or how RDA might impact development of future systems.
- The analysis of the test results would consider both qualitative and quantitative reports from testers about their experiences in using RDA, compared to the codes they currently apply.

*Selecting Test Partners*

The Coordinating Committee wanted to ensure that the test represented the spectrum of U.S. libraries as well as possible.  It was recognized, however, that there would have to be limits on the number of participants, as the Coordinating Committee had limited resources to review test data and ALA Publishing could not be expected to provide an unlimited number of free accounts to the *RDA Toolkit*.  Based on information from a specialist in statistical analysis at NLM, it was determined that a set of at least 750 records would provide statistically valid results.  Based on this determination, the Coordinating Committee estimated that 20 participants creating two records each for 20-25 common resources would be sufficient.

There was a great deal of interest in the community and a call for test partners drew more than 95 applicants.  Since there were so many excellent applications, ALA Publishing graciously agreed to increase the number of temporary licenses to *the RDA Toolkit* that could be permitted during the test period and the final number of testers was 26 (23 test partners plus the 3 national libraries).  The Coordinating Committee's goal was to be as inclusive as possible in terms of size and type of cataloging units, formats to be cataloged, and systems and rules used in the test.  The final selections included representatives of many types and sizes of libraries—national, government, academic, public, school, special, as well as archives, museums, book vendors, systems developers, library schools, and consortia and funnels.  The Coordinating Committee also had to ensure that the test covered a very wide range of cataloging systems, OPACs, communication formats/schemas, and types of materials/resources cataloged.  To be sure that the test would compare RDA to the full range of cataloging rules that are currently in use in the U.S., it was the intention to select partners that used *AACR2, AMIM (Archival Moving Image Materials), DACS (Describing Archives: A Content Standard), CDP (Collaborative Digitization Project), APPM (Archives, Personal Papers, and Manuscripts), CDWA (Categories for the Description of Works of Art), DCRM (Descriptive Cataloging of Rare Materials), GIHC (Graphic Materials: Rules for Describing and Historical Collections),* and *CCO (Cataloging Cultural Objects).*  Consortial groups of catalogers from Music Library Association/OLAC (Online Audiovisual Catalogers) ensured good representation of AV format cataloging, and a group of GSLIS educators and

their students represented library and information science schools.  The GSLIS group was especially valuable for insights from those who had never cataloged using AACR2 or other earlier standards.

The test partners were:

> Backstage Library Works
> Brigham Young University
> Carnegie Library of Pittsburgh
> Clark Art Institute
> College Center for Library Automation (Florida)
> Columbia University
> Douglas County Libraries, Colorado
> Emory University
> George Washington University
> GSLIS Group
> Library of Congress
> Minnesota Historical Society
> Morgan Library and Museum
> Music Library Association/OLAC
> National Agricultural Library
> National Library of Medicine
> North Carolina State University
> North East Independent School District, San Antonio
> Northeastern University
> OCLC Metadata and Contract Services
> Ohio State University
> State Library of Pennsylvania
> Quality Books
> Stanford University
> University of Chicago
> University of North Dakota

*Informal Testers*
Because of the large interest in the testing and the inability to include everyone who wanted to participate, additional individuals and groups were allowed to serve as informal testers, who could submit either records cataloged using RDA and/or a survey about their reactions to and/or experiences with RDA.  The list of informal testers can be found in Appendix D.

*Test Design*
The primary testing methodology evolved from the testing that was done prior to the adoption of the CONSER Standard Record (CSR), which consisted of pairs of catalogers creating bibliographic records for a selected set of records.  Each CONSER cataloger created half of the titles in the current format and the other half in the proposed new format, so that time comparisons could be made.  Users at

each of the test institutions then reviewed the records and rated them on usability and understandability. While the CSR testing was on a much smaller scale and for a much shorter time frame, the U.S. RDA Test Coordinating Committee believed the concepts could be adapted for the U.S. RDA Test. The CSR methodology did not scale as well as would have been desired, however. As a general principle, the Coordinating Committee tried to affect normal workflows at an institution as minimally as possible. With the exception of the Common Original Set, libraries followed their normal cataloging practices regarding level and number of staff working on a record, creation of authority records, working in their local database or in OCLC, etc. For the Common Original Set, only bibliographic description and, optionally, authority work were performed; no subject analysis or classification was done.

*Common Original Set*
The RDA test record creation had multiple components. The first part involved the Common Original Set or COS—a set of 25 titles that were cataloged twice by every participating institution, once using AACR2 (or the usual cataloging standard normally followed by the test institution) and once using RDA. Different catalogers within the institutions did the AACR2 and RDA records (i.e. no one cataloger cataloged the same resource twice). These records provided comparative time data between using current rules and RDA and could be reviewed for overall consistency and usability. The Coordinating Committee attempted to choose formats that would be found in almost every type of library, but deliberately excluded resources such as treaties, maps, and music scores from the Common Original Set. One criterion for selecting test partners was the types of resources they indicated they would catalog, so the Coordinating Committee made certain that test partners that did catalog legal materials, maps and scores and other types of specialized material were included so these resources would be part of the Extra Original Set, described below.

The Coordinating Committee recognized that some of the COS record creators had to create records for resources with which they were not familiar, but believed this was actually a benefit. Overall one would expect experienced catalogers to be faster using a set of rules with which they are already familiar, but if they also had to use chapters of AACR2 with which they were unfamiliar, that could provide a fairer comparison with new rules in RDA.

The Coordinating Committee created a large spreadsheet listing all the formats it hoped to include as part of the Common Original Set and a listing of attributes that would be likely to be recorded differently in AACR2 vs. RDA catalog records (e.g., manifestations with only copyright dates, presence of more than three authors, work lacking a collective title, etc.). The ultimate goal was to find resources that exhibited as many of the attributes as possible and be sure there were records in each of the desired formats. The bulk of the test titles were selected from material in the U.S. Copyright Office within LC, although other participants contributed some of the e-resources used for the Common Original Set. Selected sources of bibliographic information from each tangible resource were scanned and the digital surrogates were mounted on Basecamp and LC's Website. For each electronic resource the URL was supplied on those Websites. The 25 Common Original Set titles were identified by letter: A-Y. For testers who worked in WorldCat, OCLC created very brief records for

each COS title, identified only by a generic title field, e.g., Common Original Set Record A.  Testers completed institution records from the brief records that OCLC had input.

*Common Copy Set*
Because the Coordinating Committee  recognized that a large proportion of cataloging is actually done from copy, five artificial common copy cataloging set titles were also provided to give libraries an opportunity to think about how they might want to treat copy records (both AACR2 and RDA copy) in their libraries and see how much time various options might take.  The records for the Common Copy Set were made available on OCLC, generically identified as RDA test records AA-EE**,** and surrogates were supplied on Basecamp and LC's Website.

*Extra Original and Extra Copy Set*
In addition to the Common Original Set, each participating institution was expected to create RDA records as part of its normal workflow for at least an additional 25 original records, known as the Extra Original Set (EOS).  The EOS served two purposes.  It ensured that the testing included as many formats and genres as possible and provided a large corpus of records that system vendors and other interested parties could use for experimentation and development.  Libraries who decided to edit copy as part of their normal workflow could also submit their edited records as part of the Extra Copy Set.  Several libraries submitted Extra Copy Set records as part of the test, although it proved to be impossible to separate the Extra Set records into original vs. copy upon receipt at LC.

*User Review*
Each participating institution was asked to show the RDA records to their users, either individually or in groups and elicit feedback.

*Surveys*
Four surveys were drafted with questions relevant to each of the test sets–Common Original Set (COS), Common Copy Set (CCS), Extra Original Set (EOS), and Extra Copy Set (ECS).  Record creators were expected to fill out a survey for every record they created as part of the test.  The surveys were designed to elicit both objective information (the type of record , how long it took to create, how much consultation time was needed, how many authority records were needed, etc.) as well as subjective data (familiarity with the format being cataloged, what problems were encountered, what was unclear in the rules, problems using the *RDA Toolkit,* etc.).

In addition to the record-by-record surveys, three additional surveys were created.  A Record Creator Profile Survey (RCP) elicited demographic information about each record creator (experience, training in RDA, etc.).  A Record User Survey (RU) was designed to capture information on the usability and understandability of the records.  An Institutional Questionnaire (IQ) was designed for management and focused on the impact of RDA implementation in their institution.

Because of the large interest in the testing and the inability to include everyone who wanted to participate, a final survey for Informal U.S. RDA Testers was created (IT).

During the first three months of the test, draft versions of the surveys for formal testers were sent out to selected test participants and revisions were made based on their feedback.  The data from these eight surveys are the basis for many of the findings and conclusions in this report.  The survey questions and a link to the responses are found in Appendix C.

*Test Records Collection*
Much thought was given as to where and how test records should be stored.  LC agreed to create a local site to store all the Common and Extra Set records and make them available to anyone desiring to see the records or download and experiment with them.  The Coordinating Committee still had to determine how participants would submit their records to LC.

The Extra Set records needed to be considered separately from the Common Set.  As several  of the evaluative criteria dealt with how well RDA records could co-exist with pre-RDA records in a database, there was value in allowing the Extra Set records to be submitted to a shared database like OCLC.  This was particularly the case as many test participants used OCLC as their cataloging input method.  Allowing testers to continue to use OCLC would mean minimal disruption to their usual cataloging workflows and keep participants from having to do double inputting of records.  LC could then harvest the majority of records from OCLC.  Other libraries that did not do their cataloging on OCLC were given options such as e-mailing or using FTP to make their records available to LC.  LC staff worked with libraries to gather all the test records.

The Common Set records were more problematic.  The Coordinating Committee recognized that it needed to minimize disruption to the cataloging community as a whole.  For the Common Set titles, where there would be 52 records created for each title, the Coordinating Committee wanted to be sure those records were not exposed to the wider community, but still allow libraries to follow their normal record creation process.  The Coordinating Committee had several conference calls with OCLC staff, who suggested providing institutional accounts for test participants, which would allow them to create unique versions of each record that could hang off an existing master record.  By titling the Common Set records with generic titles like "RDA test record A," "RDA test record B," etc., OCLC ensured that these records were unlikely to be encountered by others nor cause problems in the shared environment.  The Common Set test records were supposed to be locked down so no edits could be made to the master records, although a few times during the test period, the locks expired and libraries accidentally changed the master records.  OCLC always quickly restored the original versions.

OCLC developed guidelines for the test period (see Appendix I) that were applicable both for test participants and any libraries that chose early adoption of RDA.

Another difficult issue to resolve, once it was decided to allow testers to put Extra Set records in OCLC, was how to deal with authority records.  An important part of the test was to determine how different RDA authorized access points would be from AACR2 headings and what impact this might have on cataloging time and database retrieval.  The Coordinating Committee believed it was very

important that the RDA records being created were "pure" RDA records in both their bibliographic description and access points.  The Coordinating Committee, however, did not want to make changes to existing AACR2 authority records that would trigger global updates in OCLC or other systems.  Again, there were extensive conversations with OCLC staff, the NACO Nodes, and the PCC, and it was agreed that while brand new authority records could be created using RDA rules and stored in the LC/NACO Authority File (LC/NAF), existing AACR2 headings would have 7XX fields added to them to record the RDA form of the heading, rather than having any 1XX fields changed.  After completion of the test, records with 7XX fields would be evaluated.  If RDA were adopted, it would be determined which headings would need to be changed.  If RDA were not adopted, the bibliographic records with those 7XX fields could be flipped to the AACR2 heading and the 7XXs deleted.  During the test period, the decision to use the 7XX form of the name in RDA records, while still coding these records as "pcc", created some controversy in the cataloging community.

Collecting authority records for the Common Set records was also challenging.  No one wanted to see multiple duplicate records in the LC/NAF, so for those libraries not sending records directly to LC,  it was decided to store these headings in each library's save file in OCLC, and LC retrieved the records from the save files.

See Appendix D for a summary statement of the numbers and types of records collected for the Common Sets and the Extra Sets and the collecting methodology.

*Record Review and Assessment*
The 25 titles in the Common Original Set were the only titles for which the Coordinating Committee had access to surrogates of the publications themselves (the PDF surrogate pages provided to testers) and the only titles for which a comparison could be made between the same title cataloged under current rules (largely AACR2) and RDA.  For this reason, the Coordinating Committee determined that only records created for the COS—ca. 1,200-- could be given in-depth review.  The Coordinating Committee devised a system to provide full review of all COS records.  The number of additional test records created (EOS and ECS) far exceeded the Coordinating Committee's expectations and ability to review or analyze each record.  Review of records from these Extra Sets focused on those formats that may be particularly affected by changes in RDA, e.g., music, law, rare books, cartographic material, non-MARC data.  The surveys associated with the Extra Set records were analyzed to look for comments about the overall experience of creating the record and difficulties encountered along the way.  When needed, the actual record associated with the survey was retrieved, to see if the accuracy of the record created was affected by the difficulties reported.

*COS Record Review and Analysis*
To gauge the ability of testers to create "acceptable" RDA records, the Coordinating Committee determined that RDA and AACR2 "benchmark" records were needed for each of the COS titles and created these.  Although participating institutions were instructed to catalog the COS using RDA and their usual rules, only one COS record was created using a rule set, AMIM, other than AACR2; therefore, the Coordinating Committee only created RDA and AACR2 benchmark records.

To create the benchmark records, the Coordinating Committee cataloged each title in the COS using RDA and again using AACR2 and determined RDA Core, RDA Core Plus (i.e., RDA Core, plus additional elements required by the Library of Congress), and AACR2 benchmark records for each COS title. Both RDA Core and RDA Core Plus benchmark records were created because the test instructions did not specify which RDA elements to provide and it appeared that most RDA records created for the test went beyond the RDA Core elements. The RDA Core Plus benchmark records followed the Library of Congress Policy Statements (LCPSs) that had been distributed before the test and included as part of the *RDA Toolkit).* AACR2 benchmark records were created following AACR2 level 2, using the LCRIs, BIBCO standards, and CONSER standards where applicable, following most commonly used U.S. practices.

In determining guidelines for the record review, the Coordinating Committee members realized that both AACR2 and RDA included so many options and so much room for cataloger judgment that there could not be only one correct way to catalog any particular title. For this reason, benchmark records in many cases included multiple valid options for some fields.

The records for the 25 COS titles created by the participants were divided for review among the three national libraries, with every third record going to one of the libraries: eight to LC, eight to NAL, and nine to NLM. The Coordinating Committee devised a spreadsheet and scoring system that coded data in each of the variable fields in the record as: A (acceptable core element), M (missing core element), AA (additional acceptable element beyond core), RE (rule error core element), ARE (rule error additional element), ME (MARC error core element), AME (MARC error additional element). Because so many testers reported difficulty encoding RDA in MARC, the Coordinating Committee decided to note MARC errors but keep track of them separately from rule errors. Separate worksheets were used for the records created by the group of library school students (GSLIS), so those records could be evaluated separately from those created by practicing catalogers.

Reviewers added notes to their spreadsheets to capture particular information about individual records. They also summarized their overall findings for each title, noting patterns of errors, situations that were problematic for a cluster of record creators, and situations where further training in the community was needed. These summaries, plus the quantitative and qualitative data from the surveys, were used to determine the findings reported in the section of this report, Findings: Record Creation.

*Survey Data Collection and Analysis*
From the eight distinct surveys that were created using the SurveyMonkey commercial survey creation software, a total of 8509 completed surveys were received. Although the original deadline for survey completion was December 31, 2010, the survey deadline was extended. All surveys were received by January 31, 2011.

The surveys received can be categorized and quantified as follows:

U.S. RDA Test Survey Categories

| Survey Title | Abbreviation | Number of surveys | Institutions that did not respond |
|---|---|---|---|
| Institutional Questionnaire* | IQ | 29 | 0 |
| Record Creator Profile | RCP | 219 | 3 |
| Record Use Survey** | RU | 163 | 4 |
| Common Original Set | COS | 1200 | 0 |
| Extra Original Set | EOS | 5908 | 1 |
| Common Copy Set*** | CCS | 111 | 7 |
| Extra Copy Set*** | ECS | 801 | 7 |
| Informal Testers Questionnaire | IT | 80 | not applicable |

* The GSLIS Group submitted four IQ surveys.

**Some testing institutions did not have users that could be surveyed.

*** Work on copy records was optional.

**Figure 1. Survey categories**


*Archiving the Original Collected Data*

To preserve the original data, the most desirable strategy was to clone the completed surveys and retain them in their original state and then edit copies of the surveys to clean up irregularities in the data that resulted from varying interpretations of instructions and questions.  Staff at SurveyMonkey indicated, however, that cloning completed surveys was not possible so the completed surveys were preserved in PDF form.  Data from each survey were exported into and cleaned up in individual Excel spreadsheets.  Original data were also preserved in spreadsheets for later use by the community.


*Data Cleanup*

Despite the surveys' being piloted and survey instructions clarified as a result, several categories of problematic data were identified in the collected survey data.  Answers to some survey questions were provided in ways that were not amenable to statistical analysis.  For example, questions that asked respondents to report time needed to create a record asked that the time be reported in minutes as a whole number.  Nonetheless, some respondents added words like "minutes" or "hours" or reported the time as a fraction of an hour.

The Coordinating Committee decided to clean up the data wherever possible (for example, by removing the word "minutes" from answers that were supposed to be whole numbers only) but after preserving the original data.  Further examples of data that were modified include cases where respondents were given a list of choices that included, "other, please specify."  The Coordinating Committee determined that the responses could be assigned to an existing category or grouped with

similar responses into a new category. Data were also adjusted, when possible, in the "record by record" surveys (the surveys completed after creation of each catalog record) in those cases where multiple choices were possible for questions that logically should have had only one answer, e.g., what was the script of the item being described?, or what was the carrier type of the item being described?. In these cases, the record in question was examined and the inappropriate choice was deleted. A small number of surveys where the data could not be interpreted or reconciled had to be excluded.

*Data Analysis*
The Coordinating Committee wanted to obtain both quantitative (numerical) and qualitative (opinions and observations) data from an analysis of the survey responses. For purposes of analysis, data from the surveys can be regarded as falling into three main types: calculated data about time needed for record creation and consultation broken down in various ways by staff demographics and characteristics of the item cataloged; data summarized from answers to multiple choice questions; and data drawn from free-text responses. Each of these types of data was obtained and analyzed by somewhat different means.

In some cases–noted in the findings–the data that could be obtained from the surveys were somewhat different than what was anticipated when the questions were originally conceived. For example, although the Coordinating Committee intended to gather data about how long it took to create an RDA authority record, the relevant survey questions asked for how long it took to do "authority work" for each title. Authority work often includes creation of multiple authority records.

The most straightforward data were obtained by using SurveyMonkey's summary analysis for multiple choice questions. For each of these kinds of questions, the software provided the response percentage and the response count, as well as a count of how many respondents skipped the question. Individual responses could also be viewed, including any free-text comments. SurveyMonkey also provided the ability to present data from multiple choice questions in chart form and to cross-tabulate data from within one survey. It was not possible, however, to cross-tabulate data between surveys, nor was it as easy to clean up data from within the native survey database. For this reason, SurveyMonkey's summary analyses were largely used to provide answers only for single multiple choice questions.

In order to more easily calculate and cross-tabulate data among the surveys, the cleaned-up data from the eight spreadsheets were combined into an Access database on which queries could be run. To obtain numerical data, the Coordinating Committee worked with an IT specialist at the National Library of Medicine to request queries and suggest strategies to obtain desired data. For most of the numerical data, the Coordinating Committee requested the average, mode, median and numerical range of the responses. The Coordinating Committee also requested some of these data in the form of charts.

The most challenging data to analyze were the free-text responses, which were unexpectedly lengthy. Few of the responses to the most general questions, e.g., "Please supply your overall opinions of RDA, if you wish," were less than 5 or 6 lines long; two of the responses to this question were each two pages long. Several different approaches were taken for analyzing the free-text responses. An upgraded version of SurveyMonkey could display data as tag clouds and could provide a list of the 27 most frequently occurring words in each response. Filtering on specific words was also possible. The variety of potential ways of expressing the complex information sought by many of the questions, however, rendered these text analysis tools less useful than anticipated. Other text processing approaches were briefly explored, such as the Centers for Disease Control and Prevention software E-Z Text, but use of that program required more elaborate preparation than the Coordinating Committee had time to undertake, such as the establishment of a formal, tested code book for each question.

The responses were analyzed, either by summarizing the information provided in the responses or by using spreadsheets to code responses according to themes and to characterize responses as positive, negative, ambivalent, or neutral. Finally, the Coordinating Committee read all of the responses to the IQ, RU, and RCP surveys and identified themes. These themes were discussed to ensure consensus and then compiled into a master list that could be drawn upon to support findings in the report. The Coordinating Committee also identified statements in the responses that seemed to express a particular point or represent a common point of view that could also be drawn upon to illustrate findings. Individual Coordinating Committee members or groups of members were tasked with writing particular sections of the report that presented findings mined from the survey data for answers to the questions their section addressed.

## Findings

This section contains a large number of verbatim comments from the surveys. The Coordinating Committee recognizes that some of the comments may not be completely accurate, e.g., a respondent may say certain instructions are not given in RDA, when in fact they are in the text. The Coordinating Committee, however, believes it is important to include these comments, when they represent the comments of several respondents, because they reflect problems with locating or understanding information in RDA. The JSC can use these instances to help them focus on areas of the text that may need revision and the library community can use them as areas in which intensified training may be needed.

## Findings: Community Response

The U.S. RDA Test, the first large-scale U.S. test of a new cataloging code, generated widespread interest in the cataloging community, both in the U.S. and worldwide.

- More than 95 institutions applied to be testers.
- Eighty responses were received for the informal survey.
- From December 2010 through March 2011, the public Web page where the test records were posted was visited more than 3,500 times (note that visitors may not necessarily have downloaded the test records during their visits).
- Many messages concerning the test appeared on various RDA discussion lists and on other cataloging lists.
- ALA meetings and presentations about RDA were given to often-overflowing audiences.
- Coordinating Committee members were invited to speak about RDA or the U.S. RDA Test at numerous conferences in the U.S. and abroad.

Interest in the test raised the profile of RDA, cataloging rules, and catalogers in the library community, provided some stated benefits to testing institutions, but also produced some unanticipated results.

Not surprisingly, discussions at ALA meetings and comments in some test surveys indicated that many institutions felt privileged to have been selected for the test and felt that they had benefitted from their participation. Some reported that staff were energized by the test, and enjoyed the improved communications between librarians and technicians that resulted from test training and the need to confer with each other to make decisions. There were also comments that testing institutions realized benefits from re-examining their workflows and documentation as part of preparing for and conducting the test.

A key question relating to community adoption of RDA was asked of each formal test partner institution and each record creator via surveys completed at the conclusion of the test: "Do you think that the U.S. community should implement RDA?"
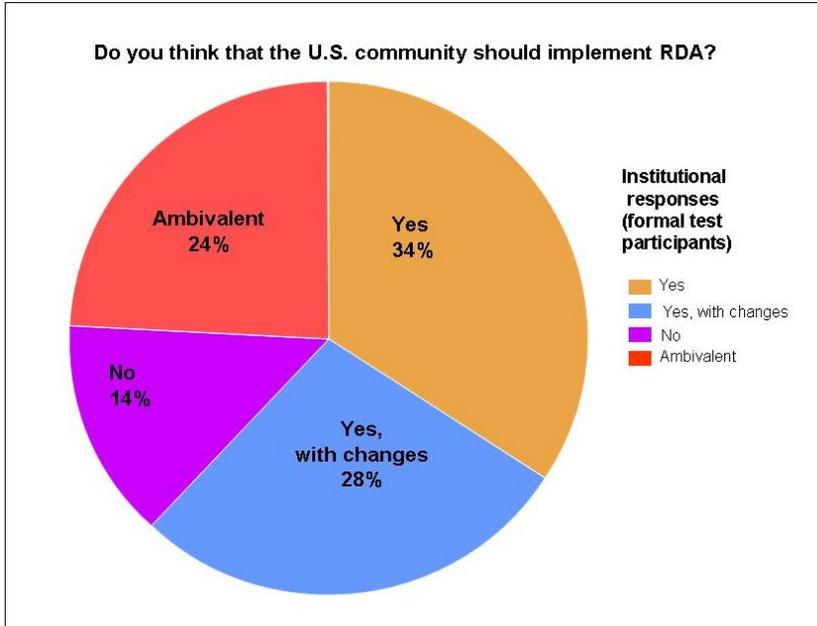


Figure 2. Opinions on RDA implementation, institutional responses
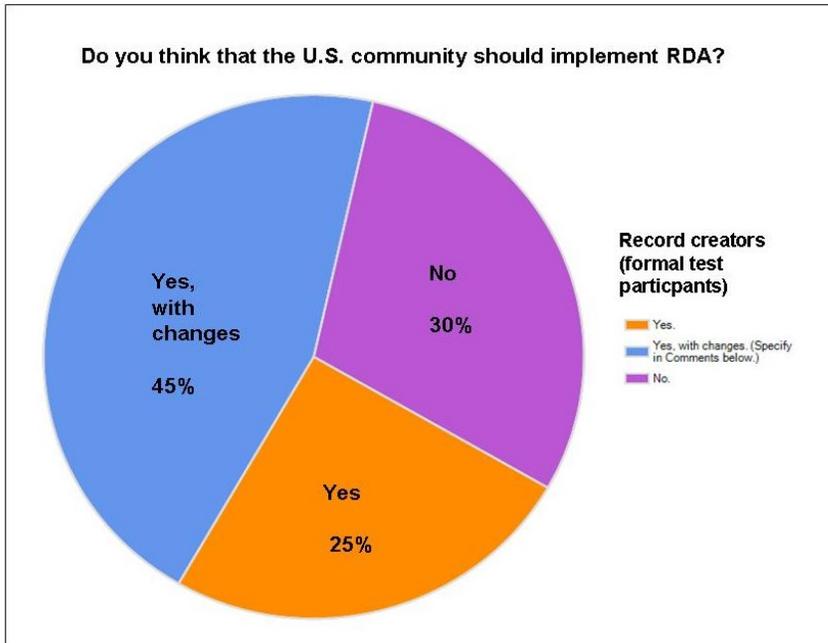


Figure 3. Opinions on RDA implementation, individual record creator responses

The charts in Figures 2 and 3 above show that results differed between the 29 institutional responses and the 208 record creator responses, with record creators choosing "yes with changes" or "no" more often than those who provided the institutional responses.  It is possible that direct experience using

RDA gave record creators more opportunities to identify needed changes.  No option to choose "ambivalent" was provided for the record creators, however.  It is also interesting to note that those with the most direct experience creating RDA records provided responses to this question that fell somewhere  between the more positive institutional responses—that presumably were based on a "big picture" view–and the more negative responses of the informal testers, the majority of whom did not create records.  Since those who submitted informal test surveys represent a mix of individuals and institutions that were not part of the formal test, informal test survey data are discussed in Appendix E.

One of the unanticipated results of the test was that several institutions decided to train all or most of their cataloging staff in RDA rather than limit testing to a small group, as had been expected.  By the end of the six-month formal test record contribution period, a few institutions deemed it easier for staff to continue creating RDA records rather than having to "unlearn" RDA and remember how to create AARC2 records.  This early adoption of RDA increased the impact of a mixed rule environment in the U.S., an environment that had to be taken into consideration during the Coordinating Committee's deliberations about implementing RDA.  In contrast, when AACR2 was published in 1978, LC's implementation was first postponed to 1980, then to 1981 and, in general, the rest of the cataloging community did not implement until that date.

The Coordinating Committee did not fully anticipate the potential effect that participating in the test might have on the outcome of the test.  After one Test Participants meeting at an ALA conference where there were several comments from the audience about the energy and enthusiasm that being a testing institution had produced in their cataloging staff, some on the Coordinating Committee raised the possibility that some positive test results might be due to a "Hawthorne Effect"  This is an effect "similar to the placebo effect in medicine, [that] occurs when people change their behavior simply as a result of being a participant in a research study or because they know that they are being observed.  The behavioral change is usually in a socially acceptable direction."[2]  Certainly, testing institutions and their testers were brought into the spotlight by their status as "official testers." Testers received additional training, and consulted with other testers more intensively than usual; their records underwent review beyond what was usual, and the level of communication with LC increased.  While there is no way in this test to determine the effect of test participation on opinions about RDA, some positive results of the test due to a "Hawthorne Effect" cannot be ruled out.

Overall, the survey comments indicate that the test was a good experience for most of the participants.  The Coordinating Committee hopes that community enthusiasm for the testing process and the results of the test will demonstrate the value of evidence-based decision-making in the library community.  The Lessons Learned section of this report provides the Coordinating Committee's recommendations for improving future tests of this nature.

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[2] "Hawthorne Effect (psychology)." *The SAGE Glossary of the Social and Behavioral Sciences.* 2009. SAGE Publications. 26 Apr. 2011. http://www. »sage-ereference.com/behavioralsciences/Article_n1165.html>.

## Findings: Record Creation

*Record Analysis: Quantitative and Qualitative Overview*
This section reports on findings drawn from the "record-by-record" surveys (COS, EOS, CCS, ECS) and from an analysis of COS bibliographic and authority records.  The findings pertain to the experience of creating original and copy bibliographic records and authority records in both the artificial environment of the Common Original Set (COS) and in the more typical working environment of the Extra Original Set (EOS), where the resources cataloged were part of testing institutions' own receipts. Quantitative data (times, elements in records, etc.) and qualitative data (patterns of errors, training needs, etc.) about original cataloging, copy cataloging and authority work are presented.

The Coordinating Committee appreciates that the testers faced many challenges, including the artificial environment of the test, lack of familiarity with RDA and the *RDA Toolkit,* and working with unfamiliar resource formats.  Although this analysis focuses on errors for the purposes of assessing recommendations for improvements to RDA and the *Toolkit,* the Coordinating Committee was very impressed with the many excellent records created by the testers and the creative solutions employed to overcome the limitations of MARC.

Demographic data about record creators were obtained from the Record Creator Profile (RCP) survey and associated with individual record surveys so that separate data about records created by librarians, support staff, and students could be provided.  Library school students created the highest proportion of records that differed in significant ways from the Coordinating Committee's benchmark records for the Common Original Set.  In order to present data representative of cataloging in a library environment, data from the GSLIS group have been excluded from the Common Original Set RDA and AACR2 comparative time and comparative record analyses.

Since the Extra Original Set (EOS) environment is the more "real-life" environment, most of the data regarding time needed to create original, copy, and authority records are drawn from the 5,908 EOS surveys.  Although the test design only required a minimum of 25 Extra Original Set records from each partner institution, many institutions submitted considerably more than 25 records.  For example, LC created 3,575 Extra Set records; the University of Chicago created 1,321, Brigham Young University 542, and Stanford 464.  EOS survey data enabled the determination that after an initial learning period (determined to be the first 20 records), the time needed to create original RDA records decreased by roughly 50%, as indicated in Figure 5.

Time needed to create records, perform authority work, and consult with others was self-reported and likely subject to a variety of personal approaches to counting and recording the time.  Evidence of this variation is that the range of times for bibliographic record creation from the EOS survey was from 1 – 720 minutes.  Reported cataloging times for the EOS generally included subject analysis (89.3%) but were not supposed to include time needed to perform authority work, or consult about questions and problems, both of which were to be reported separately.

Comparative record review data and comparative times for the creation of RDA records and AACR2 records are drawn from analysis of the Common Original Set (COS) records since those are the only records for which comparative data are available. Although the test design intended to compare records created using both RDA and an institution's "current rules," only one record was created in the COS that used rules other than RDA and AACR2; this was a record created using *Archival Moving Image Materials* (AMIM). Additionally, although it was intended that all test partners catalog every title in the COS once using RDA and once using their current rules, some partners omitted cataloging certain titles and others cataloged some of the titles more than once.

The results of the Coordinating Committee's review of the Common Original Set (COS) bibliographic and authority records created using RDA indicate that "acceptable" RDA records were created by most testers under the prescribed test conditions. During the review of COS records, however, it was noted that FRBR elements for works and expressions–one of the more important differences between AACR2 and RDA–were almost uniformly omitted. Library of Congress Policy Statements (LCPSs) for the test–which were followed by 85% of the test partners–only required inclusion of a limited number of FRBR elements, those that were labeled core–such as the first work expressed in a collection, or an expression that was a primary access point. Even so, the vast majority of test records lacked these elements. Additionally, even though testers often went well beyond core elements in their RDA records, non-core access points for works and expressions were seldom provided, and when they were provided, they often contained errors in coding or terminology.

Creation of authority records during the test was optional since many libraries depend on contractors or the National Authority File for authority work, but failure to create authority records for works or expressions was also observed even when the testers created authority records for other entities. Perhaps one of the reasons for the absence of work/expression authorized access points in RDA records is that AACR2 chapter 25 is optional; some catalogers are not accustomed to giving access points for works and expressions. Many NACO libraries (including LC) only create such authority records now under certain situations according to current policy.

Many record creators indicated confusion about the FRBR Group 1 entities in their surveys, especially work and expression and when or how to include this information in records. One cataloger remarked, "…my suspicion [is] that individual catalogers will routinely fail to agree when it comes down to the practical business of identifying and applying the theoretical FRBR entities….the result will be messy generation of NACO records for the same resource/entity…" while another wrote, "I personally have trouble with the distinction between a work and an expression; when does an expression stop being an expression and become a work unto itself? How can we implement a model when people implementing it have trouble understanding some of its more abstract concepts?"

Because use of copy is so prevalent and so crucial in today's cataloging environment, the Coordinating Committee deliberately also designed the test to include two copy sets: the Common Copy Set (CCS) and the Extra Copy Set (ECS). It was anticipated that dealing with copy created according to a new set

of rules would require policy decisions about whether and how copy should be updated and that the test could help institutions think about these decisions.  Some data from copy records are presented, including a chart showing which elements were updated on copy records (see Figure 7).  Work on the copy sets was optional, however, and seven institutions did not participate in this part of the test.  Only limited conclusions can be drawn from these data.

*Time Analysis*

Charts in this section may include any of the following numbers:
- "Average" = the arithmetic mean.  Averages are sensitive to unusually low "minimum" times or  unusually high "maximum" times
- "Mode" = the most common response
- "Median" = the response in the middle of the range of responses
- "Min" (minimum) = the shortest reported time
- "Max" (maximum) = the longest reported time

*Time Analysis: Extra Original Set*

Question no. 13 of the EOS survey asked testers "How many minutes did it take you to complete this bibliographic record?"  Based on the responses to this question, the average time required to create original bibliographic records using RDA was 31 minutes.  For professional librarians, the average time reported was 32 minutes, while for paraprofessional staff, the average time reported was 21 minutes, and for students this time was 98 minutes.  Other library employees reported an average bibliographic record creation time of 30 minutes.  The times reported for bibliographic record creation do not include time spent consulting with colleagues, or time spent on any aspect of authority work.



## Original RDA Bibliographic Record Creation Time

| | Professional | Support staff | Student | Other Library Employee | Record Creators Overall |
|---|---|---|---|---|---|
| Median | 20.0 | 15.0 | 85.0 | 25.0 | 20.0 |
| Mode | 10.0 | 5.0 | 60.0 | 20.0 | 10.0 |
| Average | 31.6 | 20.7 | 97.9 | 30.2 | 30.9 |
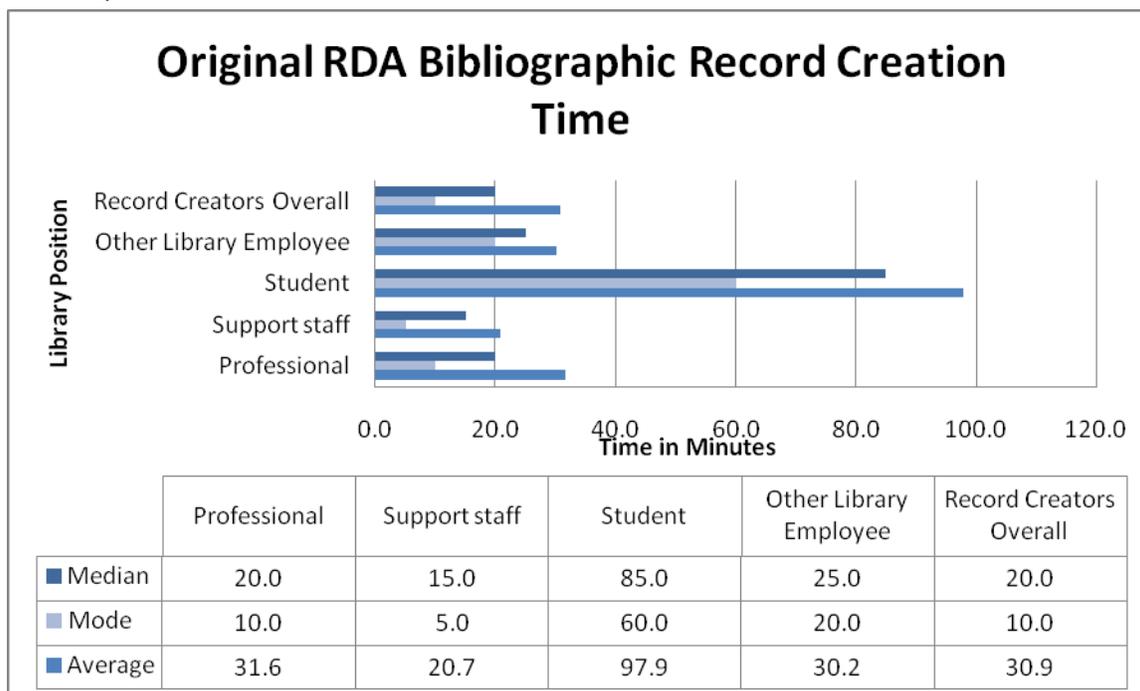
**Figure 4. Original RDA bibliographic record creation time in minutes**

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Survey respondents indicated that the overall average time for cataloging their first ten records using RDA was 53 minutes, while the overall average time for cataloging their 20th record and above was 26 minutes. The mode and median times reported mirrored the general pattern of the average times reported, wherein there is a noticeable decrease in record creation time in later records.

## RDA Learning Curve

| | Professional | Support staff | Student | Other Library Employee | Record Creators Overall |
|---|---|---|---|---|---|
| Records 20+ | 26.7 | 13.3 | 90.0 | 26.6 | 25.8 |
| Records 1-10 | 55.8 | 39.4 | 122.2 | 41.7 | 52.7 |
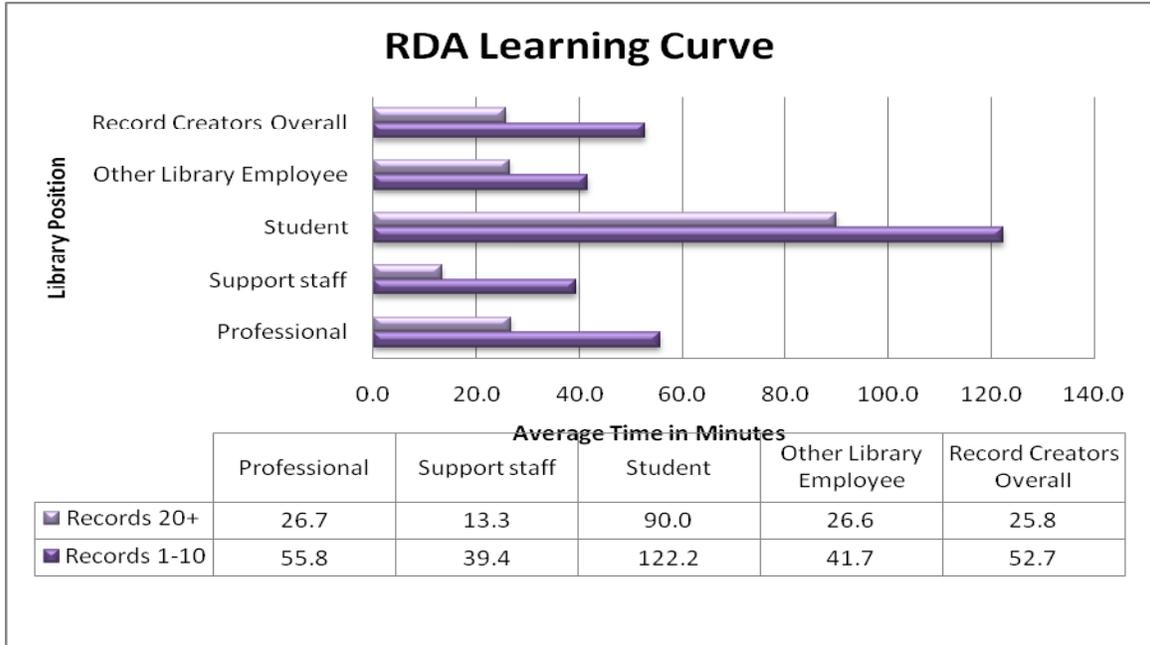
Figure 5. RDA learning curve

*Time Analysis: Extra Copy Set*

Question no. 14 of the Extra Copy Set survey asked testers "How many minutes did it take you to complete/update this bibliographic record?"  Based on the responses to this question, the overall average time reported for copy cataloging in an RDA environment was 30 minutes per record.  For professional librarians, the average time reported was 25 minutes, while for paraprofessional staff, the time reported was 30 minutes.  Students reported an average time of 68 minutes for copy cataloging, and other library employees averaged 31 minutes per record.

## Copy Cataloging Time

| | Professional | Support staff | Student | Other Library Employee | Record Creators Overall |
|---|---|---|---|---|---|
| ■ Median | 15.0 | 21.0 | 40.0 | 20.0 | 20.0 |
| ■ Mode | 20.0 | 30.0 | 20.0 | 10.0 | 10.0 |
| ■ Average | 24.8 | 29.5 | 67.5 | 30.6 | 30.1 |
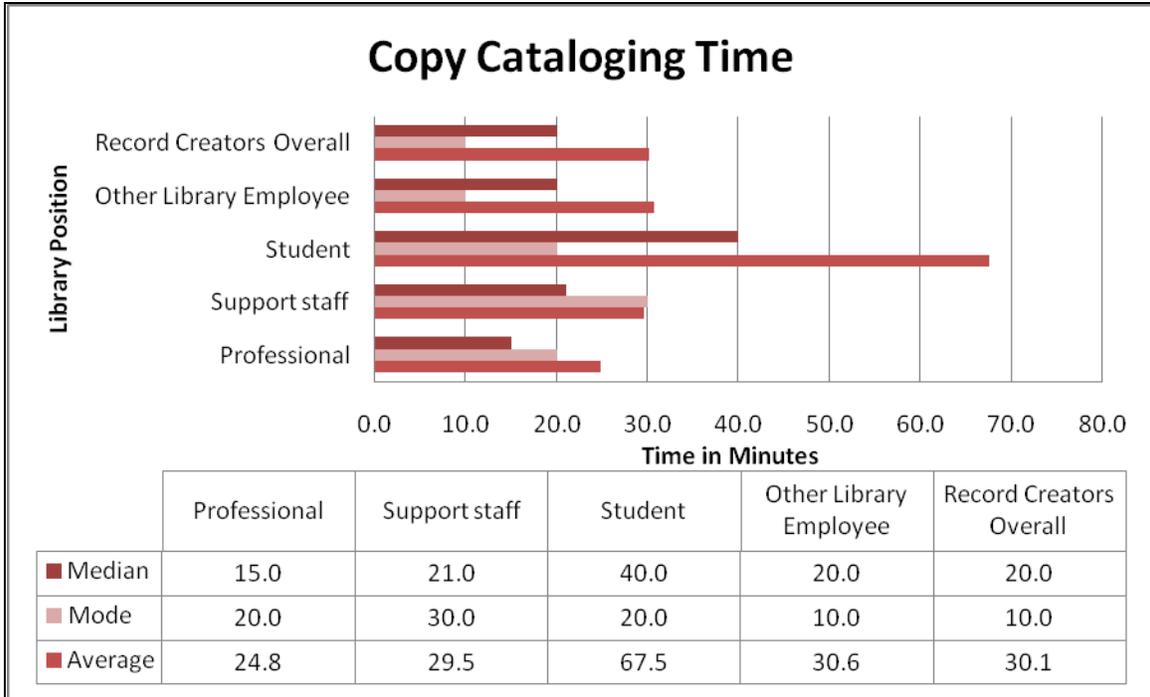
Figure 6. Copy cataloging time (using RDA to produce a copy-cataloged record)

Most participants updated all elements of the record to conform to RDA, which the Coordinating Committee recognizes is unlikely in an actual implementation.  The following chart (Figure 7) illustrates the kinds of revisions to records made during the test period:
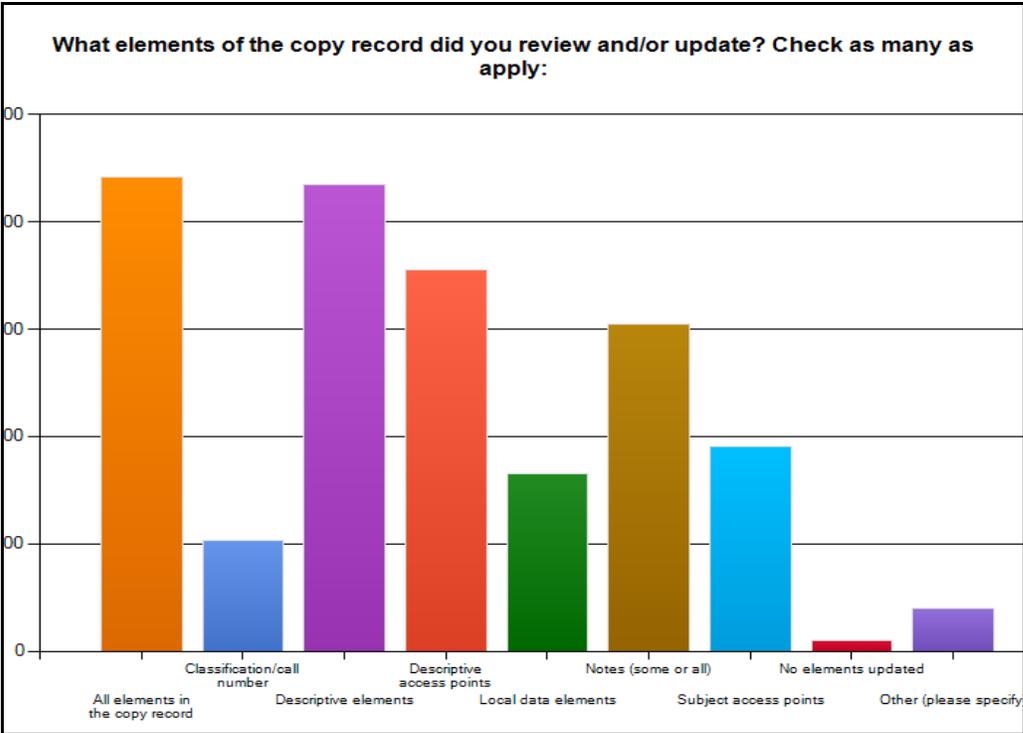


**Figure 7. Types of RDA copy revisions by number of responses**

Because of the extensive nature of the revisions performed by test participants, the Coordinating Committee would anticipate a lower average time for copy cataloging in an actual implementation scenario than was evident in the test.

*Time Analysis: Authority Work*

The surveys asked only for a composite time for all authority work associated with a bibliographic record.  Because each bibliographic record could have multiple authority records associated with it, times reported can represent a varying number of authority records created.

Question no. 17 of the Extra Original Set survey asked testers, "How many minutes did it take you to review, create, and/or update authority records associated with the item in question?"  Question no. 18 of the Extra Original Set survey asked testers, "How many new authority records did you create in describing this item?"  Question no. 20 of the Extra Original Set survey asked testers, "How many existing authority records did you update in describing this item?"

Based on the responses to these three survey questions, the Coordinating Committee calculates that testers created an average of one authority record, and updated an average of two authority records for each bibliographic record.  The overall average time reported to create and update these authority records in RDA was 12 minutes.  The time reported for professional librarians was 12 minutes, for paraprofessional staff it was seven minutes.  Students who created or updated authority work in the Extra Original Set reported an average time of 19 minutes.  The times reflected in the chart in Figure 8 do not include consultation time for authority work.



## RDA Authority Work Time

| Library Position | Professional | Support staff | Student | Other Library Employee | Record Creators Overall |
|---|---|---|---|---|---|
| ■ Average | 11.9 | 6.1 | 18.6 | 13.5 | 11.8 |
| ■ Mode | 2.0 | 1.0 | 30.0 | 5.0 | 5.0 |
| ☐ Median | 5.0 | 3.0 | 15.0 | 10.0 | 5.0 |
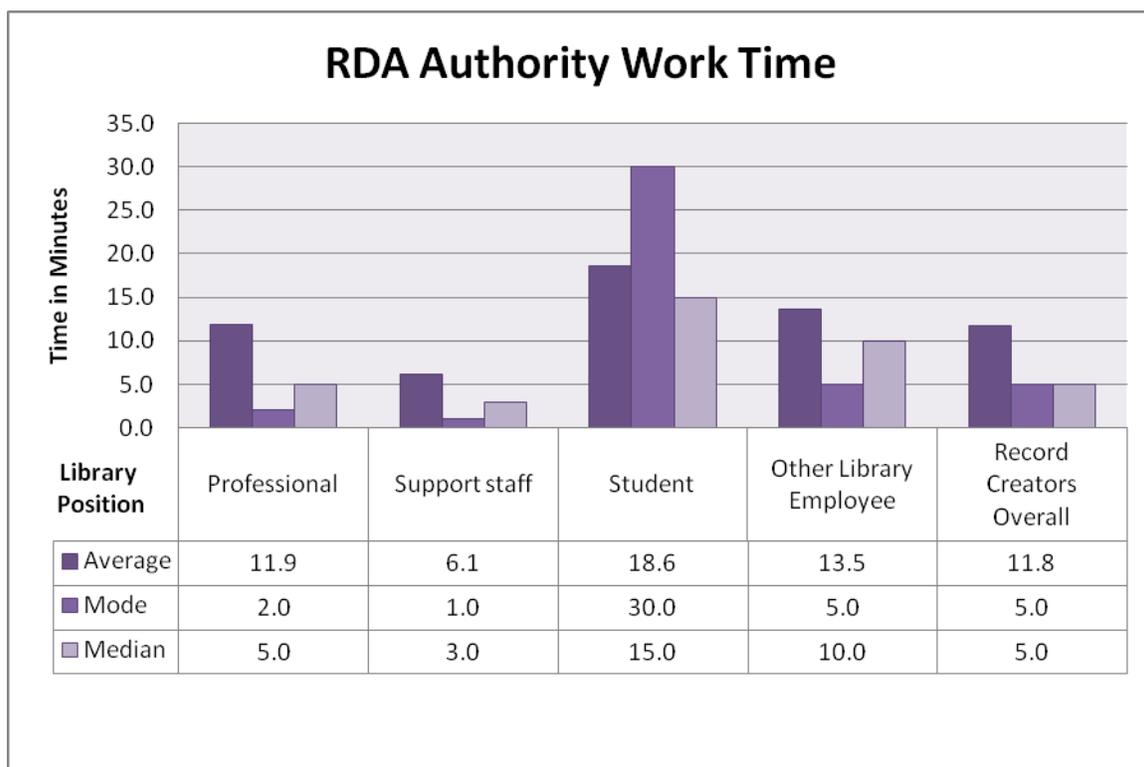
**Figure 8. RDA authority work time**

*Time Analysis: Consultation*
*Bibliographic Records*

Question no. 16 of the EOS survey, asked testers "How many minutes did you spend in consulting others about the RDA cataloging instructions as you completed this bibliographic record?" Based on the responses to this question, the overall time spent consulting with colleagues during the bibliographic record creation process for the Extra Original Set was 17 minutes. Professional catalogers spent more time consulting, averaging 21 minutes per record, while support staff averaged only 8 minutes per record in consultation time. Students averaged 25 minutes of consultation time per bibliographic record, and other library employees averaged 15 minutes per record.



| Library Position | Professional | Support staff | Student | Other Library Employee | Record Creators Overall |
|---|---|---|---|---|---|
| ■ Average | 21.0 | 8.4 | 25.0 | 15.2 | 17.3 |
| ■ Mode | 5.0 | 5.0 | 5.0 | 10.0 | 5.0 |
| ■ Median | 10.0 | 5.0 | 15.0 | 10.0 | 10.0 |
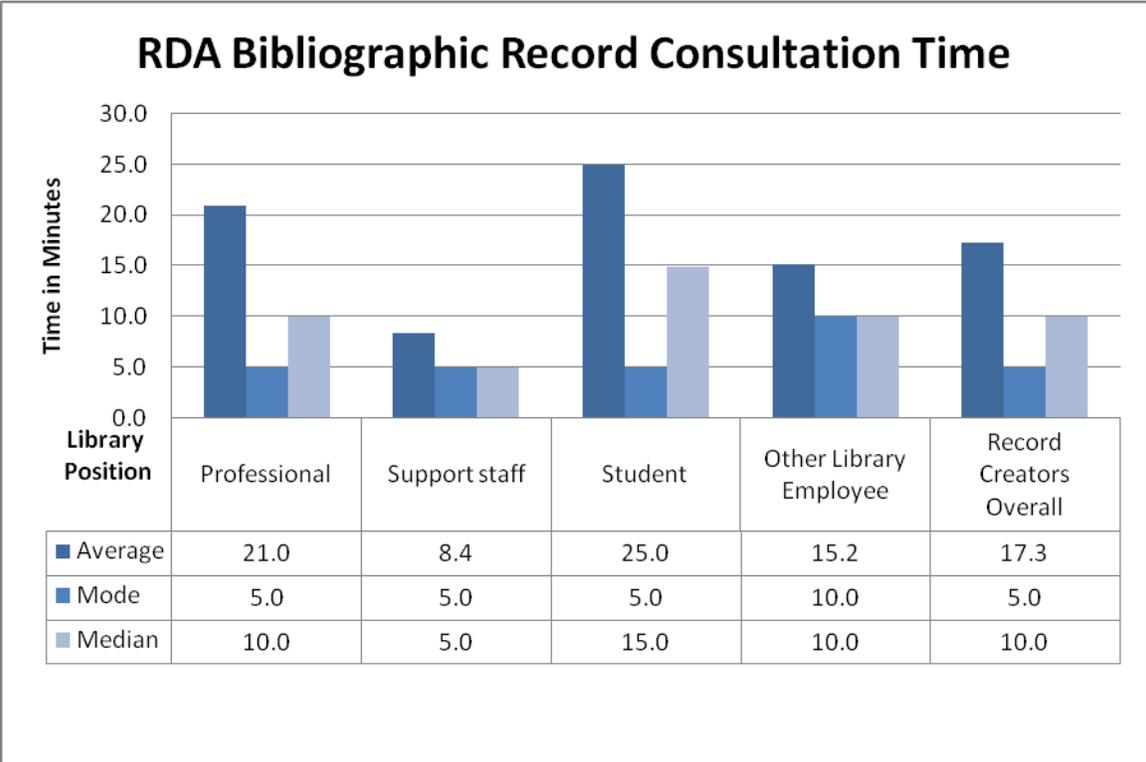
**Figure 9. RDA EOS bibliographic record consultation time**

*Time Analysis: Consultation*
*Authority Work*

Question no. 23 of the EOS survey asked testers "In creating or updating authority records for this item, how many minutes did you spend on consultation with others?" Based on the responses to this question, the overall time spent consulting with colleagues about authority work for original cataloging was 13 minutes. Professionals averaged 15 minutes of consultation time for authority work per bibliographic record, while support staff averaged only five minutes. Other library employees averaged 14 minutes of consultation time per record, and no students reported consultation time for authority work in the EOS.
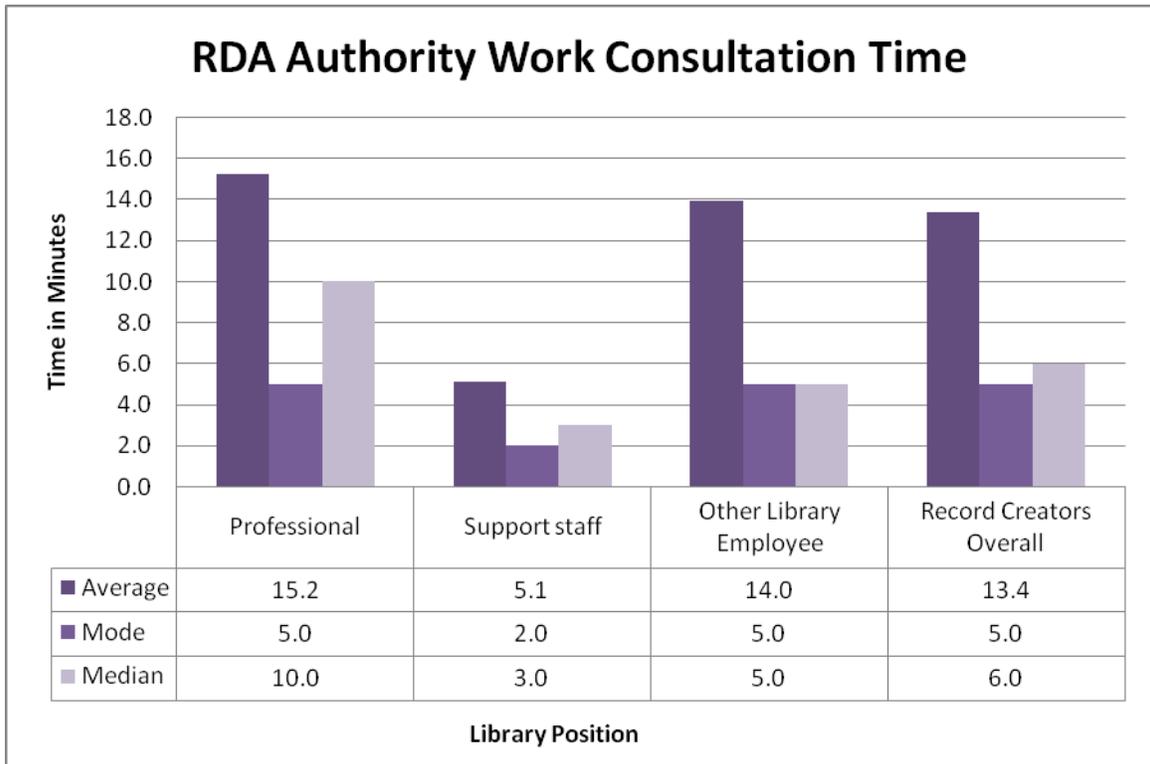


**Figure 10. RDA authority work consultation time**

*Comparative Record Evaluation (Common Original Set)*

As noted, the only records for which data comparing RDA and AACR2 could be made were those in the COS because in that set, each of the 25 records was cataloged within each test institution according to each set of rules. Accordingly, comparisons of record quality and time are presented here.

The artificial nature of the COS should be kept in mind. Several factors could have influenced the data presented: use of surrogates, lack of clarity about some online resources because only URLs were presented, and the variety of resources in this set. Surrogates consisted of PDF versions of those pages from the resource that contained information that was deemed necessary to describe the resource. Survey comments, however, indicated some testers had difficulty interpreting the surrogates. Although some testers did not heed the instruction to avoid additional research, the results of their research were ignored in evaluating the records. Some testers also seemed to have difficulties interpreting the online resources and finding needed information.

A number of surveys indicated a lack of experience cataloging various types of resources in the COS, which likely influenced the quality of the records and time needed to create the records. The Coordinating Committee, however, designed the COS to represent titles cataloged in a variety of libraries and wanted to compare the results of using RDA and AACR2 to catalog resources that the cataloger might not have experience with, because with fewer catalogers in most institutions, catalogers must be able to catalog a wide range of resources.

Patterns of errors in both RDA and AACR2 records seemed in many cases to be more closely tied to the nature and complexity of the resource than to the rules used for cataloging. Not surprisingly, those elements for which cataloging instructions differed most significantly between RDA and AACR2 showed the most consistent patterns of errors, for example, in addition to FRBR entities, these elements included place, publication and copyright dates, and relationship designators.

An aspect of RDA that engendered some community discussion was RDA's provision of an alternative to follow a local policy regarding capitalization. The LC practice for that alternative was that for transcribed elements, catalogers could either "take what you see" on the resource or follow RDA's Appendix A. The option to follow capitalization on the resource, followed by some testers, resulted in varying approaches to capitalization that were noted during record review by the Coordinating Committee. In some records, not only was the title proper recorded in all capital letters but also enumeration and chronology for serials, statements of responsibility, and other elements scattered in some cases throughout records, because they appeared in all capital letters on the resources.

Although the records for textual monographs included more omissions and errors related to FRBR entities because the resources included translations and literary works, serials and integrating resources presented their own set of challenges. Describing resources that continue over time is not well understood regardless of the rules used, as evidenced by numerous errors in providing correct start dates, relationships to earlier or later titles, and notes citing which issue or iteration of the

resource was used for the description and which was the most recent issue consulted.  Online serials were especially challenging, and records for these resources were no less accurate under RDA rules than under AACR2 rules.  The set of A/V resources was so diverse that no special patterns common to all of these resources were observed.

Overall, the Coordinating Committee discovered that the RDA and AACR2 records created for the Common Original Set were comparably consistent in terms of the number of rule errors and MARC errors present in the records.  In their survey responses (RCP, EOS, COS), however, many record creators indicated that they lacked confidence in their RDA cataloging.  The following comment is representative of this concern: "… despite repeated use, I typically lacked confidence in my reading of some sections and whether I had in fact found all the applicable rules."

While the specific types of errors varied widely according to the type of resource and the rules being used to create the records, the numbers of errors remained consistent.  When the overall average number of acceptable data elements was calculated, the RDA records contained slightly more acceptable data elements than the AACR2 records for this set of materials.  Some factors that might contribute to this difference are the lack of community "best practice" with regard to including optional data elements as well as a possible inclination among testers to make records more complete for the test than they might in a regular production environment.

The charts that follow in Figures 11-15 provide the average number of acceptable and missing elements and average number of errors per record in the COS.  Note that because AACR2 does not include the concept of "core element," "missing core element" for AACR2 records was defined as omission of an element typically provided according to AACR2 Level 2, LCRIs, and PCC policy.

## Overall Record Comparison



| | Total Acceptable Elements | Missing Core Elements | Rule Errors | MARC Errors |
|---|---|---|---|---|
| RDA Overall | 14.4 | 0.6 | 1.6 | 0.3 |
| AACR2 Overall | 10.6 | 0.9 | 1.5 | 0.3 |

Average Number per Record
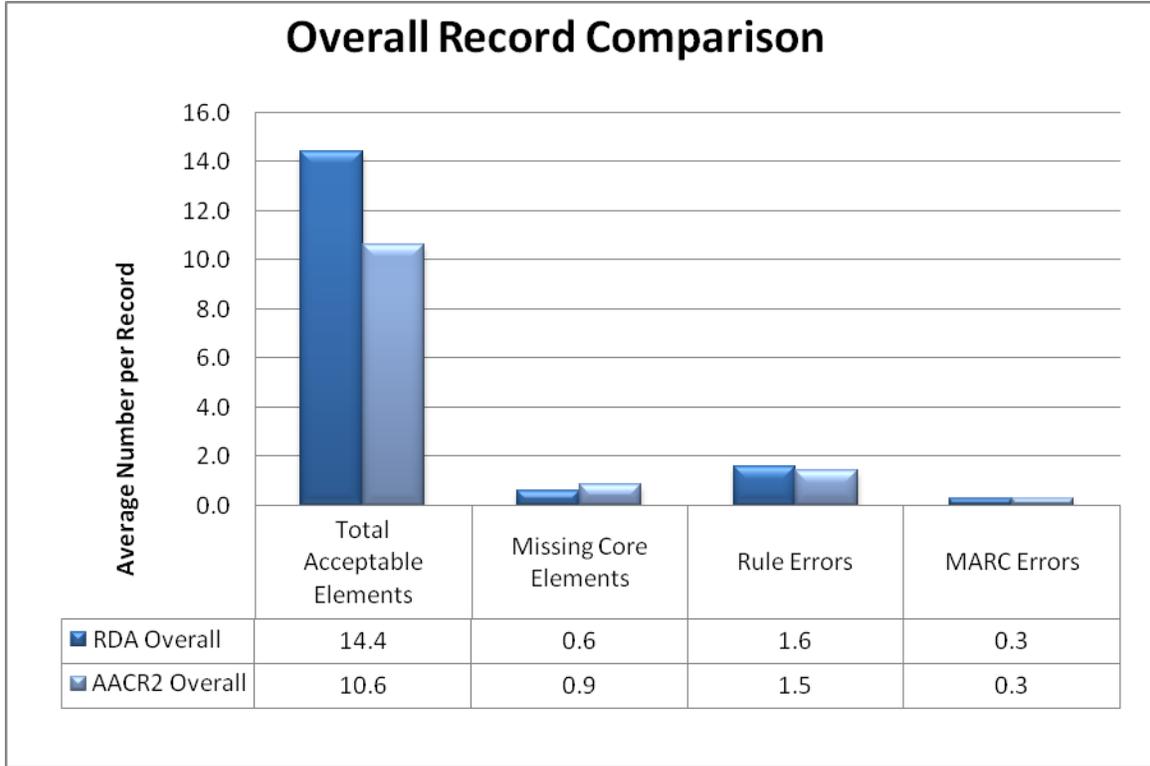
**Figure 11. Overall record comparison**

*COS Record Evaluation: Bibliographic Records*

     *COS Record Evaluation: Textual Monographs*

Textual monographs in the COS included: six print monographs, one print multi-part, and three e-monographs.  Records for textual monographs were remarkably consistent when the Coordinating Committee compared the number of data elements and number of errors in RDA and AACR2 records for the same resource.  AACR2 records contained, on average, fewer data elements, which may be the result of test participants exploring options in RDA that they would not use in a true implementation scenario.  Somewhat surprisingly, the average number of rule errors and MARC errors were roughly the same for RDA records as for AACR2 records.



**Textual Monograph Record Comparison**

| | Total Acceptable Elements | Missing Core Elements | Rule Errors | MARC Errors |
|---|---|---|---|---|
| RDA Textual Monos | 15.4 | 0.6 | 1.5 | 0.3 |
| AACR2 Textual Monos | 13.8 | 0.8 | 1.4 | 0.3 |
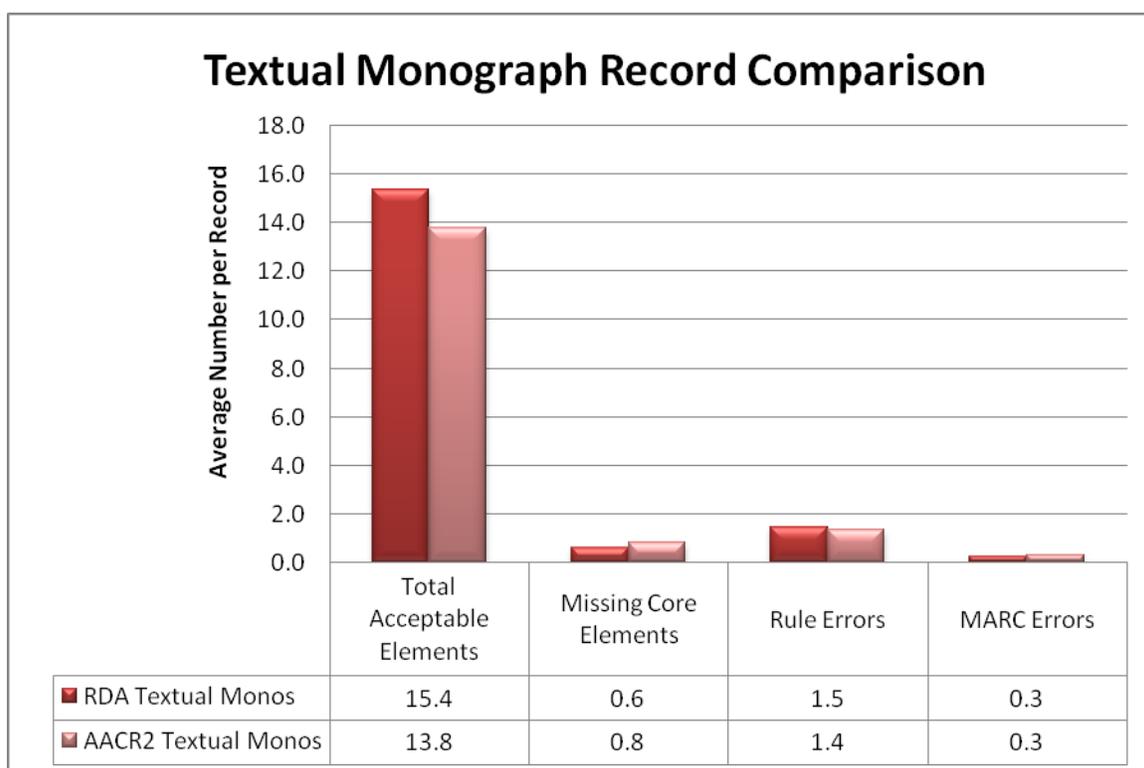
**Figure 12. Textual monograph record comparison**

While the average numbers of errors was consistent between the RDA records and the AACR2 records, the actual errors varied widely depending on the resource cataloged.  In COS Title D, *Barbie Sogna Caterina de' Medici*, RDA requires the cataloger to record the first expression manifested, and 25 of the 26 test participants did not include that data element (i.e., a 730 field for Barbie sogna Caterina de' Medici.$l Italian) in their RDA record.  While there were errors in the AACR2 records for this resource, none appeared as consistent as that omission of a core element in the RDA records.  Similarly, in COS Title C, a compilation of works by Mark Twain that lacked a collective title, several participants neither provided a uniform title nor provided access points to each work manifested, which are the two valid treatments for this kind of resource under RDA.  In cases where the participants provided a uniform title, they frequently omitted an access point for the first work manifested, which is a required element in RDA.  Based on these examples, and others throughout

the Common Set, the Coordinating Committee concludes that these aspects of the RDA instructions are not well understood, and that further training within the U.S. cataloging community will be necessary.

To summarize, the Coordinating Committee was able to identify several patterns of errors in both RDA and AACR2 records that were notable.

*RDA Record Error Patterns: Textual Monographs*
- Participants consistently omitted access points for the work manifested in records where supplying that information is indicated in the RDA core element set.
- Participants consistently made errors in recording publication information, especially in the place of publication.
- Participants consistently made errors in recording publication date and copyright date information.

*AACR2 Record Error Patterns: Textual Monographs*
- Place of publication and date of publication areas frequently contained errors, especially in distinguishing between supplied information and transcribed information.

*Common Error Patterns, Both RDA and AACR2 Records: Textual Monographs*
- For some resources, several participants transcribed the statement of responsibility from a different source than the title proper.
- For sources involving series statements, many participants failed to either provide the series statement or a quoted note where that was a valid option.
- In resources where language notes or coded language fields were applicable, participants uniformly recorded the information in the wrong order.

*COS Record Evaluation: Audiovisual Materials*

COS audiovisual resources consisted of one film DVD, one streaming video (an online resource), one sound recording on CD, one audiobook on CD and one print poster.  As with textual monographs, RDA and AACR2 records for audiovisual materials have roughly comparable error rates and total acceptable data elements.  The RDA records for these materials have an average of 14 data elements per record, while the AACR2 records for these materials have an average of 12 elements per record, with correspondingly varying missing elements and error rates.  Error rates under both sets of rules are somewhat higher than for textual monographs.



**A/V Record Comparison**

| | Total Acceptable Elements | Missing Core Elements | Rule Errors | MARC Errors |
|---|---|---|---|---|
| RDA A/V | 15.5 | 0.9 | 2.0 | 0.1 |
| AACR2 A/V | 11.7 | 0.6 | 1.7 | 0.1 |
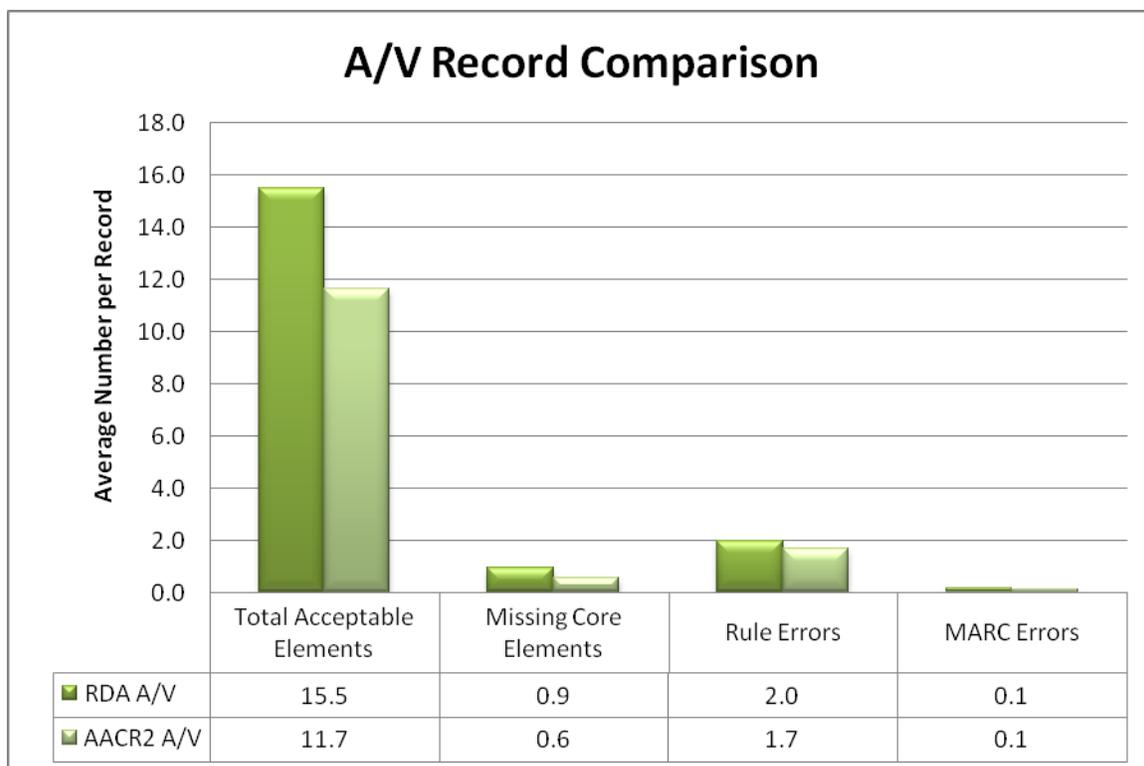
Because there was variety in the types of A/V resources chosen for the Common Original Set, patterns of errors are more difficult to identify.  The sample size of each kind of resource is too small to draw many conclusions.  That said, the Coordinating Committee did discover some general trends in errors that seemed to hold true across all of the A/V resources.

*RDA Record Error Patterns: Audiovisual Materials*
- Confusion about the use of abbreviations in RDA cataloging was more apparent in the records for A/V material than for other types of material.
- Nearly all participants omitted access points for the first work manifested in those records where recording it is required.
- The exception that says to name moving image works by title was not consistently applied by the participants.

*AACR2 Record Error Patterns: Audiovisual Materials*
- Errors in the GMD were common in these records.
- Inconsistency about how and when to provide 'source of title' and 'viewed on' notes was seen in several A/V records.

*Common Error Patterns, Both RDA and AACR2 Records: Audiovisual Materials*
- Recording complex publication information produced errors in A/V records as in records for other types of material.

*COS Record Evaluation: Serials*

COS serials included one print journal, one print conference proceeding, and three e-serials. Interestingly, the average number of rule errors per record is exactly the same as the average number of errors for A/V resources and, not unexpectedly, somewhat higher than for textual monographs.



## Serial Record Comparison

| | Total Acceptable Elements | Missing Core Elements | Rule Errors | MARC Errors |
|---|---|---|---|---|
| RDA Serials | 15.5 | 0.5 | 2.0 | 0.6 |
| AACR2 Serials | 9.3 | 0.8 | 1.7 | 0.4 |
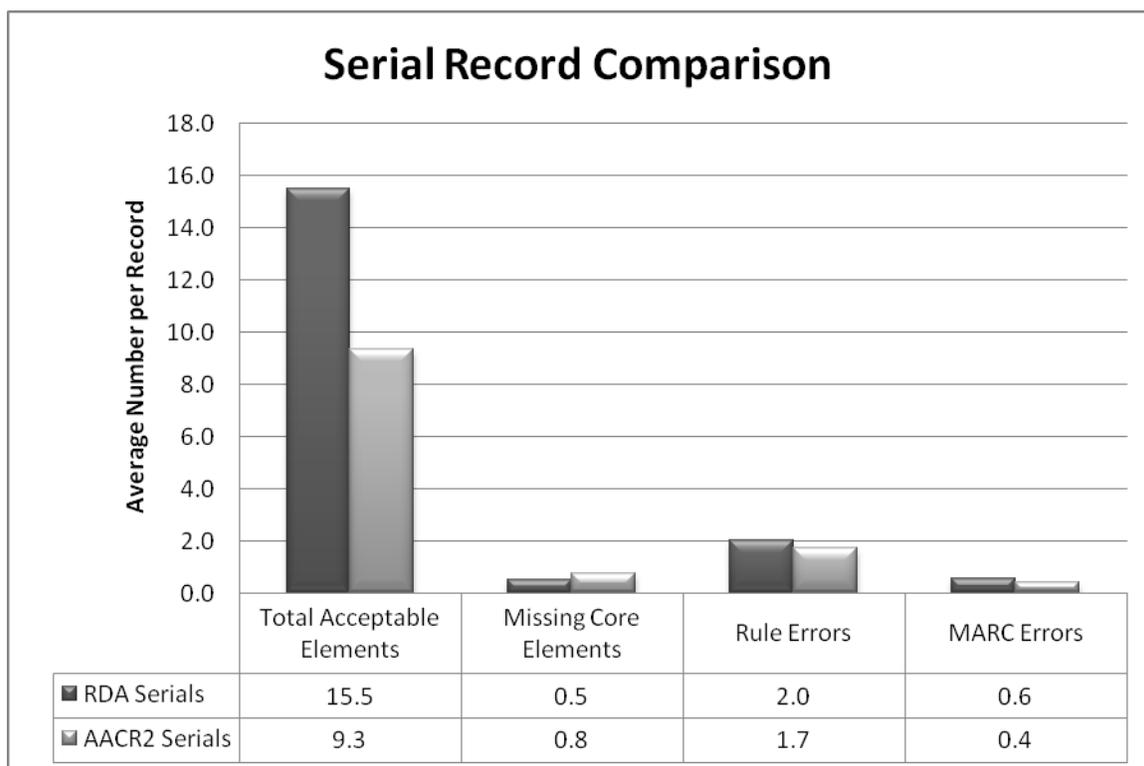
Figure 14. Serial record comparison

In many of the serial records, especially those for online resources, there was a lack of congruity between various elements in the record. For example, variant title access was provided for titles that predated the start date recorded on the record. In other cases, the start date on the record was taken from an issue with an earlier title, but a former title note for the earlier title was also included. The concept of recording the issue used for the description was not well understood as demonstrated by records where it was clear the description was based on an earlier issue but both the "description

based on" note and the "latest issue consulted" note cited the most current issue.  One online serial was particularly problematic and illustrates a common situation for which no guidance is provided in either set of rules.  This is the case where the entire run of a serial–including several clearly visible title changes-- is presented on an organization's Website.  The Coordinating Committee's Benchmark record was based on the current title with a former title note for the immediately preceding title but there were almost as many ways of cataloging the resource as there were testers.

Practices established for the CONSER Standard Record (CSR) might have influenced some of the practices observed in both AACR2 and RDA records, e.g., omission of statements of responsibility and publication dates even when present on the resource.

*RDA Record Error Patterns: Serials*
- Consistent omission of place and date information from the conference name.  RDA does not provide an instruction to omit this information
- Inclusion of the relationship designator terms "issuing body" or "sponsoring body" in corporate body primary access points (1XX fields)
- Omission of ellipses at the beginning of the conference title which included numbering.
- Recording date information incorrectly, e.g., inclusion of only copyright date instead of both publication and copyright dates (Note: Copyright is not core in RDA, but was added as "core plus" for the Library of Congress)
- Inclusion of "mode of access" information in records for online resources even though this is not an RDA element
- Omission of family as creator
- Confusion about whether an online resource with a print counterpart was to be cataloged as a reproduction

*AACR2 Record Error Patterns: Serials*
- Place and date of publication were incorrect
- Omission of title source notes
- Incorrect recording of start dates
- Incorrect use of uniform titles

*Common Error Patterns, Both RDA and AACR2 Records: Serials*
- Understanding seriality: scope of the record, e.g., beginning date and what time span is included on the record; internal consistency; basis of the description; relationships to earlier or later titles
- Various kinds of errors in providing place and date of publication information, e.g., taking information from the wrong source, improper use of brackets
- Coding of "description based on" and  "latest issue consulted" notes
- Understanding how to catalog e-resources

*COS Record Evaluation: Integrating Resources*

COS integrating resources included one print loose-leaf, one online directory, one online database, and the Websites of two organizations. The consistency in the error rate between RDA and AACR2 records seen in monographs was also seen in records for integrating resources, although there were many more typically required elements missing in AACR2 records than there were core elements missing in RDA records, perhaps because RDA requires fewer core elements than those elements that are typically required for AACR2 records.

## Integrating Resource Record Comparison

| | Total Acceptable Elements | Missing Core Elements | Rule Errors | MARC Errors |
|---|---|---|---|---|
| RDA IR | 11.9 | 0.4 | 1.2 | 0.2 |
| AACR2 IR | 8.9 | 1.4 | 1.1 | 0.4 |

*Average Number per Record*
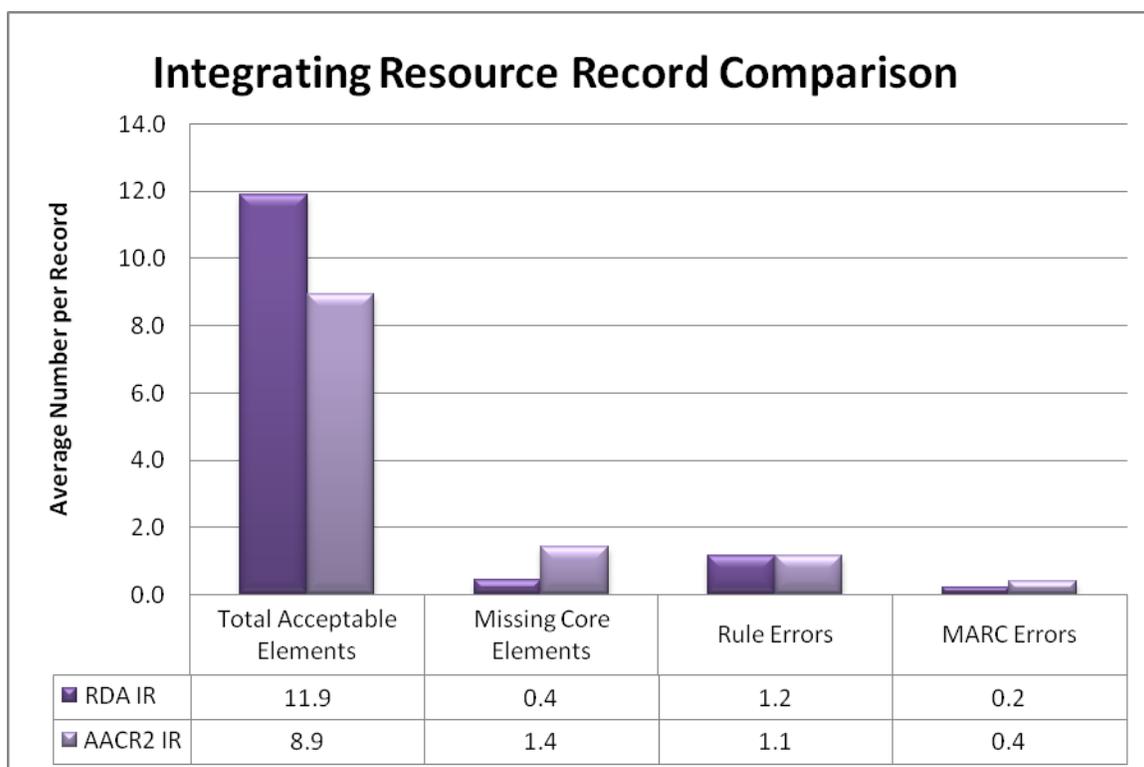
**Figure 15. Integrating resource record comparison**

In general, similar patterns of errors were found on the records for the most complex publications, regardless of the rules used. For example, one resource that was cataloged incorrectly by the majority of testers in both RDA and AACR2 was an integrating resource that succeeded a serial, thus requiring a new record under either set of rules. The majority of the testers included both resources on one record with a former title note for the earlier title. Another error pattern was that most testers did not use the corporate body as the creator for the two Websites of corporate bodies when creating either an RDA or AACR2 record. When cataloging the database of a government library's resources, no testers matched the Coordinating Committee's Benchmark record: few testers used corporate body as the creator under either set of rules and even those testers did not choose the library as the responsible corporate entity. As was observed for serials, practices from the CONSER Standard Record might also have influenced some of the practices observed in these records.

*RDA Record Error Patterns: Integrating Resources*

- Inclusion of "mode of access" information in records for online resources even though this is not an RDA element
- Use of $e issuing body in creator field
- Incorrectly formatted and incorrectly supplied date information
- Omission of title source note

*AACR2 Record Error Patterns: Integrating Resources*

- Omission of mode of access note (an AACR2 element but included as a carrier type in RDA)

*Common Error Patterns, both RDA and AACR2 records: Integrating Resources*

- Recording start dates
- When to use corporate body main entry
- Inclusion and coding of issue described and latest issue consulted information
- Incorrect source and coding of place and date of publication
- Supplying and coding former titles
- Omission of frequency

*COS Record Evaluation: Authority Records*

The Coordinating Committee reviewed authority records submitted as part of the Common Original Set to determine how accurately and to what extent the libraries that chose to submit authority records used new data elements introduced by RDA.  The accuracy of the forms of headings was scored as part of the bibliographic record review, and is not included in this section.

The frequency with which particular data elements appeared in authorities for the COS differed considerably from that frequency in the 'Extra Sets' authority records.  Because the Extra Sets are considerably larger and represent a more typical cataloging environment, the Coordinating Committee believes the frequency with which elements occur in these authority records to be more reflective of what might happen in an actual implementation scenario, although the Coordinating Committee notes that some test participants experimented with adding many elements that they may decide later to ignore.  The chart in Figure 16 shows the frequency with which new data elements were used in authority records for 'Extra Set' cataloging (copy and original combined).  The most common new elements added were the coded date information in the 046 field (in 29% of records) and the associated place information in the 370 (appearing in 16% of records) field.  Occupation and gender in the 374 and 375 fields, respectively, also appeared in more than 10% of records.

Table: Extra Sets Authorities

Total records: 10,184

| MARC element | Records | Occurrences | % of records with the element |
|---|---|---|---|
| 046 (special coded dates) | 2947 | 2949 | 28.9 |
| 100 First indicator = 3 (Family name)* | 9 | 9 | 0.1 |
| 336 (Content type) | 70 | 71 | 0.7 |
| 370 (Associated place) | 1640 | 1736 | 16.1 |
| 371 (Address) | 216 | 223 | 2.1 |
| 372 (Field of activity) | 868 | 910 | 8.5 |
| 373 (Affiliation) | 791 | 992 | 7.8 |
| 374 (Occupation) | 1303 | 1484 | 12.8 |
| 375 (Gender) | 1170 | 1170 | 11.5 |
| 376 (Family information) | 8 | 8 | 0.1 |
| 377 (Associated language) | 721 | 724 | 7.1 |
| 380 (Form of work) | 147 | 149 | 1.4 |
| 381 (Other distinguishing characteristic of work or expression) | 24 | 24 | 0.2 |
| 382 (Medium of performance) | 52 | 52 | 0.5 |
| 383 (Numeric designation of a musical work) | 29 | 31 | 0.3 |
| 384 (Key) | 18 | 18 | 0.2 |
| 5XX $i (Relationship information) | 106 | 106 | 1.0 |
| 678 (Biographical or historical data)* | 259 | 259 | 2.5 |

*While not a new field to MARC for RDA, this element was not to be used under AACR2 and now maps to an RDA element.

**Figure 16. Extra Sets authorities**

When reviewing authority records for the COS, the Coordinating Committee found a preponderance of cases where at least some new data elements (such as associated place, occupation, or associated language) were included in RDA authority records.  The Coordinating Committee also found several instances where libraries were using these new data elements in AACR2 authority records.  There were few consistent patterns of errors in either RDA or AACR2 authority records, but the Coordinating Committee noted the following trends:

- In both RDA and AACR2 authority records, participants frequently used the wrong form of the place name when recording an associated place in the 370 field.
- In RDA authority records, there was widespread confusion between the data elements 'Field of Activity' and 'Occupation' (MARC 372 & 374 fields).  Many testers expressed a desire for a controlled vocabulary for these data elements.
- In both RDA and AACR2 authority records, several participants either omitted 670 fields to justify information in headings or other data elements or didn't justify the information correctly in the 670.  [The Coordinating Committee notes that this is a NACO requirement.]
- Ongoing problems keeping 008/10 value and 040 $e synchronized
- Incorrect formatting of coded dates in 046 field

It was also interesting to note experimentation by some testers on distinguishing one expression from another, e.g., one German translation from a different German translation.  This is a level of specificity not called for in AACR2 and a topic for community discussion.  Another such topic is how many authorized access points are needed for conference authorized access points, because the current RDA instruction seems to indicate date and place must be included.

*Comparative Time Analysis: COS Bibliographic Records*

As there was no control group of records created according to an institution's usual rules for the Extra Original Set or the Extra Copy Set and because not all participants submitted records for the Common Copy Set, the only data available for a comparison of time needed to create records according to current codes and according to RDA came from times reported for titles in the Common Original Set.  One non-RDA record was created according to *Archival Moving Image Materials*; that record was included as part of the "AACR2" record group.  In addition to the overall description of the COS makeup and circumstances presented at the beginning of the comparative analysis section, the following factors might have influenced the reported cataloging times.

Factors affecting RDA record creation times:

- COS records were expected to be created first.  Despite the 3-month "practice period" during which testers were supposed to become familiar with the *RDA Toolkit,* it is possible that lack of experience/difficulties with the *RDA Toolkit* may have added to cataloging times; comments about difficulties with the *RDA Toolkit* appeared in the COS surveys.
- Testers may have included more elements in RDA records for testing purposes than would be included by that institution's policy if RDA were implemented.  For example, several testers gave more than ten authorized access points for persons or corporate bodies in several

records; one tester gave 72 such fields for one resource and 83 such fields for another resource.

Factors affecting both AACR2 and RDA record creation times:
- The COS included monographs, serials, audiovisual resources, integrating resources, and electronic resources. Some records were created by catalogers who had little experience with the format or type of material being cataloged. Comments about record creators' lack of experience with some of the formats appeared in the surveys.
- Record creators were instructed not to do any research beyond the surrogates or online resources but evidence from the records and surveys indicated that some testers nevertheless consulted OCLC, other libraries' catalogs, publisher Websites, online reference sources, etc.
- Most participants created COS records in OCLC where the records needed to be created as institutional records, a process new to many testers and challenging for some testers. Some amount of the reported time might be due to the unfamiliar mechanics of creating institutional records.

For the Common Original Set taken as a whole, testers reported an overall AACR2 bibliographic record creation time of 50 minutes and an overall RDA bibliographic record creation time of 81 minutes, times that are more than twice as long as the RDA average for the Extra Original Set records. The longer record creation times for both AACR2 and RDA were an expected result of the particular testing conditions noted. The RDA records for this set of material took, on average, 30 minutes longer than the AACR2 records for the same material. Time reported by GSLIS students is included in the "student" category in the chart in Figure 17:



| Library Position | Professional | Support staff | Student | Other Library Employee | Record Creators Overall |
|---|---|---|---|---|---|
| RDA Average | 74.5 | 61.0 | 179.8 | 74.1 | 80.5 |
| AACR2 Average | 45.7 | 45.1 | 107.3 | 59.6 | 50.3 |
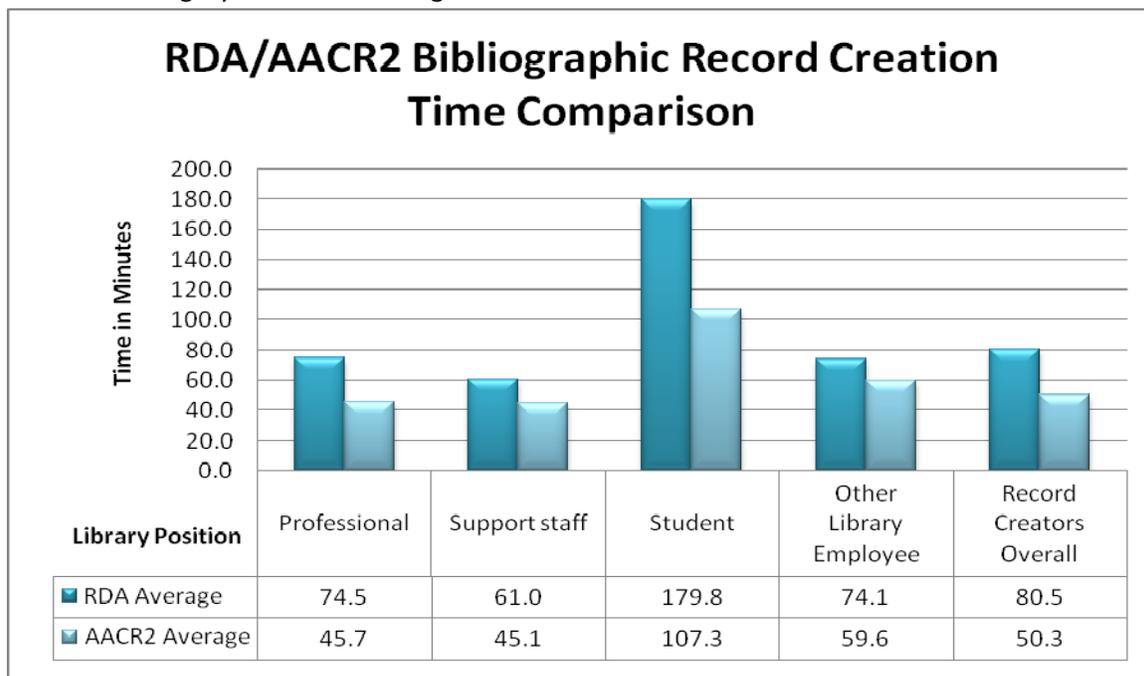
Figure 17. RDA/AACR2 Bibliographic Record Creation Time Comparison

The following table (Figure 18) breaks down the record creation times for the COS according to the type of resource. Time reported by GSLIS students is not included in this table.

| COS Title | Average in Minutes | Mode in Minutes | Median in Minutes | Minimum in Minutes | Maximum in Minutes |
|---|---|---|---|---|---|
| Books (Titles A-G) - AACR2 | 32.26 | 20.00 | 23.00 | 5 | 125 |
| Books (Titles A-G) – RDA | 66.71 | 60.00 | 53.50 | 10 | 210 |
| E-books (Titles H-J) - AACR2 | 46.05 | 15.00 | 36.00 | 10 | 150 |
| E-books (Titles H-J) - RDA | 76.42 | 120.00 | 64.50 | 13 | 210 |
| Serials (Titles K-L) - AACR2 | 38.42 | 20.00 | 30.00 | 10 | 148 |
| Serials (Titles K-L) - RDA | 60.74 | 20.00 | 50.00 | 13 | 160 |
| E-serials (Titles M-O) - AACR2 | 42.39 | 20.00 | 35.00 | 4 | 140 |
| E-serials (Titles M-O) - RDA | 71.43 | 90.00 | 60.00 | 14 | 185 |
| DVD film (Title P) -AACR2 | 87.11 | 40.00 | 44.00 | 25 | 240 |
| DVD film (Title P) - RDA | 112.74 | 21.00 | 80.00 | 21 | 300 |
| Streaming video (Title Q) - AACR2 | 54.00 | 25.00 | 37.50 | 15 | 180 |
| Streaming video (Title Q) - RDA | 92.09 | 23.00 | 60.00 | 20 | 300 |
| Music CD (Title R) - AACR2 | 39.21 | 15.00 | 25.00 | 7 | 140 |
| Music CD (Title R) - RDA | 70.04 | 60.00 | 60.00 | 11 | 360 |
| Non-music CD (Title S) - AACR2 | 37.25 | 30.00 | 28.00 | 11 | 120 |
| Non-music CD (Title S) - RDA | 60.95 | 80.00 | 45.00 | 13 | 150 |
| Poster (Title T) - AACR2 | 33.63 | 40.00 | 29.00 | 12 | 90 |
| Poster (Title T) - RDA | 45.14 | 20.00 | 40.00 | 7 | 150 |
| Updating loose-leaf (Title U) - AACR2 | 45.84 | 25.00 | 40.00 | 15 | 90 |
| Updating loose-leaf (Title U) - RDA | 56.90 | 30.00 | 43.00 | 9 | 180 |
| Online integrating resources (Titles V-Z) -AACR2 | 54.41 | 45.00 | 40.00 | 8 | 240 |
| Online integrating resources (Titles V-Z) – RDA | 65.27 | 90.00 | 51.00 | 10 | 228 |
| All textual monographs — AACR2 | 36.29 | 15.00 | 30.00 | 5 | 150 |
| All textual monographs — RDA | 69.55 | 60.00 | 60.00 | 10 | 210 |
| All textual serials — AACR2 | 40.79 | 20.00 | 30.00 | 4 | 148 |
| All textual serials — RDA | 67.09 | 90.00 | 55.00 | 13 | 185 |

Figure 18. Time for bibliographic record creation, COS resources

*Non-MARC Record Evaluation*

Unfortunately, data relating to non-MARC RDA records are very sparse and therefore conclusions about how successful RDA is with non-MARC metadata schemes are difficult to make at this point. More data should be collected in order to evaluate the effectiveness of RDA for non-MARC metadata standards.

From the Common Original Set (COS), there were five non-MARC records created, all in Dublin Core. These records all described different items, and therefore could not be compared for consistency. Additionally, since there were no non-MARC benchmark records, there was no point of comparison to gauge how well testers were able to apply RDA to non-MARC metadata standards. No surveys were received for non-MARC records from the COS, so commentary analysis could not be conducted. The five Dublin Core records from the COS were examined to see if they contained all of the core elements from the corresponding RDA Core records. With few exceptions, they did contain all of the core elements. One record did not include edition information, one was missing the ISBN. Two of the records whose dates were labeled as questioned in the RDA Core record were not labeled as such in the DC records.

From the Extra Original Set (EOS), there were 55 non-MARC records: 25 in Dublin Core (DC), 22 in MODS and 2 in EAD. These records all describe different items, so again there was no way to compare them for consistency. Twenty surveys were completed correlating to non-MARC records in the EOS. Fourteen respondents answered the question "Please provide any comments you wish to make concerning your experience in creating/completing this bibliographic record and/or any associated authority records." Eleven of these comments were related to MODS records, and three to DC. Among these comments, nine were considered negative, two were considered positive, and four were suggestions for improvement (some respondents providing both positive/negative comments along with suggestions for improvement).

A few themes were echoed in more than one comment:
- The QDC (Qualified Dublin Core) element set is not granular enough to express RDA
- Instructions for creating conference names are vague and insufficient
- Several testers had trouble interpreting and applying the rules for related resources

A sample of the EOS non-MARC records, including seven Dublin Core records, 15 MODS records, and two EAD records, was analyzed for presence/absence of RDA core elements. These records were largely describing unpublished resources. Not having access to the resources being described posed some level of difficulty in evaluating the records. It was possible, however, to get some idea of how RDA was used in non-MARC environments.

Only two elements, "title proper" and "content type" were included in all sampled records. A statement of responsibility was included in all but four records, which were all MODS records for individual photographs.

Items in this sample were primarily all unpublished.  There were variable interpretations of field definitions for date and publisher fields.  Date fields sometimes included dates when the record was created and at other times included dates when the item itself was created.  Some records included both.  Many records were using "publication statement" fields to record information about the library or institution that was describing the item or who currently owned the item.  A "date of production" was included in all but two records.  One of these was a photograph and the other was an EAD record for a scrapbook collection.

Statements relating to the elements "carrier type" and "extent" were both included in a majority of the records, but were missing in a large number of them.  A statement of extent was included in all Dublin Core and EAD records, but was missing from five MODS records, all records for photographs. MODS seemed to provide a particularly good environment for describing related resources and naming additional constituents associated with a work.  While many MODS records included this information, it was absent from all Dublin Core and EAD records.

While the majority of the EOS non-MARC records provided a very detailed level of description, the RDA core elements were not generally well-represented in these records.

*Recommendation from Coordinating Committee*
The Coordinating Committee believes that further instruction could help creators of non-MARC RDA records more uniformly include RDA core elements, particularly in relation to specifying publisher, copyright, and date information even when the value is null or unknown.  Additionally, further instruction and/or mapping between metadata schemes could help ensure that catalogers understand field definitions for publication and date fields so that similar values are entered in them.

## Findings: Record Use

*Record Use Surveys*
Library staff and patrons were surveyed to determine how well RDA records met their catalog needs. They were asked to identify the positive and negative features of the RDA record, compare its strengths and weaknesses with the AACR2 record, and provide an overall assessment of the RDA record's understandability and its ability to meet user bibliographic information needs.

One hundred sixty-three responses were received.  Some included group responses from multiple individuals, which was an acceptable method of gaining user input.  Most respondents were either library staff members or students.  All responses were tabulated and evaluated together.

Respondents had an overall favorable view of the RDA record.  Eighty-five percent said the RDA record would either "mostly" or "fully" meet their catalog record needs, while only 15% felt that the RDA record would meet only" some" or none of their needs.

*Would the RDA record be sufficient to meet your needs for the work you do?*

| Does not meet | Meets only some | Mostly meets | Fully meets |
|---|---|---|---|
| 3.7% | 11.1% | 47.5% | 37.7% |

Figure 19. RDA record sufficiency, catalog record users

Eighty-five percent of respondents saw elements in the RDA record that would improve their ability to use the catalog, while 65% identified elements that might impede their ability to use the catalog.

*Did you notice anything about the RDA record that would have a positive impact on a user's ability to find, identify, select and obtain the item?*

| Yes | No |
|---|---|
| 85.2% | 14.8% |

Figure 20. RDA record positive impact, catalog record users

*Did you notice anything about the RDA record that would have an adverse impact on a user's ability to find, identify, select and obtain the item?*

| Yes | No |
|---|---|
| 64.8% | 35.2% |

Figure 21. RDA record adverse impact, catalog record users

Forty-two percent of respondents thought the RDA and AACR2 records were about the same in terms of understandability and usability, while 41% preferred the RDA and 14% favored the AACR2 record.

*Which record do you believe is easier to understand?*

| AACR2 record | RDA record | About the same | Don't know |
|---|---|---|---|
| 14.1% | 40.5% | 41.7% | 3.7% |

Figure 22. Comparative AACR2/RDA record understandability, catalog record users

A caveat in evaluating both positive and negative comments about the "fullness" of RDA records: test participant were free to choose whether to provide elements beyond RDA core.  In some cases, test participants provided elements beyond what they might provide in their usual records.  Hence, some respondents who either reacted positively or negatively to the amount of content in RDA records may have been looking at fuller records.  Additionally, an institution's settings and choices for record display could have had either a positive or negative effect on a user's impression of the records by either displaying or suppressing information such as "unmediated" in field 337.

*Positive Features of RDA Records*
By and large users spoke favorably of the RDA record's clarity and completeness compared to the AACR2 record.  They were particularly pleased that words abbreviated in the past would now be spelled out and that Latin abbreviations would no longer be used (except in transcribed areas for resources in the Latin language).  Overall, respondents noted that RDA records provided more information about a publication.  They liked the abandonment of the rule of three and the resulting increase in the number of author/creator entries.  They commented positively about the addition of

author/contributor relator terms to personal name entries and author affiliations in statements of responsibility.

Users noted the following additional positive features:
- Content/carrier/media types preferred to the general material designation
- No GMD to interrupt information presented in the title and statement of responsibility
- More complete description in the publisher and extent of resource
- Use of "publisher not identified" instead of [s.n.]
- Relationships to other publications clearer
- Change in how Bible uniform titles are formatted
- More information in authority records

Comments from testers:
> "Less catalog speak."

> "1. Use of full text rather than word abbreviations are easier to read. 2. To use content type/media type/carrier type instead of [picture] [electronic resource] ... in the title field, make the record easier to understand."

> "I like it that you're not using Latin terms and not abbreviating them.  Spelling things out in English is great!"

> "The labeling on the whole seems more conducive to natural-language searching and to interpretation by users who are not librarians.  For example, I appreciate the fact that descriptive elements are spelled out (illustrations, pages, etc.), instead of abbreviated.  Also, the handling of authors is more informative, since it indicates illustrators, issuing bodies, etc. These labels would increase access."

> "Some small changes certainly add clarity for the average patron.  I really like the straightforward changes in publication info and description in 260 and 300: '[publisher not identified]' versus '[s.n.]' and '10 unnumbered pages' versus [10] p.  This is more meaningful to non-librarians."

> "The listing of all individuals/contributors for an item is an improvement.  It allows a patron to find more items that are associated with a person's contribution."

*Negative features of RDA records*
While some users supported adoption of the content/media/carrier type elements (MARC 336-338), the overwhelming criticism of the RDA record by the 65% of respondents who had a negative comment was their opposition to dropping the general material designation.  Many liked the fact that on AACR2 records users can determine immediately if a publication is a book, videorecording,

electronic resource, microform or other format.  As much as respondents preferred the GMD, they were equally opposed to the use of the media/ carrier/content elements.  Many described both the labels and terminology used in these elements as unclear and confusing.  The term "unmediated" was repeatedly cited as problematic and meaningless.  Some wondered how these elements could be helpful the users.  Users and the cataloging community as a whole would benefit from seeing what the various options are for displaying the media/carrier/content elements in catalogs.

Respondents noted the following additional negative features:
- FRBR terminology on record hard to understand
- Spelling out of universally known abbreviations makes record longer
- Use of "sic" in title lets user know of a problem in the title
- Confusing having publishing date and copyright date which are the same
- Fields 382-384 of authority record problematic as replacements for subfields " m", "n", and "r" in uniform title; can't judge how it will be used in searching
- Too much information in statement of responsibility and extent of resource; records too long
- "Author" as a relationship designator in the 100 field is redundant
- More than one author in statement of responsibility and edition fields makes use of affiliations confusing.
- For manuscripts no place in 300 field to mention cataloged item is in 1 box.

Comments from testers:
"RDA Content Type, Media Type, and Carrier Type are for the most part nonsensical and not helpful.  Both the labels and the valid values are at best simply 'noise' in the record that users will skip over, and at worst confusing for user to identify format type."

"Currently our patrons really notice terms like '[microform]' or '[videorecording]' or '[electronic resource]'.  When we did an OPAC assessment last year, they all really zeroed in on those labels in the title to discuss which items they would, or would not choose."

"Spends too much time spelling out unnecessary information."

## Findings: Training & Documentation Needs

*Training Methods Utilized During the Test*

Many training methods were available to RDA test participants. The methods varied from being self-taught to viewing Webinars to attending in person workshops. Because the survey questions that asked about training methods allowed respondents to select and record all the methods of training they received, the Coordinating Committee is unable to correlate the training method with the amount of consultation time needed or difficulties encountered when cataloging using RDA. The Coordinating Committee is also therefore unable to draw any conclusions as to which training method may be the most effective. The information provided below is to demonstrate which training methods were utilized by participating institutions and individual testers.
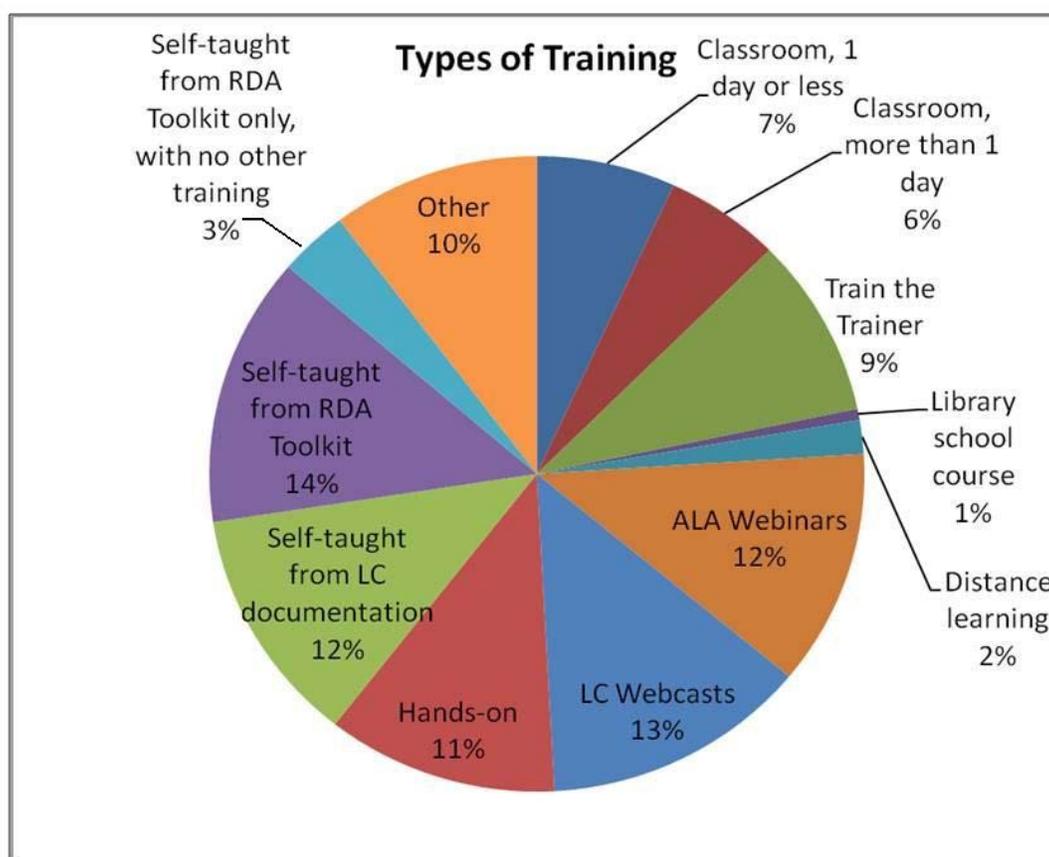


**Figure 23. Types of training**

All of the institutions that responded to the question regarding training methods presented their staff with at least three different types of training methods with the staff at five institutions partaking in as many as seven different training methods.

*Recommendation from the Coordinating Committee*

Based on this information, the Coordinating Committee believes that training should be made available in a variety of methods including in-person workshops, live Webinars, and prerecorded sessions made available for viewing at any time.

*Impact and Costs of RDA Implementation on Documentation*
Only 19 of the test participants responded to a question about creating or modifying local documentation for use with RDA.  Of that number, only seven indicated they had created documentation to record local policy decisions about RDA.  Others provided information to their testers about the test itself and/or about RDA.

Some participants noted that any local documentation written in the context of AACR2 or any other content standard would need to be revised if RDA is implemented or even if the library only accepted for purposes of copy cataloging any RDA records created by others.  The more extensive the local documentation and the more local policies are different from national policies in turn would require more creation or more modification of local documentation; some participants noted the opportunity to simplify their local documentation.

No participants reported creating or modifying consortial documentation for the test.  Two participants mentioned that their consortial documentation would need to be updated if RDA were implemented in the U.S. community.

*Impact and Costs of Updating National Documentation*
For the Library of Congress (LC), most of its local documentation is also national documentation.  Some sections of the *Descriptive Cataloging Manual* relate only to local workflows and will need revision; a major section will be the procedures related to copy cataloging.  Also needing to be updated would be macros and templates for creating records in LC's ILS, software related to CIP procedures for LC's catalogers and for CIP partners, and add-on software used for records from other sources and for checking for errors in records being added to the ILS.

The National Agricultural Library (NAL) reports that it has many documents on its Intranet that will need to be reviewed for possible updating by senior-level catalogers.  NAL has been planning to create a new manual and estimates that the documentation costs will not be too different whether NAL adopts RDA or keeps AACR2.

The National Library of Medicine (NLM) has very extensive internal documentation; several hundred documents were migrated during a year's time from a paper Cataloging Manual to the online site, a task not yet completed.  All those documents would need to be reviewed and then revised as appropriate.  A more difficult task would be identifying documentation in other areas of the library where staff also work with and edit bibliographic records.  The estimated cost would be several hundred hours at a high level of staff.

For the Library of Congress, the cost would be the usual salaries of people whose jobs involve preparing and reviewing national documentation (Policy and Standards Division; Cooperative & Instructional Programs Division) plus the time away from doing other tasks.  Various groups will need to make decisions about policies and practices for LC and for Program for Cooperative Cataloging (PCC) activities.  Documentation in the following areas will need to be revised or developed:

         -- Library of Congress Policy Statements (LCPSs) to give LC and possibly PCC decisions on additional elements beyond RDA core elements, decisions on alternatives and options, guidelines for encoding RDA content in MARC, etc.;

         -- *Descriptive Cataloging Manual* (DCM) sections related to procedures for copy cataloging, name and series authority records, etc.;

         -- AACR2 manuals for some specialized cataloging areas within LC (e.g., the Recorded Sound Section of the Motion Picture, Broadcasting, and Recorded Sound Division);

         -- PCC documentation for PCC policy decisions if not incorporated in the LCPSs, for specific guidelines related to exceptions to RDA (e.g., provider-neutral records, single-record approach), for standard record guidelines, and for "frequently-asked questions" on various topics;

         -- PCC manuals and training materials:  BIBCO and CONSER cataloging manuals, the *CONSER Editing Guide*, and the *NACO Manual* would need to be revised to cite RDA instructions and PCC RDA practices and examples.  Four out of the five Serials Cooperative Cataloging Training Program (SCCTP) courses will need similar revision.

NLM reported that minimal updating would be needed for its public Cataloging Standards page on its Website.

NAL said it does not have any national documentation.

A survey of five various specialized cataloging communities resulted in the following responses:

         --A representative of the moving image archive community indicated there is not likely to be an RDA update of the 2nd edition of *Archival Moving Image Materials*.  The momentum in moving image archives is in updating the International Federation of Film Archive's cataloging rules.

         --A member of the Anglo-American Cataloguing Committee for Cartographic Materials (AACCCM) noted that there are sections of its manual *Cartographic Materials* that will need to be revised; new sections for work and expression authority data will need to be added.  Two members of that committee are writing a book for ALA Editions on using RDA for the cataloging of cartographic materials.

         --The main documentation the Music Library Association (MLA) maintains for use with AACR2 is the *Types of Compositions for Use in Music Uniform Titles* document (http://www.library.yale.edu/cataloging/music/types.htm), which was developed in 1989 and is updated regularly as new terms are encountered.  An MLA representative indicated that figuring out which of these terms are still relevant in an RDA context will be a major task; the revision is a volunteer effort.

--Several manuals related to non-Latin cataloging for AACR2 will need to be modified or be supplemented by parallel versions for RDA:  the Arabic NACO manual; a best practices document for Arabic and Persian cataloging; a Hebraica cataloging manual, a manual on descriptive cataloging of East Asian materials; documents on romanization of Chinese place names and romanization policies for cataloging Chinese materials; and lists of Chinese, Japanese, and Korean literary authors and established headings.  This documentation was created by various organizations and individuals on a volunteer basis, some with assistance of LC cataloging and language specialists.

--An Online Audiovisual Catalogers, Inc., (OLAC) representative noted that several documents posted on the organization's Website will need to be updated, also on a volunteer basis.  One observation was made that updating will be more difficult for those groups whose members have less familiarity with RDA.

OCLC reported that updating its *Bibliographic Formats and Standards*, 4th edition, would entail a process comparable to its last full revision; that process required portions of time from about 30 staff members for nearly two years.  OCLC is exploring instead how to present documentation in a Web-based environment; meanwhile, it is considering an interim publication of essential information to bridge the gap.  SkyRiver reported that their documentation undergoes continuous revision, including the guidelines about the possibility of AACR2 and RDA records for the same resource.

### Impact and Costs of Updating Local Documentation

To questions in the IQ survey addressed the impact on existing documentation of implementing RDA:  "If RDA is implemented, what will be the impact on your existing documentation?" and "Will the impact on your existing documentation be a barrier to or a benefit in implementing RDA?"  The following two figures (Figures 24 and 25) show the survey findings.
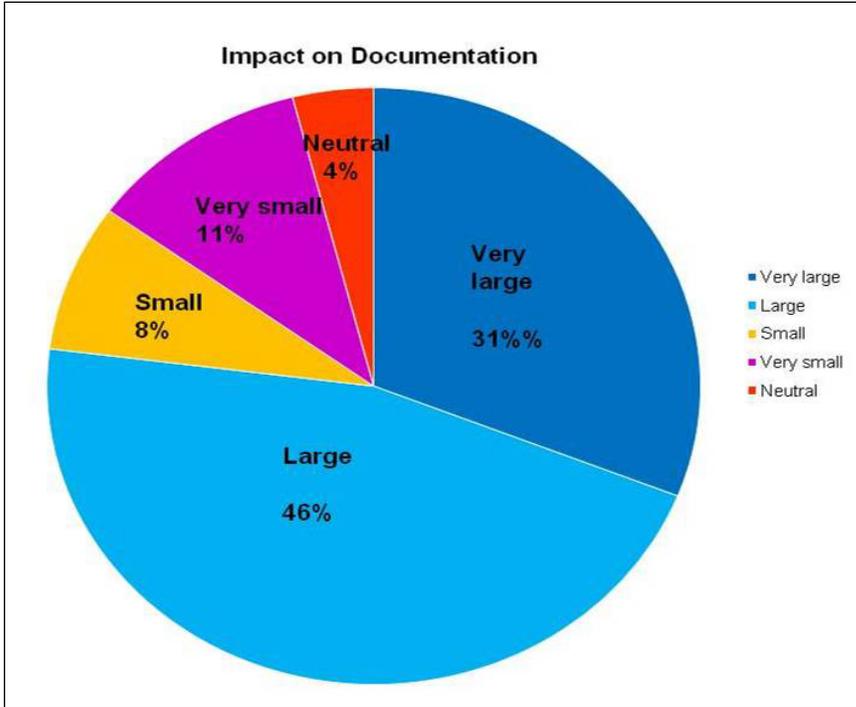
**Figure 24. Impact of RDA implementation on existing documentation**
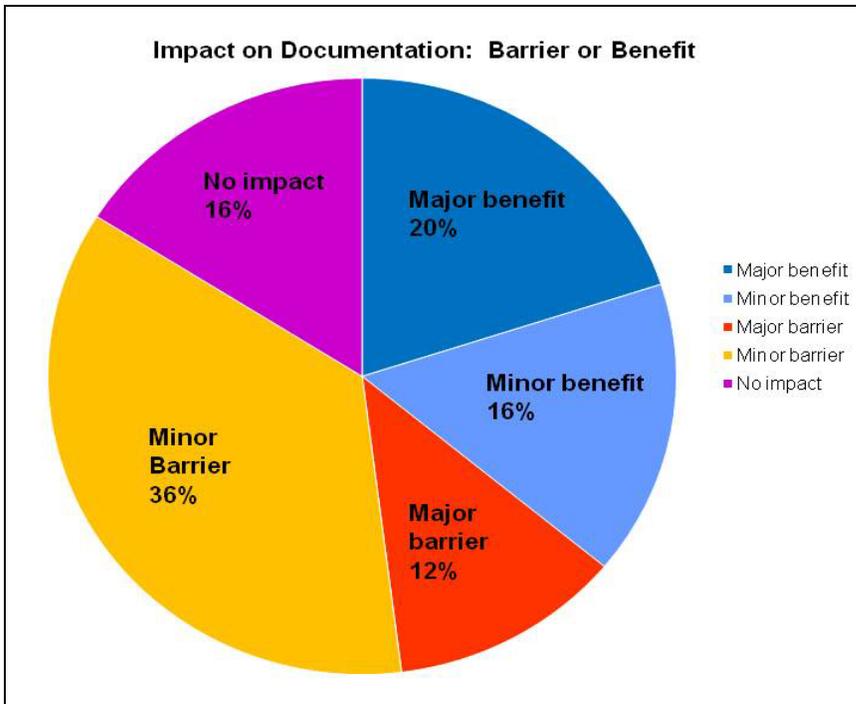


**Figure 25. Impact on documentation: barrier or benefit**

Additional comments for these questions covered various topics. Those related to the impact ranged from "very large" to "not insurmountable." Five comments related to making local decisions on options with two focusing especially on those decisions in relation to copy cataloging; one indicated an intention to follow national policy decisions. One noted a "good opportunity to create consistent documentation." Two others noted that some documentation for certain categories of material and certain local practices would need to be revised. One said that "RDA's extra cost will likely hinder or negate our ability to update." A vendor indicated that its stylebook would need to be rewritten for RDA as more clients request RDA services. GSLIS participants noted that course materials would need to be revised to accommodate RDA.

Of the 14 comments related to benefit or barrier that were more than repetitions of the forced-choice response, most related to perceived benefits: three noted the opportunity for streamlining workflows and disparate procedures ("... adopting RDA will provide reason and means for creating efficiencies across cataloging units") and four said implementation would force them to update out-of-date documentation. One participant noted that institution-specific macros would also need to be updated. A vendor said that documentation wouldn't be revised until there was enough client demand.

## Findings: Use of *RDA Toolkit*

The following is a compilation and summary of textual comments about the *RDA Toolkit* reported by respondents who answered six of the RDA testing surveys (Institutional Questionnaire, Record Creator Profile, Common Original Set, Common Copy Set, Extra Original Set, and Extra Copy Set). Many of the respondents, when discussing their impressions of the *RDA Toolkit* seemed to confuse the *RDA Toolkit* with the content of the instructions themselves. The summary below includes only comments determined to be related to the *RDA Toolkit* itself. Comments determined to be related to the content of RDA have been included in that section of the report. While there were several positive comments related to the *RDA Toolkit,* the overall impression from the comments was that users struggled to use the *Toolkit* effectively.

Below are comments on specific areas of functionality within the *RDA Toolkit*.

*RDA Toolkit: Workflows*
Many people commented on workflows in the *RDA Toolkit* specifically the usefulness of the LC workflows. They were seen as useful in creating initial records because they are written in straightforward language and ease the burden of the FRBR-based arrangement of RDA by ordering the rules by MARC/ISBD area. Some libraries did not have the time or resources to create their own workflows and were appreciative of being able to use those created by others. Additionally, it was felt that there was little incentive to create workflows in the *RDA Toolkit* rather than using local documentation. Some respondents commented on the potential for development at the local level and by format specific cataloging communities. It was noted that workflows are often project specific

and require a commitment to keep them up to date.  Some reported difficulty in navigating between the text of RDA, the workflows, and the RDA to MARC mappings.  There was a suggestion to be able to have a workflow and RDA to MARC mapping open at the same time on separate tabs.  There were some comments that using the workflows was a mechanism to access the instructions in RDA by format, but some saw this as a workaround to reading the text of RDA as written and considered it a mistake to use the workflows to overcome the shortcomings of RDA and the *RDA Toolkit.*

### *RDA Toolkit: Navigation*

Many respondents found the *RDA Toolkit* to be clunky and difficult to navigate.  Respondents were not pleased with the organization (although it was at times unclear if this was the organization of rules themselves or how they were presented in the *RDA Toolkit).*  Many reported a slow response time leading to difficulty in scrolling.  This seems to be related to loading an entire chapter rather than just a few pages.  Because an entire chapter is loaded, it requires a large amount of scrolling and therefore it is difficult to know exactly where one is.  Some respondents reported problems with formatting and suggested the possibility to open up text in a new window when clicking on a value.

The Sync TOC feature was appreciated as well as the Table of Contents in general.  There was a desire, however, for chapter numbers in the TOC rather than the section numbering that overcomplicates the TOC.  There was a suggestion to improve the display to differentiate visually between sections of the TOC.

### *RDA Toolkit: Searching*

The comments regarding the searching capabilities in the *RDA Toolkit* stemmed from the fact that many users felt that keyword searching was their only viable entry into the text.  Attempting to navigate to particular rules in the text via the table of contents confused many users.  Because there was such heavy use of the searching functionality, there were comments that the *RDA Toolkit* needs better keyword indexing and an index.  Many commented on having difficulty locating all of the relevant rules and that the hit list does not include enough context to decide which is the one with the needed information.  There were comments that it was difficult to determine the order of results of a keyword search and suggestions were to display the results in rule order or have links to the rules first followed by links to the definitions.  When a user filters to only core elements, it seems that one does not get "Core If" elements and therefore one is not sure if all that is needed is found.  Respondents wanted to be able to use wildcards to truncate their searches, e.g., not to have to search for both "transcribed" and transcription."  Normalization is needed to ensure that searches such as for "Ph.D." and "PhD" produce the same results.  There was a suggestion for a hidden mapping behind the search box to map AACR2 terms to RDA terms since some terms familiar to users of AACR2 are not present in RDA.

### *RDA Toolkit: Tools/Resources Tabs*

Many respondents found the RDA to MARC mappings useful; however, some found it cumbersome to have to scroll the entire mapping and suggested adding a hierarchical navigation.  Others noticed that the RDA to MARC mappings sometimes produced some odd results.

Many respondents commented that they liked having LCPS (Library of Congress Policy Statements) accessible in the *RDA Toolkit.* At the beginning of the test the links between the rules in RDA and the LCPSs were not working, but that was resolved later on during the test.

Having AACR2 in the *RDA Toolkit* was also appreciated, and some commented that they would use AACR2 in the *RDA Toolkit* rather than in print or in *Cataloger's Desktop,* because it is interactive with RDA. It was also mentioned that the AACR2 to RDA links were not always relevant.

### *RDA Toolkit: Local Annotations/Bookmarks*

The ability to create bookmarks and annotations was appreciated; however, many users were disappointed with these features. They felt that the bookmark tool was not robust enough in that one could not update a bookmark without deleting and creating a new one. The ability to be able to share bookmarks was missing. Some found it difficult to create personal annotations and some institutions discouraged staff from making personal annotations, because they wanted them to focus on institutional policies and decisions. The ability to add institution-level notes to all associated profiles would be welcomed.

Most institutions did not try linking between local documentation and the *RDA Toolkit* but see its value should RDA be implemented.

### *RDA Toolkit: General Comments*

Some respondents felt that the *RDA Toolkit* was well designed and easy to use. They appreciated the organization of RDA as an online document, and found it easy to work with and not lacking any functions.

There were comments that a longer timeout period is needed and when the *RDA Toolkit* does timeout, some users would appreciate, if it would not wipe out the screen but rather leave the screen as it was.
Three institutions reported difficulties in using the *RDA Toolkit* due to security and firewall issues.

### *[RDA Toolkit Enhancements as of March 31, 2011 (taken from http://www.RDA Toolkit.org/blog/119)]*

A book-style table of contents was added by converting the print table of contents into an online section of RDA. It includes links to sections listed and has printable PDF. The new table of contents is not included in search.

Book-style index derived from index used in print version has been added. It includes terms not in RDA but terms users might try to search. It also includes links to full-text of RDA and a printable PDF. The index is included in search.

In the search results, display hits in the glossary and index are now collected at the bottom of the results with a label to help distinguish these results from results in the rules.

## Findings: RDA Content

The Coordinating Committee attempted to evaluate the content of the rules using objective and subjective measures.  Objectively the text was run through a readability score analysis and compared to other common cataloging texts.  Subjectively, comments were culled from certain questions in the surveys.

### *RDA Content: Readability Analysis*

The purpose of this readability analysis was to determine an approximate readability score representative of the *Resource Description and Access* (RDA) instructions. This readability score was determined using the instructional text from the RDA manual and did not include headings, examples, appendices, or indexes.  In addition, analyses were done on samples of the *Anglo-American Cataloguing Rules, 2nd ed., 2002 revision* (AACR2), the *CONSER Cataloging Manual* (CCM), and the International Standard Bibliographic Description (ISBD) in order to compare the RDA readability scores with three commonly used cataloging manuals and another international cataloging standard.

The readability tests used for this analysis were the Flesch Reading Ease Test and the Flesch-Kincaid Grade Level Test. Readability scores only provide general guidance on a text's readability and in general they are "accurate only within about one grade level on either side of the analyzed level and only for the typical reader."[3]

### *The Plain Writing Act of 2010*

In addition, this section provides information on the Plain Writing Act of 2010 (Public Law 111-274).  Although RDA is not a government publication, the Federal Plain Language Guidelines provide valuable information that could be used if RDA is revised or edited.  The Plain Writing Act of 2010 defines plain writing as "writing that is clear, concise, well-organized, and follows other best practices appropriate to the subject or field and intended audience."

Federal Plain Language Guidelines are available for government agencies at http://www.plainlanguage.gov/howto/guidelines/bigdoc/TOC.cfm.  The guidelines recommend testing documents for plain language throughout the document's creation and mention the following testing techniques: paraphrase testing, usability testing, and controlled-comparative studies.  These guidelines instruct agencies, among many things, to write for an identified audience and to organize documents according to readers' needs.  Active voice, the use of short words and short sentences,

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[3] Quote from p. 342. Andrasik, F., & Murphy, W. D. (1977). Assessing the readability of thirty-nine behavior-modification training manuals and primers. *Journal of Applied Behavior Analysis,* 103 (2), 341-344. doi: 10.1901/jaba.1977.10-341.

and the avoidance of legal or technical terminology are among the recommended guidelines. Additional guidelines relevant to cataloging manuals include the use of examples to "clarify complex concepts," guidance on minimizing cross-references, and designing documents for easy reading.

### *Readability Tests*

Microsoft Word provides readability analysis using two common readability tools: Flesch Reading Ease and Flesch-Kincaid Grade Level. Both of these readability tests rate texts according to the average number of syllables per word and the average sentence length. In addition, Microsoft Word provides scores on the percentage of passive sentences found in a text and the number of words per sentence.

The Flesch Reading Ease Test rates text on a 100-point scale. A higher rating indicates an easier to understand document while a lower score indicates a more difficult to understand document. The Flesch Reading Ease Formula is: 206.835 – (1.015 x average sentence length) – (84.6 x average number of syllables per word).[4,5] The following scale indicates the grade level that can easily understand a document with the following scores[6]:

- 90 – 100: 5th grade
- 80-90: 6th grade
- 70-80: 7th grade
- 60-70: 8th to 9th grade
- 50-60: 10th to 12th grade
- 30-50: 13th to 16th grade
- 0-30: college graduates.

The Flesch-Kincaid Grade Level Test rates text by U.S. grade level. For example, a score of 7.0 means that a seventh grader can understand the document. The Flesch-Kincaid Grade Level Formula is: (.39 x average sentence length) + (11.8 x average number of syllables per word) – 15.59.[7]

### *RDA Content: Readability analysis methodology*

Four training manuals were selected for readability comparisons by the national libraries involved in the Coordinating Committee: RDA, AACR2, CCM and ISBD. The sample size was based on the number of instructional pages in each text, excluding prefaces, appendices and indexes. The sample size for

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[4] Flesch, R. (1948). A new readability yardstick. *Journal of Applied Psychology*, 32(3), 221-233. doi:10.1037/h0057532. Available from http://psycnet.apa.org/journals/apl/32/3/221.pdf

[5] Microsoft Office. Test your document's readability - Microsoft Office Word Support. Retrieved from http://office.microsoft.com/en-us/word-help/test-your-document-s-readability-HP010148506.aspx

[6] Andrasik, F., & Murphy, W. D. (1977). Assessing the readability of thirty-nine behavior-modification training manuals and primers. *Journal of Applied Behavior Analysis,* 103 (2), 341-344. doi: 10.1901/jaba.1977.10-341.

[7] Microsoft Office. Test your document's readability - Microsoft Office Word Support. Retrieved from http://office.microsoft.com/en-us/word-help/test-your-document-s-readability-HP010148506.aspx

each text was determined such that they would allow analysis of results with a 95 percent confidence level and a 10 percent margin of error.  The RDA sample size was 86 pages.  The AACR2 sample size was 82 pages.  The CCM sample size was 87 pages.  The ISBD sample size was 71 pages.  A random order generator was used to determine the pages for analysis across each text, excluding prefaces, appendices, and indexes.  The first 10 lines from each randomly selected page of text, beginning with the first complete sentence, were analyzed.  In order to use complete sentences for the reading tests, some samples contain slightly more than 10 lines in order to include the entire last sentence.  If a page did not have any text or it did not have the full 10 lines necessary for the sample, text was taken from the page before or after the randomly selected page.  These 10 lines were inserted into Microsoft Word and analyzed to determine the Flesch Reading Ease score and the Flesch-Kincaid Grade Level.  The scores were averaged to create an overall score for the text.

*RDA Content Readability Analysis: Results*

The averages of the readability scores from the randomly sampled text, as determined by Microsoft Word's readability analyzer, are shown in Figure 26: Readability Scores.  For the Flesch Reading Ease, a higher score indicates better readability.  For the Flesch-Kincaid Grade Level, a lower score indicates better readability.

### Readability Scores

| Readability Test | RDA | AACR2 | CCM | ISBD |
|---|---|---|---|---|
| Flesch Reading Ease | 28.7 | 41.4 | 41.8 | 36.6 |
| Flesch-Kincaid Grade Level | 14.8 | 12.5 | 12.25 | 13.7 |
| Passive Sentences | 17.3% | 10.4% | 34.9% | 56.3% |
| Words per sentence | 22.7 | 21.6 | 20.1 | 23.2 |

**Figure 26. Readability of different cataloging manuals**

As noted above, readability scores only provide general guidance on a text's readability.  Since they focus on the average sentence length and the average number of syllables per word, many factors that help a user read and understand a document, including organization and formatting, are not considered.

The Flesch-Kincaid Grade Level scores of each manual tested ranked at the 12th grade level or above, most having scores that are considered readable by college students.  The Flesch Reading Ease Test scores ranked RDA as the lowest, with a score of 28.7 (college graduate level). AACR2, CCM, and ISBD ranked within the 30-50 range (college student/13th to 16th grade level).  The scores of each of these documents should be considered as approximate scores and not as a true indicator of their overall readability.  In addition, readability scores are generally, "most meaningful up to about high school or beginning college level.  Beyond that point, the reader's special background knowledge is often more

important than the difficulty of the text." [8] All four of the manuals were created and written for a specific audience with a background in cataloging.  This will also influence the level of difficulty since they will include language and styles of writing not necessarily standard for a general audience.

While these scores provide a beginning benchmark to illustrate the approximate readability of each text according to these two readability tests, the results should be treated as complementary to comments from RDA test participants.  Comments from the RDA test regarding its readability and usability reflect the actual use and experience of catalogers.  The user comments and their reflection on RDA's readability should thus be given greater weight, while also taking into account these approximate indicators.

*RDA Content: Findings from Surveys*
*RDA Content: General Institutional and Record Creator Responses*

Record Creator Profile question no. 2 (RCP2) asked participants to "Please supply your overall opinions about RDA, if you wish."  There were 173 unique responses to RCP2.  These comments were categorized as positive, negative, mixed, and/or suggestions for improvement.  Thirty-one percent (53 responses) expressed overall positive opinions about RDA, 38% (65 responses) expressed overall negative opinions about RDA, 25% (44 responses) expressed overall mixed opinions about RDA, and 93 responses included suggestions for improvement.  Suggestions for improvement came from both those expressing negative opinions as well as positive opinions.

Institutional Questionnaire question no. 2 (IQ2) asked participants to "Please provide any general comments you wish concerning the test, the *RDA Toolkit,* or the content of the RDA instructions." There were 28 unique responses to IQ2.  These comments were also categorized as overall positive, negative, mixed, and/or suggestions for improvement.  Eighteen percent (five responses) provided overall positive comments, 29% (eight responses) provided overall negative comments, and 32% (nine responses) provided overall mixed comments.  Twenty-one responses included suggestions for improvement.

Since IQ2 asked for comments regarding the test, the *RDA Toolkit,* or the content of the RDA instructions, categorization was challenging.  Many participants included both positive and negative opinions in their comments.

Institutional Questionnaire question no. 3 (IQ3) asked participants "Do you think that the U.S. community should implement RDA?"  While 29 participants responded to the question, 24 of these respondents also included comments as part of their response.  Twenty-five percent (six responses) were categorized as overall positive opinions, 25% (six responses) as overall negative opinions, and

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[8]  Quote from p. 342. Andrasik, F., & Murphy, W. D. (1977). Assessing the readability of thirty-nine behavior-modification training manuals and primers. *Journal of Applied Behavior Analysis,* 103 (2), 341-344. doi: 10.1901/jaba.1977.10-341.

33% (eight responses) expressed overall mixed opinions.  Additionally, 21 responses provided suggestions for improvement.

*Positive features of RDA content noted by testers*
- Use of relator codes/roles
- Use of controlled vocabularies
- Granularity in authority records
- Explicit stating of relationships
- 33X fields
- Rules largely unchanged from AACR2 (but the way they are reorganized is unnecessarily confusing)
- More direct transcription
- Flexibility on how data are recorded and how much data to record
- More faceted approach allows for easier description of complex resources
- Emphasis on cataloger judgment
- Description of videos and e-resources more complete
- Well written and detailed for all formats
- Arrangement
- Leaves "wiggle room" for local options and unexpected situations
- New rules will improve success of the FRBR user tasks
- Separation of guidance text from display conventions
- More use of abbreviations

Sample positive comments from testers:
"I think it does well what is aims to do (which by my understanding, is to serve as a cataloging code appropriate for most cultures of the world, better suited for the current information environment, and more concerned with addressing what should be entered into the record than with how exactly it should be entered)."
"RDA is conceptually elegant and necessary for future access to library resources."
"RDA is extremely well-written and detailed for all formats."
"Language  [is] no more opaque than AACR2."
"I think it provides a better foundation for recording what the resource in hand is, considers the cataloging requirements for a wider variety of materials, and eliminates the many physical card catalog restrictions that were carried over to AACR2."
"I like not having to abbreviate things anymore.  Much easier to transcribe what you see.  I think the user display is nicer to look at."

*Negative features of RDA content noted by testers*
- Wordy/needs editing
- Style and language obstacle to understanding (more complicated than it needs to be)
- Too abstract

- Lack of examples (especially need MARC examples) and examples need more context
- Too many options/alternatives will lead to inconsistency in records
- Need to reduce redundancy
- Too many rule references and links make it hard to follow/circular instructions
- Concerns that one was never certain all the relevant rules for the item being described had been found
- Confusion about structure, organization, vocabulary, phrasing
- Chapter/Section numbering confusing
- Just a rearrangement of existing rules in a new theoretical framework
- Rather than simplified, seems more complicated
- The sentence structure leads to multiple interpretations of same instruction
- Non-linear nature of the rules.  Structure does not match workflow process
- Still book-centric
- Not accommodating of e-resources and using outdated terminology
- Core elements not robust enough
- Neither the language nor the organization of the instructions would lend themselves to adoption outside of libraries
- People still struggle with the unfamiliar vocabulary of the FRBR model, even after several months of training and catalogers remain confused about distinctions between FRBR entities.
- Hard to distinguish instructions for creating access points and creating authority records
- Need better links in texts to related sections especially between creating access points and relationships and authority records
- Underdevelopment of expression sections – what is appropriate for what sort of resources
- Need more detailed guidance and more examples for non-print material and multi-format items
- Definitions hard to understand, glossary is not helpful
- Vocabulary and content too specialized
- More use of abbreviations

Sample negative comments from testers:

"The language reads like a legal document."

"I found RDA rules to be vague and circular.  One could not read a rule long without being referred to another location."

"In my opinion, the weakness of RDA is the 'disorganized vagueness' of the RDA rules."

"RDA seems to be a collection of rules of description which are ordered with no respect to a reasonable workflow and with little done to tie the rules together"

 "It is written more complicated than it needs to be.  It is difficult to understand, and each person may arrive at a different conclusion from the same instruction.  There are lots of inconsistencies and very

confusing examples.  It should be half the length it is.  It's cumbersome and repetitive to use and read."

"RDA's attempt to fit the entire universe of occupations involved in writing, publishing, film-making, animation, legal proceedings, etc., into a single list of standardized terms is pointless."

*Suggestions from testers (all direct quotes from surveys)*

- "Provide clearer examples–show examples of what is on a piece and the resulting transcription/description side by side.  Examples need context."
- "Understand the tension that the concepts of RDA are not tied to any one communication scheme or coding format, but the reality is that the vast majority of RDA will be expressed in MARC, so need to see examples in the context of MARC, both at the field and entire record level (as in Appendix M in the RDA drafts)."
- "Tighten up introductory paragraphs of each section to reduce redundancy."
- "Add a section with side by side comparisons of differences between AACR2 and RDA records."
- "Focus on how catalogers catalog, rather than the FRBR/FRAD conceptual models.  This doesn't mean abandon them, just flip-flop what governs the code."
- "Provide a view of the RDA element set that is just an A-Z list, without regard to FRBR entity."
- "The community needs a post-MARC data model and encoding structure."
- Relationship designator terms could be expanded upon.  Under I.4.2, the relator term "publisher" is conspicuously missing.
- "With RDA being an online product we need an infrastructure that will support ongoing and continual refinements to the rules–refinements that are not labored or implemented once a year."
- "More guidance on constructing access points, especially 'expression' access points. Guidance on when expression information must be in an access point as opposed to recording it elsewhere in the record."
- "There needs to be a way to 'bundle' 33X elements when there is more than one set so related elements can be connected."
- "The notion of 'reissue' does not seem to exist in RDA.  It is quite different from a reprint and should at least be addressed as a relator phrase."
- "In an age of texting and handheld devices we should be expanding abbreviations, rather than eliminating them."

*Analysis of Areas of Difficulty*

Each of the record-by record surveys included questions on what types of difficulties, if any, were encountered in the cataloging of that particular record.  Analysis was conducted on responses that selected the following options of difficulties, comparing results by different levels of staff:

(1) content of cataloging instructions
(2) selecting from options in the cataloging instructions

While other options relating to other areas of evaluation were available, the two options above were chosen because they specifically relate to whether participants understood concepts in the text and could interpret and apply the rules.

*RDA Content: Findings from Common Original Set (1,200 surveys received)*

There were 1,137 responses to COS question no. 10. As shown in Figure 27 below, 54.2% of responses indicated difficulty with one or both categories, while 39% of responses indicated no difficulties. As anticipated there were more difficulties with the COS than the other sets of records, because the COS was supposed to be done first and participants were new to the rules, and the COS may have contained formats and resources that participants were not familiar with cataloging.

Responses to COS question no. 10: In creating this record, which of the following did you encounter difficulties with? Please check all that apply

| Category | Response Count | Percentage |
|---|---:|---:|
| Did not encounter any difficulties | 454 | 39.9% |
| Online tool *(RDA Toolkit)* | 272 | 23.9% |
| **Content of cataloging instructions** | **367** | **32.3%** |
| **Selecting from options in the cataloging instructions** | **249** | **21.9%** |
| Coding/tagging or communication formats | 198 | 17.4% |
| Other | 279 | 24.5% |

Figure 27. Difficulties encountered, Common Original Set

Professionals and support staff showed little difference in the percentage who encountered difficulties, as shown in Figure 28 below.

Responses by staff role to COS question no. 10: In creating this record, which of the following did you encounter difficulties with? Please check all that apply

| Staff role: Professional or Support | Content of Cataloging Instructions | Selecting from options in cataloging instructions |
|---|---:|---:|
| Professionals: Number | 243 | 157 |
| % of Professionals encountering difficulties | 20% | 12.9% |
| Support: Number | 41 | 31 |
| % of Support Staff encountering difficulties | 19.3% | 14.6% |

Figure 28. Difficulties encountered, Common Original Set, by staff role

*RDA Content: Findings from Extra Original Set (5,908 surveys received*)

There were 5813 responses to EOS question no. 15. More than eighty percent (81.9%) of responses did not indicate any difficulties. 14.5% of responses indicated difficulty with one or both of the categories, a significantly lower number than for the Common Original Set.

Responses to EOS question no. 15: In creating/completing this record, which of the following did you encounter difficulties with? Please check all that apply

| Category | Response Count | Percentage |
|---|---|---|
| Did not encounter any difficulties | 4759 | 81.9% |
| Online tool *(RDA Toolkit)* | 378 | 6.5% |
| **Content of cataloging instructions** | **563** | **9.7%** |
| **Selecting from options in the cataloging instructions** | **279** | **4.8%** |
| Coding/Tagging or Communication formats | 147 | 2.5% |
| Other | 316 | 5.4% |

**Figure 29. Difficulties encountered, Extra Original Set**

Sixty-seven responses that indicated difficulties with the content of cataloging instructions and/or selecting from options in the cataloging instructions included specific comments about the difficulties encountered. Several comments were made about the need for better instructions ("many instructions in RDA were not written clearly," and "need more specialized instructions for cataloging moving images; existing RDA rules for Moving Images are confusing and incomplete"), and the organization of cataloging rules.

Responses by staff role to EOS question no. 15: In creating/completing this record, which of the following did you encounter difficulties with? Please check all that apply

| Staff role: Professional or Support | Content of Cataloging Instructions | Selecting from options in cataloging instructions |
|---|---|---|
| Professionals: Number | 464 | 197 |
| % of Professionals encountering difficulties | 9% | 3.8% |
| Support Staff: Number | 37 | 32 |
| % of Support Staff encountering difficulties | 6.8% | 5.9% |

**Figure 30. Difficulties encountered, Extra Original Set, by staff role**

*RDA Content: Findings from Common Copy Set (111 surveys received)*

There were 106 responses to CCS question no. 10.  In responding to the areas where difficulties were encountered, 19.8% indicated difficulties encountered in the two areas of interest; 41.5% did not indicate that difficulties were encountered.

CCS question no. 10: In updating/completing this record, which of the following did you encounter difficulties with? Please check all that apply

| Category | Response Count | Percentage |
|---|---|---|
| Did not encounter any difficulties | 44 | 41.5% |
| Online tool *(RDA Toolkit)* | 29 | 27.4% |
| **Content of cataloging instructions** | **14** | **13.2%** |
| **Selecting from options in the cataloging instructions** | **7** | **6.6%** |
| Coding/tagging or communication formats | 17 | 16.0% |
| Which elements to update | 19 | 17.9% |
| How to update the elements | 24 | 22.6% |
| Other | 11 | 10.4% |

Figure 31. Difficulties encountered, Common Copy Set

For the Common Copy Set, support staff had more difficulties with the contents of the cataloging instructions, but the overall number of responses is low.

CCS question no. 10: In updating/completing this record, which of the following did you encounter difficulties with? Please check all that apply

| Staff role: Professional or Support* | Content of Cataloging Instructions | Selecting from options in cataloging instructions |
|---|---|---|
| Professionals: Number | 4 | 3 |
| % of Professionals encountering difficulties | 4.4% | 3.3% |
| Support Staff: Number | 3 | 0 |
| % of Support Staff encountering difficulties | 15.8% | 0% |

Figure 32. Difficulties encountered, Common Copy Set, by staff role

*RDA Content: Findings from Extra Copy Set (801 surveys received)*

For the Extra Copy Set (ECS), 29.2% of the responses indicated difficulties in the two areas of interest. This is a higher percentage than those that indicated difficulties with the Extra Original Set, indicating guidance and training on how to handle copy records will need to be developed.

There were 24 comments from those who answered with one of these options. They focused on the difficulty of finding what they need within RDA. There were several comments about the language being unclear and difficult to understand.

ECS question no. 16: As you completed/updated this copy record, which of the following did you encounter difficulties with? Please check all that apply

| Category | Response Count | Percentage |
|---|---|---|
| Did not encounter difficulties | 526 | 67.3% |
| Online tool *(RDA Toolkit)* | 138 | 17.7% |
| **Content of cataloging instructions** | **114** | **14.6%** |
| **Selecting from options in the cataloging instructions** | **114** | **14.6%** |
| Coding/tagging or communication formats | 57 | 7.3% |
| What elements to update | 75 | 9.6% |
| How to update the elements | 75 | 9.6% |
| Other | 36 | 4.6% |

Figure 33. Difficulties encountered, Extra Copy Set

ECS question no. 16: Professional and Support Staff: As you completed/updated this copy record, which of the following did you encounter difficulties with? Please check all that apply

| Staff role: Professional or Support | Content of Cataloging Instructions | Selecting from options in cataloging instructions |
|---|---|---|
| Professionals: Number | 4 | 3 |
| % of Professionals encountering difficulties | 11 % | 9% |
| Support Staff: Number | 3 | 0 |
| % of Support Staff encountering difficulties | 9.8% | 10.8% |

Figure 34. Difficulties encountered, Extra Copy Set, by staff role

*RDA Content: Difficulties with Authority Work: Findings from Common Original Set surveys*

1077 responses were received for COS question no. 15. As shown in Figure 35, 48.7% of the responses did not report any authority records created for that resource. Only 11.3% of responses

indicated difficulty with either the content of the instructions or selecting from the options. Thirty-seven percent indicated no difficulties.

COS question no. 15: In creating authority records for this item, which of the following did you encounter difficulties with? Please check all that apply

| Category | Response Count | Percentage |
|---|---|---|
| Did not create authority records | 525 | 48.7% |
| Created authority records but did not encounter difficulties | 398 | 37.0% |
| Online tool *(RDA Toolkit)* | 48 | 4.5% |
| **Content of cataloging instructions** | **73** | **6.8%** |
| **Selecting from options in the cataloging instructions** | **48** | **4.5%** |
| Coding/tagging or communication formats | 28 | 2.6% |
| Other | 58 | 5.4% |

Figure 35. Difficulties encountered, authority work for Common Original Set

*RDA Content: Difficulties with Authority Work: Findings from Extra Original Set Surveys*
4,879 responses were received for EOS question no. 22. As shown in Figure 36, 70.7 % of responses did not indicate any difficulties. 8.3% of responses indicated difficulties with one or both categories, close to the percentage of responses that indicated difficulties in the COS, so it appears there was less of a learning curve for authority records.

EOS no. 22: In performing authority work related to this item, which of the following did you encounter difficulties with? Please check all that apply

| Category | Response Count | Percentage |
|---|---|---|
| Did not create or update any authority records | 898 | 18.4% |
| Performed authority work, but did not encounter difficulties | 3450 | 70.7% |
| Online tool *(RDA Toolkit)* | 133 | 2.7% |
| **Content of cataloging instructions** | **290** | **5.9%** |
| **Selecting from options in the cataloging instructions** | **115** | **2.4%** |
| Coding/tagging or communication formats | 65 | 1.3% |
| Other | 231 | 4.7% |

Figure 36. Difficulties encountered, authority work for Extra Original Set

Fifty surveys that indicated difficulty with "content of cataloging instructions" or "selecting from options in the cataloging instructions" also included comments. The most common comment expressed concern with the amount of time needed to create RDA authority records.

*Issues Related to Formats and Modes of Issuance*

While overall, 82% of the EOS survey responses indicated no difficulties in completing the records, responses from those working in non-textual formats indicated much more difficulty in creating their bibliographic records, as shown in Figure 37.

## Difficulties by Format, Extra Original Set

| Format | No difficulties | Had difficulties | Total | Percentage of responses who DID NOT have difficulties | Percentage of responses who HAD difficulties |
|---|---|---|---|---|---|
| cartographic dataset | 5 | 3 | 8 | 63% | 38% |
| cartographic image | 580 | 62 | 642 | 90% | 10% |
| computer dataset | 8 | 7 | 15 | 53% | 47% |
| computer program | 3 | 10 | 13 | 23% | 77% |
| notated music | 172 | 59 | 231 | 74% | 26% |
| performed music | 59 | 45 | 104 | 57% | 43% |
| spoken word | 12 | 16 | 28 | 43% | 57% |
| still image | 63 | 65 | 128 | 49% | 51% |
| tactile notated movement | 1 | 0 | 1 | 100% | 0% |
| tactile text | 2 | 1 | 3 | 67% | 33% |
| tactile three-dimensional form | 1 | 0 | 1 | 100% | 0% |
| text | 3,891 | 853 | 4,744 | 82% | 18% |
| three-dimensional form | 3 | 5 | 8 | 38% | 63% |
| two-dimensional moving image | 40 | 75 | 115 | 35% | 65% |
| Total | 4840 | 1201 | 6041 | N/A | N/A |

**Figure 37. Difficulties encountered, Extra Original Set, by format**

Similarly, EOS Survey responses from those working with non-monographic material indicated a higher percentage of difficulties in bibliographic record creation than did responses from monograph catalogers, as shown in Figure 38.

Difficulties by Mode of Issuance, Extra Original Set

| Mode of issuance | No difficulties | Had difficulties | Total | Percentages of responses who DID NOT have difficulties | Percentage of responses who HAD difficulties |
|---|---|---|---|---|---|
| integrating resource | 39 | 20 | 59 | 66 | 34 |
| multipart monograph | 101 | 57 | 158 | 64 | 36 |
| serial | 171 | 68 | 239 | 72 | 28 |
| single unit | 4,529 | 1,061 | 5,590 | 81 | 19 |
| Total | 4,840 | 1,206 | 6,046 | N/A | N/A |

**Figure 38. Difficulties encountered, Extra Original Set, by mode of issuance**

*General comments related to non-textual material*

RDA aims to be a standard that provides basic instructions that are applicable to all types of resources.  Some survey respondents agreed that it succeeded, but others questioned that accomplishment.

- "Just as AACR2 was focused on printed, published texts, RDA is focused on text-based electronic resources."
- "After attempting to create records for online and electronic resources for the very first time during the test, [I feel] RDA offers some badly needed guidance in this area."
- "Need more guidance for non-print formats."
- "I feel that RDA lacks the appropriate guidance on how to deal with electronic resources.  This seems like a big oversight since our resources are increasingly electronic."
- "Format specialists should be consulted in the complete revision of rules intended for description of media based resources, visual resources, and artifacts."
- "In the area of physical description, RDA is inconsistent, providing detailed guidance for some formats, but not others (e.g., base material like acetate provided for films, but not audio tapes)."

As previously mentioned, there were many comments related to the new elements for Types of Content, Media, and Carrier, particularly regarding the controlled vocabulary assigned for non-book material.  While some applauded the elimination of the General Material Designation (GMD), others

felt its loss could have a significant impact on current OPAC displays.  Specific suggestions related to the 33X fields are included here.

- "33X terminology should reflect common usage."
- "There needs to be a way to "bundle" 33X elements when there is more than one set so related elements can be connected."  [Note: MARC allows the use of $3 to identify specific components.]
- "I think the Content/Media/Carrier needs to be scrapped in favor of an updated GMD listing … with terms in common use such as Blu-Ray or Wii game."

*Recommendation from Coordinating Committee*
RDA trainers may need to stress that these terms are meant for machine manipulation rather than human eyes.  System vendors can work with their customers to find creative ways to indicate content and carrier to users that do not depend on displaying these non-intuitive controlled vocabularies.

*Cartographic material*
There were not many comments about cartographic material and the bulk of the records created in this format came from a single cataloger.
- There is an overabundance and definite imbalance in the number of cartographic rules and examples.
- Not a good fit between the list of approved relationship designators and actual functions of contributors to cartographic (and maybe most other) material.

*Electronic resources*
Comments for this type of material tended to focus on the allowable content types.
- "No content type for computer multimedia stuff like games."
- "Need better content options for video games and computer multimedia."
- "Needs to be some upgrades to the carrier types for mixed media carriers.  For example, a DVD can serve as both a video disc and a computer disc."
- "Not as accommodating of electronic resources as it purports to be.  The terminology allowed for electronic resources is very limited and not very enlightened.  The term 'computer' for the type of medium is troublesome and dated at best.  The use of 'online resource' is equally problematic mainly because the definition of 'online' strongly implies the necessity of a data connection which is not true of many electronic resources."

*Moving image material*
Several issues overlapped the moving image and sound recording communities.  The first had to do with the preferred source of information for title and not having an option to use the container. Some of both moving image and sound recording catalogers expressed enormous frustration with rule 17.10, which makes the predominant or first-named expression manifested a core element in a manifestation record if there is more than one expression embodied in the manifestation.  They

believe that in many instances this results in an access point that duplicates the title field or misleading information about a very small part of a larger entity. One cataloger went so far as to say that requiring an expression access point that duplicated an existing title was a misinterpretation of the intent of the rule. Some respondents reported that Chapter 17 of RDA in particular needs clarification and reconsideration. Other issues include the core element set, which was reported as often seeming inapplicable to moving image material. The unique language issues associated with this material (multiple soundtracks, dubbing, subtitles) are not perceived to be well handled in RDA.

- "Serious problems with the rules for describing moving image materials."
- "The lack of AACR2 1.1.G.1 [Rule for works lacking a collective title] is problematic for moving image cataloging and title frame titles."
- "This is another of the infamous predominant work with 'extras' which we used to catalog per AACR2 1.1G1 but now appears to be a collection in RDA with the necessity to find a collective title. Which will be the container in this case. Which will automatically conflict with the title of the predominant work, so I'm qualifying the predominant work (the film Gone with the wind) rather than the collection with the container title Gone with the Wind, which would just confuse everybody. This is a totally typical video, so if the JSC really wants us to do them this way, you'll have to get the word out because I can see from the Common Set records that people are cataloging the predominant work from the title frames and noting the subsidiary works, which I do not see support for in RDA."
- Defined core elements are often not present on unpublished A/V material, such as home movies, so it can be difficult to construct an RDA record. [this is a paraphrase]
- "Moving image cataloging has no equivalent to the word 'publish' and is primarily concerned with 'production' and 'distribution.' So emphasis on publication in RDA is problematic."
- "City of publication is irrelevant and typically not readily available for film or video material. Country of production is important, but not addressed in RDA."
- "RDA does not provide clear instructions for recording different date types that are not associated with the creation of the manifestation, such as an interview date "[from a cataloger working on videos of unpublished oral histories].
- "Instructions in RDA are unclear about how to bring out multiple expressions of a dubbed motion picture or a motion picture with soundtracks in more than one language. Patrons wouldn't like it if we treat subtitles and soundtracks equally."
- "It bothers me that this is clearly a particular expression of this film (the 2003 re-edit, though it's not clear if the original edit was ever released). Anyway, it seems like this info should be in the heading if we are doing that for language expressions, but since it's not a formally 'named' edition I don't know quite how to do it. This is actually the case with many films, where the different expressions will be differing aspect ratios and differing 'cuts' many of which are not as nicely formally named as 'Director's cut.' Sometimes there are multiple 'restorations' by different people or agencies, and many cuts differ without ever mentioning it on the packaging at all, so the cataloger has no clue."

- "Requiring an access point for the first constituent work in a compilation seems to be a misunderstanding of 17.8, if the contents of the resource are considered one 'work.' In that case, the title (245 $a) should meet the requirements for an access point for that work."
- "Giving access to just the first work is either repetitive with the title and/or gives unequal weight to the first-named item.'

*Music*
As described above, Rule 17.10 was often cited as very problematic for this material. Also frequently mentioned were problems with the rules for creating expression records. Several commented that the rules seem to have a bias towards Western classical music and do not work well for popular or traditional music, or for the way music is often distributed and purchased today.

- "A recorded sound album should be recognized as a work itself, not just a compilation of component works."
- "It appears that the elements 'medium of performance' and 'form of work' are relegated to providing disambiguation of works of the same name. Medium of performance is a significant mode of access for users, however. Vocabulary for this in RDA was taken directly from AACR2 and is inadequate for this use, is only partially controlled, and only includes Western instruments."
- "Rules are focused on classical Western music. In popular and traditional music, performers are in large part the primary creators of the works they perform, but RDA does not recognize this."
- "FRBR model does not work well for things like popular tunes. Where does one traditional musical work end and another begin?"
- "Big problems arise when creating preferred titles for musical works and expressions/manifestations. Do we still need standard combinations of instruments in preferred titles if we no longer have a rule of 3?"
- "For music, expression records are a big problem. Music catalogers have traditionally made some 'super-expression' authority records for all arrangements of that piece or all English translations of an opera. RDA has no provision for that type of expression record, only records for specific expressions."
- "Many albums are now available for purchase via download, either as complete albums or as individual tracks, in one or more digital file formats. RDA does not address this situation. Is the downloadable version another manifestation of an album? What if users buy only one or several tracks?"
- "Librettos should be under composer, as this is considered the main work in RDA. Otherwise the libretto does not file with other iterations of the work."
- "'Phonogram copyright' is not the equivalent to 'copyright'; it also represents the year of publication, so to give both elements is senseless and confusing to provide both."
- "Sections on physical characteristics of sound recordings need to be refined, especially what is considered standard, vs. what should be noted. Having to record terms like 'optical and 1.4

m/s' in the 300 field is redundant, since these are fixed characteristics of the physical carrier. Most users probably do not understand the difference between optical and magnetic discs."

- "Rules for sound recordings are not relevant to the materials, frequently emphasizing totally unimportant aspects."
- "The treatment of music manuscripts does not seem adequate, because other than a code in the Leader and a 'holograph' note, there is no way in the bibliographic record to indicate that an item is a manuscript.  We need to be able to say '1 manuscript score.'"
- "There is no provision in RDA to include performer names in the contents note;  the performer name would seem to be a key element of information about an expression, i.e., a performance of a work.  This is a loss to users."

*Recommendation from Coordinating Committee*

The Coordinating Committee recognizes that there are internal disagreements within the Moving Image and Music communities.  It is recommended these communities work together to submit proposals for changing RDA in this area.

*Rare books, archives and manuscripts*

Sample comments from the surveys indicate that there does not seem to be a strong consensus on how well RDA works for this community, with one exception described below.  As the final bullet in this section indicates, it will be the responsibility of the rare book community to determine how to best meld their standards.

- "Generally RDA seemed to be relevant for cataloging special collections material, even those unusual ones."
- "The testers found that RDA worked least well for rare and non-traditional material and was problematic for non-MARC schemes."
- "RDA doesn't work well for manuscripts or two or three dimensional art works (but neither did AACR2).  I think there is going to be trouble in deciding how to deal with entities which are simultaneously a work, expression, manifestation and item."
- "The treatment of resources with respect to ascertaining preferred names of corporate bodies is notably different in RDA.  The language 'issued by the body' has been changed to 'associated with the body'; this afforded me greater flexibility, while posing a complication: how to construe 'formality' in a resource with no title page, cover, etc." [comment from a cataloger working with an ephemeral publication, namely a program application form]
- "Archival collections are not works.  There is no conscious creative process or act in aggregating e.g. financial statements over a period of years.  Archival collections represent processes, contexts, and functions of specific people and organizations.  RDA should not be applied to archival resource description at all."
- "Somehow the rare book community needs to come up with a standard so that RDA and DCRM(B) work together."

There was unanimous dislike for the rules dealing with extent for rare books. Rare book catalogers want to be able to continue to use square brackets and abbreviations in their description. "The rules changing the 300 field (specifically no square brackets) is a step backwards in user-friendliness because of the sometimes too long string of data. It seems counter-intuitive to move backward towards replacing brackets with 'unnumbered' when describing the extent of rare books."

> *Recommendation from Coordinating Committee*

The Coordinating Committee recommends that the rare book cataloging community work together to submit proposals for improving RDA in this area and encourages clarification on the use of specialist manuals in conjunction with RDA.

## *Serials*

Many of the comments related to serials related to how well the RDA rules matched up with the current CONSER Standard record, which most participants viewed very positively. The fate of the "provider neutral record" under RDA was also a topic of concern.

- "Serials cataloging should align more closely with the CONSER standard record. Provider-neutral e-serial records should be allowed."
- "There seems to be a conflict with RDA and the provider neutral standards that BIBCO and CONSER have established for monographs and e-serials."
- "For serials, putting the mark of omission before the title proper simply because the numbering/chronological designation appears before the title is stupid. This is a common situation, and the numbering/chronological designation is NUMBERING and CHRONOLOGICAL DESIGNATION, *not* title … Also, in the case of serials where one year the year comes first and the next year the year appears after the title, are we supposed to give 246s for the variant without the mark of omission–because we are so slavishly transcribing everything? This is impractical, and it *makes no difference* for *access* where the numbering/chronological designation appeared on the title page."
- "New rule for numbered conferences seems to be step backwards."

## *Comments Related to Authorities*

### *Positive*

Many respondents liked the granularity and additional information that could be added to authority records and shared more widely.

- "We support initiatives such as the VIAF and see the new options for identity management in RDA as a step towards linked data."
- [Benefit of] more precise authority records.
- "37X fields, while a bit puzzling in some areas (e.g. difference between an occupation and field of activity), are seen as good additions."
- "More granular authority records may be beneficial in record sharing and disambiguation. CJK catalogers believe there will be fewer undifferentiated name authority records."

- "I like the ability to code additional information in authority records–I can see that the additional information can be useful to identify & distinguish individual entities."
- "I like that certain data elements in authority records can be coded in separate fields."

*Negative*

Most of the negative comments had to do with how to structure the data and the time it took to create records with this level of detail. There was a lot of concern expressed about how much editing might be needed to existing headings in the National Authority File. The test may have given an erroneous impression that every existing heading would need updating.

- "We found authorized access points instructions a challenge. We found it hard to distinguish between instructions related to creating the access point and instructions related to creating the authority control record. For us, these are two very different things."
- "I hated the need to update previously verified name authority records to RDA form."
- "Another potential mess is the flipping of AACR2 headings to an RDA version. This is also an unnecessary complication for both the cataloger and user. It's another example of the JSC failing to learn from history. The authority changes mandated by AACR2 created years of catalog cleanup work, and we should avoid repeating this mistake. Even though most catalogs are online now, and authority changes could (theoretically) be made by a vendor, there is no good justification for these changes. Also, the radically different 7XX fields that appeared in NARs during the testing period are an indication that many catalogers don't really understand RDA rules for creating headings, since many of these changes were unnecessary even under RDA rules. If RDA is adopted, all AACR2 headings should be declared RDA-compatible, and no flipping of headings should be done. The only authority headings that might benefit from RDA application are undifferentiated personal names, which might be more easily differentiated by the use of RDA qualifiers."
- "I have heard and read many complaints from catalogers of other materials that the reconsideration of headings and the confusion it creates in mixed AACR2/RDA catalogs is insupportable. Or at least confusing. It appears that many libraries would not have the resources to 'un-mix' their headings."
- "Some authority changes seem to be less useful for patrons such as no longer having uniform titles: Title. $l French & English to identify bilingual works. And creating authority records for individual numbered conferences is too time consuming and not beneficial for capturing variant conference names that might only appear on selected ones."
- "I feel it is very time consuming. The authority work alone takes a lot of time to do."
- "I didn't find the exception for ongoing conferences in 11.13.1.8 and was confused as what, if any, locations should be added to the NAR."

*Mixed*

- "RDA takes it for granted that there will be a lot more authority work performed for each record."

- "It is enjoyable to catalog according to RDA, however it does seem to take extra time, especially when creating new authorities and using the new fields for additional information in the authority record."
- "Authority work under RDA: instructions for authority records creation were not full and clear.  Not surprisingly, that RDA authority work has been criticized the most and created resentment among cataloging community.  This is very unfortunate as I see Authority work component of RDA as a great benefit and an improvement over the AACR2.  The 'RDA Authority Records Creation' document has many examples (certainly more than working guidelines) but they alone are not sufficient enough to learn about RDA authority work. MARC 21 Format for Authority Data for 3XX fields has been helpful to some extent as well as confusing.  One such example: geographic names headings in the 370 field for associated place.  Another example: corporate name headings in the 373 fields–should they be entered as they appear in the authority file, in a free form, or the way they appear on the piece in hand? What if a heading is in a non-Latin/non-English form? What if there is no authority record for a corporate body and it's only mentioned casually in the work cataloged, and 'official' form of the name is unknown?"
- "The instructions that told me how to construct the name access point confused me for a short time by also telling me to make variant access points for the heading.  For a moment I thought RDA wanted me to include those variant name access points in the bib record itself; then I realized those instructions were for creating authority records.  I suppose outside of the restraints of MARC bibliographic records, adding variant name access points could be a routine part of regular cataloging, but for now [it] can be a bit confusing … how today's cataloger is supposed to squeeze them into existing MARC bibs."

*Suggestions from testers*
- "More guidance on constructing access points, especially expression access points; more guidance on constructing title or name/title access points."
- "Need much more guidance on selecting information to include in the new 3XX fields. Examples are desperately needed."
- "I would like to see preferred access points used for 'Place Associated with the Body' 11.13.1.3, 'Associated institution' 11.13.1.4, and 'Location of a conference' 11.13.1.8.  This would allow more relationship creation, especially by machines."
- "The rules on how to create an authority record (following the FRAD outline) are not in close proximity to the rules on how to formulate a preferred name or title access point but in order to make informed decisions on what to include in the authority record, the cataloger needs to know how the access point is formulated because many of the FRAD based fields are determined by what is or is not included in the access point."

*Recommendation of Coordinating Committee*
The Coordinating Committee recommends that training materials and documentation emphasize the organization of chapters 6, 9-11: elements identifying the entity given first in

each chapter with instructions at the end of each chapter indicating which elements are to be included in authorized access points with links to the specific instructions for those elements. The training materials should also point out that the instructions for creators and contributors point to instructions about using authorized access points to identify the relationships to the resources being cataloged. The PCC and individual libraries will need to make decisions or establish "best practices" about the following: the number and category of relationships to include in bibliographic records; the use of separate fields (046, 336, 37X, and 38X) in authority records for elements already in the authorized access points and those not eligible for inclusion in authorized access points. PCC decisions on what existing headings are already valid in RDA and should not be changed are critical.

## Findings: Systems, Metadata, and Technical Feasibility

The Coordinating Committee engaged the vendor community in the implementation testing process through face to face meetings and inclusion electronically in all the communications among the participants. The Coordinating Committee appreciates the vendor community's willingness to meet with the Committee and to implement the MARBI changes that support the ingest and use of RDA/MARC records.

The Coordinating Committee found that the production of RDA records in current systems was technically feasible. In preparation for RDA, MARBI made a number of changes to the MARC 21 formats to accommodate new elements of the code. The most notable are the additions of the 336, 337 and 338 fields for content type, media type and carrier type, respectively, in the bibliographic format and the 046, 37X, and 38X fields in the authority format to enable the specific identification of attributes for the entities represented by the authority records. These changes were made sufficiently in advance of the release of the *RDA Toolkit* that ILS vendors were able to incorporate them into their current products. As a result, there were no issues reported by testers in loading and using in their local systems RDA records created in MARC. Systems vendors and library staff were generally able to create macros to assist with adding the new 33X and other data.

OCLC reported no technical issues that need to be addressed related to RDA and AACR2 records residing in WorldCat. OCLC's interim policy is that their members not modify the master record and change it from RDA to AACR2 or vice versa. The members can continue to download records to their local systems and make whatever modification they desire.

While existing systems can import and store RDA-based MARC 21 records, respondents indicated that substantial local configuration changes would be needed for indexing and record displays for the public. In particular, much concern was expressed about title differentiation in public displays with the loss of the 245$h (GMD). Some respondents questioned whether RDA was needed when current discovery systems can generate faceted results and FRBRized displays already. On the other hand,

RDA could provide new access points in discovery systems to allow for more granular faceting or filtering of the data.

The testing process did reveal other issues with using RDA in a MARC environment. The organization of the rules and the descriptive terms of RDA do not match the MARC conventions. It is not simply a question of learning new labels. Integrated library systems and utilities are structured to build and display records in the MARC format. Comments from testers point out inefficiencies and confusion as catalogers navigate between semi-compatible systems.

MARC was created four decades ago to automate the production of paper catalog cards. While MARC has been updated and tweaked continuously in the intervening years, its practical limits have been reached. So while MARC has served nobly as a carrier that automated and united library data, it has reached the limit for significant improvement in allowing our data to be widely integrated and used across the information landscape.

Many survey respondents expressed doubt that RDA changes would yield significant benefits without a change to the underlying MARC carrier. Most felt any benefits of RDA would be largely unrealized in a MARC environment. While one of RDA's goals is to explicitly express resource relationships, MARC will not allow our systems to easily display and utilize these relationships. Some systems developers and vendors have indicated that using RDA in a MARC environment will not be a huge gain. In fact, MARC may hinder the separation of elements and ability to use URIs in a linked data environment. A new metadata carrier could enable functional improvements not only for the public but for data management.

While several metadata carrier schemas exist, MARC 21 is the default for the three national libraries and the greater U.S. library community. While the Coordinating Committee tried to gather RDA records produced in schemas other than MARC, very few records were received.

The Coordinating Committee made available to the library community the corpus of RDA test records for examination and experimentation. Unfortunately the Coordinating Committee received few responses from those who looked at or manipulated the records. The Coordinating Committee hopes that future development work will occur using these records.

In early March 2011, eXtensible Catalog Organization Co-Executive Directors David Lindahl and Jennifer Bowen were invited to meet with the Coordinating Committee to discuss the eXtensible Catalog's partial implementation of RDA. As a follow-up the Coordinating Committee invited Lindahl and Bowen to submit a written statement for inclusion in this report (see Appendix L). The visit and the statement proved quite valuable in helping Coordinating Committee members envision the current and future potential of RDA. Key comments include:

"The use of RDA elements, even within a MARC-based structure, will help XC's metadata cleanup and transformation programs work more effectively than does AACR2 data."

"XC Schema is a foundation for a solid RDA implementation that is usable in real systems, addresses real use scenarios, and works with existing integrated library systems and Web content management systems."

While the Coordinating Committee sees some potential of RDA within current MARC-based structures, it has become clear that the benefits of RDA will only be fully realized when an alternative to MARC is developed.  Obviously, such development will take time.  The Coordinating Committee recognizes that it is not optimal to postpone RDA implementation until a new carrier is fully developed and operational.  At the same time, the Coordinating Committee believes that to use RDA in a MARC environment only creates much disruption for minimal benefits.  A viable alternative to MARC must be in development before RDA implementation should go forward.

The following quote from a tester is representative of many survey respondents:
"The RDA Test has made it concrete for us that the community also very much needs a post-MARC data model and encoding structure . . . We believe RDA is a necessary and valuable step towards the future of bibliographic control.  But it is clearly also not sufficient.  This exercise showed us how much work we have yet to undertake."

The data carrier is just one of the RDA-related issues that systems vendors must face.  The Coordinating Committee believes that new tools will be developed and changes to existing systems will occur because RDA is implemented.  This can be viewed as a "chicken and egg" conundrum in that until RDA is implemented no significant changes will occur as well as a reluctance to use RDA unless there is a clear improvement from new tools and services.  The Coordinating Committee is able then to make only gross speculation on what new tools and services will be produced and realized with the implementation of RDA.  If the library community does not move forward in some key areas, however, it is probably safe to say that further innovation in our systems and data will be unrealized.

This quote exemplifies other similar comments: "I'd like to see some hard evidence demonstrating the benefits of RDA over AACR2, such as greater portability of metadata, faster metadata ingest, use in Semantic Web applications and the like.  I understand and welcome the changes that RDA seeks to address, but it would be nice to see the tools that will take advantage of what this new standard has to offer."

## Findings: Local Operations

The test surveys elicited testers' impressions of what local operations would be affected by an RDA implementation and what workflow changes were needed in order to implement the new instructions.  The survey responses indicated that test partner institutions and informal testers anticipate some impact on local operations because there will be RDA records in OCLC, whether or

not the three national libraries implement RDA. The operational areas that would be impacted are: acquisitions; copy cataloging; original cataloging; and bibliographic file maintenance.

Intriguingly, a majority of test institutions thought that the U.S. community should implement RDA while at the same time, a majority believed that the implementation would have a negative impact on their local operations. The tables in Figures 39 and 40, below, show responses to questions in the Institutional Questionnaire concerning the impact of an RDA implementation on local operations.

Formal Test Participants' Opinions about Impact of an RDA Implementation on Local Operations

| Range of Impacts | Major Negative Impact | Minor Negative Impact | No Impact | Minor Positive Impact | Major Positive impact | % Predicting Overall Negative Impact | % Predicting Overall Positive Impact |
|---|---|---|---|---|---|---|---|
| % of Responses | 24.1% | 38.5% | 10.3% | 27.6% | 0.0% (0 responses) | 62.6% | 27.6% |

Figure 39. Impact of RDA implementation on local operations

Formal Test Participants' Opinions about Whether U.S. Community Should Implement RDA

| Possible Responses | Yes | Yes, with changes | No | Ambivalent | % Favoring implementation |
|---|---|---|---|---|---|
| % of Responses | 34% | 27.6% | 13.8% | 24.1% | 62% |

Figure 40. Opinions on whether U.S. community should implement RDA

In general, formal test partners reported that they needed more time to create or update an RDA record than a record using their current rules; this was clear from responses to IQ question no. 2, "Please provide any general comments you wish concerning the test, the *RDA Toolkit,* or the content of the RDA instructions." Comments showed major concern over the initial costs of an implementation that would be evident in reduced production for an unpredictable length of time. Several commenters also stressed the need for some kind of bridge document, possibly as part of the workflows in the *RDA Toolkit:* "The RDA instructions are organized according to FRBR and FRAD principles while the descriptive cataloging process remains linear by format. We found RDA to be a collection of rules that are ordered without respect to our existing workflows …."

Most testers, as indicated in responses to the Institutional Questionnaire (question no. 2), used macros only to add or update the new RDA-related MARC 21 33X fields.

Commenters also tied the idea of a post-MARC encoding structure to local workflows. The need to replace MARC was a major theme of comments in all questionnaires, and the comments in questions about workflow reflected this need also.

For acquisitions, two commenters said that acquisitions staff would need training to stream incoming materials appropriately: whether for copy cataloging, original cataloging, or a duplicate/added copies workstream.  They felt that the copy cataloging workflows would have to be adjusted, and decisions about how to handle pre-RDA copy were needed before they could accomplish this, but felt able to predict that more materials would have to be streamed to original cataloging if RDA were implemented.  An informal tester commented that "A much higher skill set is required for copy catalogers."  Additionally, the architecture of many integrated library systems requires a bibliographic record to be entered in the system before a purchase order can be entered, and therefore the ability to identify a resource from existing bibliographic records is critical to avoiding duplicate orders.  Although it therefore seems likely that acquisitions staff will need training to understand data in RDA records in order to avoid duplicate ordering, the questionnaire respondents did not mention this as a priority.

For copy cataloging, the major impact foreseen was the need to work with both RDA and pre-RDA copy in the same workflows.  This impact would be felt to some extent even if the U.S. national libraries decide not to implement RDA, since OCLC will continue to accept RDA records from other members.  Approximately one third of test institutions reported that they converted entire pre-RDA copy records to RDA (IQ question no. 8; total of responses exceeded 100 percent).

Original cataloging was an area that offered some positive impacts on local operations.  In survey comments, testers said that RDA, because its instructions are designed to be extensible to all content and carrier types found in library collections, could enable original catalogers to handle a wider range of collection materials.  The benefits in being able to deploy scarce original cataloging resources more flexibly seem obvious; but commenters also cautioned that cataloging workflows are usually conditioned by the need to keep materials safe, secure, and under inventory control as they flow through the workstream, and therefore it may always be necessary for workflows to be format-specific.  Commenters said, as well, that the full benefit of RDA's facility in describing multiple content in multiple carriers depended on developing a replacement for MARC.

Another, probably negative, impact on original cataloging workflows was the effect of an RDA implementation on the use of the CONSER and BIBCO standard records (CSR and BSR, respectively).  Commenters suggested that redefining the CSR and BSR should be a priority if the national libraries decide to implement RDA.  By the same token, many PCC and other libraries, vendors, and OCLC are following the provider neutral guidelines, with the result that cataloging a small percentage of original records according to RDA would cause confusion if the records were used as is or would require maintenance by every library that follows in using them.

Several commenters in the Institutional Questionnaire mentioned the impact of an RDA implementation on bibliographic file maintenance as many authorized access points would have different forms under RDA.  One commented that "NACO review and training would increase enormously."  Commenters generally recognized that, as one put it, "Many of the negative operational effects would likely be temporary, but severe in the short term."

In all functional areas, some test partners thought that they would need to build more review into their workflows, both to help staff gain confidence in using the new instructions and to give management an idea of how consistently staff applied them.

If RDA is adopted, there will be a variety of decisions each library will have to make.  They include:

- *Indexes*

How will authorized access points with relationship designators display in the catalog?  Will they display with similar authorized access points that lack relationship designators, or will libraries create a new entry in the index?

- *Authorized access points*

If existing authorized access points are converted to the RDA form, will local catalogs follow suit? Will local catalogs convert the abbreviated forms of corporate bodies to the spelled out form? Will local libraries convert Bible uniform titles in their catalogs to the RDA form?

- *Copy cataloging*

Will local libraries accept AACR2 copy cataloging records, or will records be edited to RDA description? Will local libraries convert authorized access points on AACR2 copy records to the RDA form?

- *Display of information about content/media/carrier types*

How will the new content/media/carrier types display in local catalogs?
Are local libraries aware of the various display options their catalogs offer such as icons? Different labels?
How prominently will they display?
Will they display on brief as well as full record displays?
 Will this information be presented in an understandable manner?

- *MARC issues*

Have all the MARC updates for the new RDA elements been implemented locally?

## Findings: Costs and Benefits

When any change is being considered, costs and benefits need to be weighed against each other, for both the short term and the long term.  This section covers different aspects of implementing RDA as the content standard.

*RDA and Cataloger's Desktop Subscriptions*
Institutions will have to subscribe separately to RDA and *Cataloger's Desktop.*  Institutions with a subscription to RDA will be able to access it via *Desktop.*  Note that there is now free access to RDA's

table of contents and index as well as the Library of Congress Policy Statements (LCPSs*)* in the *RDA Toolkit;* the table of contents and index were not available during the test period.

Two institutions reported that now the cost of separate subscriptions are not a problem but they are not sure about the future as library budgets get tighter; two indicated that this increased cost would have major impact. Another said an evaluation of eliminating other resources would be needed but did not give any details.

The cost of a subscription to the *RDA Toolkit* depends upon the number of simultaneous users and other factors; ALA Publishing will work with each institution to determine the cost.

(Notes: 1. Institutions will also be able to get to their subscriptions to the *RDA Toolkit* via OCLC's Connexion and via SkyRiver's cataloging client. 2. There has been no change to *Cataloger's Desktop* pricing for 2011.)

Formal Test Participants' Opinions about Impact on Local Operations of *RDA Toolkit* Subscription Costs*

| Question: What will be the impact on local operations of any increased costs in subscribing to the *RDA Toolkit?* | | | |
|---|---|---|---|
| Range of Impacts | Major Impact | Minor impact | Don't expect subscription costs to increase |
| % of Responses | 0.0% | 84.0% | 16.0% |

*Two test institutions did not reply to this question.

Figure 41. Impact on local operations of *RDA Toolkit* subscription costs

For the four respondents who did not expect their costs for all subscriptions to cataloging tools to increase even if they subscribed to the *RDA Toolkit,* it seems reasonable to conclude that the respondents expected to cease other subscriptions when they subscribed to the *RDA Toolkit* in order to keep subscription costs at the same level. A vendor who participated as a formal test partner commented that the increased cost of subscribing to cataloging tools might force the firm to cease cataloging, since cataloging was not the vendor's core service.

In responding to the question "Is your institution considering ceasing subscriptions to any other cataloging instructions or tools if RDA is implemented," 60% said "no," 11% said "yes, to save money." Seven percent said "yes, because the *RDA Toolkit* makes certain other subscriptions unnecessary at this institution," and 26% said they hadn't decided.

Of those making additional comments for this question and in other parts of the survey, three would continue to subscribe to *Cataloger's Desktop* and another might reduce simultaneous usage of *Desktop.* One participant, a vendor, would be able to reduce the number of print copies of AACR2 due to the presence of AACR2 in the *RDA Toolkit.*

Cataloging time is a cost to be considered in any institution. See **Findings: Record Creation** for information on cataloging time for resources in the Common Original Set.

*Cost of RDA Course Development*

For the Library of Congress, the cost to develop training courses for RDA would be the usual salaries of people whose jobs involve preparing and reviewing training materials (Policy and Standards Division; Cooperative & Instructional Programs Division) plus the time away from doing other tasks. Courses would need to be developed for the following topics and LC audiences (for some sub-topics, existing courses could be revised):

         -- RDA for LC staff creating or modifying bibliographic/authority records;

         -- MARC encoding of RDA content for LC staff creating or modifying records;

         -- RDA and MARC for LC staff using records.

Courses would need to be developed or revised for participants in BIBCO, CONSER, and NACO; this work may be shared with PCC volunteers. Some of the Catalogers Learning Workshop courses (http://www.loc.gov/catworkshop/courses/) would need to be revised and other courses developed; this work may be shared with volunteers from PCC and the U.S. library community.

A survey of five various specialized cataloging communities resulted in the following two responses:

         The Music Library Association sees a need for developing "best practices" documentation and possibly training materials. Most of the presentation from the Feb. 2011 RDA Preconference are available online [linked from http://bcc.musiclibraryassoc.org/bcc.html].

         The American Association of Law Libraries is not planning on creating training materials for RDA. Member-created documentation, vetted by their Descriptive Cataloging Advisory Group, will be posted on their Technical Services Special Interest Section Cataloging and Classification Committee's Website.

The American Library Association's division Association for Library Collections and Technical Services (ALCTS) does not have plans to create any training materials on RDA other than the Webinar series, which will continue and the preconference planned for June 2011 ALA Annual Conference. ALA Publishing lists training opportunities provided by various organizations on a training calendar on the *RDA Toolkit* site [http://www.RDA Toolkit.org/calendar].

OCLC is not currently planning the creation of training materials for its member libraries but will work with partner organizations to offer various sessions over the coming months. Many of those sessions are listed on the OCLC Training Portal [http://training.oclc.org/home] with others listed on the partner organizations' Websites. Sessions are offered in a variety of formats, including live and Web-based training.

*Cost of Training Materials*
Training materials created for participants in the test and supplementary documents continue to be available on the U.S. RDA Test documentation site (http://www.loc.gov/catdir/cpso/RDAtest/rdatest.html).  Any additional training materials created by the Library of Congress would be freely available.  Materials created by the Program for Cooperative Cataloging for its members and for the library community would be freely available on its Website.

Some presentations on RDA are posted on a site (http://www.rda-jsc.org/rdapresentations.html) maintained by the Joint Steering Committee for the Development of RDA.

ALCTS is sponsoring a series of Webinars related to FRBR and RDA.  ALCTS has announced that some of these Webinars will be available free of charge six to nine months after being presented.  ALA Publishing posts free Webinars about using the *RDA Toolkit* on the *RDA Toolkit* site [http://www.RDA Toolkit.org/training].

OCLC and various associations for specialized library communities in the U.S. have reported they do not have plans for creating RDA training materials; they will continue to sponsor or co-sponsor presentations on RDA at various conferences and workshops.

*Cost of Updating Documentation*
Cataloging documentation exists at several levels in the United States:  national, consortial, and local.  Reviewing and revising such documentation has both costs and benefits.  See Findings: Training & Documentation Needs for survey responses about these activities.

*Time for Training Key Trainers (e.g., Professionals) at Local Level*
The question of how much time would be needed for training key trainers for classroom instruction, developing practice records, etc., was posted to Basecamp after the test period was over.

Five institutions said their key trainers would be the already-trained testers; four added that some time might be needed (from 8-16 hours) as follow-up to the training for the test to cover resources those testers did not usually catalog and to review areas that had caused confusion during the test.

Four institutions responded with information only about classroom hours needed for training key trainers.  Those responses were 15-20 hours, 18 hours, two to four days, and 20-40 hours.  Two institutions included creation and discussion of practice records in their overall estimates:  one to two months and 160-200 hours.

A vendor replied that only 10-20 hours would be needed due to the limited number of types of resources cataloged.

*Time for Key Trainers to Train Other Staff at Local Level*
The question of how much time would be needed for key trainers to train other staff  (classroom instruction, practice records, etc.) was posted to Basecamp after the test period was over.  The responses to this question were quite varied.

One small library said nine hours; another small library said three to four months.

Ten large libraries responded.  One said 20-40 hours depending on the resources being cataloged; two said 30 hours; a fourth said one month, a fifth said 160-200 hours, and another said 40 hours for catalogers and 20-30 hours for technicians and selectors.  Four gave separate responses for classroom training and record creation/discussion:  eight hours classroom time plus 30 hours of practice; four to five days of classroom time and weekly discussion of records for three months; three to four days of classroom time and two to four hours a week for practice record creation/discussion for a month; eight to sixteen hours of classroom training and two to four hours a week for three months for review of records created and discussion.

An OLAC/MLA participant noted that the training time might be a few months for libraries with a single cataloger or a part-time cataloger.

A vendor reported that only 10-20 hours would be needed because training would be needed for only a limited number of resource types.

*Learning Curve for Staff*
The question of how much time would be needed for staff to produce acceptable RDA records for the resources they are currently cataloging was posted to the Coordinating Committee's Website for test participants and vendors after the test period was over.  Thirteen participants replied with a variety of answers in different contexts; also, some said they didn't know how to determine how much time would be needed, especially for copy cataloging.

Two smaller institutions said three to four months would be needed.

Five of the seven larger institutions replied with time estimates.  One said six weeks and another said six months (the latter added "I'd say that's a really good adjustment period -- much better than I hoped for").  The third institution said one to six months depending upon the complexity of the resource (e.g., book with single author vs. score-plus-libretto), policy decisions about number of access points/relationships, and variables related to staff learning any new task.  The fourth said "between 6-12 months for all staff to be capable of producing fully acceptable RDA records."  The fifth institution estimated six months from the date of implementation to be back to normal production levels.

The other two large institutions answered in the context of time per resource.  One said 25 percent more time for bibliographic records depending upon how many times that category of resource has

been cataloged for RDA; the other said the same amount of time once familiarity was achieved. Those addressing authority records separately said more time was needed because more fields were being included.  One of the institutions commented that the learning curve may be longer in a smaller library where people have to catalog a broader range of resources; catalogers who could specialize in cataloging the same types of resources over and over would make faster progress.

One vendor replied that there would be a significant increase in throughput time because staff would be cataloging in both AACR2 and RDA "until all (?) customers want RDA records."

One answer to the question posed on the Coordinating Committee's Website for test participants and vendors included this comment:  "I have no idea how to say exactly how long it would take to train people to catalog in RDA, but indications so far (from training new catalogers pretty constantly) is that 'new catalogers' will probably learn RDA faster than AACR2."

*Cost Implications for Existing Contracts*
In response to the question "Does your institution anticipate cost adjustments to any cataloging contracts/vended work as a result of RDA if it is implemented?" 15% said costs would increase, none said costs would decrease, 22% said there would be no adjustments, 52% said they didn't know, and 11% said they didn't have any contracts.
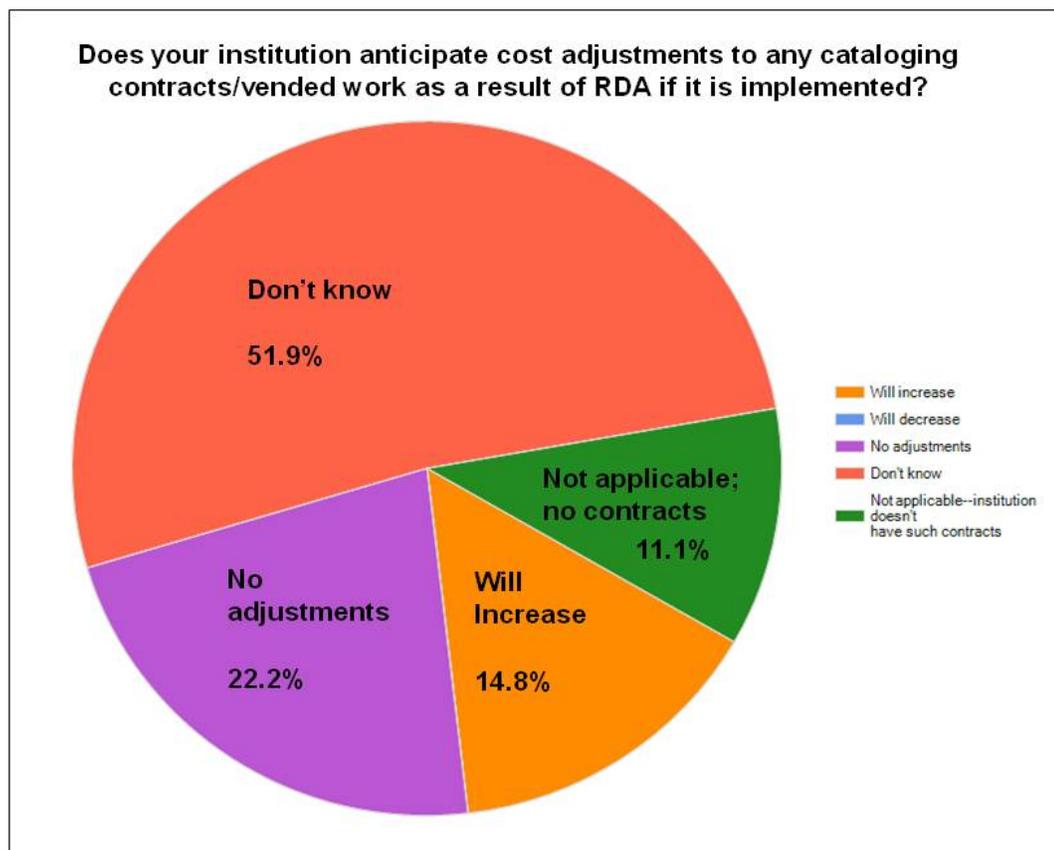


**Figure 42. Impact of RDA implementation on cataloging contract costs**

Seven participants mentioned the following points: cost of authorities contracts expected to increase with the time for training, oversight, and review to be another cost; there is a lack of information about OCLC increases for usage charges and contract cataloging; vendors possibly absorbing cost as part of business; moving to a lower level of record if vendors do increase costs; possible contract for GMD conversion in AACR2 records.  Two vendors added comments:  likely no change in costs if customers have similar specifications for RDA records; assumption that customers wouldn't accept any increases.

*Benefits*

RDA testers in comments noted several benefits of moving to RDA paraphrased as follows:

- RDA brings a major change in how we look at the world as identifying characteristics of things and relationships with a focus on user tasks.
- It provides a new perspective on how we use and re-use bibliographic metadata.
  o It brings a transition from the card catalog days of building a paragraph style description for a linear card catalog to now focus more on identifying characteristics of the resources we offer our users, so that metadata can be packaged and re-used for multiple purposes even beyond libraries.
  o  It enables libraries to take advantage of pre-existing metadata from publishers and others rather than having to repeat that work.
- The existence of RDA encourages the development of new schemas for this more granular element set, and the development of new and better systems for resource discovery.
- The users noticed RDA is more user-centric, building on the FRBR and FRAD user tasks (from IFLA).
- Some of the specific things they liked were:
  o using language of users rather than Latin abbreviations,
  o seeing more relationships,
  o having more information about responsible parties with the rule of 3 now just an option,
  o finding more identifying data in authority records, and
  o having the potential for increased international sharing – by following the IFLA International Cataloguing Principles and the IFLA models FRBR and FRAD.

# Appendices

## Appendix A: Joint Statement by U.S. National Libraries, May 1, 2008

Quoted from PDF file available at http://www.loc.gov/bibliographic-future/news/RDA_Letter_050108.pdf [accessed June 11, 2011]

May 1, 2008

Dear Colleagues,

The Working Group on the Future of Bibliographic Control submitted its final report, *On the Record,* to me on January 9, 2008. I have distributed the document to three groups within the Library of Congress for analysis and comment. I expect to respond formally to the report in early June. *On the Record* contains more than one hundred recommendations aimed at the Library of Congress, other specific organizations and entities, and to the broader library community. In the words of the members of the Working Group, they envision "a future for bibliographic control that will be collaborative, decentralized, international in scope, and Web-based…change will happen quickly, and bibliographic control will be dynamic, not static." The group urged the readers of the report to view it as a " 'call to action' that informs and broadens participation in discussion and debate, conveys a sense of urgency, stimulates collaboration, and catalyzes thoughtful and deliberative action." The many recommendations suggest ways in which the necessary systemic change can take place. When the Library of Congress issues its response, we will be focusing on how it will position itself to work in this new, networked, and collaborative environment, not simply on single recommendations. We recognize that any cataloging code (AACR2 or the proposed Resource Description and Access--RDA) is but a part of this environment. It may seem counterintuitive that we issue a joint statement with our colleagues from the National Agricultural Library and the National Library of Medicine on RDA before we issue a full response to *On the Record,* but we do so because the international Joint Steering Committee and the Committee of Principals continue their work, and because so many librarians are asking about the national libraries' plans to implement the proposed code. We are pleased to report that we three libraries have worked together to establish an approach to the consideration of RDA in the attached joint statement. We ask that you bear in mind that it is the entire bibliographic system that needs to be considered and reworked, and the cataloging code is only one small piece of the work that lies ahead.

Sincerely,
Deanna B. Marcum
Associate Librarian for Library Services

**Joint Statement of the Library of Congress, the National Library of Medicine, and the National Agricultural Library on *Resource Description and Access***

May 1, 2008

Leaders of the Library of Congress (LC), the National Library of Medicine (NLM), and the National Agricultural Library (NAL) met on March 10, 2008 to discuss the recommendation from *On the Record: the Report of the Library of Congress Working Group on the Future of Bibliographic Control* to "suspend work on RDA."

The group agreed that the Joint Steering Committee for Development of RDA's work on *Resource Description and Access* (RDA) is an important international initiative that has been underway for several years and is one that requires continued collaboration with our international partners who have joined with the United States in a global initiative to update bibliographic practices to make the library resources more accessible and useful to users. The participants also agreed that their decisions whether or not to implement this new standard must be made jointly. Further, participants agreed that LC, NLM, and NAL have collective leadership responsibilities to assist the U.S. library and information community to remain relevant and vital in an increasingly digital future. Key to this role is providing a broad assessment and commitment to RDA if they believe this standard will further national strategic goals for improved bibliographic control and access.

Colleagues from NLM and NAL are most concerned that a systematic review of RDA has not yet been possible and, given the potential magnitude and broad impact of the changes, such a review is essential. While draft chapters of RDA have been available, a clear, concise, and cohesive understanding of the overall impact of the entire standard is needed. Until the completion of the rules and the availability of the RDA online tool, reviewers will not be able fully to assess their impact on:

 • Description, access, and navigation practices for a broad array of users and types of materials
 • Current and future electronic carriers and information management systems to support RDA goals
 • Estimated costs for implementation and maintenance during a time of flat, even reduced, budgets

The three national libraries agreed on the following approach: First, we jointly commit to further development and completion of RDA. Second, following its completion, a decision to implement the rules will be based upon the positive evaluation of RDA's utility within the library and information environment, and criteria reflecting the technical, operational, and financial implications of the new code. This will include an articulation of the business case for RDA, including benefits to libraries and end users and cost analyses for retraining staff and re-engineering cataloging processes.

Together, we will:
 • Jointly develop milestones for evaluating how we will implement RDA

 • Conduct tests of RDA that determine if each milestone has been reached; paying particular attention to the benefits and costs of implementation

 • Widely distribute analyses of benefits and costs for review by the U.S. library community

• Consult with the vendor and bibliographic utility communities to address their concerns about RDA

Included among the tests that will be developed to assist in formulating implementation decisions:

• Usability testing with cataloging staff, i.e. librarians and technicians, experienced and newer staff from the three national libraries in consultation with representatives from the U.S. library community (including OCLC and library vendors) about its participation in the process

 • Testing of records for a broad array of materials created during usability studies to determine compatibility with existing record sets and ensuring records are usable and understandable for our end users

 • Testing the feasibility of integrating this new cataloging standard into all relevant technology systems

The three institutions agreed that these steps will be followed and, if there is a decision to implement RDA, that the implementation would not occur before the end of 2009.

The collective resolve is to complete the development of RDA, to conduct appropriate tests that will inform and involve the broader U.S. library community as to the utility of the code, and to ensure a product that is useful, usable, and cost effective. The Library of Congress will continue to work with its international colleagues on the Joint Steering Committee for Development of RDA and the Committee of Principals and keep them apprised of the evaluation progress and outcomes as the three national libraries, representing their constituents, undertake the tests outlined above

## Appendix B: Joint Statement of Anglo-Heritage National Libraries on Coordinated RDA Implementation, October 22, 2007

### Available at http://www.rda-jsc.org/rdaimpl.html [accessed June 11, 2011]

The British Library, Library and Archives Canada, the Library of Congress and the National Library of Australia* have agreed on a coordinated implementation of *RDA: Resource Description and Access*, the successor to the *Anglo-American Cataloguing Rules*.

The libraries welcome the move to RDA and the functionality that RDA, as a web product, will provide. We recognise that RDA will provide a standard for resource description and access that is responsive to the digital environment in which libraries now operate.

RDA addresses the needs of the future by providing a flexible framework for describing all types of resources of interest to libraries. RDA's guidelines will be easy and efficient to use, as well as compatible with internationally established principles, models and standards. In addition, RDA will maintain continuity with the past as data created using RDA will be compatible with existing records in online library catalogues.

To ensure a smooth transition to RDA, the four national libraries will work together where possible on implementation matters such as training, documentation and any national application decisions.

At this stage, it is anticipated that the libraries will implement RDA by the end of 2009. Regular updates will be issued by the national libraries group to keep the library communities in their countries informed on RDA implementation progress and policy decisions.

Contacts for additional information:

- British Library: Caroline Brazier, Head of Resource Discovery (caroline.brazier@bl.uk)
- Library and Archives Canada: Ingrid Parent, Assistant Deputy Minister, Documentary Heritage Collection Sector (ingrid.parent@lac-bac.gc.ca)
- Library of Congress: Beacher J. E. Wiggins, Director for Acquisitions & Bibliographic Access (bwig@loc.gov)

- National Library of Australia: Pam Gatenby, Assistant Director General Collections Management ([pgatenby@nla.gov.au](mailto:pgatenby@nla.gov.au))

\* These national libraries, together with representatives from the Canadian, UK and US professional library associations, are members of the Committee of Principals (CoP) which oversees the work of the Joint Steering Committee for Development of RDA (JSC), which is responsible for developing RDA.

*22 October 2007*

**Appendix C: Survey Questions**

# Appendix C: Survey Questions and Link to All Survey Responses

Listed below are the questions and possible response choices in the eight online surveys that were created for the US RDA Test.  All survey responses are available from the U.S. RDA Test Coordinating Committee upon request.

**RDA Test Partners Institutional Questionnaire**
*The purpose of this survey was to gather information about the US RDA Test partner institutions' overall experience in creating RDA records for the Test. The contact person for each institution submitted the survey only once, at the end of the formal RDA Test record submission period.*

**1. Please give the name of your institution:**
    *Possible responses: The 26 formal test partners were listed.*

**2. Please provide any general comments you wish concerning the test, the RDA Toolkit, or the content of the RDA instructions:**
    *Open-ended response.*

**3. Do you think that the US community should implement RDA?**
        *Possible responses:*
        Yes
        Yes, with changes (specify in Comments below)
        No
        Ambivalent (explain in Comments below)
        Please feel free to comment:

**4. If the US national libraries do NOT implement RDA, will your institution decide to implement RDA anyway?**
        *Possible responses:*
        Yes
        No
        Maybe
        Please feel free to comment:

**5. If the US national libraries implement RDA, will your institution decide NOT to implement RDA anyway?**
        *Possible responses:*
        Yes
        No
        Maybe
        Please feel free to comment:

**6. What approach to RDA options did your institution apply in creating/updating original RDA records? Check all that apply.**
        *Possible responses:*
 LC choices for the US RDA Test
 Specified by your institution
 Cataloger's judgment
 Other (please specify)

**7. If you have further comments about the RDA options, please provide them here. If you have no comments about the options, please record "N/A."**
   *Open-ended response.*

**8. What approach did your institution apply in creating/updating records using copy? Check all that apply:**
   *Possible responses:*
Accept record as is
Accept record as is but correct errors according to RDA
Accept record as is but correct errors according to current rules
Add new information according to RDA rules
Convert entire record to RDA
Convert only access points, using your own staff
Convert only access points, using a vendor
Did not use copy
Other (please specify)

**9. Please describe briefly any macros your institution created for use in creating/updating RDA records for the RDA Test. If you did not use macros, please record "N/A."**
   *Open-ended response.*

**10. Please describe the additional RDA workflows that your institution created using the wizard. If you did not create any additional workflows, please record "N/A."**
   *Open-ended response.*

**11. Please add any general comments on the RDA Toolkit workflows and the wizard.**
   *Open-ended response.*

**12. Can your institution's ILS accept records with the new MARC 21 changes related to RDA?**
   *Possible responses:*
Yes
No
Don't know
Not applicable (please explain in Comments, below)
Please feel free to comment:

**13. What training did your institution's testers receive before they began producing records for the US RDA Test? Please check as many as apply:**
   *Possible responses:*
LC/NAL/NLM Train the Tester session at ALA Midwinter Meeting (January 15, 2010)
LC Webcasts or PowerPoint training module sets
Self-taught from RDA Toolkit
Self-taught from RDA Toolkit only, with no other training
Self-taught from LC documentation
Hands-on training by local colleagues
Distance learning sessions (please specify under Other, below)
Classroom training (continuing ed.), one day or less
Classroom training (continuing ed.), more than one day
Library or information science school course
RDA Webinars from ALA Publishing
Not uniform for all staff
Other (please specify)

**14. Please describe any local documentation that your institution created or revised for use with RDA. If there was none, please record "N/A."**

> *Open-ended response.*

**15. Please describe any consortial documentation that your institution created or revised for use with RDA. If there was none, please record "N/A."**

> *Open-ended response.*

**16. Please describe any national-level documentation that your institution identified as needing to be created or revised for use with RDA. If there was none, please record "N/A."**

> *Open-ended response.*

**17. Were your staff able to move back and forth from local documentation to the cataloging instructions in the RDA Toolkit as they needed, via hot links?**

> *Possible responses:*
> Yes
> No
> Did not attempt
> Please comment if you wish:

**18. Were your staff able to move back and forth from consortial documentation to the cataloging instructions in the RDA Toolkit as they needed, via hot links? "Consortium" means a group of institutions that share a cataloging enterprise and policies, e.g., CCLA. (For consistency's sake, please consider OCLC documentation as national-level.)**

> *Possible responses:*
> Yes
> No
> Did not attempt
> N/A: not a consortium
> Please comment if you wish:

**19. Were your staff able to move back and forth from national-level documentation (e.g., PCC documentation) to the cataloging instructions in the RDA Toolkit as they needed, via hot links? (For consistency's sake, please consider OCLC documentation as national-level.)**

> *Possible responses:*
> Yes
> No
> Did not attempt
> Please comment if you wish:

**20. Did any of your staff make personal annotations in the RDA Toolkit?**

> *Possible responses:*
> Yes
> No
> Please comment if you wish:

**21. Did your institution/consortium make annotations in the RDA Toolkit?**

*Possible responses:*

Yes

No

Please comment if you wish:


**22. If RDA is implemented, what will be the impact on your existing documentation?**

*Possible responses:*

Very Small

Small

Neutral

Large

Very Large

Please comment if you wish:


**23. Will the impact on your existing documentation be a barrier to or a benefit in implementing RDA?**

*Possible responses:*

Major Barrier

Minor Barrier

No impact on existing documentation

Minor Benefit

Major Benefit Benefit

Please comment if you wish:


**24. Is your institution considering using the RDA Toolkit to replace any currently existing documentation? (For consistency's sake, please consider OCLC documentation as national-level.)**

*Possible responses:*

None

Local only

Consortial

National-level

Have not decided

Please comment if you wish:


**25. Is your institution considering ceasing subscriptions to any other cataloging instructions or tools if RDA is implemented? Please check all that apply:**

*Possible responses:*

No

Yes, to save money

Yes, because the RDA Toolkit makes certain other subscriptions unnecessary at this institution

Yes, for other reasons (please specify in Comment box)

Have not decided

Please comment if you wish:

**26. How much impact on local operations do you anticipate if your institution implements RDA?**

*Possible responses:*
Major negative impact
Minor negative impact
No impact
Minor positive impact
Major positive impact
Impact on Operations
Please comment if you wish:


**27. What do you believe the negative impacts will be if your institution implements RDA?**

*Open-ended response.*

**28. What do you believe the positive impacts will be if your institution implements RDA?**

*Open-ended response.*

**29. Were you able to create acceptable RDA records in MARC from non-MARC, non-RDA metadata, e.g., from an ONIX feed? If you do not actually import non-MARC data to create MARC records, please record "N/A."**

*Possible responses:*
Yes
No
N/A
Please comment if you wish.


**30. Were you able to create acceptable RDA records in DC or other non-MARC formats (if they are your institution's usual formats) from non-MARC, non-RDA metadata? If you do not usually produce records in non-MARC formats, please record "N/A."**

*Possible responses:*
Yes
No
N/A
Please comment if you wish.


**31. After the US RDA Test is completed, the RDA Toolkit will no longer be available to your institution free of charge. Will the expense of subscribing to the RDA Toolkit for use by your staff be greater than your current cost of providing cataloging tools?**

*Possible responses:*
Yes
No
Don't know
Please comment if you wish:


**32. What will be the impact on local operations of any increased costs in subscribing to the RDA Toolkit?**

*Possible responses:*
Major impact
Minor impact
Don't expect subscription costs to increase
Impact of Toolkit Costs
Please comment if you wish:

**33. Does your institution anticipate cost adjustments to any cataloging contracts/vended work as a result of RDA if it is implemented?**

> *Possible responses:*
> Will increase
> Will decrease
> No adjustments
> Don't know
> Not applicable--institution doesn't have such contracts
> Please comment if you wish:

**RDA Test Record Creator Profile**

*The purpose of this survey was to gather information about the backgrounds and skill sets of individuals who participated in the US RDA Test on behalf of their institutions or organizations. Each individual who created or updated records in the US RDA Test should have completed this survey once, at the end of their active participation in the formal Test.*

**1. Assigned RDA Tester ID: Please provide your unique RDA Test tester ID, as assigned by your institution, based on your institution's general RDA Test ID.**

>  *Open-ended response.*

**2. Please supply your overall opinions about RDA, if you wish.**

>  *Open-ended response.*

**3. Do you think that the US community should implement RDA?**

>  *Possible responses:*
>  Yes.
>  Yes, with changes. (Specify in Comments below.)
>  No.
>  Please feel free to comment:

**4. What is your position at your institution?**

>  *Possible responses:*
>  Librarian
>  Paraprofessional
>  Student
>  Other (please specify)

**5. How many years of cataloging experience did you have as of October 1, 2010?**

>  *Possible responses:*
>  Student/Less than 6 months
>  6 months to 1 year
>  1 to 2 years
>  2 to 3 years
>  3 to 5 years
>  5 to 6 years
>  6 to 22 years
>  22 to 29 years (i.e., experience began after first US national implementation of AACR2 but before 1988)
>  29 years or more (i.e., experience began prior to implementation of AACR2)

**6. What formats of material do you have significant (in your own opinion) experience in cataloging? Check as many as apply:**

  *Possible responses:*
Archival/finding aids
Books
Cartographic resources
Electronic resources
Integrating resources
Law materials
Manuscripts
Microforms
Moving images
Non-latin script resources
Rare materials
Scores
Serials
Sound recordings
Still images
Video discs
Other (please specify)


**7. Please specify any formats, as listed in Question no. 6 above, for which you feel that RDA did not offer adequate guidance. If RDA offered adequate guidance for all formats you described in the Test, please record "N/A."**

  *Possible responses:*
Archival/finding aids
Books
Cartographic resources
Electronic resources
Integrating resources
Law materials
Manuscripts
Microforms
Moving images
Non-latin script resources
Rare materials
Scores
Serials
Sound recordings
Still images
Video discs
N/A

**8. What cataloging instructions do you use most frequently in your current work?**

> *Possible responses:*

AACR2

AMIM

APPM

CCO

CDP

CDWA

DACS

DCMI (Please specify application profile in box below)

DCRM

GIHC

TEI

**9. What type of cataloging documentation do you normally consult?**

> *Possible responses:*

Printed documentation

Web-based or online documentation

Both

None

Other (please specify, e.g., audio)

**10. Did your training in RDA consist of (check all that apply):**

> *Possible responses:*

LC/NAL/NLM Train the Tester session at ALA Midwinter Meeting (January 15, 2010)

LC Webcasts or PowerPoint training module sets

Self-taught from RDA Toolkit combined with other training

Self-taught from RDA Toolkit only, with no other training

Self-taught from LC documentation

Hands-on training by local colleagues

Classroom training (continuing education), 1 day or less

Classroom training, (continuing education), more than 1 day

Library or information science school course

RDA Webinars from ALA Publishing

Distance learning sessions not otherwise listed

Other (please specify)

**11. If you took distance learning sessions or classroom training other than those listed in Question no. 10 above, please specify the source. Enter "N/A" if you did not take distance learning sessions or classroom training.**

> *Open-ended response.*

**RDA Test Record Use Survey**

*This questionnaire is designed to elicit information from people who used or consulted records that were created during the US RDA Test. Respondents to this questionnaire may be any library staff or users. Each institution may decide how to submit this questionnaire. The institution's Test coordinator may complete the survey on behalf of all users at the institution; various groups within the institution may submit separate surveys; individual users may be asked to submit the survey, as they encounter RDA records in the institution's catalog.*

1. **Please identify yourself from one or more of the following categories. The categories are intended to denote functional areas rather than organizational ranking. Please check all that apply to you (or to the group for whom you are submitting the survey):**
   *Possible responses:*

Reference librarian
Reference paraprofessional
Acquisition librarian
Acquisition paraprofessional
ILL librarian
ILL paraprofessional
Systems librarian
Systems paraprofessional
Library patron: Faculty
Library patron: Student
Library patron: Other
Other (please specify)

**2. Institution (check one)**
*Response from list of 26 formal US RDA Test institutions*

**3. How did you view the records? Please check all that apply:**
   *Possible responses:*
As printouts
In your local system's cataloging module
In your local system's online public catalog
In OCLC WorldCat, including Save files
Other (please specify)\

**4. In what markup or display option did you view the records?**
   *Possible responses:*
As MARC displays
As labeled displays
Both
Other (please specify)

**5. Did you notice anything about RDA records (omissions, inclusions, ways of expressing information, etc.) that would have a positive impact on a user's ability to find, identify, select, or obtain the item? Please explain below.**
   *Possible responses:*
Yes
No
Please comment:

**6. Did you notice anything about RDA records (omissions, inclusions, ways of expressing information, etc.) that would have a positive impact on a user's ability to find, identify, select, or obtain the item? Please explain below.**

> *Possible responses:*

Yes
No
Please comment:

**7. Which record do you believe is easier to understand?**

> *Possible responses:*

AACR2 (or current standard) record
RDA record
Both about the same
Don't know
Please feel free to comment:

**8. Would an RDA record be sufficient to meet your needs for the work you do?**

> *Possible responses:*

Does not
Meets only some
Meets most
Meets fully

**9. Please add any other comments you wish about the usability and/or completeness of the RDA Test records:**

> *Open-ended response*

**RDA Test Record by Record Survey: Common Original Set**

*The purpose of this survey was to gather information about test record creators' experience as they described resources in the US RDA Test using original cataloging. Test record creators were asked to complete the survey for each bibliographic record they created or updated in the Common Original Set, immediately after they completed the record. Records for the Common Original Set were created "from scratch," without searching OCLC WorldCat, the LC Catalog, or authority files.*

"The questions are divided into general questions, questions about your work on the bibliographic record, and questions about any authority work you performed. You can submit the survey at the conclusion of the section on the bibliographic record (this section ends with question no. 11) if you didn't do authority work yourself."

1. Tester ID: Please provide your unique RDA Test tester ID. (Your unique tester ID is assigned to you by your institution, based on your institution's general test ID.)
> *Open-ended response.*

2. What is the sequential number of this record in your personal bibliographic record production? Of all the bibliographic records you've produced since the start of the formal RDA Test record submission period, was this your first (no. 1), second (no. 2), fifth (no. 5), etc.? Include both original and copy records in the count, as long as they were produced/updated using RDA.  Please enter your answer as a whole number, e.g., 1, 15, 35, etc.
If you produced this bibliographic record using AACR2 or other current rules, please record a zero.
> *Open-ended response.*

3. Please supply the alphabetical identifier of the resource, A-Y. Please see Instructions for Testers.
> *Possible responses:*

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y

4. Please provide any comments you wish to make concerning your experience in creating this bibliographic record and/or any associated authority records.
　　　*Open-ended response.*

5. How much experience do you have in cataloging this type of resource? (Your experience does not need to have been full-time.)
　　　*Possible responses:*
No experience prior to the RDA Test
Less than 1 year
1 to 2 years
2 to 3 years
3 to 5 years
5 to 6 years
6 to 22 years
22 to 29 years (i.e., experience began after first US national implementation of AACR2 but before 1988)
29 years or more (i.e., experience began prior to implementation of AACR2)

6. What descriptive cataloging instructions did you apply to complete this record?
　　　*Possible responses:*
RDA
AACR2
AMIM
APPM
CCO
CDP
CDWA
DACS
DCMI (Please specify application profile in Comments below)
DCRM
GIHC
Please specify your DCMI application profile if any

7. For RDA records only: Did you use workflows in the RDA Toolkit as you created/updated this record?
　　　*Possible responses:*
Yes
No
This bibliographic record is not an RDA record.

8. What is the communication format/coding/tagging scheme for the bibliographic record you have just completed?
　　　*Possible responses:*
MARC 21
Dublin Core
MODS
MARCXML
Other (please specify)

9. How many minutes did it take you to complete this bibliographic record? Exclude any outside interruptions or consultation time (which is recorded below). Exclude time spent on authority records (see questions no. 12-16 below). Express your answer as a whole number, e.g., not "1.6 hours" or "96 minutes," but simply "96."
　　　*Open-ended response.*

10. In creating this record, which of the following did you encounter difficulties with?
Please check all that apply:
    *Possible responses:*
Did not encounter any difficulties
Online tool (RDA Toolkit)
Content of cataloging instructions
Selecting from options in the cataloging instructions
Coding/tagging or communication formats
Other (please specify)

11. How many minutes did you spend in consulting others as you completed this bibliographic record? Exclude time spent in consultation regarding authority records (see questions no. 12-16 below). Record only your own time, not the time of others whom you consulted. Express your answer as a whole number, e.g., not "1.6 hours" or "96 minutes," but simply "96." If you did not consult others, record a zero.
    *Open-ended response.*

12. How many minutes did it take you to create authority records associated with this item in the Common Original Set? Exclude any outside interruptions or consultation time (which is recorded below). Express your answer as a whole number, e.g., not "1.6 hours" or "96 minutes," but simply "96." If you did not create authority records, record a zero.
    *Open-ended response.*

13. How many new authority records did you create in describing this item? Express your answer as a whole number. If you did not create any authority records, record a zero.
    *Open-ended response.*

14. What type of new authority records did you create in describing this item? Please check all that apply:
    *Possible responses:*
Did not create authority records
Personal name
Corporate name
Conference name
Authorized name (of access point) for a work or expression
Family name
Geographic name
Series title

15. In creating authority records for this item, which of the following did you encounter difficulties with? Please check all that apply:
    *Possible responses:*
Did not create authority records
Created authority records but did not encounter difficulties
Online tool (RDA Toolkit)
Content of cataloging instructions
Selecting from options in the cataloging instructions
Coding/tagging or communication formats
Other (please specify)

16. As you created authority records for this item, how many minutes did you spend in consultation with others? Record only your own time, not the time of others whom you consulted. Express your answer as a whole number, e.g., not "1.6 hours" or "96 minutes," but simply "96." If you did not consult others, record a zero.
    *Open-ended response.*

## RDA Test Record by Record Survey: Extra Original Set

*The purpose of this survey was to gather information about test record creators' experience as they created original descriptions of resources in the US RDA Test that were not part of the Common Original Set.  Test record creators were asked to complete the survey for each bibliographic record they created or updated in the Extra Original Set, immediately after they completed the record.*

"The questions are divided into general questions, questions about your work on the bibliographic record, and questions about any authority records you handled. You can submit the survey at the conclusion of the section on the bibliographic record (this section ends with question no. 16) if you didn't handle any authority records."

1. Tester ID: Please provide your unique RDA Test tester ID. (Your unique RDA Test tester ID is assigned to you by your institution, based on your institution's general test ID.)
        *Open-ended response.*


2. What is the sequential number of this record in your personal bibliographic record production? Of all the bibliographic records you've produced since the start of the formal RDA Test record submission period, was this your first (no. 1), second (no. 2), fifth (no. 5), etc.? Include both original and copy records in the count, as long as they were produced/updated using RDA. Please enter your answer as a whole number, e.g., 1, 15, 35, etc.
        *Open-ended response.*


3. What is the RDA Test record identifier of this bibliographic record? (For testers cataloging directly in OCLC, this will be the OCLC control number, in MARC 21 field 035. See the Test Instructions that were mailed to your institution.)
        *Open-ended response.*

4. Please provide any comments you wish to make concerning your experience in creating/completing this bibliographic record and/or any associated authority records.
        *Open-ended response.*


5. Did you use workflows in the RDA Toolkit as you created this record?
        *Possible responses:*
Yes
No


6. What is the communication format/coding/tagging scheme for the bibliographic record you have just completed?
        *Possible responses:*
MARC 21
Dublin Core
MODS
MARCXML
Other (please specify)

7. What is the language of the item you described on this record? Please check all that apply:
   *Possible responses:*
English
Arabic
Chinese
French
German
Hebrew
Russian
Spanish
Not applicable -resource is nontextual
Other. Please specify as many as needed in the box below, using the MARC 21 3-letter codes (see list)
   Other language(s)

8. What is the script of the item you described on this record? Please check all that apply:
   *Possible responses:*
Latin
Arabic
Cyrillic
Chinese
Hebrew
Not applicable -resource is nontextual
Other script (please specify)

9. What is the type of content of the item you described on this record? Please check all that apply:
   *Possible responses:*
cartographic dataset
cartographic image
cartographic moving image
cartographic tactile three-dimensional form
cartographic three-dimensional form
computer dataset
computer program
notated movement
notated music
other (please specify)
performed music
sounds
spoken word
still image
tactile image
tactile notated movement
tactile notated music
tactile text
tactile three-dimensional form
text
three-dimensional form
three-dimensional moving image
two-dimensional moving image
unspecified

10. What is the carrier type of the item you described on this record? Please check all that apply:

*Possible responses:*
audio carrier: audio cartridge
audio carrier: audio disc
audio carrier: audiocassette
computer carrier: computer chip cartridge
computer carrier: computer disc
computer carrier: computer tape cassette
computer carrier: online resource
microform carrier: microfiche
microform carrier: microfilm cartridge
microform carrier: microfilm cassette
microform carrier: microfilm reel
microscopic carrier: microscopic slide
other (please specify from RDA 3.3.1.3)
projected image carrier: film cartridge
projected image carrier: film cassette
projected image carrier: film reel
projected image carrier: slide
unmediated carrier: object
unmediated carrier: sheet
unmediated carrier: volume
video carrier: video cartridge
video carrier: videocassette
video carrier: videotape reel
unspecified

11. What is the mode of issuance of the item you described on this record?

*Possible responses:*
single unit
multipart monograph
serial
integrating resource

12. How much experience do you have in cataloging this type of resource? (Your experience does not need to have been full-time.)

*Possible responses:*
No experience prior to the RDA Test
Less than 1 year
1 to 2 years
2 to 3 years
3 to 5 years
5 to 6 years
6 to 22 years
22 to 29 years (i.e., experience began after first US national implementation of AACR2 but before 1988)
29 years or more (i.e., experience began prior to implementation of AACR2)

13. How many minutes did it take you to complete this bibliographic record? Exclude any outside interruptions or consultation time (which is recorded below). Include time for both descriptive and subject

aspects of the record if you completed both. Exclude time spent on authority records (see questions no. 17-23 below). Express your answer as a whole number, e.g., not "1.6 hours" or "96 minutes," but simply "96."

> *Open-ended response.*

14. Were you responsible for both description and subject analysis (subject access points and/or classification) on this bibliographic record?

> *Possible responses:*

Yes
No

15. In creating/completing this record, which of the following did you encounter difficulties with? Please check all that apply:

> *Possible responses:*

Did not encounter any difficulties
Online tool (RDA Toolkit)
Content of cataloging instructions
Selecting from options in the cataloging instructions
Coding/tagging or communication formats
Other (please specify)

16. How many minutes did you spend in consulting others about the RDA cataloging instructions as you completed this bibliographic record? Exclude time spent in consultation regarding authority records (see questions no. 17-23 below) or subject aspects of the bibliographic record. Record only your own time, not the time of others whom you consulted. Express your answer as a whole number, e.g., not "1.6 hours" or "96 minutes," but simply "96." If you did not consult others, record a zero.

> *Open-ended response.*

17. How many minutes did it take you to review, create, and/or update authority records associated with the item in question? Exclude any outside interruptions, time for subject authority work such as LCSH proposals, or consultation time (which is recorded below). Express your answer as a whole number, e.g., not "1.6 hours" or "96 minutes," but simply "96." If you did not perform authority work, record a zero.

> *Open-ended response.*

18. How many new authority records did you create in describing this item? Express your answer as a whole number. If you did not perform authority work, record a zero.

> *Open-ended response.*

19. What type of new authority records did you create? Please check all that apply:

> *Possible responses:*

Did not create new authority records
Personal name
Corporate name
Conference name
Authorized name (of access point) for a work or expression
Family name
Geographic name
Series title

20. How many existing authority records did you update in describing this item? Express your answer as a whole number. If you did not update any existing authority records, record a zero.
    *Open-ended response.*


21. What type of existing authority records did you update? Please check all that apply:
    *Possible responses:*
Did not update any authority records
Personal name
Corporate name
Conference name
Authorized name (of access point) for a work or expression
Family name
Geographic name
Series title

22. In performing authority work related to this item, which of the following did you encounter difficulties with? Please check all that apply:
    *Possible responses:*
Did not create or update any authority records
Performed authority work, but did not encounter difficulties
Online tool (RDA Toolkit)
Content of cataloging instructions
Selecting from options in the cataloging instructions
Coding/tagging or communication formats
Other (please specify)

23. In creating or updating authority records for this item, how many minutes did you spend on consultation with others? Record only your own time, not the time of others whom you consulted. Express your answer as a whole number, e.g., not "1.6 hours" or "96 minutes," but simply "96." If you did not consult others, record a zero.
    *Open-ended response.*

**RDA Test Record by Record Survey: Common Copy Set**

The purpose of this survey was to gather information about testers' experience as they described resources in the US RDA Test using copy as the basis for the description. Testers were asked to complete the survey for each bibliographic record they updated in the Common Copy Set, immediately after they finished updating the record.

"The questions are divided into general questions, questions about your work on the bibliographic record, and questions about any authority records that would have been involved, if creating and updating authority records had been required for the Common Copy Set."

1. Tester ID: Please provide your unique RDA Test tester ID. (Your unique tester ID is assigned to you by your institution, based on your institution's general test ID.)
   *Open-ended response.*

2. What is the sequential number of this record in your personal bibliographic record production? Of all the bibliographic records you've produced since the start of the formal RDA Test record submission period, was this your first (no. 1), second (no. 2), fifth (no. 5), etc.? Include both original and copy records in the count, as long as they were produced/updated using RDA. Please enter your answer as a whole number, e.g., 1, 15, 35, etc.
   *Open-ended response.*

3. Please supply the alphabetical identifier of the resource, AA-EE. Please see Instructions for Testers.
   *Possible responses:*
AA
BB
CC
DD
EE

4. Please provide any comments you wish to make concerning your experience in updating or completing this bibliographic record.
   *Open-ended response.*

5. How much experience do you have in copy-cataloging this type of resource? (Your experience does not need to have been full-time.)
   *Possible responses:*
No experience prior to the RDA Test
Less than 1 year
1 to 2 years
2 to 3 years
3 to 5 years
5 to 6 years
6 to 22 years
22 to 29 years (i.e. experience began after first US national implementation of AACR2 but before 1988)
29 years or more (i.e. experience began prior to implementation of AACR2)

6. Did you use workflows in the RDA Toolkit as you updated this record?
   *Possible responses:*
Yes
No

7. What is the communication format/coding/tagging scheme for the bibliographic record you have just completed?
	*Possible responses:*
MARC 21
Dublin Core
MODS
MARCXML
Other (please specify)

8. What elements of the copy record did you review and/or update? Check as many as apply:
	*Possible responses:*
All elements in the copy record
No elements updated or added
Descriptive elements
Access points
Local data elements
Notes (some or all)
Other (please specify)

9. How many minutes did it take you to complete/update this bibliographic record? Exclude any outside interruptions or consultation time (which is recorded below). Express your answer as a whole number, e.g., not "1.6 hours" or "96 minutes," but simply "96."
	*Open-ended response.*

10. In updating/completing this record, which of the following did you encounter difficulties with? Please check all that apply:
	*Possible responses:*
Did not encounter any difficulties
Online tool (RDA Toolkit)
Content of cataloging instructions
Selecting from options in the cataloging instructions
Coding/tagging or communication formats
Which elements to update
How to update the elements
Other (please specify)

11. How many minutes did you spend in consulting others as you updated this bibliographic record? Record only your own time, not the time of others whom you consulted. Express your answer as a whole number, e.g., not "1.6 hours" or "96 minutes," but simply "96." If you did not consult others, record a zero.
	*Open-ended response.*

12. How many new authority records would have to be created to describe this item? Express your answer in whole numbers. If no authority records would have to be created, record a zero. (As a reminder, no authority records should actually be created for the Common Copy Set; but we'd like to know how many new authority records would be needed.)
	*Open-ended response.*

13. How many existing authority records would have been modified to add an RDA form in a 7XX field in describing this item? Express your answer in whole numbers. If no authority records would have been modified, record a zero. (As a reminder, no authority records should actually be modified for the Common Copy Set; but we'd like to know how many modified authority records would be needed.)
	*Open-ended response.*

**RDA Test Record by Record Survey: Extra Copy Set**

The purpose of this survey was to gather information about testers' experience as they copy-cataloged resources in the US RDA Test that were not part of the Common Original or Common Copy sets. Testers were asked to complete the survey for each bibliographic record they updated in the Common Copy Set, immediately after they finished updating the record.

"The questions are divided into general questions, questions about your work on the bibliographic record, and questions about any authority records you handled. You can submit the survey at the conclusion of the section on the bibliographic record (this section ends with question no. 17) if you didn't handle any authority records."

1. Tester ID: Please provide your unique RDA Test tester ID. (Your unique RDA Test tester ID is assigned to you by your institution, based on your institution's general test ID.)
    *Open-ended response.*

2. What is the sequential number of this record in your personal bibliographic record production? Of all the bibliographic records you've produced since the start of the formal RDA Test record submission period, was this your first (no. 1), second (no. 2), fifth (no. 5), etc.? Include both original and copy records in the count, as long as they were produced/updated using RDA. Please enter your answer as a whole number, e.g.,
1, 15, 35, etc.
    *Open-ended response.*

3. What is the RDA Test record identifier of this bibliographic record? (For testers who catalog directly in OCLC, this will be the OCLC control number, in MARC 21 field 035. See the Test Instructions that were mailed to your institution.)
    *Open-ended response.*

4. Please add any comments you wish to make concerning your experience in updating this bibliographic record and/or any associated authority records.
    *Open-ended response.*

5. Did you use workflows in the RDA Toolkit as you updated this record?
    *Possible responses:*
Yes
No

6. What is the communication format/coding/tagging scheme for the bibliographic
record you have just completed?
    *Possible responses:*
MARC 21
Dublin Core
MODS
MARCXML
Other (please specify)

7. What is the language of the item you have described on this record? Please check all that apply:
	*Possible responses:*
English
Arabic
Chinese
French
German
Hebrew
Russian
Spanish
Not applicable -resource is nontextual
Other. Please specify as many as needed in the box below, using the MARC 21 3-letter codes (see list)
		Other language(s)

8. What is the script of the item you have described on this record? Please check all that apply:
	*Possible responses:*
Latin
Arabic
Cyrillic
Chinese
Hebrew
Not applicable -resource is nontextual
Other script (please specify)

9. What is the type of content of the item you described on this record? Please check all that apply:
	*Possible responses:*
cartographic dataset
cartographic image
cartographic moving image
cartographic tactile three-dimensional form
cartographic three-dimensional form
computer dataset
computer program
notated movement
notated music
other (please specify)
performed music
sounds
spoken word
still image
tactile image
tactile notated movement
tactile notated music
tactile text
tactile three-dimensional form
text
three-dimensional form
three-dimensional moving image
two-dimensional moving image
unspecified

10. What is the carrier type of the item you described on this record? Please check all that apply:

*Possible responses:*

audio carrier: audio cartridge
audio carrier: audio disc
audio carrier: audiocassette
computer carrier: computer chip cartridge
computer carrier: computer disc
computer carrier: computer tape cassette
computer carrier: online resource
microform carrier: microfiche
microform carrier: microfilm cartridge
microform carrier: microfilm cassette
microform carrier: microfilm reel
microscopic carrier: microscopic slide
other (please specify from RDA 3.3.1.3)
projected image carrier: film cartridge
projected image carrier: film cassette
projected image carrier: film reel
projected image carrier: slide
unmediated carrier: object
unmediated carrier: sheet
unmediated carrier: volume
video carrier: video cartridge
video carrier: videocassette
video carrier: videotape reel
unspecified

11. What is the mode of issuance of the item you described on this record?

*Possible responses:*

single unit
multipart monograph
serial
integrating resource

12. How much experience do you have in cataloging this type of resource? (Your experience does not need to have been full-time.)

*Possible responses:*

No experience prior to the RDA Test
Less than 1 year
1 to 2 years
2 to 3 years
3 to 5 years
5 to 6 years
6 to 22 years
22 to 29 years (i.e., experience began after first US national implementation of AACR2 but before 1988)
29 years or more (i.e., experience began prior to implementation of AACR2)

13. What elements of the copy record did you review and/or update? Check as many as apply:
> *Possible responses:*

All elements in the copy record
Classification/call number
Descriptive elements
Descriptive access points
Local data elements
Notes (some or all)
Subject access points
No elements updated
Other (please specify)

14. How many minutes did it take you to complete/update this bibliographic record? Exclude any outside interruptions or consultation time (which is recorded below). Include time for both descriptive and subject aspects of the record if you completed both. Exclude time spent on authority records (see questions no. 18-24 below). Express your answer as a whole number, e.g., not "1.6 hours" or "96 minutes," but simply "96."
> *Open-ended response.*

15. Were you responsible for both description and subject analysis (subject access points and/or classification) on this bibliographic record?
> *Possible responses:*

Yes
No

16. As you completed/updated this copy record, which of the following did you encounter difficulties with? Please check all that apply:
> *Possible responses:*

Did not encounter difficulties
Online tool (RDA Toolkit)
Content of cataloging instructions
Selecting from options in the cataloging instructions
Coding/tagging or communication formats
What elements to update
How to update the elements
Other (please specify)

17. How many minutes did you spend in consulting others as you completed/updated this bibliographic record? Exclude time spent in consultation regarding authority records (see questions no. 18-24 below) or subject aspects of the bibliographic record. Record only your own time, not the time of others whom you consulted. Express your answer as a whole number, e.g., not "1.6 hours" or "96 minutes," but simply "96." If you did not consult others, record a zero.
> *Open-ended response.*

18. How many minutes did it take you to review, create, and/or update authority records associated with the item being copy-cataloged? Exclude any outside interruptions or consultation time (which is recorded below). Express your answer as a whole number, e.g., not "1.6 hours" or "96 minutes," but simply "96." If you did not create or update any authority records, record a zero.
> *Open-ended response.*

19. How many new authority records did you create in describing this item? Express
your answer as a whole number. If you did not create any authority records, record a zero.
*Open-ended response.*

20. What type of new authority records did you create? Please check all that apply:
*Possible responses:*
Personal name
Corporate name
Conference name
Authorized name (of access point) for a work or expression
Family name
Geographic name
Series title
No authority records created

21. How many existing authority records did you update in describing this item? Express your answer as a
whole number. If you did not update any authority records, record a zero.
*Open-ended response.*

22. What type of existing authority records did you update? Please check all that apply:
*Possible responses:*
Personal name
Corporate name
Conference name
Authorized name (of access point) for a work or expression
Family name
Geographic name
Series title
No authority records updated

23. As you created/updated authority records associated with this item, which of the following did you
encounter difficulties with? Please check all that apply:
*Possible responses:*
Did not encounter any difficulties
Online tool (RDA Toolkit)
Content of cataloging instructions
Selecting from options in the cataloging instructions
Coding/tagging or communication formats
Other (please specify)

24. How many minutes did you spend consulting others as you created or updated authority records?
Record only your own time, not the time of others whom you consulted. Express your answer as a whole
number, e.g., not "1.6 hours" or "96 minutes," but simply "96." If you did not consult others, record a zero.
*Open-ended response.*

## Informal USA RDA Testers Questionnaire

**Section 1. Introduction**
The purpose of this survey was to gather information from non-participants in the US RDA Test.  This may have included U.S. individuals, groups, or institutions that did informal testing of their own, or those from the U.S. who simply wished to comment on the RDA rules and potential impact of implementation.  The survey instructions stated, "If you completed any survey(s) as part of the US RDA Test, please do not complete this survey.  The contact person for each informal testing institution or group should have submitted the survey only once. Many of the survey questions refer to "your institution."  If you are a solo respondent, please complete the survey with reference to the institution where you did the testing or otherwise explain your situation. If you are part of a group that consists of members from different institutions, please answer any institution-specific questions with reference to one of the institutions that can represent the group and provide the name of that institution in question 3."

The survey is divided into three sections: General Information, Record Creation, and Record Usability.

If you, your group, or your institution did not create any test records and did not solicit information from others in order to assess record usability, please answer only the questions in the General Information section.

If you, your group, or your institution created test records but did not solicit input from others in order to assess record usability, please answer only the questions in the General Information and Record Creation Sections.

If you, your group, or your institution created test records and solicited input from others in order to assess record usability, please answer the questions in all three sections of the survey.

Please complete this survey no later than January 6, 2011."

 **Survey questions follow below.**

**Section 2. General Information**

1. Please give your name:
        *Open-ended response.*

2. Please give your title:
        *Open-ended response.*

3. Please give the name of your group or institution or an explanation of your situation:
        *Open-ended response.*

4. Please check one of the following:
        *Possible responses:*
This is an institutional response
This is the response of a group with members from different institutions
This is the response of a solo respondent
None of the above (please explain):

5. Please provide the approximate quantity of test records you, your group, or your institution created.
        *Possible responses:*
0
1-25
26 or more

6. Please tell us about the nature of your experience with RDA (check all that apply):
   *Possible responses:*
I/we read most of the text of RDA
I/we read the parts of RDA most relevant to my/our work and interests
I/we read the text of RDA using the RDA Toolkit
I/we read the text of RDA using pdfs downloaded from the RDA Toolkit
I/we read drafts of RDA posted on the JSC Website
I/we navigated the RDA Toolkit and tried some of its features
I/we viewed records created using RDA
I/we consulted with or managed staff who created records using RDA
Other (please specify)

7. Please provide any comments you wish to make concerning your experience with
RDA, the content of the RDA instructions, the RDA Toolkit , or the Test.
   *Open-ended response.*

8. What training did you, your group, or your institution's testers receive? Please check as many as apply:
   *Possible responses:*
LC Webcasts or LC PowerPoint sets
Self-taught from RDA Toolkit
Self-taught from LC documentation
Hands-on training by local colleagues
Classroom training, one day or less
Classroom training, more than one day
Library or information science school course
RDA Webinars from ALA Publishing
Distance learning other than LC or ALA webcasts and webinars
Please comment if you wish:

9. Can your institution's online system accept records with the new MARC 21 changes related to RDA?
   *Possible responses:*
Yes
No

10. How much impact on local operations, e.g., workflows, staff assignments, training, documentation, etc., do
you anticipate if your institution implements RDA?
   *Possible responses:*
Major negative impact
Minor negative impact
No impact
Minor positive impact
Major positive impact
Please comment if you wish:

11. Do you think that the US community should implement RDA?
   *Possible responses:*
Yes
Yes, with changes (specify in Comments below)
No
Ambivalent (Explain in Comments below)
Comments:

**Section 3. Record Creation**
Please complete the Record Creation section if you, your group, or your institution created RDA Test records. If no records were created and you did not solicit information from others regarding record usability, please proceed to the end of the survey and click 'Submit'. If you solicited information from others regarding record usability, please proceed to the Record Usability section of the survey.

12. What approach to RDA options/alternatives did your institution apply in creating original RDA records? Check all that apply:
> *Possible responses:*

LC's choices for the US RDA Test
Specified by your institution
Cataloger's judgment
Other (please specify)

13. What approach did your institution apply in updating records using copy? Check all that apply:
> *Possible responses:*

Did not use copy
Accept record as is
Accept record as is but correct errors according to RDA
Accept record as is but correct errors according to current rules
Add new information according to RDA rules
Convert entire record to RDA
Convert only access points, using your own staff
Convert only access points, using a vendor
Other (please specify)

14. What communication format/coding/tagging scheme(s) did you use for the test records you created? Check all that apply:
> *Possible responses:*

MARC 21
Dublin Core
MODS
MARCXML
Other (please specify)

15. Please check all of the choices below that apply to any difficulties you or your staff might have encountered in creating RDA test records:
> *Possible responses:*

Did not encounter difficulties
Using the online tool (RDA Toolkit)
Understanding the content of cataloging instructions
Selecting from options in the cataloging instructions
Coding/tagging or communication formats
Determining what elements to update, if copy-cataloging
Determining how to update the elements, if copy-cataloging
Other (please specify)

16. In general, how did the frequency of your or your staff's consultation with others (including sending emails to LC's RDA help account, LChelp4rda@loc.gov) regarding RDA descriptive cataloging instructions compare with the frequency of your or their consultations with others using their current rules? Please consider the most recent records staff created or updated in order to account for the learning curve:

*Possible responses:*
Lower frequency
Same frequency
Greater frequency
Please feel free to comment:

17. Please check all that apply regarding any authority work associated with the bibliographic records created:
    *Possible responses:*
We did not create authority records
Personal name
Corporate name
Conference name
Authorized name (of access point) for a work or expression
Family name
Geographic name
Series title

18. Please check all the choices that apply concerning any difficulties that you or your staff might have encountered in performing the authority work indicated in the previous question:
    *Possible responses:*
Did not perform authority work
Performed authority work, but did not encounter difficulties
Using the online tool (RDA Toolkit)
Understanding the content of cataloging instructions
Selecting from options in the cataloging instructions
Coding/tagging or communication formats
Other (please specify)

19. In general, how did the frequency of your or your staff's consultation with others regarding the creation or updating of authority records (including sending emails to LC's RDA help account, LChelp4rda@loc.gov) compare with the frequency of your or their consultations with others using their current rules? Please consider the most recent records you or your staff created or updated in order to account for the learning curve.
    *Possible responses:*
I/we did not create or update any authority records
Lower frequency
Same frequency
Greater frequency
Please feel free to comment:

20. Please choose the statement below that best expresses your or your institution's experience regarding the relative time it took to create bibliographic and/or any associated authority records using RDA. Please answer the question based on the most recent records created to account for the learning curve:
    *Possible responses:*
On average, the RDA records I/we created took less time to create than records created using our current rules
On average, the RDA records I/we created took about the same amount of time to create as records using our current rules
On average, the RDA records I/we created took more time to create than records using our current rules
I/we do not have a clear sense of relative record creation times
Please add any comments you wish to make concerning the relative time it took testers to create records using RDA.

**Section 4. Record Usability**
Please complete the Record Usability section if you or your institution solicited information from library staff and/or library users about the usability of RDA records as compared to the usability of your usual records. If you or your institution did not solicit information about the usability of RDA records, please proceed to the end of the survey and click 'Submit'.

21. If you or your institution shared RDA records with library staff and/or library users about the usability of RDA records, from which groups did you gather feedback about the usability of RDA records? (Check all that apply.)
        *Possible responses:*
Reference librarians
Reference paraprofessionals
Acquisition librarians
Acquisition paraprofessionals
Systems librarians
Systems paraprofessionals
ILL librarians
ILL paraprofessionals
Library patrons: Faculty
Library patrons: Student
Library patrons: Other
Other (please specify)

22. Did the groups from which you or your staff solicited input regarding record usability notice anything about RDA records (omissions, inclusions, ways of expressing information, etc.) as compared to your usual records that would have a positive impact on a user's ability to find, identify, select, or obtain the item? Please explain below:
        *Possible responses:*
Yes
No
Please comment:

23. Did the groups from which you or your staff solicited input regarding record usability notice anything about RDA records (omissions, inclusions, ways of expressing information, etc.) as compared to your usual records that would have an adverse impact on a user's ability to find, identify, select, or obtain the item? Please explain below:
        *Possible responses:*
Yes
No
Please comment:

24. Overall, which records do the groups from which you or your staff solicited input regarding record usability believe are easier to understand?
        *Possible responses:*
AACR2 (or current standard) records
RDA records
Both about the same
Don't know
Please feel free to comment:

25. Would the groups from which you or your staff solicited input regarding record usability find an RDA record to be sufficient to meet their needs for the work they do?

> *Possible responses:*

Does not
Meets only some
Meets most
Meets fully
Please feel free to comment:

26. Please add any other comments you wish about the usability and/or completeness of the RDA Test records as compared to your usual records:

> *Open-ended response.*

If you have completed all the answers you wish, click the Done button to exit the survey.
Thank you very much for completing the Informal US RDA Testers Questionnaire.

## Appendix D: Numerical Summary of RDA Records Collected in U.S. RDA Test

|  | Bibliographic | Authority |
|---|---|---|
| Common Original Set | 1,514 | 1,226 |
| Common Copy Set | 122 | 0 |
| Extra Set | 7,786 | 10,184 |
| Extra Set records without surveys | 762 | 1,273 |
| Informal Testers' Records | 386 | 117 |
| **Totals** | **10,570** | **12,800** |

### Formal Participants: U.S. National Library RDA Test

| Test Site | Common Original Set | | Common Copy Set | Extra Set | |
|---|---|---|---|---|---|
|  | Bib | Auth | Bib | Bib | Auth |
| Backstage Library Works | 50 | NA | 5 | 101 | NA |
| Brigham Young University | 49 | 120 | 5 | 542 | 1,078 |
| Carnegie Library of Pittsburgh | 42 | NA | NA | 22 | 4 |
| Clark Art Institute | 50 | 135 | NA | 40 + 1 DC | 39 |
| College Center for Library Automation | 50 | NA | 5 | 30 | NA |
| Columbia University | 50 | 85 | NA | 25 +11 MODS +2 EAD +2 DC | 34 |
| Douglas County Libraries | 50 | 124 | 5 | 51 | 98 |
| Emory University | 50 | 7 | 5 | 27 +5 MODS | 8 |
| George Washington University | 49 | NA | 9 | 36 +2 MODS | NA |
| GSLIS Group | 224 +5 DC | NA | 26 +3 DC | See below | NA |
| --UIUC |  |  |  | 7 +2 DC | NA |
| --Dominion |  |  |  | 94 | NA |

| Test Site | Common Original Set | | Common Copy Set | Extra Set | |
|---|---|---|---|---|---|
| | **Bib** | **Auth** | **Bib** | **Bib** | **Auth** |
| --Wisc-Madison | | | | 10 | NA |
| --Wisc-Milwaukee | | | | 4 | NA |
| Library of Congress | 50 | 78 | 3 | 3,575 | 6,000 |
| Minnesota Historical Society | 50 | NA | 5 | 26 | 22 |
| Morgan Library and Museum | 50 | 23 | 5 | 26 | 23 |
| Music Library Association/OLAC | 50 | NA | NA | 79 | 61 |
| National Agricultural Library | 49 | 96 | NA | 185 | 315 |
| National Library of Medicine | 50 | 98 | 5 | 384 | 944 |
| North Carolina State University | 48 | NA | 4 | 257 +10 MODS | NA |
| North East Independent School District | 52 | NA | 5 | 24 | NA |
| Northeastern University | 50 | NA | 4 | 25 | NA |
| OCLC Metadata Contract Services | 40 | NA | 4 | 24 | NA |
| Ohio State University | 43 | NA | 8 | 37 | NA |
| Quality Books | 50 | 0 | 0 | 0 | 0 |
| Stanford University | 89 | 164 | NA | 464 | 254 |
| State Library of Pennsylvania | 53 | 154 | 6 | 204 | NA |
| University of Chicago | 70 | 127 | 5 | 1,301 +20 DC | 1,202 |
| University of North Dakota | 51 | 15 | 5 | 131 | 102 |

| Test Site | Common Original Set | | Common Copy Set | Extra Set | |
|---|---|---|---|---|---|
| | Bib | Auth | Bib | Bib | Auth |
| Totals | 1,509 MARC<br>5 DC | | 119 MARC<br>3 DC | 7,731 MARC<br>25 DC<br>28 MODS<br>2 EAD | |
| | **1,514** | **1,226** | **122** | **7,786** | **10,184** |

## Informal Participants: U.S. National Library RDA Test

| Institution/Project | Bibliographic | Authority |
|---|---|---|
| ALCTS CRS Continuing Resources Cataloging Committee | 75 | 43 |
| Bound to Stay Bound Books | 11 | 0 |
| Florida State University Libraries | 12 | 5 |
| Getty Research Institute | 69 | 0 |
| United States Senate Library | 33 | 6 |
| University of Colorado at Boulder | 88 | 46 |
| University of Minnesota Libraries | 16 | 0 |
| University of Nebraska-Lincoln | 25 | 17 |
| University of Pittsburgh, Health Sciences Library System | 4 | 0 |
| University of Texas, Arlington | 22 | 0 |
| Wagner College | 31 | 0 |
| **TOTALS** | **386** | **117** |

*Record collection methodology*

Prior to the start of the record creation phase of the test, the coordinator for each test site was asked to provide a contact person for the collection of test records. This record collection contact was then sent a brief survey to elicit information about the test environments (i.e., working in a utility vs. local system), the aspects of the test they would participate in (e.g., would they create the optional authority record, Common Copy Set records), and the format(s) they expected to use (e.g., MARC, Dublin Core, MODS).

*Common Original Set and Common Copy Set Bibliographic records*

Test sites that intended to use OCLC as their record creation environment were asked to contact OCLC to adjust authorizations that would allow for the creation of institution records in Connexion for the Common Original and Common Copy Set bibliographic records.  These institution records would be associated with master records created by OCLC for this purpose; OCLC also provided instructions to those institutions for whom this was an exceptional practice they had not used previously.  As with all new procedures, there were a few bumps in the use of institution records for those that hadn't used them before: some master records were edited accidentally and had to be restored; derived institution records contained elements from the master record that should have been adjusted; some institution records were merely a replication of the master record with no additional changes (about 2 dozen records were discarded for this reason); and, some institution records were attached to the wrong master record.  These test sites were not required to 'report' institution records, as they could easily by harvested from the known master record.

Test sites using local systems for record creation were sent a message at the end of each month of the record creation phase to submit the records created the previous month as email attachments.  After harvesting the records, a local MARC field was added to indicate which of the Common Set records it was for, and which test institution created it.  Because it was important to distinguish between RDA and AACR2 records, each record was evaluated for consistency of indicia (Leader/18, 040$e, presence of RDA fields) and regularized for future analysis and machine manipulation.  Records with MARC-8 character encodings were converted to UTF-8 so that all were consistently coded and could be manipulated by analysis software.  "MARC" records that were not provided in true MARC ISO 2709 syntax were converted.

*Common Original Set Authority Records*

Test sites using OCLC and creating authority records for the Common Original Set had to follow a different exception to their 'normal' NACO process in order to prevent distribution of many duplicates for the same entity to the NACO file.  Records were created in a test agency's save file and were "submitted for review" to an OCLC save file account monitored by LC ("LNN").  Since it is not possible to export a save file record, a 'screen scrape' technique was used to capture the data in a text file, additional software was used to convert the authority records back to MARC 21 for posting and other processing.

Test sites using local systems for authority records were sent a message at the end of each month of the record creation phase to submit the authority records created the previous month as email attachments.

After harvesting the records, a local MARC field was added to indicate which of the Common Set records it was for, and which test institution created it.  Because it was important to distinguish between RDA and AACR2 records, each record was evaluated for consistency of indicia (008/10, 040$e) and regularized for future machine manipulation.  Records with MARC-8 character encodings

were converted to UTF-8 so that all were consistently coded and could be manipulated by analysis software. "MARC" records that were not provided in true MARC (ISO 2709 syntax) were converted.

### Extra Set Records

Each test site using OCLC was sent a message at the end of each month asking for lists of OCLC control numbers for Extra Set records created in that system, whether for bibliographic or authority records. OCLC control numbers were used to batch export records; when those control numbers were for institution records, it was necessary to navigate to the correct institution record before exporting. These records were not altered; although were sometimes replaced at the request of a testing agency.

Test sites using their local systems were notified monthly to submit records. As with other records created in local systems, some normalization was required (e.g., MARC ISO 2709 conversion, MARC-8 to UTF-8 character conversion), but the records were otherwise not altered.

A complication developed for some high-volume test sites that concluded it was not efficient to do surveys for every Extra Set record; the Coordinating Committee agreed that non-surveyed records could be collected, but should not be aggregated with other Extra Set records. It was agreed to add these records to the set of records submitted by informal participants. Since this was not a clear parameter at the beginning of the test, there is not necessarily a one-to-one correspondence between the Extra Set records harvested and the surveys for Extra Set titles. Likewise, reporting requirements were not always understood during the first reporting period; special efforts were made to harvest records in these cases, in coordination with the test sites.

### Non-MARC records

Records that were submitted in an encoding scheme other than MARC were not processed further at LC except to occasionally substitute revised versions for records already submitted.

### Informal Test Sites

Agencies asking to be included as informal testers were also asked to identify a record collection contact and to fill out a survey describing their proposed contributions. Records were submitted as email attachments, and were also edited slightly to conform to correct record syntax, character encoding, etc.

### Posting of Records

A Web page was developed to post the harvested test records submitted by formal and informal participants, concatenated into broad categories. A set of caveats was provided on the page to explain the character of the records. Collected records were posted 3 times, each subsequent posting included records submitted earlier such that the final iteration (Feb. 15, 2011) included all test records. After the first posting of records, it became clear that text versions of MARC records should also be made available in order to facilitate review of records for those without easy access to software that could handle MARC records. Non-MARC records were zipped into folders to protect the

integrity of the original encoding scheme (e.g., MODS, Dublin Core, EAD) and were not converted to text files.

Test records were also "sliced" into logical units (e.g., by institution, by record type/format/bibliographic level, by COS title) in order to assist with record analysis—these sets were provided to the Coordinating Committee as needed, and not posted for public consumption.

## Appendix E: Findings from the Informal Tester Survey

Because of the large amount of interest in the test and the inability to include everyone who wanted to participate as a formal tester, the Coordinating Committee created the Informal Testers Questionnaire (IT).  This survey was made available both to those  in the U.S. who created records as informal testers and also to others in the U.S. community who wanted to provide input about RDA or the test even if they did not create any records.  Eighty informal tester surveys were received.  Nearly two thirds (66%) of this group did not create or update any RDA records during the test.  Findings from this survey therefore represent the views of individuals and institutions with varying degrees of experience with RDA.

Findings provided here are based on analysis of only a few key questions from the IT survey.  The overwhelming amount of data collected from the formal participant surveys precluded the Coordinating Committee from doing a more detailed analysis of other questions in the IT survey.  All the responses to the questions will be made available to the community, along with other test data, at URL  http://www.loc.gov/bibliographic-future/rda/.

Regarding the question "Do you think that the U.S. community should implement RDA?," the responses of the informal testers were more negative than those of the formal test partner institutions and those of record creators from the test partner institutions that are reported in the Findings: Community Response section.
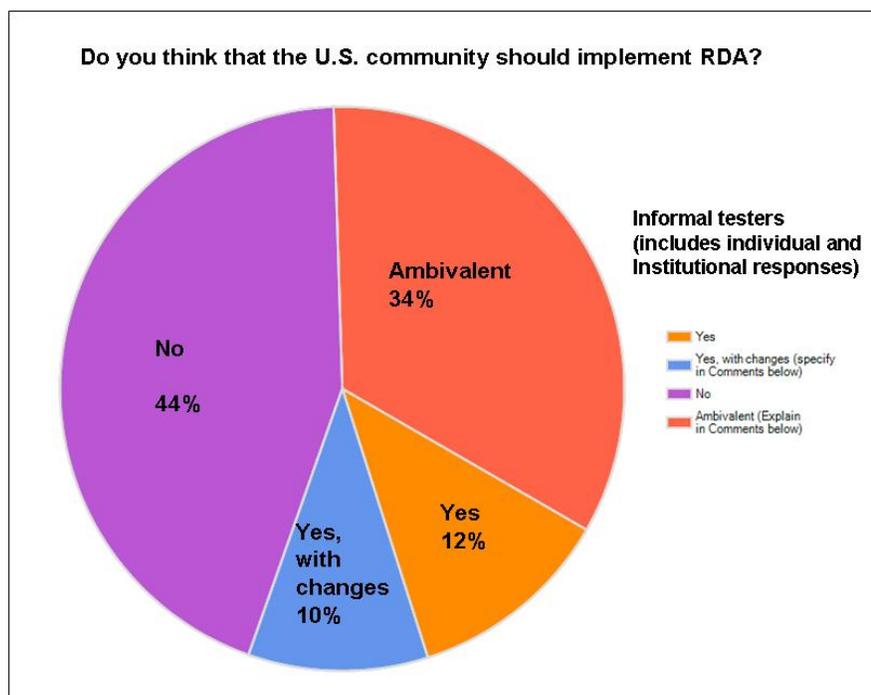


Figure 43. Opinions on RDA implementation, informal testers

When asked about the impact of RDA implementation on local operations, on the whole, the respondents to the IT survey provided responses similar to, but somewhat more negative than, those provided by the formal test partners. Fifty percent of respondents to the IT survey indicated that they anticipated major negative impact on local operations if RDA were implemented, and an additional 47 percent anticipated minor negative impact. Only one respondent in the IT survey anticipated (minor) positive impact. Nearly all of the comments that were provided to amplify responses to this question were negative and included few positive impacts. The following comment is an example, "Overall, I have not been happy with RDA itself–I have read, over and over, that those who support RDA believe it will lay the groundwork for a better catalog that makes full use of the relationships between resources. However, I haven't seen how RDA can help use better serve our users right now –"

The higher percentage of negative expectations in this group could be due to the fact that none of the respondents had the benefit of the U.S. RDA Test Train-the-Trainer session offered to formal test partners in January 2010, whereas almost 78 percent of formal test partner institutions were represented at this session. The largely negative responses could also be due to the fact that 60 percent of the respondents to the IT survey were solo respondents providing their personal opinions, as distinct from representing the position of an institution.

In general, informal testers, as did formal testers, reported that they needed more time to create or update an RDA record than a record using their current rules. The following comment captured many concerns, "Even with all of the cheatsheets, Powerpoints and workflows, it is taking me a long time to get comfortable with the structure of RDA. The examples seem less useful. I have had difficulty finding how to assemble elements, I still tend to think of record creation in MARC tag order but this has me jumping all over the RDA chapters. With time, I am sure I would get faster but I am doubtful that I would ever be as fast as I have become in following AACR2. To put this comment in perspective, I have not created more than a handful of RDA records yet but that is in part because the ones I have done have taken me so long."

## Appendix F: Lessons Learned from the RDA Test, or, Considerations for Future Testing of Cataloging Standards

The test of RDA conducted by the U.S. RDA Test Coordinating Committee was a valuable process and has had a positive impact on the greater cataloging community both nationally and internationally. As is true with any process, when looking back at the choices and decisions made along the way, there were unintended consequences and thoughts about how the test could have been conducted differently. The lessons learned below are a selection of thoughts and questions raised about the RDA testing process when looking back over the entire experience. The statements below are not intended to be critical of the choices made by the Coordinating Committee, but rather provide guidance and insight to individuals who may be responsible for performing a similar undertaking sometime in the future.

- General
  - Follow a "keep it simple" principle and make the test less complex for both the testers and those evaluating the data
  - Have a plan to accept, analyze, and store indefinitely an unpredictable quantity of data from the test (both survey data and cataloged records)
  - Be prepared for instructions to be interpreted in a variety of sometimes conflicting ways.

- Selection of Participants
  - If possible select two institutions representing each type of library to account for invalid or incomplete data from one institution representing an entire sector of libraries
  - Encourage established Cataloging Format Groups/Funnel Projects to participate to allow for a wider variety of materials cataloged (i.e., ALCTS CRCC, GODORT, MAGERT, etc.)
  - When asking for volunteers for a study of a proposed change, consider sending the "finalists" a questionnaire to assess their attitudes towards the change. This could enable selection of testers with a range of attitudes and also help determine whether the test resulted in a change of attitude or whether testers had pretty much the same opinion after the test as before.

- Communication
  - Establish regular communication mechanisms with partner institutions via teleconferences, monthly or quarterly updates rather than solely at ALA meetings.
    - Encourage partner institutions to be more involved in the process
    - Solicit feedback about possible impacts of testing process on the community

- Attempt to answer questions/confusion about the process early on as the methodology is being developed
- Clarify procedures and confirm understanding
- Have discussions among the participants regarding preparation for the test such as how they planned to conduct the test at their institution to avoid surprises and to give the participants a chance to share with each other and learn from each other.  Suggested topics might include:
  - Would they train all their staff or only a selection
  - Would they have the same or different catalogers cataloging Common Set vs. Extra Set
  - Use one channel and list for all email communications and one Website for all documents and archived communications
    - Reduce confusion among the Coordinating Committee, participants, and public regarding where to look for information related to the test
  - Maintain a larger/broader presence in the community as a whole
    - Periodic postings to various listservs
    - Make the community aware of the test procedures and any impact on shared databases
  - Encourage PCC to take a more proactive role in the process
    - Establish guidelines/best practices
    - Discuss possible impacts on PCC records and the community

- Training
  - Coordinate training efforts among various organizations (ALCTS, library associations, etc.)
  - Develop training for working with non-MARC records

- Common Set Titles
  - Select the titles early enough in the process to allow time for Coordinating Committee members to catalog them before the participants to determine if the titles are really appropriate.
    - Determine any inconsistencies that might arise with cataloging or incomplete surrogates
    - Adjust any surrogates to account for missing information
    - Provide clear instructions as to what is being cataloged
    - This will create a more uniformly cataloged set of data which is useful for a controlled test
  - Possibly add additional formats such as music and maps to the Common Set to allow for a consistent analysis of formats

- Surveys
    - Find someone with experience in designing surveys to assist with question development
        - As many questions as possible should be answered through selecting a defined answer rather than fill-in-the-blank to facilitate data analysis. Be sure to allow for free text comments.
        - Questions should only allow for one response, rather than a select-all-that-apply approach to avoid confusion in performing the analysis.
    - Investigate all available options for survey development tools to determine which product/tool will best fulfill the project's needs in terms of survey design, data collection, and data analysis.
    - Those evaluating the results should have training on the survey tool early in the process to learn about the analyze results features which will help inform the construction of the survey questions
    - The survey questions should be designed as simultaneously as possible to developing the evaluative factors to ensure consistency between the evaluative factors and the questions.
    - Were there too many survey instruments?
        - Perhaps there could have been only one Common Set that included both original and copy, with appropriate survey questions?
    - If including informal testers, consider that they complete the same questionnaire as the institutional testers so those populations could have been compared more accurately?
    - Further standardize tester IDs to facilitate matching multiple surveys based on respondent or institution, such as with a drop-down menu.

# Appendix G: Webliography: U.S. RDA Test 2010

*This bibliography of RDA-related resources is also available online as Administrative Document 4 of Library of Congress Documentation for the RDA (Resource Description and Access) Test, URL*
*http://www.loc.gov/catdir/cpso/RDAtest/rdatest.html [accessed April 14, 2011].*
**General information on the U.S. Test of RDA**:
http://www.loc.gov/bibliographic-future/rda/
**Library of Congress Documentation for the Test**:
http://www.loc.gov/catdir/cpso/RDAtest/rdatest.html

* Training Materials for RDA Test Participants (Jan. 2010) *(PowerPoint files, exercises/answers, encoding documents, etc. [Webcasts listed below])*
* Training Materials for LC Core RDA Elements *(PowerPoint files, exercises/answers, encoding documents, etc., for LC testers)*
* Choices in RDA *(decisions about additional core elements, application of options and alternatives, etc., for LC testers)*
* Examples for RDA - Compared to AACR2
* Library of Congress Policy Statements (LCPSs)
* Frequently Asked Questions
* U.S. RDA Test administrative documents *(documents from the Coordinating Committee posted here for public distribution)*

1. U.S. RDA Test policy for the Extra set: use of existing authority and bibliographic records *(guidelines for using/modifying existing bibliographic and authority records when cataloging the "extra set" category in the Test)*
2. U.S. RDA Test record collection plan *(explains the plan for collecting bibliographic and authority records from Test participants and from others who may be interested in contributing their records)*
3. U.S. RDA Test Common Set criteria *(the matrix of categories to be used in selecting the resources for the "common set")*
4. RDA bibliography for U.S. RDA Test *(a bibliography of RDA-related resources)*
5. Assigning institution codes and record identifiers *(instructions to the Test participants)*
6. Common Original Set and Common Copy Set surrogates *(a list of the resources to be cataloged as part of the Common Original Set and Common Copy Set, and includes links to surrogates or Websites).* Also, Instructions for Common Original Set and Common Copy Set surrogates
7. Adding RDA elements/fields to existing OCLC non-RDA records *(OCLC's policy for the Test time period)*
8. Questionnaire for U.S. Individuals/Libraries Who Want to Comment on RDA *(announces the availability of a questionnaire available to those who are not formal or informal Test participants)*
9. Overview of the U.S. RDA Test *(an overview of topics related to the Test, issued by the Coordinating Committee)*
10. RDA Test Record Downloads *(access to files of bibliographic and authority records created by formal and informal participants in the Test)*

**Webcasts: foundations of RDA, changes from AACR2, potential for the future**

Resource Description and Access: Background / Overview. Speaker: Barbara Tillett. Recorded May 14, 2008. Running time: 67 minutes. Available at:
http://www.loc.gov/today/cyberlc/feature_wdesc.php?rec=4320

Cataloging Principles and RDA: Resource Description and Access. Speaker: Barbara Tillett. Recorded June 10, 2008. Running time: 49 minutes. Available at:
http://www.loc.gov/today/cyberlc/feature_wdesc.php?rec=4327

FRBR: Things You Should Know but Were Afraid to Ask. Speaker: Barbara Tillett. Recorded March 4, 2009. Running time: 57 minutes. Available at: http://www.loc.gov/today/cyberlc/feature_wdesc.php?rec=4554

AACR2, RDA, VIAF, and the Future: there to here to there. Speaker: Barbara Tillett for the NISO Webinar: "Bibliographic Control Alphabet Soup: AACR to RDA and Evolution of MARC". Recorded October 14, 2009. Presentation available upon request from B. Tillett (btil@loc.gov).
    Q&A: http://www.niso.org/news/events/2009/bibcontrol09/questions/

RDA Changes from AACR2 for Texts. Speaker: Barbara B. Tillett. Recorded January 12, 2010. Running time: 75 minutes (41 minutes of presentation followed by Q&A). Available at:
http://www.loc.gov/today/cyberlc/feature_wdesc.php?rec=4863
RDA Test "Train the Trainer" (Training modules). Presented by Judy Kuhagen and Barbara Tillett, January 15, 2010; Northeastern University, Boston, Mass.
Modules 1-9 http://www.loc.gov/bibliographic-future/rda/trainthetrainer.html
    PowerPoint files of the Modules (with speaker's notes) and accompanying material are freely available at: http://www.loc.gov/catdir/cpso/RDAtest/rdatraining.html
- Module 1: What RDA Is and Isn't
- Module 2: Structure
- Module 3: Description of Manifestations and Items
- Module 4: Identifying Works, Expressions, and Manifestations
- Module 5: Identifying Persons
- Module 6: Identifying Families *(filmed at the Library of Congress, March 1, 2010)*
- Module 7: Identifying Corporate Bodies
- Module 8: Relationships
- Module 9: Review of Main Concepts, Changes, Etc.

RDA: Looking to the Future: Information Systems and Metadata. Speaker: Barbara Tillett. Recorded March 9, 2010. Running time: 54 minutes. Available at:
http://www.loc.gov/today/cyberlc/feature_wdesc.php?rec=4967

**Website for the *RDA Toolkit:***

http://www.RDA Toolkit.org/ *(includes Webinars about the RDA Toolkit)*
    To submit questions about the *RDA Toolkit:* http://www.RDA Toolkit.org/support/

**Communication about RDA and the U.S. RDA Test:**

* Basecamp Website accounts for formal Test participants
* email address for questions to the Coordinating Committee about the Test and the testing process:
  smor@loc.gov
* email address for questions about the content of RDA:  LChelp4rda@loc.gov

## Appendix H: Timeline of the U.S. RDA Test

**November 2-3, 2006**
Library of Congress Working Group on the Future of Bibliographic Control holds its initial meeting at the Library of Congress.

**October 22, 2007**
The British Library, Library and Archives Canada, the Library of Congress and the National Library of Australia announce their intention to coordinate implementation of RDA.

**January 9, 2008**
Library of Congress Working Group on the Future of Bibliographic Control issues its final report, *On the Record.*

**January 2008**
RDA/MARC Working Group is established to recommend changes to the MARC 21 Formats to accommodate RDA.

**May 1, 2008**
U.S. National Libraries announce that they will jointly test RDA and will make a joint decision on whether to implement after test results are analyzed.

**June 9, 2008**
Initial meeting of U.S. RDA Test Coordinating Committee co-chaired by Cole, McCutcheon, and Wiggins

**November 2008**
Issuance of RDA content for constituency review

**January 24, 2009**
U.S. National Libraries RDA Test Planning Forum during ALA Midwinter Meeting, Denver, Colorado

**March 24, 2009**
Public release of U.S. RDA Test Website

**March 25-April 13, 2009**
Application period to participate in formal U.S. RDA Test

**May 25, 2009**
U.S. RDA Test applicants notified of selection decisions

**June 5, 2009**
Public announcement of formal U.S. RDA Test participants

**July 2009**
Establishment of RDA Testing Partners site on Basecamp collaborative networking Website for use of all formal Test Partners

**July 12, 2009**
U.S. RDA Test Meeting for ILS Vendors
*and*
U.S. RDA Test Forum for Test Partners during ALA Annual Conference, Chicago, Illinois

**December 8, 2009**
Announcement by Committee of Principals, JSC, and ALA Publishing that *RDA Toolkit* will be published in June 2010

**January 15, 2010**
Full-day Train the Trainer Session for U.S. RDA Testers, held at Northeastern University, Boston, Massachusetts, and led by Judith Kuhagen and Barbara Tillett

**January 17, 2010**
U.S. National Libraries RDA Test Vendors Forum
*and* U.S. National Libraries RDA Test Participants Open Forum held during ALA Midwinter Meeting, Boston, Massachusetts.
All RDA-related changes to the MARC 21 Formats accepted before or during ALA Midwinter Meeting.

**January 26, 2010**
Files from January 15 Train the Trainer Session posted to the Basecamp Website for RDA Testing Partners

**June 15, 2010**
OCLC issues OCLC Policy Statement on RDA Cataloging in WorldCat for the U.S. Testing Period (revised final version was issued September 30, 2010)

**June 23, 2010**
ALA Publishing issues *RDA Toolkit*

**June 27, 2010**
U.S. National Libraries RDA Test Vendors' Meeting
*and* U.S. RDA Test Forum for Test Partners held during ALA Annual Conference, Washington, DC.

**June 28, 2010**
U.S. RDA Test Partners Logistics Meeting held at the Library of Congress.

**July 1-September 30, 2010**
Phase One of U.S. RDA Test: "Learning Curve" Period

**September 30, 2010**
OCLC issues revised final version of OCLC Policy Statement on RDA Cataloging in WorldCat for the U.S. Testing Period (initial version was issued June 15, 2010)

**October 1-December 31, 2010**
Phase Two of U.S. RDA Test: Formal Test Record Submission Period

**January 1, 2011**
Commencement of Phase Three of U.S. RDA Test: Data Analysis

**December 31, 2010--January 31, 2011**
Deadlines for submission of Test questionnaires

**January 9, 2011**
U.S. National RDA Test Vendors Forum
*and* U.S. National RDA Test Participants Open Forum held during ALA Midwinter Meeting, San Diego, California.

**March 4, 2011**
Jennifer Bowen and David Lindahl of eXtensible Catalog Organization visit Library of Congress to brief U.S. RDA Test Coordinating Committee and other staff of the U.S. national libraries on XCO and RDA.

**May 9, 2011**
U.S. RDA Test Coordinating Committee submits its report to senior management of LC, NAL, and NLM.

## Appendix I: OCLC Policy Statement on RDA Cataloging in WorldCat for the U.S. Testing Period

### Creating Institution Records during the U.S. RDA Test

Plans for the portion of the U.S. RDA Test that involve the Common Original Set titles and the Common Copy Set titles also involve the use of institution records (IRs) to allow each of the test institutions to create the necessary records as outlined in the document, Overall Instructions for the RDA Test (http://rdatesting.basecamphq.com/projects/3524033/file/53777812/Instructions%20for%20the%20RDA%20Test_rev%206-21%20links.docx) , and the document, Common Original and Common Copy Sets (http://rdatesting.basecamphq.com/projects/3524033/file/61165084/commonsets.pdf).

The IR functionality should be used in the following cases:
- For the 25 Common Original Set titles for which each institution will create an RDA record and a record using your current cataloging rules;
- For the 5 Common Copy Set titles for which each institution will prepare one RDA record;
- For any of the Extra Set titles that your institution selects which is already represented by a master record in WorldCat.

Since many of you will not have worked with IRs before, we suggest that you refer to the following documentation which contains complete information about searching and creating IRs:
- If you are using the Connexion client: http://www.oclc.org/us/en/support/documentation/connexion/client/cataloging/IRrecords/ or http://www.oclc.org/us/en/support/documentation/connexion/client/cataloging/IRrecords/institutionrecords.pdf
- If you are using the Connexion browser: http://www.oclc.org/us/en/support/documentation/connexion/browser/cataloging/inst_records/default.htm or http://www.oclc.org/us/en/support/documentation/connexion/browser/cataloging/inst_records/inst_records_pdf.pdf

As part of OCLC's support for the U.S. RDA Test, we are supplying authorizations that are needed to create and maintain IRs. These special authorizations are for your use while you are participating in the RDA test and should not be used for other purposes. They will be

disabled after the test is completed and all records have been collected for analysis. If your institution is already authorized for IRs, you may use the authorizations that you already have.

Some specific aspects of IR functionality to note:

1. Both the client and the browser allow you to control what transfers from the master record to the IR workform. In the client, click **Tools > Options**, and then click **Derive Record** to choose which fields to transfer. In the browser, select the General tab and click **Admin**. At the Preferences screen, click **Cataloging Options**. On the Cataloging Options screen, locate the **Derive Record Fields for Institution Records** setting.

2. We suggest using different settings for the Common Original Set records and for the Common Copy Set and Extra Set titles that you are going to treat as "copy".

   - For the Common Original Set records, do not select any fields to transfer to the IR workform. If you make this selection, none of the "dummy" information for the brief master record transfers and you will have the equivalent of a blank workform.

   - For the Common Copy Set and Extra Set titles that you will treat as "copy," chose to have all of the fields transfer. This will give you the equivalent of a copy of the master record which you can then edit.

**Searching for the Common Original Set and Common Copy Set master records**

Master records have been created for each of the 25 Common Original Set and Common Copy Set titles. The easiest way to find these master records is to browse for the beginning portion of the title. Each of the Common Original Set master records contains the title "U.S. RDA Test common original set record." followed by the letter "A" through "Y". Each of the Common Copy Set records contains a title beginning with the words "U.S. RDA TEST COPY RECORD".

September 30, 2010

## Appendix J: LC Policy Statement, "U.S. RDA Test Policy for the Extra Set," September 10, 2010

### U.S. RDA Test Policy for the Extra Set:

### Use of Existing Authority and Bibliographic Records

[Examples, using selected fields from authority and bibliographic records are included at the end of this document to illustrate Scenarios 1-3.]

### General guidelines:

1. In addition to information in the resource being cataloged and any research required by RDA or LCPSs, use the information found in the existing AACR2 authority record when determining the preferred name and considering additions to that name  (e.g., place associated with the corporate body) to create the RDA form.

2. Do not convert 4XX fields in the existing AACR2 authority record to RDA style.  If an existing 4XX field conflicts with the 7XX field being added to the record, modify the 4XX field to break the conflict. (Use of the 7XX field is explained in this LCPS.)

3. If there would be more than one RDA authorized access points for one AACR2 heading, give multiple 7XX fields in the existing AACR2 authority record.  This situation occurs most often when the AACR2 authority record includes languages for more than one expression in subfield $l.

4. If two or more AACR2 headings would be represented by the same RDA authorized access point, give the same 7XX field in all existing AACR2 authority records.

5. If the existing AACR2 authority record for a personal name is an undifferentiated name record, do not add any 7XX fields to that authority record and do not create an RDA differentiated name authority record for one of the individuals.  (Creating a differentiated name authority record for one of the individuals usually results in updating related bibliographic records; however, not all RDA differentiated forms would be appropriate forms in AACR2 bibliographic records if RDA is not implemented.)  Use the RDA differentiated authorized access point in the new bibliographic record.

### Scenario 1, Authority Record: AACR2 and RDA forms of the authorized access point are *different*

1. When the entity represented by the AACR2 form in the 1XX in the authority record is needed in the new bibliographic record, take the following actions:

a. Existing AACR2 authority record:

    i.  Keep the AACR2 form in the 1XX field of the existing authority record

    ii. Leave the record coded as AACR2.

    iii. Give the new RDA form in field 7XX with second indicator 4.  (Also see "How to give the RDA form" section below.)

    iv. Add, at cataloger's discretion, any other appropriate RDA-related fields (e.g., 046, 4XX).

b. New RDA bibliographic record:

    i. Use the RDA form in the authorized access point.

    ii. Code the bibliographic record as an RDA record.

    iii. Note: The access point will not match the existing authority record. This may be an issue for some systems using validation.

c. Bibliographic file maintenance: no bibliographic file maintenance is involved during the test; libraries will need to make a decision about updating access points in existing records in their catalogs if they implement RDA.

2.  When the entity represented by the AACR2 form in the 1XX in the authority record is needed as <u>part of an authorized access point</u> in the bibliographic record (e.g., the person in a name/title access point, the higher body in a body/subordinate body access point, the local place as a qualifier in a conference access point), take the following actions:

a. New RDA authority record for compound entity:

    i. Create a new RDA authority record for the new body, title, etc.  Note: The part of the RDA authority record used as the basis for the new authorized access point will not match the existing authority record for that part.  This may be an issue for systems that validate parts of access point strings.

b. Existing AACR2 authority record for single entity (e.g., higher body, person in name/title):

    i. Record the RDA form in field 7XX with second indicator 4 in the AACR2 authority record for the person, higher body, etc.

c. New RDA bibliographic record:

    i. Use the RDA form in the authorized access point in the new bibliographic record.

ii. Code the new bibliographic record as an RDA record.

d. Bibliographic file maintenance: no bibliographic file maintenance is involved during the test; libraries will need to make a decision about updating access points in existing records in their catalogs if they implement RDA.

## Scenario 2, Authority Record: When AACR2 and RDA forms of the authorized access point are the *same*

1. When the entity represented by the 1XX in the authority record is needed in the bibliographic record:

a. Existing AACR2 authority record:

i. Keep the AACR2 form in the 1XX field.

ii. Leave the record coded as AACR2.

iii. Add, at cataloger's discretion, any other appropriate RDA-related fields (e.g., 046, 4XX).

iv. Record the RDA form in field 7XX with second indicator 4 by copying and pasting the 1XX field as the 7XX field. Note: The 7XX field will be used as a signal that the cataloger has determined that the RDA and AACR2 forms are the same.

b. New RDA bibliographic record:

i. Use the existing form in the authorized access point.

ii. Code that record as an RDA bibliographic record.

c. No bibliographic file maintenance is involved.

2. When the entity represented by the 1XX in the old AACR2 authority record is needed as <u>part of an authorized access point</u> in the new bibliographic record (e.g., the person in a name/title access point, the higher body in a body/subordinate body access point, the local place as a qualifier in a conference access point):

a. Existing authority record for the single entity (e.g., higher body, person in name/title):

i. Record the RDA form in field 7XX with second indicator 4 by copying and pasting the 1XX field as the 7XX field. Note: The 7XX field will be used as a signal that the cataloger has determined that the RDA and AACR2 forms are the same.

b. New RDA authority record for the compound entity:

    i. Create a new authority record for the new body, title, etc.

    ii. Code the new authority record as an RDA record.

c. New RDA bibliographic record:

    i. Use the RDA form in the authorized access point.

    ii. Code the record as an RDA bibliographic record.

d. No bibliographic file maintenance is involved.

## Scenario 3, Related Work/Expression Bibliographic Record Substituting for an Authority Record :

Use this scenario if the new resource being cataloged is related to an existing resource (e.g., a supplement to an existing work; a revised edition, translation, or other new expression of a work already in the library's collection; a major title change of a serial) represented only by a bibliographic record in the database (no authority record) and the RDA access point for the work/expression would be *different*.

a. Keep the main entry in the existing bibliographic record(s) when the RDA access point would be different; i.e., do not change existing bibliographic records.

b. Create a new RDA authority record to represent the existing work/expression in RDA form; add any additional RDA-related fields as appropriate.

c. Record the AACR2 form found in existing bibliographic records in field 7XX with second indicator 4 in the new RDA authority record. Note: This action creates conflicts between the existing and new bibliographic records that would need to be resolved after the RDA test, but no bibliographic file maintenance would need to be done during the test.

d. Give the RDA form for the existing work/expression in the bibliographic record for the new related resource and code that record as an RDA bibliographic record.

## Scenario 4:  Updating an Existing Bibliographic Record for an *Integrating Resource*

When data elements on a later iteration of an integrating resource change:

a. Redescribe the resource based on the latest iteration.

    i.  If the existing record is an AACR2 record, either revise it as an AACR2 record or convert it to an RDA record.  If the record is retained as an AACR2 record, give a new

1XX, 7XX, 8XX in its AACR2 form. If the record is converted to an RDA record, give a new 1XX, 7XX, 8XX according to Scenario 1 or 2 above.

ii. If the existing record is an RDA record, do not convert it to an AACR2 record; give a new 1XX, 7XX, 8XX according to Scenario 1 or 2 above.

b. If the record is left as an AACR2 record, it would not be part of the RDA Test.

## Scenario 5: Updating an Existing Bibliographic Record for a *Serial*

When data elements on issues or parts of a serial change:

a. Add information to the record.

i. If the existing record is an AACR2 record, either revise it as an AACR2 record or convert it to an RDA record. If the record is retained as an AACR2 record, give a new 1XX, 7XX, 8XX in its AACR2 form. If the record is converted to an RDA record, give a new 1XX, 7XX, 8XX according to Scenario 1 or 2 above.

ii. If the existing record is an RDA record, do not convert it to an AACR2 record; give a new 1XX, 7XX, 8XX according to Scenario 1 or 2 above.

b. If the record is left as an AACR2 record, it would not be part of the RDA Test.

## Scenario 6: Updating an Existing Bibliographic Record for a *Multipart Monograph*

When data elements on issues or parts of a multipart monograph change:

a. Add information to the record.

i. If the existing record is an AACR2 record, do not convert it to an RDA record; give a new 7XX or 8XX in its AACR2 form.

ii. It the existing record is an RDA record, do not convert it to an AACR2 record; give a new 1XX, 7XX, 8XX according to Scenario 1 or 2 above.

b. If the record is an AACR2 record, it would not be part of the RDA Test.

## How to Give the RDA Form in an AACR2 Authority Record (Scenarios 1 and 2)

As instructed in Scenarios 1 and 2, record the RDA form in an AACR2 authority record using an appropriate 7XX field. Use second indicator 4. Only one RDA coded 7XX field in an authority record is allowed unless the situation is that of two RDA authorized access points for one AACR2 heading (see General guideline 3 at the beginning of this document). If an RDA-coded 7XX field is already present and another tester would have formulated the RDA heading differently for the same entity, record this information in the survey questionnaire for the related record.

The presence of an RDA-coded 7XX could be used (1) to flip the AACR2 record to be an RDA authority record if RDA is implemented, and (2) to identify needed bibliographic file maintenance if the RDA and AACR2 forms are different.  It could also be used to remove RDA forms if RDA is not implemented by PCC.

## How to Give the AACR2 Form in an RDA Authority Record (Scenario 3)

As instructed in Scenario 3, record the AACR2 form in an RDA authority record using an appropriate 7XX field.  Use second indicator 4.  The presence of an AACR2-coded 7XX could be used to identify bibliographic file maintenance to existing AACR2 records if RDA is implemented to assure collocation of related works, expressions, etc.

## Partial Record Examples (for illustration, not all applicable fields are shown)

**Scenario 1, 1.  AACR2 and RDA forms different, single entity involved.**

*Existing AACR2 authority record, heading not revised:*

008/10      c        (AACR2)

046 __ $f 19490526       [may be added by tester]

370 __ $a Shreveport, La.     [may be added by tester]

100 1_ $a Williams, Hank, $d 1949-

700 14 $a Williams, Hank, $c Jr., $d 1949- [must be added by tester]

**Scenario 1, 2.  AACR2 and RDA forms different, needed as part of another entity.**

*Existing AACR2 authority record, heading not revised:*

008/10      c       (AACR2)

100 1_ $a Brown, George, $c Rev.

700 14 $a Brown, George $c (Clergyman) [must be added by tester]

*New RDA authority record:*

008/10 z     (other)

040 __ $e rda

100 1_ $a Brown, George $c (Clergyman). $t Poems

400 1_ $a Brown, George $c (Clergyman). $t Complete poems of George
        Brown

**Scenario 2, 1. AACR2 and RDA forms are the same, single entity involved.**

*Existing AACR2 authority record*:

```
008/10      c      (AACR2)

110 2_  $a National Agricultural Library (U.S.)

046 __  $s 18620515 $v Wikipedia     [may be added by tester]

370 __  $e Beltsville, Md.     [may be added by tester]

710 24 $a National Agricultural Library (U.S.) [must be added by tester]
```

**Scenario 2, 2. AACR2 and RDA forms are the same, needed as part of another entity.**

*Existing AACR2 authority record:*

```
008/10      c      (AACR2)

110 2_  $a National Agricultural Library (U.S.)

046 __  $s 18620515 $v Wikipedia     [may be added by tester]

370 __  $e Beltsville, Md.     [may be added by tester]

710 24 $a National Agricultural Library (U.S.) [must be added by tester]
```

*New RDA authority record:*

```
008/10      z      (other)

040 __  $e rda

110 2_  $a National Agricultural Library (U.S.). $b Indexing Branch
```

**Scenario 3.  Related Work/Expression Bibliographic Record Substituting for an Authority Record**

*Existing AACR2 bibliographic record, main entry not revised:*

```
Leader/18   a

100 1_ $a Castro, José, $c Dr. Naturópata.

245 13 $a La hypertensión arterial / $c José Castro.
```

*New RDA authority record to represent original work:*

```
008/10      z

040 __ $e rda

100 1_ $a Castro, José $c (Naturopathic Doctor). $t Hypertensión
        arterial

700 14 $a Castro, José, $c Dr. Naturópata. $t Hypertensión arterial
[must be included by tester]
```

*New RDA bibliographic record to represent new expression:*

```
Leader/18   i

040 __ $e rda

100 1_ $a Castro, José $c (Naturopathic Doctor)

240 10 $a Hypertensión arterial. $l English

245 10 $a Arterial hypertension / $c José Castro.
```

## Appendix K: Program for Cooperative Cataloging Steering Committee Statement, "RDA Testing and PCC," June 24, 2010

**Taken from** http://www.loc.gov/catdir/pcc/RDA-Testing-PCC.pdf [accessed June 11, 2011]

**RDA Testing and PCC** *Issued by PCC Steering Committee, June 24, 2010* 1
 **Because the LC/NAF nodes** need to implement and test the new RDA-related MARC fields and coding, no RDA elements should be included in existing authority records and no new RDA authority records should be contributed to the authority file **BEFORE OCTOBER 1, 2010.**

> NACO: PCC participants should not add RDA elements to existing records or new RDA records in the LC/NAF until October 1. As of October 1, these participants must follow guidelines for existing records to add the RDA form as a 7XX field rather than change the 1XX field.

> BIBCO and CONSER members may not add RDA elements to existing PCC bibliographic records or add new PCC RDA bibliographic records in OCLC until October 1. PCC members not participating in the US RDA Test may add RDA elements to existing records and add new RDA records in OCLC before Oct. 1 but may not identify such records as PCC records until October 1.

> Test institutions have been instructed not to submit any RDA-created records before October 1. Test institutions that are PCC members may code records as PCC that are created during the October 1 – December 21, 2010 formal test period.

A listing of PCC institutions participating in the official RDA Test is available from: http://www.loc.gov/catdir/pcc/PCCTesters.pdf.

The **PCC Steering Committee** continues to watch preparations for the RDA Test with interest. After the test results are known, the PCC will be in a better position to make certain decisions:

> Will the PCC adopt RDA as a new standard for PCC records?

> Will the PCC accept records based on both AACR2 and RDA standards to PCC databases?

> If PCC adopts RDA, will there be PCC decisions on additional core elements, the options, and alternatives to apply, and how will these decisions be reached?

> If the PCC adopts a set of decisions for options and alternatives, will such decisions be displayed in the RDA documentation, just as PCC practices currently appear in LCRIs and similar cataloging documentation?

> If PCC allows contributions of both AACR2 and RDA records and if LC implements RDA, who will maintain AACR2 documentation?

In the meantime, all of us should consider the possible changes in our local and shared databases. All of us can look at the documentation related to RDA.

**PCC RDA web site**—PCC has added a new web page: http://www.loc.gov/catdir/pcc/RDA-PCC.html with links to RDA resources.

**Testing Resource Description and Access (RDA)**-- This is the official site describing the US Test and providing resources for the official test participants.

http://www.loc.gov/bibliographic-future/rda/**RDA Testing and PCC** *Issued by PCC Steering Committee, June 24, 2010* 2

**RDA: Resource Description & Access Toolkit**-- Everyone may gain free access to the RDA Toolkit in the first phase of the RDA Test from its June release through August 31, 2010. http://www.rdatoolkit.org/home

**Library of Congress Documentation for the RDA (Resource Description and Access) Test**-- LC will post policy decisions, training materials, etc., developed for its own participants in the RDA Test. Other libraries, whether participating in the RDA Test or not, are welcome to use and modify these files for their local situations. http://www.loc.gov/catdir/cpso/RDAtest/rdatest.html

**MARC Documentation--**LC's guidelines for its Test participants on the use of new and revised MARC fields, subfields, etc., appear in the document "MARC 21 coding to accommodate RDA elements" on the RDA Test documentation site: http://www.loc.gov/catdir/cpso/RDAtest/rdatraining2.html

**Cataloger's Desktop**--Subscribers to both Cataloger's Desktop and RDA will find information about using these tools at: http://www.loc.gov/cds/desktop/web-faqs.html#QAs-RDA

**OCLC--**OCLC has issued "OCLC Policy Statement on RDA Cataloging in WorldCat for the U.S. Testing Period." It is linked from their "About RDA" page: http://www.oclc.org/us/en/rda/about.htm

**Guidelines for non-test institutions**--The US RDA Test Coordinating Committee is developing guidelines for non-test institutions that wish to contribute RDA records during the Test period. Announcements will be posted to various lists, etc.

**Where do you send your questions and comments?**
Anyone may send questions about RDA and the RDA test to: LChelp4RDA@loc.gov
Comments on PCC-related aspects of the US RDA Test may be sent to: coop@loc.gov with the words "PCC/RDA aspects" in the subject line.

# Appendix L: RDA and the eXtensible Catalog

**RDA and the eXtensible Catalog**
**By**
**Jennifer Bowen and David Lindahl**
**eXtensible Catalog Organization**

The eXtensible Catalog (XC) is a set of open-source software tools and metadata schema designed to facilitate library metadata management and resource discovery. [1] XC is the result of a multi-million dollar, multi-year software development project funded by The Andrew W. Mellon Foundation's Scholarly Communications Program, with additional support from The University of Rochester, The Consortium of Academic and Research Libraries in Illinois (CARLI) and other XC partner institutions.[2] XC software is supported and maintained by the not-for-profit eXtensible Catalog Organization (XCO).

XC software represents the first live implementation of a subset of RDA in a FRBR-based, non-MARC environment. XC's implementation of RDA has been led by individuals who have participated in the development of both the RDA Toolkit and the RDA vocabulary registry. XC's use of RDA has also been informed by the real-world requirements of actual working software, as well as through a user research process conducted at four ARL libraries.[3]

**RDA in the XC Schema**
XC uses a metadata schema, called the XC Schema, to facilitate the functionality of the XC discovery environment and take full advantage of metadata created by libraries. The XC Schema uses the concept of a Dublin Core Application Profile to use metadata elements from various schemas within a single environment. The schema currently contains twenty two RDA elements and eleven RDA role designators, as well as all Dublin Core "dcterms" data properties and a few other data elements defined specifically to enable XC's system functionality. To be eligible for inclusion within a Dublin Core Application Profile, schema terms or elements must be defined on the basis of RDF (Resource Description Framework).[4] Metadata elements created using AACR2 and MARC do not fit this criterion and therefore cannot be used within an Application Profile. Fortunately, RDA elements and vocabularies DO fit this criterion because of their development and maintenance, in parallel with the development of the RDA Toolkit, in the Open Metadata Registry.[5] RDA elements can therefore interact easily with elements from other metadata schemas, making RDA a much more flexible standard than other standards currently in use within the library community, and therefore attractive for use within XC.

For the first version of the XC Schema, we selected RDA elements that enable us to retain the granularity of bibliographic data currently coded within MARC records. RDA elements used within the XC Schema include serial numbering, scale for cartographic materials, plate number for musical scores and other very specific elements that are not represented in more general schemas such as Dublin Core. Using these particular RDA elements within the XC Schema enables us to map several MARC

data elements directly to RDA properties. In developing the XC Schema, we have been fortunate to have access to elements from a standard such as RDA that has been being developed within the library community, and which therefore aligns closely with defined elements in existing library catalog data. The developers of RDA have wisely created a standard that can function both within the existing MARC environment as well as in an RDF-based, linked data environment. We have found that RDA thus serves as an important "bridge" between present library systems and emerging applications such as XC.

Preparing MARC data to be reused in an open system environment has required XC software developers to build a robust metadata processing platform to analyze, clean up, and repurpose MARC data. The resulting XC Schema metadata records enable the functionality of XC's next-generation user interface, and can be potentially converted into RDF-based linked data, to make data about library resources available for use as part of the Semantic Web.[6] While we have demonstrated that existing MARC records can be reused successfully, we have also confirmed that a significant amount of AACR2/MARC data cannot be reused without considerable programming or manual record editing. One AACR2/MARC bibliographic record may contain references to multiple resources, but lack identifying information for the related entities. The process of converting data from AACR2/MARC records to linked data is complicated because the data has not originated in RDF-compatible structures and the definitions do not always map correctly. We believe that the library community can derive benefit from current MARC data in future systems. However, to knowingly continue to create metadata that cannot be reused effectively in other systems is potentially a waste of current library resources, especially when using a more forward-looking standard (RDA) will begin to address these problems.

**Implementing RDA in a FRBR-based Environment**
One of XC's goals is to enable legacy MARC metadata to be reused within a new system architecture that is not based upon MARC. The XC Schema is FRBR based, and makes use of separate but linked records for the FRBR Group 1 entities, in an architecture that approaches an RDA "Scenario 1" implementation.[7] XC software enables the processing of these FRBR-based records in an end-to-end system, managing the relationships between these records even as records are updated and deleted and as new records are added to a source repository. XC's current abilities to create, parse, and manage FRBRized data records demonstrate that basing a system upon a FRBRized data structure is indeed feasible, and show how such a system can work alongside current MARC-based Integrated Library Systems. We envision a scenario where XC will harvest both RDA records in MARC from an ILS, plus records in some FRBR-based RDA carrier or schema (yet to be defined) from another source, and enable both types of metadata to interact within the same discovery interface. With both sources of metadata using the same RDA elements and vocabularies, the amount of metadata manipulation necessary will be much reduced, and a greater percentage of the metadata will be usable by other applications. Using RDA in a non-MARC environment is not something that is far off in the future – it is possible now.

We have used RDA-defined associations between a data element and a particular FRBR or FRAD entity as the basis for such associations within the XC Schema, and XC's mapping of MARC fields to the XC Schema is informed by the MARC to RDA mappings presented in the RDA Toolkit. By basing as much of our work as possible upon RDA, XC has set the stage for additional transformations of metadata into a more complete FRBR-based implementation of RDA. This could occur either through the addition of more RDA elements and roles to the XC Schema, or through the development of another carrier or schema defined specifically for RDA. In either scenario, XC software's ability to parse MARC data into a hierarchical FRBR-based structure can ease the transition of the library community into an RDA-based world that goes beyond an initial implementation of RDA in MARC. XC's transformation of MARC data to the XC Schema can be thought of as an interim step that will pave the way for a full system implementation of RDA in the future.

Given the current lack of a metadata carrier or schema for RDA other than MARC, some have speculated that it is premature to implement RDA, considering the seemingly meager benefits of implementing RDA in MARC. We do not see this as an issue. As we have demonstrated with the XC Schema, RDA elements and properties can be used in combination with other schema elements within an XML-based Application Profile. The use of RDA elements, even within a MARC-based structure, will help XC's metadata cleanup and transformation programs work more effectively than does AACR2 data. We look forward to experimenting with RDA elements expressed as RDF statements, which may be a more promising alternative than developing a new XML record-based carrier for RDA data. These scenarios can be investigated using XC software as soon as RDA is implemented more widely and libraries begin sharing larger sets of records that have been cataloged using RDA.

**Benefits of RDA in XC**
XC's implementation of RDA elements within a FRBR-based XML schema positions the XC Schema as the most promising way forward for implementing RDA in XML in the near term. XC's potential use for this purpose was apparently evident to the developers of the RDA Toolkit, who included a link to the eXtensible Catalog website as a resource within the RDA Toolkit itself. XC not only enables the conversion of MARC fields to RDA data elements using bulk processing services, but also successfully makes use of that same RDA data within a working discovery system. XC Schema is a foundation for a solid RDA implementation that is usable in real systems, addresses real use scenarios, and works with existing Integrated Library Systems and web content management systems.

A community-wide implementation of RDA within the library world will benefit not only users of the eXtensible Catalog, but also developers and users of other applications that make information about library collections accessible via the open web. One of the strengths of the library community has always been its adoption of community-wide standards such as AACR2 and MARC, which encourage other communities to interact with our metadata. A widespread adoption of RDA will continue this tradition of library leadership in metadata standards, and provide a clearer vision for the development of future library systems.

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1 "The eXtensible Catalog", n.d., http://www.extensiblecatalog.org/

2 "Sponsors | eXtensible Catalog", n.d., http://www.extensiblecatalog.org/about/sponsors. "Contributors | eXtensible Catalog", n.d., http://www.extensiblecatalog.org/about/contributors

3 Nancy Fried Foster et al., eds., *Scholarly Practice, Participatory Design and the eXtensible Catalog* (Association of College and Research Libraries, forthcoming), http://hdl.handle.net/1802/12375

4 Karen Coyle and Thomas Baker, "Guidelines for Dublin Core Application Profiles", May 18, 2009, http://dublincore.org/documents/profile-guidelines/index.shtml

5 Diane Hillmann et al., "RDA Vocabularies: Process, Outcome, Use," *D-Lib Magazine* 16, no. 1/2 (February 2010), http://www.dlib.org/dlib/january10/hillmann/01hillmann.html; "Open Metadata Registry," http://metadataregistry.org

6 Jennifer Bowen, "Moving Library Metadata Toward Linked Data: Opportunities Provided by the eXtensible Catalog," in *Proceedings of the International Conference on Dublin Core and Metadata Applications.*, DCMI Conference Papers (presented at the International Conference on Dublin Core and Metadata Applications, Pittsburgh, PA.: Dublin Core Metadata Initiative, 2010), 44-59, http://dcpapers.dublincore.org/ojs/pubs/article/viewArticle/1010

7 Tom Delsey, "RDA Database Implementation Scenarios: 5JSC/Editor/2", January 14, 2007, http://www.collectionscanada.gc.ca/jsc/working2.html#ed-2

# Appendix M: MARC Transition

**Transforming our Bibliographic Framework: A Statement from the Library of Congress (May 13, 2011)**

The Library of Congress is sharing this statement, by Deanna B. Marcum, LC's Associate Librarian for Library Services for the benefit of its external constituents. Dr. Marcum will be leading the initiative that will drive this transformation process. The Library is mounting the statement now for early review. Following the June 2011 Annual Conference of the American Library Association, where discussions about the statement will occur, the Library will make further announcements.

The recent publication of *Resource Description & Access* (RDA), and the US National Test of RDA that is now being analyzed, have come at a time when technological and environmental changes are once again causing the library community to rethink the future of bibliographic control, including the MARC 21 communication formats.  The content and packaging of RDA itself attempt to address this question and in so doing have raised further issues.  Quite apart from a decision about implementing RDA, we must evaluate the wider bibliographic framework.

Adding to the uncertainties that accompany change, libraries and other cultural heritage institutions and information centers around the world are facing serious budgetary constraints.  Cultural heritage institutions see their resources dwindling at the same time that they need to invest in dramatic new uses of bibliographic data.  In this environment, many institutions have been forced to relax standards of quality in bibliographic records while still being asked to broaden their services, especially in terms of the availability of digital data.  Efficiencies in the creation and sharing of cataloging metadata are therefore imperative: information providers and cultural heritage institutions must reevaluate their use of scarce resources, both as individual organizations and as a community.

The Associate Librarian of Congress for Library Services, Deanna Marcum, is leading an initiative at the Library to analyze the present and future environment, identify the components of the framework to support our users, and plan for the evolution from our present framework to the future—not just for the Library of Congress, but for all institutions that depend on bibliographic data shared by the Library and its partners.  The Library of Congress has invested considerable resources in the development of broadly implemented encoding standards such as MARC 21, as well as cataloging standards and vocabularies such as the *Anglo-American Cataloguing Rules, 2nd Edition* (AACR2), RDA, and the Library of Congress Subject Headings (LCSH).  Spontaneous comments from participants in the US RDA Test show that a broad cross-section of the community feels budgetary pressures but nevertheless considers it necessary to replace MARC 21 in order to reap the full benefit of new and emerging content standards.  The Library now seeks to evaluate how its resources for the creation and exchange of metadata are currently being used and how they should be directed in an era of diminishing budgets and heightened expectations in the broader library community.

The Library of Congress will address these issues:

- Determine which aspects of current metadata encoding standards should be retained and evolved into a format for the future.  We will consider MARC 21, in which billions of records are presently encoded, as well as other initiatives.
- Experiment with Semantic Web and linked data technologies to see what benefits to the bibliographic framework they offer our community and how our current models need to be adjusted to take fuller advantage of these benefits.
- Foster maximum re-use of library metadata in the broader Web search environment, so that end users may be exposed to more quality metadata and/or use it in innovative ways.

- Enable users to navigate relationships among entities—such as persons, places, organizations, and concepts—to search more precisely in library catalogs and in the broader Internet. We will explore the use of promising data models such as *Functional Requirements for Bibliographic Records* (FRBR) in navigating relationships, whether those are actively encoded by librarians or made discernible by the Semantic Web.
- Explore approaches to displaying metadata beyond current MARC-based systems.
- Identify the risks of action and inaction, including an assessment of the pace of change acceptable to the broader community: will we take incremental steps or take bolder, faster action?
- Plan for bringing existing metadata into new bibliographic systems within the broader Library of Congress technical infrastructure—a critical consideration given the size and value of our legacy databases.

The Library of Congress's process will be fully collaborative. We will consult our partners and customers in the metadata community, standards experts in and out of libraries, and designers and builders of systems that make use of library metadata. We intend to host meetings during conferences of the American Library Association, specialized library associations, and international organizations, as well as special "town hall" meetings open to the metadata community, to gather input from all interested parties. We plan to establish an electronic discussion group for constant communication during the effort of reshaping our bibliographic framework, and we expect to host a series of invitational meetings of experts and stakeholders in 2012 and 2013.

Last Updated: May 20, 2011