The cataloging of microforms and other reproductions has been difficult throughout the history of cataloging codes, particularly due to the “multiple versions problem.” The proposed new cataloging code, Resource Description and Access (RDA), seeks to clarify the relationship between reproductions and originals by applying the principles of Functional Requirements for Bibliographic Records (FRBR) to cataloging. While the use of FRBR principles does help to identify the relationships between works in the catalog, RDA as currently designed is challenging for the cataloger and includes many data that may prove to be difficult for catalog users to understand.

The conceptual and practical aspects of cataloging microform reproductions and other types of reproductions have long been a challenging part of bibliographic control. Under the proposed new cataloging code, Resource Description and Access (RDA), catalogers will have to expand on current cataloging practices. The thinking that motivates the most innovative sections of RDA is concerned with defining the relationships between items in the collection, and microforms and other reproductions fall into an interesting grey area—they are neither a different edition in the usual sense, nor are they simply an extra copy of an extant edition. The potential relationships between library holdings are detailed in a document titled Functional Requirements for Bibliographic Records (FRBR).1

RDA, in its current draft form, is a bulky document that may be difficult for catalogers to consult with confidence that they are applying all the necessary rules for the item in hand.2 However, a catalog entry created according to RDA will provide deeper information about the item and its relationship to other bibliographic entities than do catalog entries created using Anglo-American Cataloguing Rules, 2nd edition (AACR2).3 But some aspects of RDA, such as the use of library or publishing jargon, mean that catalogs created using RDA may present the data in a way that is less meaningful to catalog users than it might have been using other cataloging rules.

This paper will outline the ways in which RDA approaches reproductions, beginning with a brief historical exploration showing how the problem of defining reproductions in relation to their originals has proven elusive through all the
cataloging codes of the twentieth century. This paper also includes a discussion of FRBR principles as they apply to reproductions.

The Historical Problem of Defining the Relationship between Reproductions and Originals

A persistent difficulty for catalogers has been conveying to patrons the fact that a publication may appear in the collection in several versions; originally these took the form of various editions, but alternative formats of the same edition are now also an issue for catalogers. This issue was addressed in two of Charles A. Cutter's famous "Objects of the Library Catalog," namely, a catalog should show what a library has by a given author, and a catalog should assist in the choice of a book's edition. Cutter felt that the means to achieve these objectives were title entries and notes, when necessary. For the most part, Cutter's view has prevailed since that time, as shown by the Statement of Principles, known as the Paris Principles, of 1961, which established an international standard for cataloging rules.

Cataloging of Reproductions in Earlier Codes

Microforms were not a practical commercial enterprise during the nineteenth century, although pioneers such as John Benjamin Dancer had created prototypes of microfilmed documents. However, the development of lithography allowed for the production of facsimiles. In a famous example, Secretary of State John Quincy Adams authorized a wet-ink transfer of the original engrossed copy of the Declaration of Independence so that the original could be copied for wide distribution in 1823; the removal of some of the ink accounts for the current faintness of the original document. The earliest cataloging codes did address reprints and facsimiles.

When the American Library Association (ALA) first approached the task of compiling a cataloging code applicable to all libraries in the United States, it based its work on Cutter's Rules for a Dictionary Catalog. Although Cutter's Rules for a Dictionary Catalog were not retained explicitly in the 1908 Catalog Rules: Author and Title Entries, two of them are reflected in the rules for cataloging reprints.

The rules for cataloging a reprint with two title pages (one a title page for the reprint and one a reproduction of the original title page) call for added entry under the reprint title, with the original title mentioned in a note. Thus, as Cutter stated, the catalog enables a person to find a book of which the title is known and assists in the choice of a book's edition. Although a modern catalog user would expect additional added entries for the original title, the use of notes in a card catalog was seen as a reasonable accommodation for the researcher, who was expected to exhibit enough diligence to review all the appropriate catalog entries before deciding which edition to select.

Nonetheless, cataloging codes had difficulty defining what exactly a reproduction is. If it is simply another copy of the original, then entry under the original was called for. If it is a different edition, then a separate entry was appropriate. A reprint falls into the cracks between those categories.

Over the next seventy years, four more cataloging codes were issued, and successive versions also addressed microforms. One constant was the rule of entry under the original title unless a separate title has been added for the reproduction. Confusion reigned when describing the reproduction. A code might require a description for the number of pages and dimensions of the original or a description of the microform with its own extent.

By the time the next set of cataloging rules was published in 1941, the dissertations and early English books projects of University Microfilms (now ProQuest), and Harvard's Foreign Newspaper Microfilm Project, among others, had introduced microforms into library collections. The 1941 A.L.A. Catalog Rules allowed for the added entry of works “reproduced in facsimile (either by type print or by some photomechanical process)” according to the same title-page rules as the 1908 rules. However, the rules also included prescriptions for describing the collation of reproductions (collation being the term for what AACR2 calls the “extent” of an item). In keeping with the reputation of the 1941 rules for pedantic exactitude combined with a lack of sensible examples, the cataloger was required to determine whether the microfilm was produced as a commercial enterprise before applying one of two rules for describing the collation of a microfilm. No examples were provided to guide the cataloger in making this judgment. In addition, a separate set of rules applied to describing reproductions produced by the Photostat process, a predecessor to xerographic copying that involved photographing documents onto sensitized paper that had to be developed in chemical baths, much as photographic film is developed. The result was that catalog entries made under the 1941 rules might feature one microfilm described with the word “facsimile” in the collation, and another similar microfilm described as though it were a bound book, with the fact that it was a microfilm appearing only in the notes section, while a Photostat reprint was described as though the Photostat were an original edition.

The 1941 rules were quickly superseded in 1949 by two separate but equally essential guides: A.L.A. Cataloging Rules for Author and Title Entries (Author and Title Entries) and Rules for Descriptive Cataloging in the Library of Congress (RDC). Despite the clear distinction of scope implied by the titles, the Author and Title Entries rules prescribed some descriptive cataloging, and RDC prescribed some rules for title entry. In the case of microfilms,
Author and Title Entries introduced a form subject heading, namely “Manuscripts—Facsimiles.” RDC prescribed the title entry of facsimiles of all kinds according to the original 1908 rule of entry under the reprint title with other titles in the notes. Further, RDC simplified the description of all reproductions by calling for the same standard in all cases—namely, recording the extent of the reproduction with the extent of the original in a note.

Throughout the first half of the twentieth century, cataloging rules for reproductions had varied along with changing technology and formats, but, at the fundamental level, they remained the means by which a catalog could achieve the objects set forth by Cutter.

During the 1950s and early 1960s, an international movement toward universality in cataloging led to the establishment of the Paris Principles in 1961. The Paris Principles state not only the functions of the catalog but also describe the structure of the catalog and prescribe basic rules for entry. The Paris Principles seem very similar to the rules previously used in American cataloging, but they did represent a breakthrough in the acceptance of the notion of corporate authorship by cataloging agencies in the Prussian and other non-Anglo-American traditions.

The Paris Principles informed the next revision of American catalog rules, which were issued in 1967 under the title Anglo-American Cataloging Rules (AACR). AACR was also strongly influenced by the work of Seymour Lubetzky, a scholar at the Library of Congress (LC) who systematically critiqued previous cataloging codes in the hope of establishing a logical approach to building catalogs. Lubetzky stated that the purposes of the catalog are “1) To facilitate the location of a particular work; and 2) To relate and bring together the works of an author and the editions of a work.” In the case of facsimiles and microfilms, AACR approached cataloging with an eye firmly fixed on Lubetzky’s second purpose. Reproductions were entered under the title of the original (except in the case of facsimiles with a new title page), the collation consisted of a description of the original book, and the description of the reproduction was restricted to the notes field.

Even as the Anglo-American cataloging community was catching up to the numerous changes imposed by AACR, the international cataloging community moved ahead with more standards, the most significant being the International Standard Bibliographic Description (ISBD). ISBD was first promulgated for monographs in 1971, and its acceptance necessitated a revision of AACR to bring descriptive cataloging into line with ISBD requirements. While the revisers were at work, they also tidied up some other issues that had arisen as the first edition was applied in libraries. The second edition of AACR, called AACR2, has proven more lasting than most of its predecessors, as libraries are still cataloging according to AACR twenty years after it was first published in 1978. Although several revisions have been issued, the fundamental structure and concepts of AACR2 remain unchanged.

**Rules for Cataloging Reproductions in AACR2**

AACR2 introduced a number of practices that make cataloging microforms a more distinct practice than hitherto. The first was the requirement to consult the “chief source of information.” In the case of microfilms, the cataloger must view the frame bearing the title rather than relying on packing slips or box labels. A second practice, derived from the ISBD, was the introduction of the General Material Designation (GMD) immediately following the title. The GMD is a “term indicating the broad class of materials to which an item belongs” and includes “microform” and “art reproduction.” This practice allows the catalog user to distinguish between print and microform editions of the same work without referring to notes, thus satisfying Lubetzky’s second purpose: “to relate and display together the editions which a library has of a given work and the works which it has of a given author.” Perhaps because the GMD makes comparing editions easier, the physical description area no longer shows the extent of the original, but rather describes the microform.

Facsimiles and reprints are treated similarly. They are cataloged and described according to the characteristics of the reproduction, with the information about the original reserved for notes. AACR2 goes a long way toward clarifying which editions—and, of importance to the average library patron, which formats—of a work are in the library’s collection.

**The “Multiple Versions Problem”**

ISBD, as well as AACR2, which reflects it, are structured to provide a separate entry for each different format of a work, whether print, microform, or electronic resource. Many librarians find this practice “to have a very negative impact on the usability of the catalog, causing an increase in catalog entries for what to many users is essentially the same resource.” The Council on Library Resources and the LC convened a meeting in 1989 to address this “multiple versions problem.” The participants in the Multiple Versions Forum considered several options for revising cataloging practice to make the entries for titles held in multiple versions more usable, and they recommended a “two-tier hierarchical model for multiple versions,” in which the catalog contains “an independent bibliographic record for one version of an item . . . and dependent partial records” indicating holdings in different formats.

As a result of the recommendations of the Multiple Versions Forum, many libraries now present catalog records with holdings in multiple versions on one record. Current LC policy is to “transcribe the bibliographic data appropriate to
the original work being reproduced," and to “give in a single note (533 field) all other details relating to the reproduction and its publication/availability.” Although this practice is contrary to AACR2, it allows LC records to comply with the two-tier hierarchical model. The top tier is represented by the entry consisting of information about the original, and the details relating to the reproduction are one way of completing a dependent partial record for the second tier. Despite the LC’s use of a single record with multiple holdings, many libraries continue to catalog multiple versions according to AACR2. For instance, the policy of the Program for Cooperative Cataloging’s Cooperative Online Serials Program (CONSER) is to present a separate record for each version, although serials with online versions may use a single record.

**Functional Requirements for Bibliographic Records**

AACR2 was published just as early computer catalogs were being implemented, and experience with online public access catalogs during the last several decades has led to a belief that the capability of computers for searching across numerous entries can allow catalogs to do more to help patrons ascertain which works and which editions are in a library. These developments have occurred in an environment that has seen a great increase in shared catalog records, contributing to a reconsideration of what a library catalog can and should do for its users.

After numerous meetings throughout the 1990s, IFLA issued FRBR in 1998. FRBR takes the Paris Principles further and calls for a catalog to enable users to complete four tasks:

- to find entities that correspond to the user’s stated search criteria
- to identify an entity
- to select an entity that is appropriate to the user’s needs
- to acquire or obtain access to the entity described

To accomplish these tasks, catalogs should not only state the holdings of the library under various titles, but demonstrate in a formal way how those holdings are related.

**Resource Description and Access**

Since 2004, a committee of experts, known as the Joint Steering Committee for the Development of RDA and drawn from the Anglo-American cataloging community, has been developing a revised Anglo-American cataloging code that is based on FRBR. This code, known as Resource Description and Access, or RDA, has generated considerable controversy, with some bodies calling for a suspension of RDA’s development pending further review. However, the Joint Steering Committee insists that the publication of RDA will be released as planned in 2009, so any libraries that plan to adopt it should be prepared for the changes it will present. RDA is still undergoing revision, so discussion about the current draft is subject to change.

Because it is based on FRBR, catalogs created using RDA will identify in a formal manner the relationships between the items cataloged. In FRBR, every type of data that might be entered in a catalog is considered an entity. Entities include people, corporate bodies, concepts, objects, events, and places. Most important for the cataloging of reproductions, entities include “products of intellectual or artistic endeavor,” which consist of works, expressions, manifestations, and items.

Briefly, in FRBR, the entities are defined as “work (a distinct intellectual or artistic creation) . . . expression (the intellectual or artistic realization of a work) . . . manifestation (the physical embodiment of an expression of a work) and item (a single exemplar of a manifestation).” A classic example is *Hamlet*. The plot and characters that constitute *Hamlet* are the work, while Shakespeare’s play is one expression of that work. The 2006 Penguin edition of Shakespeare’s play is a manifestation of that expression, and one copy of the Penguin edition is an item.

**Reproductions as FRBR Entities in RDA**

Given these considerations, the place of a microform or other reproduction as a FRBR entity is not immediately obvious. Earlier cataloging codes treated reproductions alternately as new editions or simply as additional copies of existing editions. In FRBR terms, the reproduction would be either a separate expression or another manifestation of the existing expression.

The committee in charge of RDA has made some decisions about how to approach reproductions in a FRBR catalog. RDA calls on the cataloger to record relationships between resources in one of three ways:

1. providing a resource identifier for the related resource (a resource identifier is a standard number, such as an ISBN)
2. naming the related resource in the form prescribed as the controlled access point representing the related work, expression, manifestation, or item
3. describing the related resource.

The last two options, naming the related resource and describing the related resource, are verbal in form, such as
added entries or notes. In addition to the requirement of identifying related resources, RDA calls for "relationship designators," that is, terms from the approved list of relationship terms, such as "reproduction of" or "preservation facsimile of."49

In the current draft of RDA, reproductions are identified as "Related Manifestations" of the expression being cataloged. "Related manifestations" can be qualified with relationship designators, such as "Equivalent Manifestation," which is defined as "a manifestation embodying the same expression of a work."50 That is, the particular intellectual content is exactly the same, although the physical form is different. A microform copy of a printed book, then, would be described as a "reprint of" the printed book in an RDA catalog.51 The current draft does not have a separate designation for microform reproductions.52 The relationship designator will be formatted according to the rules for the notes area in ISBD, and RDA also maps the relationship designators to MARC 21 fields.53

Descriptive Cataloging of Microfilms in RDA

Practically speaking, how will this affect the entry and description of microforms and other reproductions? Due to the inclusion of relationship designators, one no longer needs to enter one expression under the headings appropriate to another, as was required in some earlier catalog codes. Thus, under RDA, each reproduction will be entered according to the appropriate access points for title and author.54 The additional information about equivalent manifestations will allow catalog users to identify and select the expression appropriate to their needs.

In addition, because of the use of relationship designators, entering multiple versions of an expression on the same record will no longer be practicable. Each version will need its own record in order to express its relationship to other entries in the catalog.55

The burden on catalogers, then, will be twofold. First, catalogers will need to provide appropriate entries for the item in hand. Second, they will need to provide appropriate entries for equivalent manifestations of the reproductions being cataloged. As a reproduction, the item will necessarily contain the information pertinent to the equivalent manifestation, so little additional research should be required.

In keeping with practical matters, RDA will continue the AACR2 policy of describing the reproduction rather than the original.56 However, RDA will redefine some of the aspects of descriptive cataloging of microforms from the methods prescribed by AACR2. The GMD will not be required per se.57 However, one optional element of description is media type. In the case of reproductions, "microform" is the media type that will apply to "media used to store reduced-size images not readable to the human eye," while "unmediated" is "Media used to store content designed to be perceived directly through one or more of the human senses without the aid of an intermediating device," such as facsimiles or reprints on paper.58

RDA also includes a requirement to describe the carrier type, which "reflects the format of the storage medium and housing of a carrier in combination with the type of intermediation device required to view, play, run, etc., the content of a resource."59 Examples include "microfiche," "microfilm reel," and "volume" of printed material.60 In terms of extent, RDA calls for the description of not only the number of units, but also subunits. For example, if the carrier type is microfiche, the extent will be described as "1 microfiche (120 frames)."61

RDA offers catalogers the option of recording the dimensions of the carrier, whether it is the length and width of a microfiche or the gauge of a microfilm reel.62 Another optional element of the descriptive cataloging is base material ("the underlying physical material on which the content of a resource is stored"), which in the case of microfilm might be acetate, nitrate, or polyester film, along with applied material ("a physical or chemical substance applied to a base material to record the content of a resources"), that is, the emulsion applied to the film, whether diazo, silver halide, or vesicular.63 Other optional elements pertinent to reproductions include the following:

- Generation, which is the "relationship between an original microform carrier and the carrier of a reproduction made from the original," such as "first generation," "printing master," or "service copy."64
- Polarity, which "indicates the relationship of the colours and tones in an image on film to the colours and tones of the object filmed (e.g., positive, negative)."65
- Reduction ratio, which "indicates the size of a microimage in relation to the original from which it was produced."66

If this all seems like a lot more work than cataloging microforms under AACR2, one aspect of RDA is less onerous than AACR2. The requirement to consult the title frame as the chief source of information has been made optional; under RDA, information about microform or computer images may be taken from an eye-readable label attached to the resource.67

One difficulty in cataloging a reproduction using RDA is the dispersal of applicable rules throughout the code. Readers who have followed the references to statements in the preceding section will have noted that a cataloger needs to consult up to six separate chapters and appendixes to be sure of applying the correct rules to a reproduction in hand. There is no rubric, such as that found in each chapter of
AACR2, to guide catalogers through general rules as they apply to particular formats.

Summary

The ill-defined status of reproductions—somewhere between a new edition and an extra copy—has given cataloging codifiers difficulty through the years. RDA proposes to provide definitions and descriptions of the relationships between different forms of a work, and the very useful relationship designator “equivalent manifestation” will serve many of the purposes that the GMD does under AACR2 while allowing for the entry and description of a reproduction as a unique item in the collection.

For the great purposes of a catalog—to assist a reader in finding the works of an author and in choosing an edition from them—RDA will provide a treasure trove of information about each of the items in a library. Whether such copious information is actually helpful to most library patrons is currently unknown. Entries for microform reproductions cataloged using RDA will also contain numerous data, such as the emulsion and dimensions of a microfiche, that will increase the amount of information in a catalog record and are not necessarily productive to achieving any of Cutter’s or Lubetzky’s objects of a catalog.

For catalogers, RDA will be a challenge in the positive sense of requiring intellectual effort and perhaps research to determine the relationships between expressions, and in the negative sense of being unwieldy in its organization. For catalog users, RDA’s effects need to be tested. The inclusion of bibliographic relationships may provide better insight into the library’s collection and therefore more fruitful searching, but many additional entries may provide too many results in a given search and simply frustrate the user in his or her attempt to find information.

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