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In order to plan for the future of our libraries, it is important to have some foresight into the user experience as well as the operational changes expected to affect librarians. Training library staff on the new RDA guidelines will take time, and those with previous exposure to its conceptual differences from AACR2 may find the adaptation to be smoother. This paper examines the reactions of library users and professional catalogers to bibliographic test records created in accordance with RDA, and it identifies the positive and negative changes they expect it will bring to the catalog. Content analysis identifies the most frequently mentioned concerns expressed by participants in the RDA Test Record Use Survey and provides insight into how catalogers expect user experience be improved by RDA, if at all.

Headings:

       Resource Description and Access

       Anglo-American cataloguing rules

       Library catalogs & users

       Library surveys

       Cataloging -- Standardization

       MARC formats

ANALYSIS OF U.S. RDA TEST RECORD USE SURVEYS

by
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Introduction

The history of the bibliographic catalog dates back to 245 B.C.E. when Callimachus first organized the Library of Alexandria by subjects and authors in his *Pinakes*. In the many centuries since his time, library catalogs transformed from lists into bound dictionary catalogs, then card catalogs, and finally the currently familiar Online Public Access Catalog (OPAC). As catalog types evolved, sets of rules to regulate cataloging practice were devised and enforced to ensure accessibility of the library's materials and uniformity among bibliographic records. Today, OPACs provide the same service for users as they always have, primarily allowing for resource retrieval and discovery. Additionally, OPACs convenience users by eliminating card shuffling and providing remote access, and they also allow catalogers to communicate using special coding formats hidden from the user's view.

The first set of explicit cataloging rules was published by Charles Ammi Cutter, a founding member of the American Library Association (ALA), in 1876. Cutter's objectives for the catalog were to help a person find a book, to show what the library holds in its collection, and to assist in the choice of a book. In 1961, at the first International Conference on Cataloging Principles held in Paris, France, the "Paris Principles," based on Seymour Lubetzky's unfinished work, were adopted. These principles would serve as the basis for the *Anglo-American Cataloging Rules* (AACR), originally published in 1967. Its second edition, known as AACR2, was published in

1988 with a major revision in 2002, updated annually through 2005. AACR2 comprises the set of current cataloging rules prescribed by ALA, the Canadian Library Association, and the Chartered Institute of Library and Information Professionals in the United Kingdom.

The 2002 revision of AACR2 included substantial changes to sections for non-book materials. As the availability and utility of non-book materials expands, more adaptable cataloging guidelines are necessary to accommodate their inclusion in library collections. Instead of revising the current rules yet again and publishing AACR3, *Resource Description and Access* (RDA) was devised to be expandable, so that the rules stated may be adapted to formats not yet invented.

RDA was initially released in June 2010. The following fall, a variety of institutions participated in a formal test of RDA. Most participants were university libraries, but the list also included one or more museums, national libraries, historical societies, county libraries, independent school districts, publishers and vendors. The test itself included creation of bibliographic records, authority records, and a series of surveys. Surveys were collected from catalogers participating in the creation of test records, institutional managers, and library users who compared AACR2 catalog records to RDA catalog records. The records resulting from the RDA test were published on the Library of Congress website, and the U.S. RDA Test Coordinating Committee published a report and recommendations for further action in June of 2011 (Report 2011).

Upon review of the test records and the Committee's report, catalogers seek to gain an understanding of what to expect during the upcoming changes to their daily practice. Since nearly all professional catalogers today were trained on AACR or

AACR2, it is beneficial to identify the major differences between the records produced by AACR2 and RDA. Additionally, current library and information students ought to be aware of RDA's features so they can be prepared for its implementation during their professional careers. To gain an understanding of RDA's features and how they will affect the user experience as well as cataloging practice, this paper examines the data collected from surveys conducted during the U.S. RDA test. Focusing on the results of the RDA Test Record Use Survey, the study synthesizes the opinions of library patrons and professional catalogers on the usability and completeness of bibliographic records created according to RDA.

Literature Review

In recent years, the cataloging community has been engaged in a debate surrounding the development of the newest set of cataloging rules, RDA. Although the Library of Congress Working Group on the Future of Bibliographic Control recommended in 2008 that the Joint Steering Committee for RDA (JSC) suspend its work on the new code temporarily, the JSC rejected their recommendation. Together with the Library of Congress, National Agricultural Library (NAL), and the National Library of Medicine (NLM), the JSC decided to conduct an official test of RDA during its development (Library of Congress Overview n.d.). The documentation for the new rules, called the RDA Toolkit, is still being finalized before its implementation, which is expected to begin on March 30, 2013. In the meantime, the RDA Test Coordinating Committee released a report in June of 2011 reflecting the results of the RDA test. The report reflects the Committee's interpretation of bibliographic and authority records created according to the RDA rules and the various surveys involved in the RDA test. The bibliographic and authority record data is available for download (Library of Congress Documentation 2011), but the survey data is not publicly available. Therefore, no analyses of the survey have been published since the report's release in June of 2011 other than the analysis contained in the report itself.

Because the RDA Test Record Use Survey data is unpublished, there are no empirical research articles related directly to it other than the Report published by the

RDA Test Coordinating Committee (2010). However, in order to understand the survey results in their appropriate context, a review of the literature surrounding RDA's development is in order. There have been published a number of reputable review articles on issues relating to RDA and its theoretical basis. Specifically, familiarity with the Functional Requirements for Bibliographic Records (FRBR) model is essential to understand the conceptual differences between AACR2 and RDA, and therefore the topic of FRBR arises frequently in the initial articles presented here. These articles inform the cataloging community of why RDA is being developed and will be implemented in the near future so that an appropriate context for survey analysis may be established.

Many of the articles included in this review were found by tracing citations from other research articles used for previous projects and class readings. Others were retrieved by searching the Library and Information Science Abstracts database and the Library Literature & Information Science database. Articles published before 2007 predated important milestones in the revision of RDA, and therefore only those published in 2007 or later are included here. The literature is grouped by topic, beginning with the theoretical background that serves as the basis for RDA's development, followed by articles that recognize problems regarding the encoding of RDA, and finally the RDA Test publications and related studies.

Theoretical background: what makes RDA different from AACR2?

Kraus (2007) offers a clear, succinct summarization of how RDA will differ conceptually from traditional book-based cataloging. The information is presented with minimal bias, pointing out the viewpoints of both pro-RDA and anti-RDA camps. The

article suggests that the primary reason that traditional cataloging practice needs an overhaul is because it is too limited to accurately describe many digital and dynamic resources. Furthermore, the author voices catalogers' concerns that the future OPAC should be further networked to provide search results not only from the local library, but also from outside resources. "Competing with Amazon and Google" is discussed, a concern that may frustrate some librarians, but a reality that frequently arises in discussions at the School of Information and Library Science at the University of North Carolina at Chapel Hill.

Following Kraus' neat summary of RDA's departure from AACR2, Howarth & Weihs published an article in 2008 on a hotly debated issue in cataloging as it has evolved through various cataloging standards. Though the article is specific to the "rule of three," it proves illustrative of how other comparable issues might be simplified by the implementation of RDA. The "rule of three" traditionally limits the number of entries, or headings, created for a work to one "main entry" and two additional entries. This rule was originally conceived to keep book catalogs and card catalogs to a manageable size. The current debate is whether we should allow for more entries, now referred to as "access points," to be created in hopes of making resources more accessible and searches more effective. The article does not focus solely on the shift from AACR2 to RDA. Rather, it begins with a history of the "main entry" concept and traces it chronologically through the creation of AACR, its revision into AACR2, and its proposed evolution into the "primary access point" in RDA. For a similar treatment of issues surrounding uniform titles, also see Weihs & Howarth (2008).

As catalogers began to voice their opinions regarding the development and implementation of RDA, Bianchini & Guerrini's 2009 article argues for the need for an authoritative body to oversee all changes occurring in the world of cataloging standards. The authors claim that FRBR is the strongest theoretical model to guide the changing standards today, and that the principles behind FRBR need to be implemented more clearly in the resulting international cataloging codes. Their article describes the features of the FRBR model and offers a thorough analysis of its implementation in the current RDA draft. The article also describes the Statement of International Cataloging Principles (ICP) in context as the successor to the 1961 Paris Principles, the International Standard Bibliographic Description (ISBD) and its relationship to FRBR, and Ranganathan's principle of local variation. Each of these concepts is highly relevant to the current debates and changes in "the bibliographic universe," as Bianchini & Guerrini call it.

Similarly, Copeland (2010) provides a comparison of AACR2 to RDA in the context of RDA's basis on the FRBR model. The article begins by describing what FRBR is and how its vocabulary will be used in RDA. Each RDA Group is then defined, and models illustrate the FRBR terminology. The author addresses the most common question asked among practicing catalogers: "How do we use RDA?" He explains that RDA will provide standards for content but not display, and therefore it will have to work in conjunction with a metadata schema. Touching on both FRBR and the need for a new metadata schema, this article provides a smooth transition to the next group of articles for review: those addressing the MARC encoding problem.

The MARC problem

Hillmann et al. (2010) discuss the release of RDA and some of the confusion surrounding the new standards. Long before the RDA test, catalogers and other metadata specialists expressed concern that RDA does not offer a metadata encoding standard. As a result, an additional set of guidelines will be needed to use in conjunction with RDA's descriptive standards. This is not a new concept; AACR2 also requires the use of a metadata encoding standard. MARC (MAchine-Readable Cataloging), created by the Library of Congress, currently holds a monopoly on such standards, but Hillmann et al. argue that a departure from MARC is necessary if RDA is to be used by information specialists who work in settings other than libraries. Their article examines the potential application of Semantic Web enabled vocabularies in conjunction with the implementation of RDA.

Closely related to the topics discussed in Hillmann et al. (2010), Dunsire (2010) describes the functions of interconnected standards, including UNIMARC, FRBR, ISBD, RDA, and the Semantic Web. The maps included with the text are useful in illustrating the complex relationships of these standards and several others. This article does not provide a comprehensive history of the standards; instead it focuses on the efforts currently underway to develop them and the goals of their organizing committees. Dunsire claims that alignment with UNIMARC is very important for information specialists and librarians who wish to benefit from the theory of FRBR and the improved access to information possible through the implementation of RDA. Furthermore, he describes XML as a "mechanism for data interchange" (p. 39) and current work to employ Resource Description Framework schema (RDFs), Simple Knowledge

Organization System (SKOS), and Web Ontology Languague (OWL) in the building of the Semantic Web.

With an understanding of the theoretical basis for RDA's departure from AACR2 and some of the more technical issues that arise with the implementation of a new cataloging code, we may now turn to the literature that most directly addresses user interpretation and the RDA test surveys.

The data in question and related research

Before the RDA test was developed, Hider (2009 Comparison) approached the topic of end-user experience with RDA terminology. This study claims to be the first to compare RDA's list of content and carrier types to end-user generated terminology. The background information in this article discusses General Material Designators (GMDs) and Specific Material Designators (SMDs) in the AACR2 context and contrasts those terms with the terms "content type" and "carrier type" used in RDA. To evaluate the terms prescribed in RDA for description of content and carrier types, this study asked users of an academic library to free-list all information resource formats and all basic types of content they could think of. The responses are compared to RDA's list, and the author argues that content and carrier terms overlap, and that RDA's scope is too limited because some of the user terms are missing from the RDA list. The data opens a door for different interpretations and further research on this topic.

Accordingly, the author conducted his own follow-up study. Hider (2009 Library) examines RDA's terms for content and carrier type in a taxonomic context. While the original terms are presented in two categories, content and carrier, the study

asked users to card-sort the terms categorically as they saw fit. The incidence of users categorizing the terms into two categories as RDA prescribes was low. The author analyzes the results of those card-sort exercises to argue that RDA should include a more multifaceted polyhierarchy. A flaw in this argument, however, is that the users surveyed were not given the context in which these categorizations might be used. The author does not provide specifics on how a polyhierarchical scheme of the terms at hand would be more useful to end-users if implemented in RDA.

While Hider's studies are insightful and provide a basis for comparison to the RDA user surveys, the primary sources related to the data to be analyzed are Bushman & Reynolds (2011) and the Report and recommendations of the U.S. RDA Test Coordinating Committee (2011). Bushman & Reynolds' (2011) webinar provides a summary of the findings published in the RDA Test Coordinating Committee's 2011 report. Because they are closely related, these sources draw similar conclusions from the RDA test surveys. The report presents numerical data of responses to four of the Record Use Survey multiple-choice questions and highlights nine free text responses as examples of the respondents' perception of the positive and negative features of RDA records. To expand on what the Coordinating Committee presented in their report, this paper examines the unpublished survey data in greater detail than what is offered in the published reports. The findings illuminate the primary issues of concern to catalogers and catalog users, and whether there is consensus regarding the benefits of implementing of RDA.

As one additional contribution to the literature regarding catalogers' opinions of RDA, Kyrios examines some issues that have caused heated debate among the cataloging

community in his University of North Carolina at Chapel Hill Master's paper in Library Science (2011). He explored the polarizing aspects of RDA by interviewing professional catalogers and conducting content analysis of discussion on the topic of RDA from the Autocat listserv. Additionally, the paper reviewed the results of a related 2010 survey conducted by Elaine Sanchez of Texas State University—San Marcos. Upon examination of the insights from this study, Kyrios concludes that unanswered questions regarding RDA and the future of cataloging remain. There is no one answer to "the RDA question." However, further investigation of catalogers' reactions to the RDA test may identify significant themes of concern among professional catalogers.

Conclusion of literature review

An understanding of the theoretical basis of RDA informs the analysis of the RDA test user surveys. This literature review has summarized recent literature on the theories underlying RDA. It has also identified one frequently identified problem with RDA's implementation: the lack of an appropriate encoding format. Though the development of MARC's successor will take time, it may be beneficial to consider catalogers' suggestions from the RDA test user surveys regarding its development. Based on the level of concurrence within the literature on this problem, it is generally agreed upon that a new format is necessary for RDA's benefits to be fully realized; just how this should and will happen constitutes an interesting but separate research question in itself.

With an appropriate background knowledge established for the approach of RDA's implementation, the next step is to closely examine the results of the RDA Test

Record Use Survey. Since no third-party literature has been published on this data,

which is not released to the public at the time of writing, this paper will be the first to do

so following the RDA Test Coordinating Committee's official report (2011).

Methodology

In order to examine users' and professional catalogers' reactions to RDA and the changes they expect it to bring to the catalog's usability, the research methods of quantitative content analysis and qualitative content analysis were employed as described by Spurgin & Wildemuth (2009) and Zhang & Wildemuth (2009). Quantitative content analysis, commonly referred to simply as content analysis, "can describe a message pool" (Spurgin & Wildemuth 2009, p. 298) by quantifying the appearances of select critical variables in a text. The Record Use Survey that was analyzed in this study "was designed to capture information on the usability and understandability of the records" (Report 2011, p. 33). The goal of my analysis was to uncover the most frequently mentioned concerns expressed by participants in the RDA Test and provide insight into how catalogers expect user experience will be affected by the switch to RDA, if at all.

Data from the RDA Test Record Use Survey for use in this research was shared by Susan Morris, Special Assistant to the Director for Acquisitions and Bibliographic Access, Library of Congress with the approval of the Director, Beacher Wiggins. The data was collected via voluntary online survey taken by participants in the RDA test. Participants in this survey included catalog librarians, library staff, and catalog users (library patrons), but the exact breakdown of the respondent population is unclear. "Each participating institution was asked to show the RDA records to their users, either individually or in groups and elicit feedback" (Report 2011, p. 33). Because participants

were allowed to provide feedback as they pleased, some responses appear to come directly from catalogers, while others come directly from users, and yet others summarize collective group discussion. For the purposes of this study, I counted each submission as one response instead of weighing those that included a group response more heavily than individual responses. The online survey was administered using SurveyMonkey. For this research project, I received the data for survey questions one through four in excel format and the data for survey questions five through nine in PDF format.

Following an initial review of all of the survey data, I decided to focus my study on the responses to questions five and six of the RDA Test Record Use Survey. These questions asked participants to identify positive and negative features of RDA test records that would have positive and adverse impacts on a user's ability to find, identify, select, or obtain an item. Both questions consisted of a yes/no portion and a free text box which participants used to identify the positive and negative features they found in the RDA test records.

The text of question five follows:

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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:

Question five received 153 total responses, with 84.3% responding "Yes," and 15.7% responding "No." Of these, 138 respondents took time to leave comments

identifying positive aspects of the RDA test records. The content analysis of these 138

comments will be discussed under Findings, below.

The text of question six follows:

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5. Did you notice anything about RDA records (omissions, inclusions, ways of expressing information, etc.) 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:

Question six also received 153 total responses, with 65.4% responding "Yes," and

34.6% responding "No." Of these, 114 respondents took time to leave comments

identifying negative aspects of the RDA test records. The content analysis of these 114

comments will be discussed under Findings, below.

Other questions considered for thorough analysis in this study were questions

seven, eight, and nine of the RDA Test Record Use Survey. Question seven asked

participants which record they believed was easier to understand. Of the total 154

responses to this question, 14.3% answered "AACR2 (or current standard) record,"

40.9% answered "RDA record," 41.6% answered "Both about the same," and 3.2%

answered "Don't know." Question seven also received seventy-eight free text comments.

Question eight asked participants to what degree an RDA record would be sufficient to

meet their needs for the work they do. Of the 153 total responses, 47.7% answered

"Meets most," while the combined total of "Meets most" and "Meets fully" responses

was 85%. This means that only 15% of participants found that the RDA record met only

some of their needs or failed to meet their needs. Finally, question nine asked users to

add any other comments they wished about the usability and/or completeness of the RDA test records. The fifty-six responses to question nine generally echoed the sentiments expressed in response to questions five and six; therefore, for this study I considered the data from questions five and six to be the most valuable for analysis.

In order to analyze the survey data, I encoded the responses to questions five and six into categories based on which features of RDA test records they discussed. Many responses addressed multiple issues within one comment, while other responses only mentioned the one change that most positively or most negatively affected their experience of the RDA test record. I placed no limit on the number of categories a comment could fall into; instead, I encoded each response with the appropriate feature number(s) to reflect which features of RDA the comment addressed. After tallying the data, I eliminated categories that received fewer than three comments. This allowed me to highlight the issues of highest concern to participants in the RDA Test Record Use Survey and discount any instances of confusion due to incorrect RDA record creation.

Categories for question five included:

Positive features of RDA records	Comments included phrases such as:
No abbreviations, clarity/completeness	"Spelling out," "Details," "Simple is better"
More publication information	"Clearer publication dates"
Elimination of rule of three	"All authors/creators," "Additional editors"
Relator terms for contributors	"Other contributors," "Role descriptors"
Media type preferred over GMD	"Description of media," "Searchable format"
Title/subtitle presentation	"Variant title," "Corrections for typos"
Logical sequence in display	"Clearly labeled and closer to the top"
Linking authors to other works	"Linking," "Tracing," "Clickable"

Categories for question six included:

Negative features of RDA records	Comments included phrases such as:
Dropped GMD	"[Electronic resource] missing from titles"
Media/carrier/content type confusing	"Clutter," "Terminology confusing"
Records become long/complex/redundant	"Lots of info," "Too long," "Cumbersome"
FRBR terminology nonsensical	"Reproduction of (manifestation)"
Publication information confusing/lacking	"Publication and copyright date"
Serials information lacking	"Continued by," "Volume," "Serial"
Relator terms for contributors	"List all ... degrees, affiliations"
MARC implementation lagging	"'New' look of a MARC record"

The above categories will be described in greater detail in the Findings section, below. After encoding the responses, I tallied the total number of responses that fell into each category. Tallying was based on the total number of responses that mentioned a specific issue, and thus some responses fell into multiple categories while others fell into only one. The percentages I present below were calculated from total number of free-text comments per question. Some responses did not address the question asked (for example, they commented positively about the RDA record vs. the AACR2 record in response to question number six), but these responses were not eliminated from the total when calculating percentages. Irrelevant or inappropriate comments did not fall into any category, but they were still included in the total number of responses per question. Thus, my percentages below reflect the total number of comments on a given topic in the context of all free-text responses to the question.

Findings

After carefully reviewing the responses to questions five and six of the RDA Test Record Use Survey, I identified eight major features of RDA records that participants considered to be positive and eight major features that participants considered to be negative. Each of these features is explained below, with examples taken directly from the survey data. At least three of the features were considered to be positive changes by some participants and negative changes by others. Furthermore, challenges related to on-screen display and MARC implementation hindered participants' ability to compare the RDA test records to comparable AACR2 test records.

Positive features of RDA test records

Positive features of RDA test records	Number of comments	Percentage of responses mentioning this issue
No abbreviations, clarity/completeness	76	55%
Relator terms for contributors	41	30%
Media type preferred over GMD	39	28%
Elimination of rule of three	33	24%
Title/subtitle presentation	9	7%
More publication information	6	4%
Logical sequence in display	6	4%
Linking authors to other works	4	3%

By far, the most frequently cited positive feature of RDA test records was the elimination of abbreviations and the records' resulting overall clarity and completeness. Of the 138 total free-text responses to question five, 55% mentioned clarity and completeness, with the majority of those comments referring directly to spelling out of words that are abbreviated in AACR2 records. Comments that fell into this category included statements and phrases such as: "Having fewer abbreviations is easier to understand," "Use of spelled out terms rather than library jargon," "RDA records give a lot more information, which is good," "RDA records use plain language to present the resource," and "The information seems to be more complete."

The second most frequently cited positive feature of RDA test records was the addition of relator terms for various types of contributors. Of the 138 total free-text responses to question five, 30% mentioned that they found the additional author/contributor information helpful. Some of the comments that fell into this category alluded to the possibility of linking a record to other related records via contributor names and relator terms. Statements and phrases from the survey included: "Users liked the inclusion of relationship designators," and "Improved definition of roles a big plus."

One particularly insightful comment fell into both of these first two categories, addressing both the elimination of abbreviations and the addition of relator terms:

> 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.

The third most frequently cited positive feature of RDA test records was the replacement of the general material designation (GMD) with content, media, and carrier types. Of the 138 total free-text responses to question five, 28% mentioned that they found at least one of the three new types helpful. Comments that fell into this category included statements and phrases such as: "The type of item (book, video, cd, etc) was described in fields instead of having the type of item in parentheses after the title," "336-338 fields allow for more detailed description of the types of materials our audiences use," and "The description fields (330s) are quite specific." As demonstrated below, responses to question six indicate that not all participants were in agreement that the replacement of the GMD with content, media, and carrier types was a beneficial change.

The next most frequently cited positive feature of RDA test records was the elimination of the rule of three. AACR2 prescribes that for works with more than three authors performing the same function, the catalog record should name one author and replace the others with "... [et al.]" RDA, on the other hand, allows for listing of all authors and contributors to a multi-authored work. Of the 138 total free-text responses to question five, 24% mentioned the inclusion of more authors and contributors as a positive feature of RDA test records. Statements and phrases from the survey included: "No limit on the number of recorded names and access points" and "I think it is extremely helpful to have ability to list all the contributors to a work when cataloging a record. I think that can only enhance access—especially when looking for all involvement an individual has had with any created works." Conversely, in response to question six, some participants expressed the view that the elimination of the rule of three contributed to clutter in RDA test records.

Four additional positive features of RDA test records were each cited by less than 10% participants in the RDA Test Record Use Survey. Each of the following four features was mentioned in 3-7% of the 138 total free-text responses. Improved title, subtitle, and variant title presentation was mentioned by 7% of respondents. Comments in this category included: "The title was more complete; the subtitle was present," and "Alternate title fields are more descriptive and clear."

More publication information was mentioned by 4% of respondents. Comments in this category included: "Simplified place of publication," and "I appreciate the publisher statement. It helps clarify things. Including the copyright year is also helpful, especially using the copyright symbol." Others expressed dissatisfaction with changes in publication information in response to question six, as described in the next section, below.

The final two most frequently cited positive features of RDA test records both relate to display issues. Display design is an aspect of the library catalog that can be manipulated to an extent regardless of whether bibliographic records follow AACR2 or RDA. Because display settings were not controlled during the RDA test, it is difficult to measure how the survey respondents were affected by displays that could be easily adjusted for either record type. Of the 138 total free-text responses, 4% mentioned the sequence of information in the display as a positive feature, and 3% mentioned the ability to navigate from an author's name to other works by the same person. Comments from these categories included: "Field labels are clear and in a logical sequence in the display," "[Information users are interested in] was clearly labeled and closer to the top of the record title," "Linking to other related records would have a positive effect on a user's

ability to find, identify, select or obtain the item needed," and "Authors that are clickable." One participant implied that RDA has the potential to improve display capabilities beyond what AACR2 currently provides, noting that "Catalog displays need to catch up with RDA."

Negative features of RDA test records

Negative features of RDA test records	Number of comments	Percentage of responses mentioning this issue
Media/carrier/content type confusing	40	35%
Dropped GMD	32	28%
Records become too long/complex/redundant	24	21%
Publication information confusing or lacking	17	15%
Serials information lacking	6	5%
FRBR terminology nonsensical	5	4%
Relator terms for contributors	4	4%
MARC implementation lagging	3	3%

The most frequently cited adverse feature of RDA test records was the addition of media type, carrier type, and content type. Of the 114 total free-text responses to question six, 35% mentioned this issue. This can be contrasted with the 28% of respondents to question five who considered the replacement of the GMD with media, carrier, and content types to be a positive change. Participants who mentioned the media, carrier, and content types in response to question six found the terminology to be "confusing" and add "clutter," and many responses questioned the meaning of "unmediated" as a media type. Other comments that fell into this category included statements and phrases such as: "I have no idea what 'Carrier type' means and think that

'Content type' is not really clear to users, either" and "The content, carrier, and mediated/unmediated information was confusing and the reference librarians would like to see that suppressed from public view." Looking beyond the immediate RDA test record examples to the broader possibilities of the adaptation of RDA, one respondent concluded that "it is difficult to determine [the media, carrier, and content types'] usefulness without knowing how they will be indexed or how they will appear in the public display." Similarly, another respondent stated of "the new 3xx fields" that "patrons don't need them except perhaps to facet a results set. But that's a display issue, not a complaint against RDA."

The second most frequently cited issue with RDA test records was the absence of the GMD. Of the 114 total free-text responses to question six, 35% mentioned that they missed the GMD, even those who were unfamiliar with the GMD terminology. For example, one participant stated that "the loss of electronic resource or sound recording in the header may be a bit of a loss." Other comments that fell into this category included statements and phrases such as: "The material type—electronic resource, microform— was not as clearly evident in the RDA records on the browsable list of record titles" and "I like having the GMD right there in the title field." Furthermore, one participant expressed his or her concern with retraining library staff:

> The elimination of the general material designation (GMD) from the title field will require retraining of public services personnel (reference, access services, interlibrary loan). The public services personnel who I know look for GMDs in conjunction with the specific material designation found in the physical description field.

The third most frequently cited negative feature of RDA test records was that they were too long, complex, or redundant. Of the 114 total free-text responses to question six, 21% complained of one or more of these problems. Comments that fell into this category included statements and phrases such as: "Too wordy with everything spelled out," "More information displayed than patrons can use," and "I think that RDA spends too much time spelling out unnecessary information, which will just make records more garbled and wordy." However, once again, it is important to keep in mind that the RDA test records that survey participants were comparing may have been fuller than the average bibliographic record due to the experimental nature of the RDA test. As one respondent commented, "The bib record could become cumbersome to read through. Perhaps this could be alleviated by thoughtful cataloging of the records, though, since many items/fields are optional."

The next most frequently cited issue with RDA test records was that publication information was confusing or lacking. Of the 114 total free-text responses to question six, 15% addressed problems with publication information. This can be contrasted with the 4% of respondents to question five who commented positively on presentation of publication information in RDA test records. The majority (eleven out of eighteen) of the participants who addressed problems with publication information commented that they found the inclusion of "both publication and copyright date" to be "confusing" or "misleading," especially when the note "[publication date is unknown]" was included in the publication statement.

Four additional negative features of RDA test records were each cited by less than 10% participants in the RDA Test Record Use Survey. Each of the following negative

features was mentioned in 3-5% of the 114 total free-text responses to question six. Five percent of responses mentioned confusing or lacking information regarding serials. Comments in this category included: "The one RDA print serial record I examined stripped out all information indicating that the title had ceased publication," and "Record [#########] for a journal lacks the frequency (310 field), an important journal feature."

Four percent of participants complained that FRBR terminology incorporated into RDA test records was nonsensical. One respondent stated, "I don't like the new piece of info: 'Available in other form: electronic reproduction of (manifestation)'. What? This is library-speak that patrons will be confounded by."

In contrast from the 30% of respondents to question five who appreciated the addition of relater terms to authors' names, 4% of respondents to question six considered them problematic. Comments and phrases in this category included: "The AUTHOR (100) field addition of author, artist as a qualifier might ... be confusing," and "To list all the authors, editors with their degrees, affiliations. It's not easy/clear to find the 2nd, 3rd, 4th... persons' name."

Similarly to the last two most frequently cited positive features of RDA test records from question five relating to display issues, the final most frequently cited negative feature from question six related to the MARC problem discussed in the literature review, above. One respondent simply stated, "MARC implementation lagging." Of the 114 total free-text responses to question six, 3% mentioned MARC-related display issues. With little progress toward the development of MARC's replacement, these issues may go unaddressed during the initial implementation of RDA.

Discussion

In my opinion, the most noteworthy of the above findings is that the second most frequently mentioned positive feature in response to question five is something that catalogers can already include under current AACR2 guidelines. However, as an optional feature, it is not always practiced. Participants in the RDA Test Record Use Survey considered the addition of relator terms to each contributor to be a major improvement over current cataloging practice. The fact that participants saw this as a departure from AACR2 points toward a problem with the conduction of the RDA test and survey: catalogers may have spent more time creating RDA test records than they usually spend creating bibliographic records, and therefore the RDA test records seem more complete and thorough in comparison to their AACR2 test record counterparts. In other words, there was no control on the amount of time spent per record nor the amount of detail expected of each record. As they were participating in a learning process and experiment, it is possible that catalogers focused much more time and energy on adding relator terms to their records than they have in the past simply in order to feel they have participated fully in the RDA test experience. There is no guarantee that future cataloging would include as many contributor relator terms as the RDA test records include unless the cataloging community consciously shifts their approach to applying such terms consistently.

Furthermore, some features of RDA test records were identified as both positive and negative changes when compared with AACR2 test records. The first was the elimination of the rule of three. While 24% of respondents to question five considered this to be a positive change, some participants hedged their comments by noting that an unlimited amount of contributors may overwhelm the user viewing the bibliographic record. One participant stated in response to question six that "fuller records are great, but can be counterproductive if there is too much text on the screen, too many added authors or access points."

The addition of relator terms for contributors was also considered to be both a positive and a negative feature of RDA test records. A much greater percentage of comments that addressed relator terms were positive rather than negative, however, with forty-one positive comments on the topic in response to question five and only four negative comments on the topic in response to question six. One response to question six stated, "I do not like the 'performer' etc. and other distinguishing titles after names. The record has this information already, so it seems a duplication of work." This comment indicates an error on the part of the cataloger who created the RDA test record examined by this survey participant. It should be noted that neither the AACR2 nor the RDA test records were checked for correctness before users assessed them.

Another controversial change was the replacement of the GMD with media type, carrier type, and content type fields in RDA test records. Of the 138 total free-text responses to question five, 28% considered the replacement of the GMD with media type, carrier type, and content type to be a noteworthy positive feature of RDA. One participant stated in response to question five that "the loss of the GMD is not a big deal.

The GMD's are not clear enough anyway and don't always tell you what the resource is." Conversely, 28% of respondents to question six considered the loss of the GMD to be a noteworthy negative change, and 35% of respondents to question six expected the new media, carrier, and content types to have an adverse impact on users' ability to find, identify, select, or obtain an item.

Whether AACR2 test records or RDA test records were more "cluttered" is a matter of debate. In answer to question five, one participant stated that "RDA records are a bit more simplified," while another stated that "The information for RDA samples were not cluttered." On the other hand, responses to question six included statements such as "The RDA records looked cluttered and inefficient," and "RDA descriptions (336-338) ... clutter the record without adding anything for users." Some of these comments directly addressed the spelling out of words instead of using abbreviations, with the majority of participants preferring to discontinue abbreviation and the minority preferring to continue the use of abbreviations. Other comments more broadly addressed the overall increase in information presented in the test records. Certainly, participants' opinions of the two record types depended on the individual test records they assessed. It is possible that test records contained repetitive information in order to explore the full extent of the new RDA cataloging rules.

A goal of this analysis was to compare my findings with the positive and negative features than were identified in the RDA Test Coordinating Committee's official report (2011, p. 68-70) and the associated webinar that presented a condensed version of the committee's recommendations from the RDA test (Bushman 2011). Though largely comparable, my analysis did identify categories of comments relating to three positive

features of RDA test records and three negative features of RDA test records that the aforementioned 2011 publications did not address. The three categories of positive comments were improved title/subtitle presentation, logical sequence in display, and linking authors to other works. The three categories of negative comments were serials information lacking, too much author information, and MARC implementation lagging. Each of these six categories were mentioned by less than 10% of survey respondents, but they still constitute significant issues that the developers of RDA and the developers of MARC's eventual successor should consider before the new standards are implemented.

Conclusion

The purpose of the Record Use Survey was to help the developers of RDA

understand how its differences from AACR2 would affect catalog users. The survey

asked participants in the U.S. RDA test to identify features of RDA bibliographic records

that they considered to have a positive or adverse impact on a user's ability to find,

identify, select, or obtain an item in comparison to bibliographic records created

according to AACR2. The raw data from the RDA Test Record Use Survey was obtained

directly from the Library of Congress for the purpose of analysis in this paper. The

research presented here categorized the survey responses in order to identify frequently

mentioned features of RDA test records. Eight major positive features and eight major

negative features were identified, quantified, and explained.

It is important to keep in mind when considering this analysis that the user

experience depended on the quality of the test records created. Record quality was not

controlled, and it is possible that some test records were considerably more thorough than

others or that some contained cataloging errors. As one participant pointed out in

response to question five, "In general the RDA records in our sample are fuller records,

with more keywords and access points. Is this a function of it being a sample and

catalogers went all-out to practice with new templates to create good full records?"

Another factor to consider when reviewing the survey data is the matter of who

participated in the survey. A major weakness in the data is that the survey did not include

a role identifying question. In other words, there is no way to know whether each respondent was a cataloger, library staff member, or library user. The survey did include a question of which institution the respondent is affiliated with (question one), but this does not provide any information regarding the participant's professional or user perspective of the test records. If the survey had included a role identifying question, we might be able to further categorize responses into professional opinions about how cataloging practice will change with the implementation of RDA and opinions genuinely rooted in user experience.

This problem with the survey provides an opportunity for future research. There is a need for more specifically targeted surveys of catalogers and other library staff in addition to surveys of average library catalog users. Though this paper has provided insight into important issues related to the implementation of RDA, there is still a great amount of work to be done before we fully understand how the new code will affect cataloging practice and catalog usability.

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Appendix A: Glossary

AACR2: *Anglo-American Cataloging Rules*, 2nd edition

FRBR: Functional Requirements for Bibliographic Records

GMD: General material designation

ICP: International Cataloging Principles

ISBD: International Standard Bibliographic Description

JSC: Joint Steering Committee for RDA

MARC: MAchine-Readable Catalog

OPAC: online public access catalog

RDA: *Resource Description and Access*

Appendix B: RDA Test Record Use Survey

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 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:

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

Survey text taken directly from:

Report and recommendations of the U.S. RDA Test Coordinating Committee. (2011,

  June 20). Retrieved from http://www.loc.gov/bibliographic-future/rda/