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### RESOURCE DESCRIPTION & ACCESS: CATALOGING STANDARDS AFFECT REFERENCE SERVICE

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## **RESOURCE DESCRIPTION & ACCESS: CATALOGING STANDARDS AFFECT REFERENCE SERVICE**

### **INTRODUCTION**

Implementation of a new cataloging standard called Resource Description and Access or RDA continues to be an important topic for catalogers. However, it affects all parts of the library, especially reference and public services. Changes to the cataloging rules will shape how data about library resources are entered, which in turn will influence how people search, find, understand, and navigate the library catalog. As mediators between library resources and end users, public services' personnel will notice their daily work is affected by these changes. A basic understanding of RDA will make it easier to help users find what they need.

This article begins with an introduction to RDA and a brief history of cataloging. This is followed by a review of the literature and a description of major differences between the established cataloging instructions found in the Anglo-American cataloging rules (AACR2) and the new practices outlined in RDA. The article will conclude with a brief exploration of potential future enhancements made possible by implementation of RDA. Throughout, the article will focus on how changes in cataloging code may affect searching, retrieval, and navigating the library catalog.

### **RDA... THE BASICS**

RDA is the newest version of cataloging best practices. What does that mean and who, other than catalogers, cares?

All librarians should care because cataloging rules fundamentally affect what and how data are recorded. The underlying data combined with the software functionality of catalogs and discovery tools affect what is displayed on the screen and how the user interacts with the catalog. Librarians often function as mediators between patrons and the library's resources, which are represented by bibliographic records in the library catalog. A basic understanding of cataloging practices will help

ensure that librarians can effectively navigate within the library catalog, find relevant information within bibliographic records, and connect patrons with resources that meet their needs.

RDA is more than a cookbook outlining rules for describing library materials; it is a fundamental re-thinking of cataloging theory and practice. Based on internationally established principles, models, and standards, RDA is designed with the user in mind, utilizing terminology that makes sense to a broader audience, and designed to be a more consistent and flexible framework for describing all types of resources whether they are physical text-based materials or not. RDA is designed to work with legacy library formats such as MACHine-Readable Cataloging format for Bibliographic Data (MARC), common formats for interchange of data over the Internet such as Extensible Markup Language (XML), and new data structures that have yet to be developed.

Based on a conceptual model outlined in FRBR or the *Functional Requirements of Bibliographic Records: Final Report* (1998), RDA strives to describe resources in such a way as to promote general user tasks, including finding, identifying, selecting, and obtaining information resources. Would it not be easier to see one basic catalog record for *Jane Eyre* accompanied by choices for versions and availability rather than a long results list of individual records describing different editions without obvious information to differentiate them? Together FRBR and RDA provide a framework that may soon make this possible.

RDA guidelines clearly define the characteristics or attributes of resources that help people find, identify, select, and obtain resources that are useful to them. Furthermore, RDA facilitates the description of relationships between resources and persons, e.g., author, performer, composer, etc. The additional relationship information added by catalogers to the bibliographic record, when combined with the power of linked data, helps users understand relationships among different resources. For example, Figure 1 illustrates how the book *The Spy Who Loved Me*, by Ian Fleming, is related to both Marvin Hamlisch, the American composer/conductor, and Mike Myers, the Canadian actor.

## **BRIEF CATALOGING HISTORY**

The first American and British cataloging rules were published in the nineteenth century, and they have been evolving ever since. Sir Anthony Panizzi's *Ninety-one Rules for Compilation of the British Museum's Printed Catalog* and Charles Ammi Cutter's *Rules for a Dictionary Catalog* provided a foundation for the establishment of cataloging standards (Miller, 2011, p. 216). The American Library Association and the Library Association of Britain later developed an international code in 1908. This code was revised in 1941 and 1949 (Miller, 2011, p. 216).

In 1961, the International Conference on Cataloging Principles was held in Paris. From this conference a set of 12 principles, known as the Paris Principles, were developed, and in 1967 the first *Anglo-American Cataloging Rules* (AACR) were published. Two versions of these rules were issued: one for the United States and one for the United Kingdom. Eleven years later AACR2 was published and replaced the two divergent versions. The rules were once again updated in 2002 and 2005 (Miller, 2011, p. 216).

At the time AACR2 was published, libraries and their catalogs were designed to cater to physical items. Since then the world has undergone a technological and information revolution. Computers have become powerful and commonplace, and the World Wide Web has changed the way people find information and communicate with one another on a global scale. AACR2 with its heavy emphasis on the printed book and its strong Anglo-American bias was critically in need of revision.

Relying heavily on the conceptual model outlined in the *Functional Requirements for Bibliographic Records* (1998) and Tim Berners-Lee's *Vision of the Semantic Web* (2001, p. 35), the Joint Steering Committee for the Revision of AACR (JSC) began development of the third edition of the cataloging rules (AACR3). In December 2004, after reviewing feedback, the JSC abandoned work on the revision and shifted focus toward developing a new standard called RDA (Kincy, 2012).

RDA is a work in progress and continues to be fine-tuned. From July 2010 through March 2011 the U.S. RDA Test Coordinating Committee conducted testing of RDA and called for additional changes to

the code (U.S. RDA Test Coordinating Committee, 2011). According to the Library of Congress (LC), significant progress was made toward addressing those recommendations, and full implementation of RDA took place on March 31, 2013 (Acquisitions and Bibliographic Control, Library of Congress, 2013). The U.S. National Agricultural Library, the National Library of Medicine, the British Library, Library & Archives Canada, Deutsche Nationalbibliothek, and National Library of Australia, also planned to implement RDA in 2013 (Acquisitions and Bibliographic Control, Library of Congress, 2013).

## **LITERATURE REVIEW**

Information about RDA has been appearing regularly in the literature since 2005; during that time, the focus has centered on theory, goals, training, and implementation for catalogers and managers. Acceptance and implementation of RDA by National Libraries has occurred (Chad, 2013); however, a crucial audience continues to be largely neglected. The absence of literature intended for reference and public services as well as evaluations of end users is noticeable.

Early literature provided a theoretical background of RDA and the models upon which it was based. Authors described the Functional Requirements for Bibliographic Records (FRBR) model and informed readers about how FRBR provides a new perspective on cataloging that should influence the design of future systems, cataloging codes, and cataloging practice (Tillet, 2005). Other early literature on RDA provides an overview of the history and goals of RDA, information on keeping informed as the rules are further developed (Moore, 2006), and opinions on potential uses of the new code (Medeiros, 2005).

As RDA developed, literature focused on the library community's need for a change and the differences between AACR2 and RDA. Examples include, Ascher's article, *What's the Big Deal with RDA?*, which evaluates the need for a new cataloging standard by comparing the development of RDA to Johannes Kepler's introduction of the theory of a heliocentric universe (2008), and Chapman's, *The Case of AACR2 Versus RDA*, which discusses the major reasons for change (2010). Some of the most commonly mentioned rationales for replacing AACR2 include:

- It was written primarily for libraries and is not flexible enough to be used by other information communities
- It has a distinct Anglo-American bias due to its original inception as a tool for English-language-based catalogs
- It is based on the concept of single item cataloging and does not adequately account for the representation of relationships
- It has been unable to keep up with needed revisions caused by new digital formats, and updates covered only specific issues while more generalized instructions that can be applied to all formats are needed

Current literature continues to focus on the transition from AACR2 to RDA and application of the new rules. Hitchens and Symons (2009) highlight several ways for trainers to prepare catalogers for RDA, such as familiarizing staff with the concepts in FRBR, introducing new vocabularies, and understanding the structure of RDA. Chapman focuses on specific differences between AACR2 and RDA, such as the elimination of the “rule of three” and the separation of content and carrier data (2010, p. 212).

Presentations, recorded webinars, and training workshops about RDA are becoming more prolific. The Library of Congress (LC) has provided a number of recorded webcasts and training modules (2013), while The Association for Library Collections and Technical Services (ALCTS) continues to add RDA specific topics to their training and webinar schedule (2012). Workshops and presentations on the comparisons between AACR2 and RDA have been conducted at numerous state and national library conferences by librarians, such as Adam Schiff (2013).

As exemplified above, the main audiences to date have been catalogers. There has been very little attention on how RDA affects public services or the end user. Hider’s article comparing user-generated lists to RDA vocabularies and McCutcheon’s article *RDA and the Reference Librarian*, are among the few contributions of a research nature to date. Hider specifically looked at the terms used in RDA to describe the format of the storage medium (e.g., video disk, volume), called the carrier, and the fundamental form of communication in which the content is expressed (e.g., text, two-dimensional moving image, etc.), known as the content. He found that the controlled vocabulary in RDA did not

match the terminology used by general users (2009). McCutcheon's article describes the results of their library's participation in the informal U.S. RDA test and how they solicited input from reference personnel (2012). Cassidy and Milhorat provide a brief opinion piece which includes a timeline of cataloging rules development and a description of RDA's potential effects on administrators, reference, and public services librarians (2011). In a similar fashion, Miller's article introduces the concept of cataloging codes and why they are important (2011). She provides a brief history of cataloging codes, explains why a new code was needed, and presents an overview of the development of RDA. Miller begins to address how some of the changes may affect the display in the library catalog and concludes her article by indicating that, while large libraries will probably adopt RDA, many smaller ones will continue to use AACR2 for the foreseeable future (Miller, 2011, p. 216). Webinars are beginning to be developed for a broader audience. Examples of this trend can be seen in Lori Robare's (2012) presentation in which she provides a general overview of the changes in RDA, particularly those affecting staff in technical services and those noticeable in the OPAC. While she refers to MARC tagging of specific fields and uses vocabulary that may be more familiar to catalogers, many of her examples are viewed from the perspective of a library user or reference librarian. Likewise, Keenan's presentation on RDA is geared to a public services audience and provides examples of ways the new cataloging code may affect display and searching in a Voyager catalog (2012).

### **RDA... WHAT'S DIFFERENT?**

An in-depth comparison of AACR2 and RDA is beyond the scope of this article. Instead, a few of the major changes that will most noticeably alter the display and/or interaction with the public catalog are discussed.

#### *AUTHORIZED ACCESS POINT, "MAIN ENTRY" AND THE "RULE OF THREE"*

The concept of main entry has formed the basis for descriptive cataloging and was crucial in the day of

card catalogs. Because of the work involved in typing and filing catalog cards as well as the space available on an individual 3x5 card and in the cabinets containing those cards, catalogers had to be frugal with the amount of information displayed. The main entry card identified the official authorized access point (usually either the author or the title) and generally contained a complete description of the book while added entry cards contained a minimal amount of information allowing the user to find the book by other access points such as title, subject, additional authors, etc. The rules used to determine which type of main entry a cataloger chose were based on the number of individuals responsible for the intellectual content of the resource being cataloged. AACR2 instructed catalogers to use the first author's name as the main entry if there are between one and three authors and to use the title as the main entry if there are none or more than three authors (AACR2, 2002, chap. 21). This dependence on the number of authors has commonly been referred to as the "rule of three".

RDA was developed to take advantage of current and future technologies and is less constrained by storage and display limitations. Because RDA was designed to utilize computer interfaces, arbitrary limits established to save space on cards and in cabinets are no longer needed. With RDA the concept of main entry/added entry has been replaced with that of primary access point/additional access point. The primary access point is what is used for creating bibliographic citations and collocating similar materials in the online catalog, while additional access points are supplementary terms that may be utilized to find and access a resource.

Like AACR2, RDA provides guidelines for catalogers to follow when determining how to describe a resource. With RDA, the number of authors does not determine the primary access point. Rather, when multiple authors are listed, the cataloger is instructed to use the first name listed as the primary access point and to create additional access points for the other names (RDA Toolkit, 2010, 19.2). When an author cannot be identified at all, the cataloger is instructed to list the title as the primary access point. Both AACR2 and RDA permit catalogers to determine if the main entry/primary access point should be an author or a title, but the rules for making that determination differ.

With AACR2 the “rule of three” also affect the entry of information in the title/author field. AACR2 contains clear instructions limiting the number of names that can be recorded when a resource has more than one author. If there are more than three, then the cataloger is instructed to include the name of the first author followed by a set of ellipses and the Latin phrase *et alii* entered as “[et al.]” (AACR2, 2002, chap. 1). RDA, on the other hand, encourages catalogers to include the names of all the authors who contributed to the intellectual content of the resource after the title.

The elimination of the rule of three will have a relatively minor effect on the display of bibliographic data, but may have a positive effect on increasing the searching power for users. The ability to search for resources by the name of any of the contributors rather than just the first one increases opportunities for searching and expands the user’s ability to find similar material related to a particular author. For example, including all authors would make it easier for a student to find a textbook co-authored by their professor even if the professor was not the primary author. The ability to easily find materials by any author also enhances a university’s ability to highlight scholarly contributions by their faculty through the library’s catalog.

#### TAKE WHAT YOU SEE

Historically catalogers have been taught the importance of transcribing information directly from the resource in hand. In practice, however, there were many exceptions to strict transcription. Adjustments included use of abbreviations as well as additions, omissions, and corrections to data. For example if the title page of a book reads “Third revised edition”, AACR2 instructed catalogers to enter the data in an abbreviated form that would read “3rd rev. ed.” AACR2 also instructed catalogers to truncate publication information and to correct typos present on the title page. Unlike AACR2, one of the overarching principles within RDA is to take what you see (RDA Toolkit, 2010, 1.7). Following RDA, catalogers would not automatically abbreviate edition statements or truncate publication information; thus the edition statement in the example above would be entered exactly as it appears on the title page - “Third revised edition”. Going back to the original goals of RDA, which include making it easier for users to find, identify, select, and obtain resources, reducing the number adjustments to the

bibliographic data will result in a clearer description of individual resources. AACR2 rules created uniformity of description within the catalog, but removed data and reduced homogeneity between the data in the catalog and the actual item, making it more difficult for users to match the description with the actual item. RDA will result in less consistency between records in the catalog, but will increase the uniformity between the description in the catalog and the actual resource. Creating a description in the catalog that more closely matches the information seen on/in the item itself may reduce confusion for library users.

Figure 2 provides an example of how correcting a title might look. This is one instance in which a cataloger would include additional information to a record that is not present on the actual item. Under the guidance of AACR2, catalogers would indicate a typographical error printed on a title page by adding the Latin adverb *sic* placed inside square brackets (AACR2, 2002, chap. 1). This was done to inform the reader that any errors in the transcribed material did not arise in the course of the transcription. An additional field containing alternate title information is added to the record to enable searching for the title with the corrected spelling. Under the guidance of RDA, catalogers will still transcribe the title complete with any errors, and add an additional field containing the corrected title; however, there will be no text added to the title to indicate that the error was included intentionally (RDA Toolkit, 2010, 2.20.2.4). In both of these cases a library user will be able to find the item if they search for the correct spelling or the incorrect spelling. The advantage to the RDA guidelines is that a phrase search for the title containing the error is not interrupted by the addition of bracketed information; thus, a user who is unaware this is an error and searches for the title as it appears on the resource will easily find what they are looking for.

Keeping with the notion of take what you see, RDA guidelines discourage the use of abbreviations and Latin terms. Again, the reasoning behind the use of abbreviations in AACR2 centered around space limitations. According to discussions on various email lists, such as AUTOCAT and RDA-L, the abandonment of abbreviations and Latin terms in RDA was done in an effort to make the bibliographic data more intuitive and easier to read by a variety of users.

A highly visible example of this change can be seen in the way publication information is displayed. Rather than using abbreviations, the cataloger will now transcribe this information as it appears on the item. Under the restrictions of earlier MARC tagging, catalogers included a single field with publication information in a bibliographic record (Library of Congress, Network Development and MARC Standards Office, 2011). This field was not set up to easily differentiate between publication, distribution, and copyright data. Additionally if the publication information was not easily identifiable on the item being described, catalogers were instructed to use abbreviations for the Latin terms *sine loco* and *sine nomine* (AACR2, 2002, chap. 1). RDA now requires catalogers to use the following bracketed phrases to indicate missing publication information:

- [Place of publication not identified]
- [Publisher not identified]
- [Date of publication not identified]

RDA also instructs catalogers to include information about the manufacturer and/or other relevant dates, if available (RDA Toolkit, 2010, 2.7). New fields were created to enable catalogs to display this additional information. Figure 3 shows that these changes to the cataloging code result in a visible difference to the catalog display. While this may appear to be an insignificant modification, the ability to include more than one date related to a resource has the potential to increase the power of searching.

Including data for publication, manufacture, and copyright and doing so in such a way that is it easily differentiated opens up new searching possibilities for researchers who are looking for materials that were created, published, and or distributed during a particular time period. However, the inconsistency created by no longer using abbreviations and by transcribing this information as it appears on the resource may be somewhat confusing to users.

A specific example can be crafted using the sample items shown in Figure 4. Both of these videos were published by Warner Home Video in Burbank California. Prior to RDA the cataloger would enter the place of publication formatted as follows: "Burbank, CA." Now that same information may appear in a

number of ways including: "Burbank, Calif." and "Burbank, California". Prior to RDA a researcher who was interested in finding all of the videos that were published in Burbank, California would have a simple task of entering a phrase search of "Burbank, CA" for publisher and limiting the results to video recordings. A search for this in the Mansfield Library catalog returned a list of 856 items of which volume 2 is included, but volume 1 is not. The researcher might then need to either conduct additional searches for the various spellings of the term California, use truncation techniques to expand the computer's search for various forms of California, or broaden their search for just Burbank and then weed out any results that were not from California. (There is a Burbank, Illinois, for example) While this particular example is contrived, it clearly demonstrates how an understanding of the way data is entered in the catalog will help librarians create successful search strategies.

#### *GENERAL MATERIAL DESIGNATOR*

The General Material Designator (GMD) describes the format of a resource. It is the bracketed term library catalog users are accustomed to seeing nested in the middle of the title. In the following example, the bolded term is the GMD:

No dogs or philosophers allowed **[videorecording]** : the ethics of consumption / Milk Bottle Productions ; Producer, Summer W. Schulz ; director, Nancy Bowman.

AACR2 instructed catalogers to add this information for non-print formats (AACR2, 2002, chap. 1). RDA no longer supports the use of the GMD; instead format related information is entered into three new fields that will allow catalogers to be more specific and accurate in their descriptions. This will be most evident for formats that cross lines of traditional description, such as streaming videos. Under AACR2 the format for a streaming video would be described as an electronic resource (AACR2, 2002, chap. 9) while under RDA it would be described, using the three new fields, as a two-dimensional moving image and an online resource that requires a computer to view (RDA Toolkit, 2010, 6.9, 3.2, 3.3).

The removal of the GMD affects both the appearance of records in the catalog as well as search functionality. Library patrons who are used to quickly scanning a results list of titles and easily picking out a video recording may be disappointed that the GMD will no longer be included. However, they should not despair because the information is still readily available; they just need to look in different places. How this information is displayed will differ depending on which library system is being used and on how the individual library has configured its settings. Figure 5 provides an example of where users might look for format information. In the sample results list, notice how item number 9 includes the GMD and item number 10 does not; however, the user can still easily identify both of these as video recordings by the format icon displayed to the left of the title. In the short view, even with the removal of the GMD, there is no confusion about the format of this item. The user can glance quickly at the description or the call number for clarification. If the list view or the short views do not provide enough detail, the user can toggle to the long view and find more details about the format of this item in the description and technical data fields. The technical view, while not as user friendly, also provides more detailed information about the item's format. Sophisticated users who are used to using this view may need to look further down the record to find the information than they were used to doing with AACR2 records.

In the past, some users may have used the information in the GMD added to a title browse search as a way of targeting audiovisual materials. For example, a patron looking for the soundtrack to *Gone with the Wind* could enter a title browse search for "gone with the wind sound". This search completed in the Mansfield Library catalog returned a results list of two items, both audio CDs, containing the desired soundtrack. Had the patron entered a title browse search for "gone with the wind" the results would have been a list of 18 items containing books, videos, and music scores, in addition to the desired soundtrack. Because the GMD is no longer included in the title, this search strategy will no longer work and new strategies need to be applied.

#### RELATIONSHIPS

RDA places a much greater emphasis on relationships. Catalogers have always tried to include relationships between resources, authors, subjects, etc., but until now they have been limited to using textual note fields that are difficult for a computer to process. RDA describes relationships in a structured way that computers can understand. Names of authors and other contributors may be followed by terms describing the role of the person or organization. This additional data greatly enhances the ability to provide structured information about people, corporate bodies, and families important to our local institutions and communities. The fact that the additional information is structured means that users can take advantage of the power of technology. Structured data provides the foundation that allows computers to search, compile and return information to users. For example, a dance student conducting research on Liam Steel could easily find and sort all of the performances that he choreographed and directed. As seen in figure 6, the visual difference between RDA and AACR2 records is minimal, and is generally not seen unless the user navigates to the complete view of the bibliographic record. The additional data however, does benefit the user by making it easier to find these resources and by explaining search results. The RDA record contains information about the relationship between the contributors and the work. Without this additional data users are unable to limit search results to works that Liam Steel choreographed. They are also unable to identify which works he directed by looking at the catalog record.

#### *RICHER AUTHORITY RECORDS*

RDA makes it easier to highlight relationships among resources and between resources and people. One of the ways this is facilitated is through the use of authority records. RDA provides guidelines that apply to the creation of authority records and will affect these much in the same way that RDA affects bibliographic records. Authority records are created to establish a controlled vocabulary or an authorized form of a heading (names, name/title combinations, uniform titles, and subjects). These authorized forms of headings are then used to create access points within a bibliographic record, thus enabling users to search and retrieve resources collocated by author, subject, etc. Because authority

records are directly tied to bibliographic records, any changes to the data used in authority records as a result of RDA also has an effect on library catalogs and the user experience.

The RDA guideline discouraging the use of abbreviations can be easily seen in authority records. The impact of this change requires librarians to rethink search parameters for corporate names and uniform titles that previously incorporated abbreviations. Documents created by the Montana Department of Transportation, for example, will now appear in library catalogs with the term department spelled out. Under AACR2, the authorized form of the name would appear as "Montana Dept. of Transportation". Likewise, the uniform title for the old testament of the Bible has changed from "Bible. O.T." to "Bible. Old Testament." These changes will make the catalog record easier to read, requiring less need for interpretation.

Considerable work has already been done by the Library of Congress to update hundreds of thousands of authority records so they will be compliant under RDA. This change will have little to no effect of catalog performance for libraries who subscribe to services providing authority maintenance. The access points in the bibliographic records will be automatically updated and the catalog will still function normally. For libraries that do not actively pursue authority maintenance, the user will be faced with a catalog containing multiple forms of the same access point. This means that the collocating functionality of the catalog will be compromised and alternative search strategies may need to be developed until the catalog data or software functionality can be updated. Using the previous example of the Montana Department of Transportation, it is easy to see how a user would have to do more work to gather all of the reports published by this entity. The patron could possibly use truncation as a strategy and search the catalog for all reports written by the "Montana Dep\* of Transportation"; however, this would require sorting out additional unwanted resources. Alternatively, the user could do two searches: one for all reports written by the "Montana Dept. of Transportation" and one for all reports written by the "Montana Department of Transportation". Reference librarians will play a key role in helping users navigate this change to find what they need. The author suggests that reference librarians speak with the catalogers at their institutions to find out if their library is pursuing authority maintenance on a regular basis. If they are, then their users will be at an advantage - - they can

search for either the abbreviated form of the name or the complete form of the name and the catalog will use the appropriate "see" or "see also" notification to direct them to the appropriate records. If they are not, then it will be up to the reference librarians to help the users navigate the catalog.

Other changes to the authority record resulting from the implementation of RDA involve the optional addition of a large amount of new information. Inclusion of common name suffixes will be immediately visible ("Williams, Hank, 1949-" will change to "Williams, Hank, Jr., 1949-") and may help users recognize people more easily. The addition of information about occupation, gender, etc., to authority records will not be immediately noticeable by library users because this information is not directly displayed in the bibliographic records. Only the authorized form of the name appears in the record and until library catalogs are better able to incorporate new functionality associated with linked data this additional information about people will remain hidden. While not visible, this extra data is very useful. Additional information about a person or a corporation makes it easier for catalogers to differentiate between similar names and ensure that the correct names are added to the bibliographic record. This is particularly useful for authors who write about different subjects or who write about topics outside their known field of expertise. The authority record for Kevin FitzGerald, for example, contains information showing that he is both a Jesuit Priest and holds a doctorate in molecular genetics making it easier for a cataloger to correctly conclude that the author of a bible study course is the same person who wrote an ethical analysis of human genetic interventions and a report comparing markers in normal and cancer stem cells (Library of Congress Authorities, n.d.). Combining linked data with enhanced authority records also has the potential to help users learn more about authors, provide reference librarians with a powerful tool for assisting their users, and to greatly expand the search functionality of library catalogs in the future.

#### **FUTURE POSSIBILITIES**

While some changes to catalog records resulting from RDA implementation will be readily visible to the public, much of the potential of RDA is yet to be discovered. RDA is designed to allow computer technology to make optimal use of bibliographic data, making it easier to disassemble, reassemble, and

share data within the library community and beyond. New functionality could be incorporated into catalogs which would enable researchers to utilize new search strategies to find the resources they need. For example, a student faced with the task of writing a paper about women authors from England who wrote in the 1800's could begin the research without knowing the names of any specific authors. The rich data incorporated in authority records and linked through bibliographic records would easily lead to the discovery that Jane Austen, among others, was an acceptable topic.

Some are already experimenting with ways to take advantage of FRBR and RDA. The Online Audio Visual Catalogers (OLAC) Moving Image Discovery Interface and Indiana University's test catalog Scherzo are both prototypes of what a library catalog built according to FRBR principles might look like.

The OLAC Moving Image Discovery Interface explores the possibilities of leveraging the FRBR model and faceted search to improve access to moving image materials held by libraries and archives. In this experimental interface, the user is presented with a two-level view. The top level, provides information about Works, while the second level includes information about Expressions (language options), Manifestations (format and publication date), and Items (library holdings). Facets are displayed separately either along the top or side of the screen (OLAC, n.d.).

Scherzo contains records for 185,000 sound recordings and music scores from the holdings of Indiana University's William and Gayle Cook Music Library. A search for an artist or composer returns a typical item level results list as well as facets which include a variety of relationships between that person and music resources as well as other performers, instrumentation, etc. (2010).

Austlit (n.d) and Open library (n.d.) are two other examples of websites which are based heavily on the FRBR model and which utilize RDA. They provide real life examples of how cataloging guidelines can be used to not only connect users with individual resources but to also connect them with more information about works and authors. The screenshot featured in Figure 7 exemplifies how this can be done. An author search for "Victor Hugo" retrieves a list of available titles like those that people are used to seeing in a library catalog as well as information about the author, subjects, places, people, and

time periods along with their relationships to Hugo and his works. Links to other related information outside the open library interface is also included.

## **CONCLUSION**

RDA was developed by the international cataloging community to address the insufficiencies of cataloging standards outlined in AACR2. Developers are hopeful that RDA will:

- Provide a more flexible standard that can be used by information communities beyond the library.
- Remove cultural bias to better enable use globally.
- Support the clustering of bibliographic records to show relationships between resources and their creators to make users more aware of the variety of different editions, translations, and physical formats available.
- Provide guidance for describing digital resources, optimize the use of the library catalog, and improve searching and browsing for users.

The vast majority of research and literature about RDA has been written for catalogers. However, changes to cataloging rules affect a broad range of individuals in the library community. It is imperative that reference librarians and public service staff are not overlooked when implementing RDA. Changes to the cataloging standard are altering how data is recorded in bibliographic and authority records, which alters the display and function of the library catalog. As mediators between bibliographic data and end users, reference librarians must be aware of the basics of RDA and of how the transition to this new code will affect interactions with the catalog.

RDA is still evolving and much of the benefit will not be realized until future enhancements are made to ILS/library catalog software. Many questions remain about the effectiveness of RDA in the current environment and its future potential. More research is needed to determine how users are interacting with the catalog, how bibliographic data is supporting their discovery and access, what obstacles

reference librarians encounter as a result of RDA, and how future iterations of RDA may open bibliographic data to communities beyond the library.

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