

ISSUES RELATED TO SERIALITY

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INTRODUCTION

According to the Ken Burns documentary, Thomas Jefferson claimed that the ideas expressed in the Declaration of Independence were not new; it was simply the first time they had been formally set down. In this paper we hope to similarly formalize certain concepts long held to be "self evident" by serialists. These concepts lack the magnitude of those expressed in the Declaration of Independence and we lack Jefferson's eloquence; nevertheless, we believe them to be critical to the success of our cataloging code. And while the ideas we espouse are somewhat revolutionary, we'd rather think of them as evolutionary.

What are these ideas?

First, that publications³ have three dimensions: (1) their intellectual and/or artistic content; (2) their physical carrier(s); and (3) the susceptibility of content to change over time, both extensively, by the supplementing of content through additional carriers, and intensively, through the alteration of content within the existing carrier. We will refer to the third dimension as the *publication status*, which can be *static* (i.e., complete as issued) or *ongoing* (not complete as issued).

Second, that the publication status will have a growing influence on cataloging decisions with the gradual migration of bibliographic resources from the comparatively stable world of print to a more malleable electronic form. More and more, this susceptibility to change over time will be a potential characteristic of all publications, and not simply of the subset that we customarily refer to as serials. Thus, publication status must play an integral role along with content and carrier in determining the application of rules for the description of and access to a publication.

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³ We are using the term "publication" in a broad sense to refer to any catalogable item.

Third, that the cataloging code as it stands is not adequate to deal with these particular aspects of the changing bibliographic universe and that the principles associated with ongoing publications need to be fully integrated into the code.

Serials are truly in a state of flux! Though traditionally issued in a succession of numbered parts, serials are now beginning to appear in new ways that call in to question their continued status as serials. Is seriality becoming a thing of the past? Do we need to redefine our definition of *serial* or do we need new terminology to cover the broad spectrum of today's publishing world?

Our rules and definitions were crafted in a time of bibliographic stability and do not accommodate changing formats and new forms of publications. How can we reshape them to fit the increasingly dynamic world in which we now work?

In this paper we will address these issues as follows:

Part I. will introduce the concepts of *publication status* and *ongoing publications* and examine how these concepts relate to the *Functional Requirements for Bibliographic Records*¹.

Part II. will provide a summary of the current environment in which we are working and the challenges posed by that environment.

Part III. will present a conceptual approach to the categorization of publications through models that represent the gradual redefinition of *serial*.

Part IV will propose broad concepts and principles that can be applied to ongoing publications and discuss how these principles are applied to the cataloging of these publications.

Part V will provide recommendations and problems for discussion and examine the impact of our proposals on existing standards: AACR2, MARC, ISSN, and ISBD.

PART I. INTRODUCING THE THIRD DIMENSION AND THE CONCEPT OF THE ONGOING PUBLICATION

A. Defining Ongoing Publications

The debate over "contents versus carrier" is one of the primary reasons for this conference. AACR2 favors carrier as the starting point for the description (rule 0.24); others feel that the content should play a more important role, particularly in the cataloging of reproductions and digitized publications. We contend that there is a third dimension: the *publication status*, which relates to completeness and the degree to which content will be added or changed over time. A publication which is complete as issued is considered to be *static* in this paper; a publication which is intended to be continued in any form is considered to be *ongoing*.

Ongoing publications may be *determinate* (i.e., intended to be completed) or *indeterminate* (i.e., intended to be continued indefinitely). The degree to which a publication is ongoing may require special considerations in the form of special rules or in the ways in which rules are applied. For instance, the ongoing nature is currently manifested in AACR2 in the rules for title changes found under rule 21.2. But it is also manifested in ways not always covered by the rules. For instance, when selecting the title proper, a cataloger who considers a publication to be ongoing evaluates the stability of data to be presented and may select different words as the title from a cataloger who approaches the same publication thinking it to be a static item.

Ongoing publications, as defined in the broadest sense, include (but are not limited to):

- * Multi-volume monographs, for which all volumes have yet to be issued
- * Monographs accompanied by regularly or irregularly-issued supplements
- * Loose-leaf publications
- * Serial-like publications that are issued in conjunction with a limited-time event (e.g., a newsletter associated with the 24th Olympic Games)
- * Databases⁴, web sites⁵, online services, and discussion lists
- * Numbered serials, including monographic series
- * Unnumbered monographic series

⁴ A collection of logically interrelated data stored together in one or more computerized field, usually created and managed by a database management system. A database usually has a single chief source with updated contents searchable by author, title, and subject.

⁵ We are using this to refer to the online phenomenon of a collecting device for publications, information, multi-media, and links to other sites. An example would be the Library of Congress web site.

B. Attributes of the Three Dimensions of Content, Carrier, and Publication Status.

In this paper we will use terms for attributes of each dimension as described below.

CONTENT

Scope of content: whether the subject matter is broad or limited in nature, and thus, indicating whether the publication is likely to be determinate or indeterminate.

Mode of expression: whether the contents consist primarily of text, music, cartographic data, graphic material, etc.

Dynamic nature of contents: whether the contents are characterized as additive (i.e., new information with each issuance); updating (i.e., part of the contents is added, changed or deleted by way of updates); or replacement (each issuance completely replaces all others). Note: updating and replacement publications have no distinction in the online environment and are collectively referred to in this paper as "updating publications."

Genre or type of publication: whether a publication is a periodical, a newsletter, an online service, a Web site, an atlas, a newspaper or news service, etc.

Equivalency: whether what is contained in one publication is the same or differs significantly from what is contained in a related publication.

CARRIER

Type of physical carrier: whether a publication is issued as paper, microform, electronic, sound recording, film, etc.

Form of issuance: whether an ongoing item is issued in successive parts (i.e., each with its own chief source) or in one constantly updated part (i.e., with a single chief source).

Tangible vs. intangible nature of the carrier: whether a publication is issued tangibly (e.g., print, sound recording, CD-ROM), or intangibly (e.g., via the Internet). Note that publications issued on tangible CDs, once loaded on a computer, appear intangible to those who use them.

PUBLICATION STATUS

Static publications: those that are complete as issued.

Ongoing publications: those that are not complete as first issued. Ongoing publications may be *determinate* or *indeterminate*.

Determinate publications: ongoing publications that are intended to be complete in a finite number of parts or over a finite period of time.

Indeterminate publications: ongoing publications that are intended to continue indefinitely.

All three dimensions of a publication are important and need to be accommodated in our rules. Furthermore, as the bibliographic universe becomes increasingly digital, each dimension can have a profound impact on the other. None can be completely separated or omitted from our consideration. As an example, Delsey notes that “the effort to extend the MARC formats to accommodate serials in nonprint form and multimedia items have stumbled against the inconsistent grouping of attributes related variously to intellectual form, physical medium, and publication type.”² What we need is a three-dimensional approach to cataloging that encompasses all dimensions in the most appropriate ways.

The challenge for catalogers is to be able to meaningfully express in catalog records the similarities and disparities between publications that look different but whose content is essentially the same, and between publications that look very similar but whose content is quite different. We can only accomplish this by giving careful attention to each dimension of the publication and its attributes.

C. Benefits of Defining the Concepts of Publication Status and Ongoing Publications

By introducing the broad concept of "ongoing publications" we hope to:

1. Raise the consciousness of all catalogers to applying the appropriate levels of specificity to ongoing publications.

This paper does not presume to say WHO should be cataloging certain types of publications, only HOW they should be cataloged. Nevertheless, we are aware that those who have never cataloged serials tend to approach such publications very differently from those who have. In the digital world, many more publications will be ongoing and will require the application of principles long associated with traditional serials. By grouping such publications under a common category, we can facilitate the education and training of all catalogers.

2. Assure that the attributes of such publications are adequately addressed in the rules.

Cataloging decisions that must be made for ongoing publications should be fully integrated into the rules. Furthermore, by looking at such rules collectively, we can take a more principled approach to their formation that will provide more consistency and assure that new forms yet unknown can be accommodated.

3. Ensure that all types of publications are covered by the rules.

The rules should be inclusive, covering ongoing non-print materials, loose-leafs, and other categories currently omitted.

4. Assure that ongoing publications are cataloged in a way that will accommodate their special needs for control.

In today's automated library systems, accurate bibliographic records are essential to the overall control of the publications. Serials and most ongoing publications require special types of control, such as subscriptions and standing orders, licensing, claiming, and check-in. Being able to accurately define the nature of the publication is crucial.

5. Create rules for description that are compatible with form of issuance.

This is a basic premise of this paper. One form should not be shoe-horned into the rules for another. We do not want to create a situation in which new forms of publication are forced into the rules for old forms. Nor should we throw out rules that are working perfectly well in order to accommodate new types of publications. In this paper we will suggest that what we call a publication will not necessarily limit it to a single set of rules.

D. The FRBR Model and its Relation to Ongoing Publications

The model proposed by the IFLA Study Group on the Functional Requirements for Bibliographic Records (called hereafter the "FRBR model") presents four levels of a publication: the *work* as an abstract idea, its *expression* in various forms, its physical *manifestations*, and the actual *item* held within a library.

The FRBR model is most useful in determining the levels in which a publication exists and the attributes that exist at each level. It also helps in our understanding of the problems related to seriality, as currently defined.

Whether a publication is determinate or indeterminate occurs at the level of the *work*. To be sure, a publisher may issue a one-time publication, find that it is quite popular, and decide to continue his publication each year with a new annual volume. More often, however, the nature of the

content of the work determines whether it is determinate or indeterminate and this is one of the first decisions made at the publication's inception.

The *expression* level involves differences in content. A possible example of a serial expression might be simultaneously-issued geographic editions which contain a certain amount of common text but differ as to their geographical coverage. The model leaves questions, however, such as: to what degree do differences in the content constitute new expressions, and, at what point is the content so different that one has a new work? Perhaps a more difficult question is, in the fluid world of the Internet, how exact can we be in defining differences in content, and how much do these differences matter if the patron can directly access the publication through a hypertext link in the catalog record?

Seriality, as currently defined, occurs at the *manifestation* level because both the aspects of successive issuance and numbering may be dependent on the physical manifestation of the work or work/expression. Having a clear concept of manifestation will be useful to standardize the cataloging of reproductions and simultaneously-issued physical versions (now sometimes treated differently), assure that physical versions are kept together in the catalog, and separate the problems of describing the physical publication from the more conceptual aspects of defining the work and its content.

The *item* level is critical to serials because of the importance of holdings. For serials, the item level includes the extent of the run of each copy of the serial that is held by a library.

Thus, while clarification is still needed, the FRBR model provides a useful framework in which to understand the problems of seriality, multiple versions, and the concept of a work.

PART II. THE CURRENT ENVIRONMENT AND ITS CHALLENGES

A. Problems with AACR2

For serials and ongoing publications in general, AACR2 presents problems with definitions and with the overall structure of the code. While some of these problems have always existed, the emergence of the Internet has highlighted the code's weaknesses to a point where they can no longer be ignored.

1. Definitions

AACR2 offers very little to aid the cataloger who is trying to determine the ongoing nature of a publication and how that publication should be treated according to the code. There is no descriptive text such as that found at the beginning of the serial chapters in the earlier AACR1 and ALA codes. AACR2 offers two definitions: that of a serial and that of a monograph, and it has become increasingly clear that these definitions are no longer adequate.

a. The serial as defined by AACR2

AACR2 defines a serial as "a publication in any medium issued in successive parts bearing numeric or chronological designations and intended to be continued indefinitely." While the majority of serials are primarily textual and issued in print, microform, and electronic formats, there are serial sound recordings, video recordings, maps, posters, and slides.⁶

Publications that have traditionally been treated as serials fall into two categories. The first category includes primarily *additive* publications, i.e., those which present new information with each issuance. These include periodicals (publications that contain articles, whether scholarly or popular) regularly issued reports (such as annual reports), newsletters, newspapers, reports of societies, numbered monographic series, and some conference publications. There are also publications such as abstracting and indexing services and book catalogs, such as *New Serial Titles*, the contents of which is additive but which cumulate annually, quinquennially, etc. The primary characteristic of additive publications is that the scope of their content is broad enough to support additional new material for an indeterminate period of time.

The second group of publications are those for which the content requires *updating* to some degree. Updates may be issued in the form of replacement volumes, sometimes called "editions," which is the case for many directories, travel guides, and other reference publications. When the updates are frequent and regular, the publications are cataloged as serials. Many of these publications have been treated as serials for matters of convenience, since they require the same type of control needed for additive publications, and they meet the criteria for a serial. Updates may also be issued as separate parts in themselves, as is the case with loose-leaf publications, which we will discuss below. The primary characteristic of the content of updating publications is the need to be current.

A library may choose to discard the old versions of updating reference publications, give them to other institutions, retain them for historical purposes, or, in the case of CD-ROMs, may be required to return them to the publisher. Whatever their disposition, they are issued in a succession of parts and are therefore currently cataloged as serials.

b. The monograph as defined by AACR2

A monograph is defined as "a nonserial item (i.e., an item either complete in one part or complete, or intended to be completed, in a finite number of separate parts)." Thus, the primary distinguishing difference between a serial and a monograph is whether or not the publication is intended to be continued indefinitely. Monographs range from publications that are complete in one part, such as *A Year in Provence*, to multi-volume publications that are issued over a long span of time, such as Mansell's *National Union Catalog, Pre-1956 Imprints*, published 1968-1981.

⁶ Some of these are numbered monographic series.

We should note here that to some extent, treatment as a serial or as a monograph can be determined by an individual institution, based on the desire for economic processing or maximal access to specific data. This is particularly true for analyzable publications, such as conference publications and monographic series.

c. Loose-leafs and other misfits

A category of publication that has never fit into the monograph/serial dichotomy presented in AACR2 is the loose-leaf. In her *Cataloging Rules for Bibliographic Description of Looseleaf Publications*, Adele Hallam notes that "the Library of Congress concluded that by the strict definitions of a monograph and a serial, loose-leaf publications constitute neither; instead their unique characteristics need to be considered outside established cataloging formulae."³ For years, catalogers have relied on Hallam's separate set of cataloging rules in order to catalog these publications. (Note: the only mention of "loose-leaf" in AACR2 is in rule 2.5B9, which allows for the addition of the parenthetical "(loose-leaf)" following the number of volumes (i.e., 1 v. (loose-leaf)).

The current treatment of loose-leafs depends on the regular or irregular issuance of the base volume or binder. If a new binder is regularly issued, the publication is treated as a serial. If a new binder is not issued on a regular basis, as is more often the case, the publication is cataloged as a monograph. The decision to treat such loose-leafs as monographs was somewhat arbitrary, since they are not covered by the definition of monograph. This decision has been somewhat problematic because serial records may be required by serials control systems for the check-in of the updates.

Unnumbered series, though ongoing and issued in successive parts, lack designations and thus, do not meet the definition of serial. But neither are they monographs! Another problematic category are publications that look and act like serials but are limited to a particular duration of time. This category includes the regularly-issued newsletters and journals associated with limited term events and quarterly progress reports of a limited term project.

The biggest omission from our current definitions are the new formats and types of publications that have emerged with online publishing. We will address those below.

2. Structure of the code

a. Descriptive portion

AACR2 is structured so that the cataloger uses the general chapter 1 and one or more specific chapters when creating cataloging records. For printed serials chapters 1 and 12 are used; for non-print serials, the appropriate non-print chapter is also consulted. Thus, for computer files, rules in chapters 1, 12, and 9 are used. While the idea of universally applicable rules is a noble

one, the current code does not achieve its full potential. This is because chapter 1 is too specifically based on books, chapter 12 is too specifically written for printed serials.

And although the definition acknowledges that a serial can be published in any medium, this principle is not carried through in the rules for non-print media. For example, notes are highly specific in the special chapters, such as rule 9.7B1, the system requirements note. The rule instructs the cataloger to record the exact make, model, and version of computer hard and software that is required to access the publication. When serials catalogers began cataloging computer file serials they tried to follow this rule as written but soon realized the folly of including such highly volatile information in serial records. Yet there are no instructions on how such a note might be made less specific and suitable to a serial record.

Furthermore, chapter 12 doesn't go far enough in addressing the needs of traditional printed serials. The rules almost always presuppose that one has the first issue and there is little guidance on how to handle changes that appear on later issues. For example, there is no mention in rule 12.7B6 (notes relating to statement of responsibility) of when and how to record changes in the issuing body. Nor is there clear instruction on what to do about the publication date when the first issue is not in hand.

b. Access portion

In the rules for title changes there are no rules that govern a change in title for a continuously-updated single-part publication such as the loose-leaf. Only in Hallam's work does one find rule 1B10, which says to use the latest title proper and note the earlier titles. There are also no rules for constructing the entry for an unnumbered series; these are only covered in LC rule interpretations.

B. The Impact of the Internet and Online Publishing

In the past several years we have witnessed the rapid evolution of the online serial and we know that it will continue to evolve. What began as rather ephemeral publications, published in an experimental environment in plain ASCII text and available via gophers or email, has blossomed into sophisticated, multi-media publications available on the World Wide Web, such as *Postmodern Culture*. A rapidly growing trend is for publishers of scholarly journals to make available "online versions" such as those published in Johns Hopkins Press' Project Muse (<http://www.muse.jhu.org>) and Academic Press' IDEAL (<http://192.215.52.3/www/ap/aboutid.htm>). Digital reproductions of journals have been the focus of projects such as JSTOR--the Journal Storage Project (<http://www.jstor.org>). Many other publishers have created sites that include only the tables of contents and abstracts (e.g., *Cataloging and Classification Quarterly* (<http://ccq.libraries.psu.edu/index.html>)), or late-breaking news (e.g., *LJ Digital* (<http://www.ljdigital.com/>)). It is not hard to imagine the day when virtually every serial published in technologically-advanced countries will have some form of online site and we envision the eventual demise of the paper copy for at least some of these titles.

Not only are the numbers increasing but in some cases the formatting of the online versions is changing as publishers realize the possibilities inherent in the Internet and World Wide Web. Just as our early online catalogs mirrored the card catalog, so the "early" online journals (i.e., those issued in 1993 as opposed to 1996!) mirrored their printed counterparts, appearing in volumes and issues that paralleled the print publication. Others, however, are taking on new formats that are more indicative of the realm in which they reside. The *Journal of Electronic Publishing* (<http://www.press.umich.edu/jep>) is an example of a journal whose articles are contained in a database which the user accesses through author, title, and subject searches. Others have developed a format that includes the most recent issue for browsing and a database of searchable articles from previous issues.⁷ An example of a popular journal, is *Slate* (<http://www.slate.com>), Michael Kinsley's experiment with a general interest online journal. The current issue looks like a print journal, having a magazine-style layout and even including page numbers, but the older articles are "composted" in a database. These publications still contain articles but lack issues. We continue to think of them as periodicals, but are they still serials?

Perhaps most affected are updating publications for which the format is ideal. What was once issued in a succession of printed editions, in a loose-leaf format, or in monthly cumulative issues, can now all be issued in a single updating database. There is no longer a succession of parts and the only designation is the date of last updating.

In addition to the changes to traditional publications, there are new forms of publications and electronic resources that never existed before that are currently treated as monographs because they lack successive parts, but which are truly ongoing publications. Web sites, electronic forums, and online services are among the new types of resources that are stretching our old conceptions of what constitutes a serial and, indeed, a "publication." To be sure, these new forms are serving very different functions than traditional publications and we can hope that embedded metadata will eventually provide a certain level of access, but we may still want to include the more important ones in our catalogs.

What does the future hold in store? Ann Okerson observes two trends: "1) blurring boundaries between the different types of electronic serial, so that it is difficult to categorize them by the same taxonomies as those used for paper serials; and 2) blurring boundaries between formats. That is, some electronic serials are electronic only, but various of them either index or review paper publications, and others move between electronic and more traditional formats..."⁴

The only thing that we can be certain of is that we will continue to witness many variations of the traditional serial as publishers test the waters to determine how they can best attract and meet the needs of their readers. To quote Eric Jul, "The electronic journal seems poised to rewrite our sense of periodicity, ... if technology will allow it, serials will do it."⁵

⁷ A recent development is that, rather than submitting individual issues for copyright, publishers such as MIT Press are submitting articles.

C. The Shared Cataloging Environment

One of the difficulties of using *AACR2* is that it assumes that each cataloger is always doing original cataloging. There is no acknowledgment that most catalogers now work in a shared cataloging environment and use existing records whenever possible. Two factors come into play. The first is the factor of what actually exists. The second is the factor of what an individual library owns. For ongoing publications, what exists and what a library owns will be dependent on the point in time that the publication is given initial cataloging and the library's holdings at that time.

For publications that are complete in a single part, working in a shared environment is relatively easy, since all catalogers have the same data before them. For multi-part ongoing publications, however, working in a shared environment is more complicated because different catalogers can have different parts of the publication from which they are basing the cataloging. Ideally, our rules would fully accommodate the level of knowledge brought to the cataloging process; however, in a shared environment, this accommodation is difficult to accomplish. For in order to create and use records cooperatively all catalogers must follow the same conventions.

Some accommodation may be possible, however. As an example, a recent addition to LCRI 12.0B1 allows catalogers to choose a chief source other than the title page, when cataloging retrospectively and when doing so would eliminate records for needless title changes. Another accommodation for retrospective work might be to reinstate the concept of the "title of short duration" which was dropped from *AACR2*.

To do this in a cooperative environment, catalogers need to be able to communicate with one another. The CONSER Program has found it useful to use the local 936 field to indicate the latest issue consulted (LIC). Perhaps rule 12.7B23 might be changed to include such information in the "description based on note" and deleted once the final issue is recorded in area 3 (e.g., Description based on: Vol. 2, no. 3; latest issue consulted: v. 5, no. 1).

Online publications are further complicating the ability to share cataloging. Many of these publications have a single source for the title and other bibliographic details, such as publisher. The title can be changed on this source, leaving no trace of the earlier title and making it difficult to determine whether a record already exists when only the current title is known.

D. The Online Cataloging Environment

1. Discarding the remnants of the card catalog

Our rules are still based on an environment that is fast disappearing--that of the 3X5 catalog card and the printed card catalog. With the online catalog we have new opportunities never dreamed of by the creators of our earlier codes, upon which so many of *AACR2*'s concepts are still based. The most obvious change is that we are no longer limited to the space on a 3X5 card! Nor do we

have to display data in the traditional format. The labelled displays popular in online public catalogs offer a meta-data style listing that is considered by many to be more legible and understandable than the compact paragraph with its ISBD punctuation. The terms used to label the data could be improved, however. We should continue to explore new ways of presenting cataloging data that will be both efficient and understandable to our users.

As an example of how outdated AACR2 has become, consider the linking entry fields. For over twenty years serial catalogers have been using linking entry fields to link the records for bibliographically-related serial publications. With format integration, linking fields may now be used in any format. AACR2 still refers to these as notes (12.7B7) and provides no guidance for the construction of the entry in these "notes." The only guidance has been in the form of an LCRI and more completely defined in the *CONSER Editing Guide*. In a Web-based catalog the concept of the linking entry field could be enhanced with a direct hypertext link to the related record.

We also have the ability to combine description and access, as is currently done in the USMARC fields 245 and 246, and more of this would be welcome. Gregory Wool notes that we might "abandon transcription from the item in most cases, in favor of a well-labeled list of searchable terms either chosen from, or created for, an authority file." He also points out, however, that such an approach might "make catalog records less useful for identifying specific bibliographic items."⁶

Since not all libraries have the same level of technical sophistication, Tillett suggests customized cataloging manuals that would incorporate subsets of rules "augmented by guidelines for record creation appropriate to the technology available to the library."⁷

2. Multiple versions⁸

While the dream of a multiple versions "solution" seems to be elusive in the world of communicated records, we should never give up. The more sophisticated integrated systems of today are better equipped to handle complex bibliographic relationships than their predecessors and the FRBR model is an important step in developing the conceptual model.

Multiple versions, the FRBR model, and the definition of serial are all closely connected. Applying the FRBR model to multiple versions, we see that at the level of the *work* all that is required of a serial is that a publication be intended to continue indefinitely. If all of the physical manifestations are to be tied in some way to the work, they must be recognized as being intrinsically the same thing.

3. Alternatives to cataloging

When discussing electronic publications, we cannot ignore those who ask "why catalog them at all?" or "aren't there alternatives?" There are, and a number of varying practices, depending on the types of e-serials. Some libraries are citing e-serial versions and reproductions on the record

for the original according to interim guidelines issued by the CONSER Program (<http://lcweb.loc.gov/acq/conser/>). Many libraries are including lists of e-serials on their institutional Web pages, but these will soon become unwieldy. LC is experimenting with "pointers," brief records that contain elements of identification and location, for publications such as Web sites. And eventually, metadata within the publication itself may offer some form of basic access. While this paper addresses AACR2 and traditional cataloging, it is important to keep alternatives in mind when we look at the ramifications of our proposals.

E. The Importance of the Concept of "Serial"

1. The Need for Control: the Serials Infrastructure

Because serials have always been issued as multi-part publications, they have required certain types of control that have not needed, at least not to the same degree, by monographs. Serials management and control is important within libraries and is a critical aspect of any automated library system. Serials control can include subscriptions and standing orders; the recording of holdings data, as well as claiming and binding; cataloging to various degrees of completeness; circulation and interlibrary loan policies; and often special shelving for unbound and bound volumes.

It should be noted that libraries use their serials control mechanism for many ongoing publications that are not officially defined as "serials," such as loose-leaf services and multi-volume sets that are issued over a period of time.

In addition, the hierarchical nature of serials, particularly periodicals, requires multiple levels of access. Because patrons most often are seeking information on a topic, they will approach periodicals through indexing and abstracting services that give citations to specific articles. Some libraries have instituted a method known as "hooks to holdings" which employs the ISSN to tie the citation in the online A&I service to the library's bibliographic and holdings records. Thus, upon finding the citation to an article, the patron can learn whether the library subscribes to that journal and whether the specific issue is available, its location, call number, etc.

In addition to libraries, there are subscription agents, abstracting and indexing services and the ISSN community who are all dealing with various aspects of serials control. Publications such as *The Serials Directory*, published by EBSCO, or the R.R. Bowker publication *Ulrich's International Periodicals Directory*, both of which are available in print and as databases, provide information relating to subscriptions, frequency, available formats, abstracting and indexing services, and document delivery. Both have sections that list serials that are available online that include many directories and databases, that may or may not also be available in print. The point is that these are all referred to as "serials" because they are performing the same function as their print counterparts. The actual form of issuance is of minor importance in this context.

While online publications may not require the same degree of control, they can still be listed, subscribed to, and indexed in the same way as their print counterparts. Thus, we feel that publications that serve the function of serials should be considered to be serials, in some sense, regardless of their form of issuance.

2. The Need to Inform Users: User Perceptions and the Function of Serials

Do our carefully crafted distinctions between monographs and serials make sense or even matter to those outside of the cataloging community? While catalogers think of serials in terms of publication pattern and descriptive cataloging rules, the user is more likely to think in terms of the various genres of serials, such as journals, newsletters, newspapers, and monographic series, each of which has a specific function. For example, users recognize journals because of their intrinsic characteristics, i.e., an assemblage of articles on various topics, usually with some unifying purpose, subject, slant, or field of enquiry. On the other hand, users are more apt to think of reference publications, such as directories or guidebooks as books, since they are generally only interested in the latest volume.

Journals serve a certain societal function, particularly in the area of scholarly communications. The association of an article with a specific journal is a measure of its credibility, quality, perspective, and target audience. An article about "Life on Mars" appearing in the *National Enquirer* does not carry the same weight as a peer-reviewed article on the same topic in *Science*. The scholarly journal serves a gatekeeping function, selecting the best and most appropriate articles for publication. Editorial quality and copyright protection are assured by a reputable journal.⁹

Likewise, newsletters, newspapers, annual reports, directories--all have a certain function within the bibliographic universe. This fundamental function, though potentially enhanced, will not change in the electronic environment. Whether one refers to the latest volume of the *Ulrich's* directory from the shelf, or logs in to the CD-ROM database, one is seeking and will retrieve the same type of information. Using the FRBR terminology, these are both essentially the same work, just different manifestations, or perhaps expressions, but certainly the same work.

Ed Jones reminds us that "publishers do not consciously set out to create serials as defined by AACR2."¹⁰ Users will care little about whether a journal is issued in successive parts or in a searchable database; their main concern is to find the article they are looking for.

Publishers also have a hard time with our distinctions. Regina Reynolds, head of the US ISSN Center at the Library of Congress, reports that she frequently receives requests from publishers for ISSN numbers for publications that under the AACR2 definition cannot be considered a serial. In one telephone conversation the astonished publisher said "but surely it's not a book!"

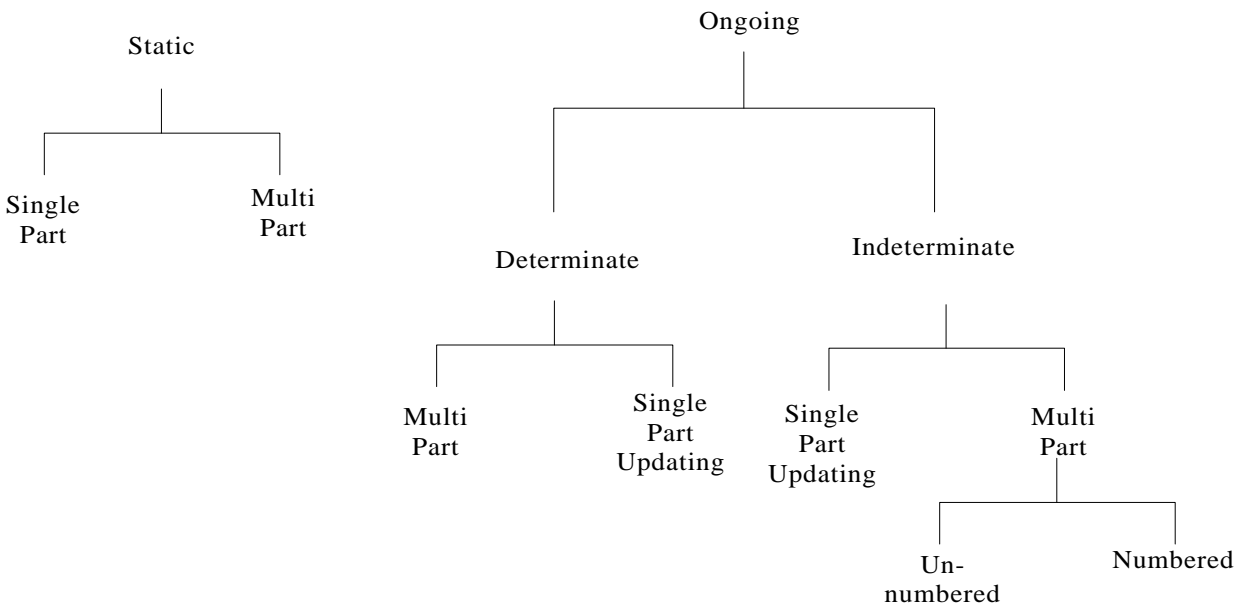
3. The Need to Group and Distinguish Records in Online Catalogs

For users, the primary concern is access. In online catalogs, searches can be limited to serials and thus, treating some versions of a publication as a serial and others as monographs may cause problems for retrieval. Serials may reside in a discrete database, such as CONSER, or appear on periodical union lists and local finding aids. For instance, in the Library of Congress, patrons go to the Serial and Government Publications Division to access a wide variety of printed, microform, and electronic publications. Many of the journals, newspapers, and indexing services are now available electronically and lists of such titles are maintained in house. To suggest that some of these aren't really serials because they no longer consist of successive issues would be counterproductive to the overall identification of and access to these publications.

PART III. THE MODEL FOR ONGOING PUBLICATIONS AND THE REDEFINITION OF SERIAL

While we currently separate the bibliographic universe into monographs and serials⁸, in reality there is a continuum from publications that are very static to those that are very ongoing. Where we draw the line between monograph and serial within this continuum has changed little over time. In the following discussion, we will present a model that divides the bibliographic universe between publications that are static and those that are ongoing. We will first discuss what each category includes, then look at the current practice. Then we will proceed to examine what would happen if we removed various elements of the definition of serial, thus incrementally moving the line to the left, and incorporating a larger category of materials under the category of "serial."

A. The Model for Ongoing Publications



1. Static publications.

Static publications are those that are complete as issued. They may be single-part, such as a book, sound recording, video, or map. Or they may be multi-part, such as a multi-volume monograph, a set of musical CDs, an interactive multi-media publication that consists of multiple components, and so forth. The primary characteristic is that the publication is complete and there is no chance for change.

⁸ A third category is that of the collection which doesn't directly relate to the discussion and therefore has been omitted.

2. Ongoing publications.

Ongoing publications include those that are *determinate* and those that are *indeterminate*. Both are divided into single-part updating publications, and multi-part successively-issued publications. The primary difference between single and multi-part is the fact that one has a single chief source that can be revised, while the other has a succession of chief sources, each of which remains stable, but on which information can change from one to another.

a. Determinate publications

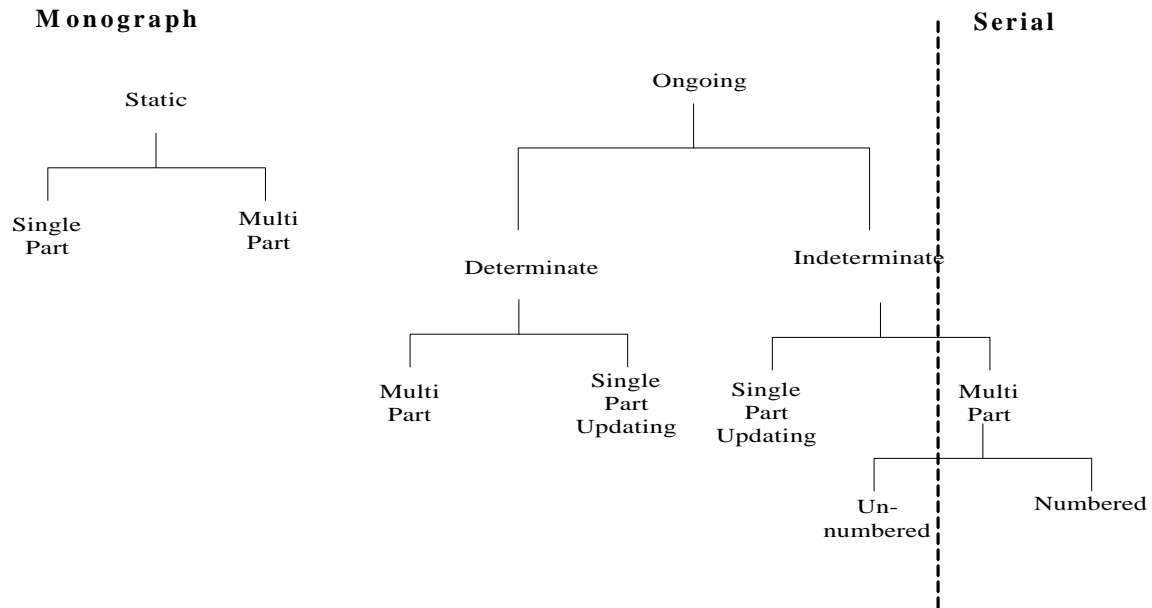
An ongoing multi-part determinate publication is a multi-volume set that is incomplete as first issued and is intended to be completed over a period of time. The expected number of parts and the length of time in which they will be issued will determine how the parts are noted on the catalog record and controlled internally. However, all are finite in nature.

b. Indeterminate publications.

Single-part indeterminate publications include serials that have migrated to an online format and are now issued as databases, plus any loose-leaf or updating publication that is not intended to be completed, such as the *CONSER Cataloging Manual*.

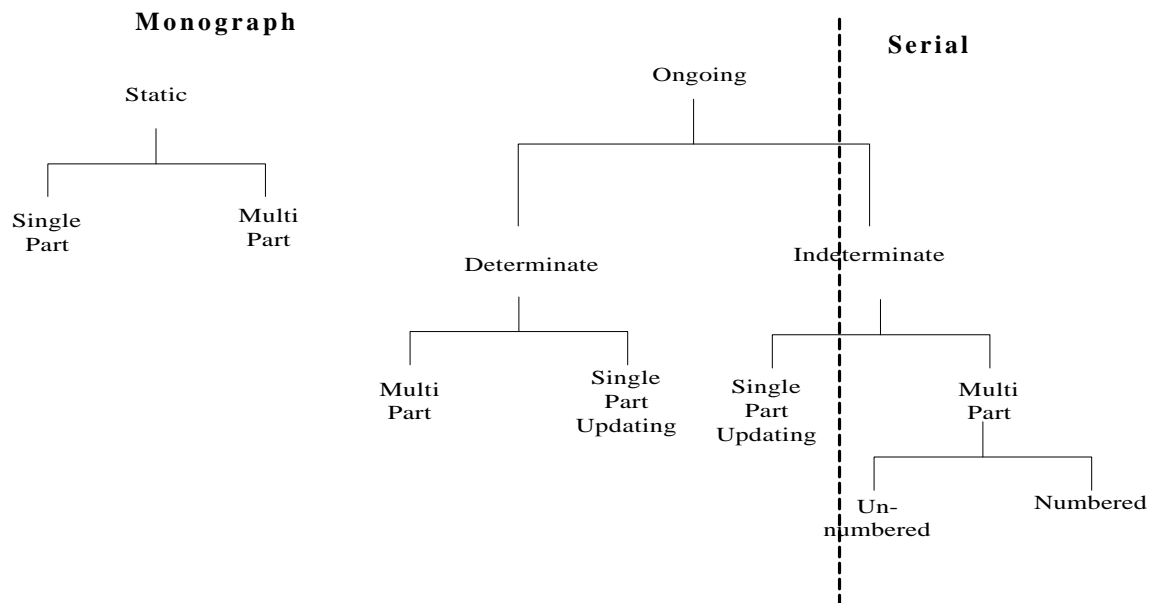
Multi-part indeterminate publications include journals, newspapers, and all other categories of traditional serials and monographic series, including those that are unnumbered.

B. The Current Practice.



Looking at the model above, we see how restricted the current definition of serial is in relation to the spectrum of ongoing publications. We have already discussed the problems with our current definitions and the fact that some of the categories aren't included in the rules at all, so we will move on to Model A.

C. Model A.



1. Explanation of Model A

Model A would retain the AACR2 definition of serial with the exception that numbering would not be required, thus including unnumbered series.

Because serials would only include successively-issued publications, updating publications would be excluded from the category. They would either have to be done as monographs (as is the current practice) or form a new category of their own.

In this model, a serial would be defined as:

A publication in any medium that is intended to continue indefinitely and is issued in successive parts.

2. The significance of removing the requirement for numbering

Requiring a designation makes the job of the serials librarian much easier since designations are important for the check-in and retrieval of the individual parts of a successively-issued publication. For updating and replacement publications, when the updates or replacements are

issued in a tangible form, such as a printed loose-leaf or CD-ROM discs, a designation is needed to identify the individual update or replacement.

The primary category of unnumbered indefinitely-issued publications is the unnumbered series. While not covered by AACR2, unnumbered series are considered to be serials for purposes of ISSN since a designation is not required in this system. The lack of a designation is handled in ISSN records created according to AACR2 by supplying the catalog entry for the issue described in the "description based on" note. Because unnumbered series do not fit the AACR2 definitions of serial or monograph, the series itself is not given AACR2 cataloging but is represented by authority records and cited on the records for the individual titles within the series.

Catalogers need to know how to formulate the heading and uniform title qualifier for unnumbered series, instructions now given only in an LCRI, and how to relate the series headings when the title changes. Because there is no designation, it is difficult to determine chronological relationships for differing titles. Instead of the preceding/succeeding links given for serials, a non-specific relationship link is given in the authority record.

We do not need to change the way in which we are handling unnumbered series. But we need to acknowledge the existence and special needs of such bibliographic entities within AACR2.

An additional benefit of loosening the requirement for a designation would be to acknowledge that publications that are clearly intended to be issued on an ongoing basis are serials, even though the publisher has supplied nothing more than a copyright date on the first issue. (An example is the *Annual Bed and Breakfast Directory* which was first published with no designation.) In such cases, the publisher will normally add a date on subsequent issues.

Other unnumbered publications that are not obviously intended to continue indefinitely and are unlikely to carry a designation would continue to be treated as monographs.

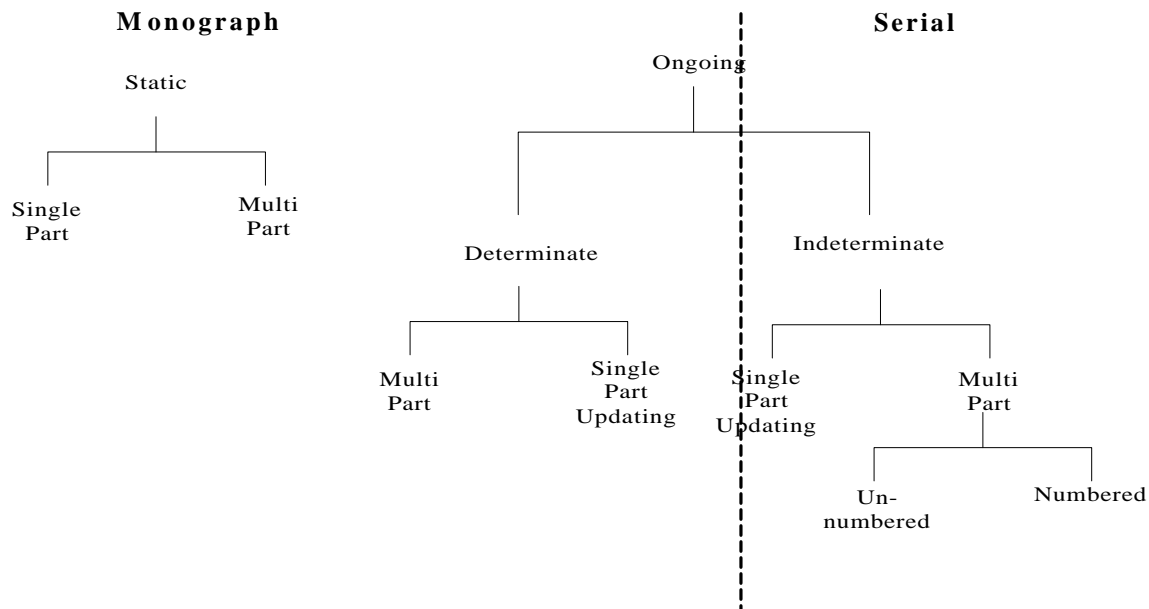
c. Advantages and disadvantages of Model A

The advantage of Model A is that unnumbered series would be brought under the serial fold. In all other respects it would maintain the status quo. One advantage of that is that there would be no need to distinguish determinately-updating publications from indeterminately-updating publications since they would all be cataloged as monographs.

A further advantage is that one set of rules would suffice, with additional provisions for unnumbered serials.

The primary disadvantage of Model A is that it is not in keeping with the FRBR model and separates publications that are issued successively in one format from those issued as updating publications in another format.

D. Model B



1. Explanation of Model B.

With Model B we remove the requirement for successive issuance and move the line further to the left in order to include indeterminately-issued updating publications, such as continuing loose-leafs and databases. In this model, "serial" is defined as:

A publication that is intended to continue indefinitely.

Model B divides the bibliographic universe between publications that are determinate and those that are indeterminate. It recognizes that this intention is determined at the level of the work and in addition to the content itself, may be the unifying feature for all expressions and manifestations of the work.

2. The significance of removing the requirement for successive issuance

Successive issuance is perhaps the most important characteristic of serials because it has the greatest impact on the cataloging rules. It is also a basic premise for ISSN assignment. However, successive issuance has been a matter of practicality in a world of tangible printed serials. By removing this requirement we are acknowledging that an electronic journal or a database with a single chief source and additive or updated contents is also a serial. The basic function is the same, as is the degree to which it is ongoing; the major difference is the form in which it is issued.

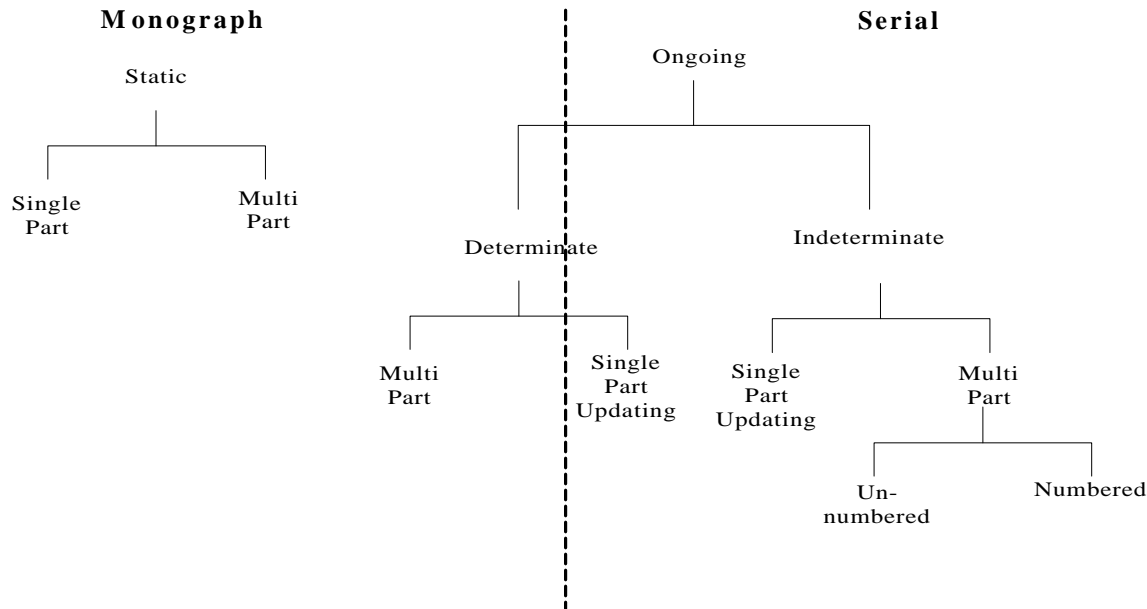
Perhaps the largest ramification of removing the criteria for successive issues is that we would no longer be able to describe all serials according to the same set of rules. This will be addressed in Part IV.

3. Advantages and disadvantages of Model B

Model B has the advantage of being more in keeping with the FRBR model in that it brings together the various physical versions of the same publication under the same category. This would be advantageous for identifying the work, linking records, and multiple versions.

However, a disadvantage is that it imposes a distinction between updating publications that are intended to continue indefinitely and those that are finite in nature. Loose-leaves and databases intended to continue indefinitely would be categorized differently from those with a foreseeable end. This distinction is one that is not generally made now and may not be a very useful one. Many loose-leaf publications, which have been arbitrarily called monographs, would now be called serials. For online resources, such as Web sites, calling them serials would be less of a recataloging problem because so few have been cataloged.

E. Model C



1. Explanation of Model C

Model C represents a departure from hard and fast definitions. It provides a more flexible and pragmatic approach to categorizing publications. In this model, "serial" would be defined as:

"A publication that is intended to continue indefinitely or is primarily ongoing in nature."

In Model C we have moved the line further to the left to incorporate all updating publications. But in order to do this, we have to disregard the requirement that a publication be indeterminate, at least for certain categories of publications.

Incomplete multi-part publications, though cataloged as monographs, are still recognized as ongoing. Thus, principles for ongoing publications can be applied to them, as well as certain aspects of serial control, as is now often the case.

2. The significance of removing the requirement that a publication be intended to continue indefinitely

As noted above, this requirement to be intended to continue indefinitely is the primary distinction between the monograph and serial, as currently defined. As we've also acknowledged, making

this distinction may be difficult and irrelevant for many online publications. However, the fact that a publication is continuing--that it will need certain aspects of library control, that it has the potential for change, that its coverage is broad and ongoing--is an essential aspect of identifying the work. The fact that the distinction between determinate and indeterminate may not always be clear requires a flexible approach but does not negate the basic purpose of providing this information to our users and organizing our catalogs according to such distinctions.

3. Advantages and disadvantages of Model C

By adopting Model C, we would be grouping together a broad category of publications that are ongoing. Various manifestations of serials and updating publications would be kept together and distinctions that are not helpful would not have to be made.

The primary potential disadvantage is the lack of distinction of the traditional serial. By broadening the definition to this extent, will we lose our ability to define and control the successively-issued numbered publications that fit our current definition? A further disadvantage could be the need to recode loose-leaf publications, which is addressed in Part V below.

Recommendation 1: Adopt the broad-based approach presented in Model C.

Recommendation 2: Use the term *ongoing publication* to refer to types of publications that are not complete. Redefine *serial* to include all publications that are updating in nature or intended to continue indefinitely. Continue to define *monograph* as a publication which is complete or intended to be complete in a finite number of volumes.

PART IV. CATALOGING SERIALS AND ONGOING PUBLICATIONS

Having redefined the serial, how do we provide rules for the cataloging of such a broad group of publications? One of the goals of defining ongoing publications is to provide a more principled approach to the cataloging of such publications. In Part IV we will offer principles and examples of their application. Next, we will examine three important aspects of the cataloging of ongoing publications--determining the basis for the description, accommodating changes in the entry, and accommodating changes in the description--how they have traditionally been handled and how this treatment might be changed.

A. Principles

1. Consider the whole publication rather than a single issue

We cannot require that catalogers of ongoing publications be psychics! There is no way to know what changes will occur on later issues. Nevertheless, by keeping in mind that the record

represents all current and future issues (until there is a change in entry), catalogers are mindful of the types of information and the level of specificity that are appropriate to the record.

An example is rule 1.0F1 for transcribing inaccuracies. According to the current rule, in areas where transcription is necessary, inaccuracies are to be transcribed as they appear. Serial catalogers recognized years ago that transcribing an obvious error in the title of one issue in the title statement of the record that is to represent all issues does not make sense, theoretically or practically. Instead, they follow LCRI 12.0F and give the corrected title in the title statement (field 245), while providing the incorrect title in an added entry (field 246).

Giving what will presumably be the predominant title (i.e., the corrected title) as the title proper is also in keeping with the use of predominance for title changes of multi-volume monographs. According to rule 21.2B2, the title is based on the first issue but a later title which predominates may be substituted for the earliest.

2. Emphasize identification rather than transcription

As evidenced from the above, one of the problems is the concept of *transcription*. AACR2's emphasis on carefully transcribing from one issue of an ongoing publication is counterproductive to the overall identification of the publication. For online publications, of course, carefully transcribing a chief source which may completely disappear seems particularly futile! If there were more of an emphasis on *identifying* ongoing publications rather than *transcribing* them down to the exact punctuation, we wouldn't end up with meaningless designations, such as: "1992-1993-1994-1995," but could give "1992/1993-1994/1995."⁹

An example of transcription that doesn't work well for serials is the concept of the statement of responsibility. Unlike books, which have personal authors, most serials are either the product of a commercial publisher or a corporate issuing body. The placement of the body's name on the chief source of the first issue determines whether it is recorded as a statement of responsibility or as the publisher. The placement often changes on subsequent issues, while in reality, the body is continuing to serve the same function. The record should reflect the function of the body rather than its position on one issue. In addition, we question the wisdom of displaying so prominently in the catalog record the name of a body which may change or sever affiliation with the publication.

More importantly, identifying rather than transcribing could result in the selection of more stable titles and the creation of fewer records for title changes.

⁹ The National Library of Canada has not followed AACR2 on this aspect of recording the description but has continued the pre-AACR2 practice, as shown by the preferred designation.

While this principle might represent the most substantial change for *AACR2*, it is probably the most critical for our ability to adequately and efficiently describe the publications in the online environment.

3. Focus on constants rather than variables

This principle is particularly important when determining what will constitute the title proper. One of the best rules in *AACR2* chapter 12 is rule 12.1B3, which allows a cataloger to look for other presentations of the title within the serial, when in doubt as to whether the corporate body's name should be given as part of the title proper. This rule acknowledges that one source alone, particularly one that is at the whim of designers, may not be sufficient. With LCRI 12.1B3, LC has extended this concept to include any word or phrase found in conjunction with the title, when in doubt. Perhaps we should apply this concept in ALL cases, regardless of whether there is doubt.

B. Determining the Basis for the Description

By focusing on "identification" rather than "transcription" we are not negating the need to "describe." By "describing" we mean providing important bibliographic details of a publication that aid in its identification and distinction from other publications. While we do not want to be overly detailed in the description of a single issue, neither do we want to say so little about it, in fear that the information might change, that the resulting record is inadequate for the identification and distinction from other publications. This is particularly important in the shared cataloging environment.

There are two aspects to determining the basis for the description. The first is to determine which part to use and the second is to determine which source within that part will be used as the source of the title, and thus, the chief source.

1. Which part to use?

a. Multi-part publications. Both *AACR2* 1.0H2 (for multi-part items) and *AACR2* 12.0B1 (for serials) call for the first or earliest available part to be used as the basis for the description. Under the 1967 edition of *AACRI*, the latest issue was used for the description of serials, while the earliest was used for the description of multi-volume monographs.

Using the first issue rather than the latest is a matter of practicality and stability, since the first issue is always the earliest, whereas the latest is constantly changing. By basing the description on the first issue, the basic description need not be changed since information that appears on later issues is handled by notes, when considered significant.

Interestingly, the concept of "first" issue has become more complicated with the introduction of CD-ROMs where later releases can contain earlier issues that have been newly digitized. Thus,

the disc that contains vol. 1, no. 1, may be issued quite some time after the initial disc was first issued.

When using the earliest issue approach, however, the information given in the description can become quickly out-of-date, which is not conducive to brief record displays in public catalogs. Basing the description on the latest issue is more useful to catalog users because the most recent publishing information and other aspects of the description can be given prominently.

b. Single-part publications. By contrast, Hallam's rule 0B2 for loose-leaves says to use the latest item in hand. For a continuously-updated database, this is realistically the only approach that can be applied, since earlier versions of the chief source will have completely disappeared!

Electronic journals, even when displayed in a successive array of volumes and issues, may have a single homepage containing the title and publishing information. Such information may or may not appear on the individual issues. Thus, basing the description on the "latest issue" translates to the "latest iteration of the home page."

c. Reconsidering description based on the earliest issue. If one group of publications that are cataloged as serials will have to be cataloged based on the latest issue, might we want to change the practice for all serials? We could return to the *AACRI* practice of combining successive entry with description based on the latest issue. It could alleviate some of the distinctions between serials cataloged according to latest and successive entry conventions and reduce the number of special rules and instructions needed. Certainly, being able to give the current publisher prominently, rather than in a note, has much appeal.

However, we would want to limit the approach to elements other than the entry. For instance, we would not want to change the title proper when a variation occurs that does not constitute a title change. Nor, probably, would we want to change a uniform title that is qualified with a place of publication when the place changes.¹⁰ Making such changes in the entry would create havoc among catalogs and in files where the entry is used apart from the description.

Thus, changing the base of the description to the latest issue is probably not the answer if it couldn't be applied to the entire record. Aside from the title, the areas of the description that are most volatile are the statement of responsibility and publishing information. Perhaps a better solution would be to combine such information into one area within the record, as we will discuss below under "Accommodating Changes in the Description."

Recommendation 3: For ongoing publications issued successively (i.e., with multiple chief sources), base the description on the first or earliest available issue. For ongoing publications issued with a single chief source that is revised, base the description on the latest iteration.

¹⁰ The types of uniform titles we are referring to were not created under *AACR* rules, so this was not a problem.

2. Which source to use as the chief source?

AACR2 introduced the concepts of "chief" and "prescribed sources of information." The chief source of information is defined as "the source of bibliographic data to be given preference as the source from which a bibliographic description (or portion thereof) is prepared." In actual fact, the chief source is the source from which the title is taken.

For textual monograph and serial publications, the title page is the first choice as chief source. This is an example of how applying a general set of book-based rules to all materials does not work very well. For serials, the emphasis on title page has long been problematic, since many serials (e.g, periodicals, newsletters, and newspapers) rarely or never have a title page. AACR2 rule 12.0B1 acknowledges this fact and gives a preferred order for choosing "title page substitutes," such as the cover, masthead, or caption. There is also the problem of the insignificant or doubtful title page -- the single sheet of paper inserted inside the cover with an official-sounding title that differs from the catchy title on the cover. The problem is that this "title page" tends to come and go and is not terribly reliable.

Providing preferred sources of the title is critical for serials since the title is most often the main entry. For purposes of consistency, it is important that catalogers working in a shared environment follow a preferred order when choosing the source of the title.

One problem with preferred sources, however, is CD-ROMs, for which the internal title screen is currently the preferred source. When catalogers don't cannot readily load the CD and examine the title screen, they resort to using the label on the outside. This particular source requirement seems to be more problematic for ongoing CDs because of the potential for title changes.

We do not need to be as specific for the other bibliographic attributes, however. Once the title has been selected (and perhaps the edition when this applies), the cataloger should be free to use any other source in which to "identify" issuing bodies, publishers, and other bibliographic attributes of the publication. Thus, we suggest that the concept of "chief source" be replaced with that of "source of title" for ongoing publications.

Recommendation 4: Allow greater flexibility in selecting the source of the title within the parameters of the prescribed sources and always require the source of title note. (Note: we will also need to define terminology for the sources within online publications.)

C. Accommodating Changes in Entry

1. Methods for handling change

a. Serials. The three methods for handling title changes that have been employed by various codes are:

- 1) Earliest entry: With this method, prescribed prior to ALA rules, the title of the earliest piece was retained, with later titles given as notes and added entries. The entry remained the same, though possibly long out-of-date.
- 2) Latest entry: All of the ALA rules called for latest entry, which used the current title (or author) as the entry. Each time the title changed, the old title was shifted to a note and added entry (USMARC field 247) and the new title assumed the role of the title entry (or author/title entry).
- 3) Successive entry: Introduced with *AACRI*, successive entry requires a new record each time the title (and/or entry element) changes and the records are linked with notes (USMARC field 78X) to the immediately preceding and succeeding titles. The records for the old title are revised to add the linking note.

While all of these methods require some form of further annotation on catalog cards or MARC records, successive entry has the advantage of requiring only a link, rather than substantial changes to the description and entry elements.

b. Multi-part monographs

The *AACR2* rule for multi-part monographs calls for a single-record approach. *AACR2* 21.2B2 says to use the title of the first part as the title for the whole monograph; but, if a later title predominates, to use that title. This is an example of one of the practical differences in the current cataloging of determinate and indeterminate ongoing publications.

c. Loose-leaves, databases, and other ongoing single-part publications

For loose-leaves, the latest title is given as the title proper and changes are noted on the same record. For databases and web sites, for which all earlier titles can totally disappear, giving the latest title is again the only practical approach, although there are currently no rules to this effect.

d. Reconsidering latest entry

In recent years, with the advent of the MARC record, which is more easily updated than catalog cards, some have called for a return to latest entry for serials in order to reduce the number of records representing the serial and to enhance public access. This has been controversial and not widely-accepted, particularly since it does not adhere to international standards and is not conducive to use of the ISSN.

However, as we noted above, there is a growing number of publications for which latest entry conventions are the only ones that can be applied. With such conventions being applied for one group of ongoing publications, might we want to consider applying them to all? If we were starting all over again, we might say yes; however, the implications of this change for existing

records are prohibitive. In addition to all of the successive entry records for serials, there are the numerous monographic series analytics that are tied to the succession of series authority records, as well as notes and entries on related bibliographic records, all of which would require revision. Our past experience with use of latest entry records for cooperative cataloging also suggests that this would not be a wise approach for successively-issued publications because it requires catalogers to research the bibliographic history of titles they do not own and may result in entries in a library's catalog for titles not held. Libraries that shelve serials by title are faced with the dilemma of shelving the titles differently than they are recorded in the catalog or putting blocks in the stacks directing the user to a different location. A further compelling reason, however, is the deviation from the standards used to assign the ISSN, which is used to facilitate "hooks to holdings," automated check-in, online ordering, and unambiguous identification of each serial title.

Recommendation 5: Following the principle that the method for cataloging should be appropriate to the form of issuance, changes of entry for successively-issued publications should continue to be handled successively. Changes of entry for updating publications should be handled by a single-record latest entry approach.

2. Thoughts on title changes

The problems of title changes will always be with us. While we favor successive entry for successively-issued publications, we also hope that the principles given above will aid us in future refinements to the rules. We learned quickly that the "any change in the first five words" prescribed by AACR2 when it was first issued was not a practical way to approach title changes. Yet we must also curb our innate desire to resist making new records. While multiple records for seemingly insignificant changes do not serve any of us well, neither does the record that is so generalized in order to avoid change that the work it describes cannot be identified.

But there is improvement that can be made. Can we find ways to better handle meaningless changes, such as *Bowling* to *Bowling Magazine* and back to *Bowling* again, while providing adequate access? Can we find a way to reinstate the concept of the "title of short duration" within a cooperative environment, at least when cataloging retrospectively? Must we also consider all titles to be equal? Might we not give more credence to the title of a journal (which is entered under title main entry) than to that of an annual report or conference publication (which is entered under corporate body)? In the latter cases, it is the corporate or conference headings that are the truly significant part of the entry, as evidenced by the frequent arbitrary and capricious changes to the titles. Perhaps we might adopt a method of making successive entries only for changes in the corporate/conference heading while recording all title variations and changes within those records? Or perhaps some form of uniform title might work? We know of a number of libraries that are currently using such an approach in their local catalogs. These are but a few ideas for further exploration following the initial work of this conference.

Recommendation 6: Redefine the definition of title change to reduce the number of records created to reflect minor variations in title and pursue further improvements in the rules for title changes following the work of the conference.

3. Problems of linking multiple versions.

What are the implications of cataloging versions of the same work under two sets of conventions? One problem immediately apparent is that of linking the records. Maintaining the links on the successive entry records will be difficult because the entry on the latest entry record can change. A possibility would be to omit the title from the link, as CONSER has done for microforms, and just give "Online version" or some such phrase and the record number, from which the user can go directly to the related record. Explaining this in a cataloging code that is divorced from the automated environment and MARC record would, of course, be difficult!

D. Accommodating Changes in the Description

When the description is based on the earliest piece, changes in the description that occur on later issues are recorded in notes. For loose-leaves and updating publications the latest information is recorded in the body of the description and earlier information is given in notes, when it is available.

The need to describe an ongoing publication from one issue is obviously problematic. While we don't want a cluttered record that is difficult to decipher, giving all related information in one place in a different type of display might be very beneficial. For example, a possible change would be to record all changes in place and publisher in the same area of the record (e.g., multiple 260 MARC fields).¹¹ Coding all publishing information in the same field, might be beneficial for display and retrieval and users might be more apt to see it. With places and publishers changing at different times, we would need to take an approach similar to that used for series in which a change of publisher, rather than a change of place, would result in a new field.

By taking such an approach, we might also alleviate some of the differences that will result from applying both latest and successive entry conventions to different manifestations of the same work.

Recommendation 7: Explore new methods for providing and displaying descriptive data in order to accommodate a more identifying approach.

¹¹ This would be analogous to the multiple 643 fields for publication information in series authority records.

PART V. POTENTIAL IMPACT OF THE RECOMMENDATIONS ON AACR2 AND OTHER STANDARDS

A. AACR2

Model C could be implemented in the cataloging code in three ways: 1) by developing a conceptual chapter as the initial chapter in the code; 2) by broadening the rules for serials to cover differing types of ongoing publications; and 3) by integrating principles related to ongoing publications in all chapters.

1. The conceptual chapter

We envision a conceptual chapter that would incorporate the principles agreed to at this conference. This chapter would give the cataloger an idea of what he or she is trying to accomplish and why. It would include the concepts based on the FRBR model that would govern the creation of new records based on differences in the content.

It might also incorporate alternatives to cataloging and when they are appropriate. The conceptual chapter would provide a basis for future rule revision and enhancement, particularly as new forms of materials evolve.

A separate section on ongoing publications would discuss the basic principles behind the rules for the basis of description and accommodation of change in ongoing publications. It would provide guidance on what constitutes an ongoing publication and how the description of that work may differ from static publications. The concepts of identification rather than transcription, focusing on constants, and the idea of describing the work would all be included. It would also discuss which ongoing publications are to be cataloged as serials and which to be cataloged as monographs and would explain the reasons and ramifications of each approach.

Convenience and judgment must also be incorporated in some way. The chapter should express the idea that catalogers need to use the rules as a tool in order to best describe materials so as to meet the needs of their users and use judgment in doing so. We should acknowledge the need to deviate from time to time. The first edition of *AACR*, in setting out its "principles of descriptive cataloging," noted that "by their use it is possible for the cataloger, when faced with problems not specifically provided for, to solve them in the spirit and intent of the rules."¹¹ The words "spirit" and "intent" are particularly meaningful here.

The chapter should also acknowledge that the environment in which most catalogers are working is shared. Contributing to and using records from shared databases has become the norm in most of the Anglo-American world, at least, and in many other countries as well.

And lastly, this chapter should address the purpose and functions of the bibliographic record in the world of automated library systems.

Recommendation 8: Create a conceptual chapter that will be the first chapter in a new or revised code.

2. The Individual Chapters

Aside from the conceptual chapter, deciding how best to arrange the individual chapters is problematic. If we agree that content should be the starting point, we would need separate chapters for text, music, cartographic data, and so forth. But textual and cartographic data can be issued in print, microform, and electronically, and we wouldn't want to repeat the rules for each carrier under each of the content-based chapters. Furthermore, not all publications consist of a single mode of expression. Art books never have, and in the online environment we are likely to see wide blending of moving image, text, and sound.

If we are going to take a three-dimensional approach, as we have advocated, we will need chapters in three categories: (1) the content and its expression in the record (e.g., authors, title, bibliographic relationships, nature of contents note, etc.); (2) the physical carrier and its expression in the record (e.g., publishing data, physical description, system requirements note, etc.); and (3) the publication status (static or ongoing) and the treatment (monograph or serial) and how this status and treatment is expressed in the record in terms of specific data elements and in the level of specificity given. Such would integrate description and access, as appropriate.

The ideal format for such a code would be an automated desktop version in which a cataloger could specify the specific attributes of the publication to be cataloged and the programmed code would generate a customized list of rules! While this may initially seem far-fetched, it is certainly possible; and though complex to produce, it would make the process of cataloging much easier, particularly for catalogers who will be faced with a broad spectrum of publications. Such a code would also have the advantage of being easily updatable, a must for any new version!

A far more conservative and less exciting approach would be to move the current serials chapter to the front, following the general and books chapters and make the serials chapter less specific to print.

Recommendation 9: Explore new ways of arranging the rules that will facilitate a three-dimensional approach to cataloging.

B. MARC

In view of the automated environment in which we do our cataloging, we must explore the relationship of the cataloging rules and the current MARC format.

The implementation of format integration gave us the ability to code all attributes of a publication, regardless of its mode of expression. But format integration was unsuccessful in eliminating the concept of a primary format and bibliographic level. The cataloger must code the Leader/07

(bibliographic level) as monograph, serial, collection, monographic analytic, or serial analytic. While one can add an 006 fixed-length field for aspects of seriality on a monograph record, the fact remains that a primary bibliographic level is required.

By redefining serial, as we have suggested, we would collocate print serials and their electronic equivalents, facilitating one-record and "multiple versions" approaches. The coding for latest entry conventions is already present in the serials 008 and 006 fixed-length fields, accommodating the need to differentiate the cataloging conventions used for updating publications and successively-issued serials.

In reality, any change in the coding of the bibliographic level has far-reaching effects. The Type of Record (Leader/06) and Bibliographic Level (Leader/07) are deeply imbedded in our systems. They are used for identifying duplicate records, mapping records to different files, limiting searches, creating serial union lists, and underpinning serials control systems. If redefining the concept of *serial* requires recoding of existing records, the effects on record processing and the cost of conversion must be weighed.

The main problems are with the category of updating publications. While the number of records for web sites, databases, and online systems is small (and coding inconsistent), there are many more records for loose-leaf publications. Loose-leaves have been somewhat arbitrarily coded as monographs since they didn't meet the AACR2 definition of serial. Recoding them as serial publication could be time-consuming and without obvious rewards. An exception could be made to continue coding printed updating publications as monographs while cataloging online updating publications as serials. Such a treatment separates them from their online versions, as loose-leaves often become databases on the Internet. This is a matter for further discussion among members of the legal community, MARC experts, and system designers.

C. International Standard Serial Number (ISSN)

The ISSN is extremely important to the identification and control of serial publications and is being used in many ways. In addition to scanning for check-in, and the "hooks-to-holdings" feature noted above, the ISSN is being considered as an important part of a uniform resource name (URN) that would provide stable access to remotely-issued publications.

The ideas expressed in this paper would, in some ways, bring AACR2 closer to ISSN and in some ways cause a divergence. One of the biggest problems would be the reintroduction of latest entry for some serial and ongoing publications. Since the basic principle of ISSN is one ISSN per key title, a latest entry approach would require that multiple key titles and ISSN be represented on one record. One possible solution would be that ISSN centers would create separate brief records for each key title and ISSN that would be submitted to the International Centre, but that all ISSN would be represented in one cataloging record created according to the cataloging code,

the current in field 022 (ISSN number) and the previous ones in the subfield \$x of the 247 field, or in repeatable 022 fields.¹²

Another problem for ISSN if all ongoing publications are coded as serials, would be to distinguish the scope of assignment for ISSN.

A further, and very important issue for multiple versions, is the question of how many ISSN should be assigned for manifestations of a work. The current policy is for the same ISSN to be assigned to a printed publication and its microform reproductions, but different ISSN for a printed publication and its digital versions and reproductions.

D. *International Standard Bibliographic Description (ISBD)*

We recognize that our vision for a new code is not in keeping with the structure of *ISBD* and we wonder how the multi-level entity-attribute-based FRBR model will impact on future revisions of these standards. However, we also recognize that our current code is based on the various *ISBD* standards and the problems inherent in it stem from the problems in the *ISBD*. In order to integrate the concept of ongoing publications into AACR2, we must also be willing to revise the structure of the *ISBDs*. Fortunately, this process has already begun!

When revision began on the *ISBD* for computer files, now to be called "electronic resources"--*ISBD(ER)*, the early drafts stated that the scope of the *ISBD* covered only monographic computer files. After protest from serialists, the scope was reconsidered and the resulting document now covers both serials and monographs. This same process needs to occur for all materials.

However, this is only one aspect of the problem. For if we decide that content should be the beginning point, rather than carrier, the scope of *ISBD(ER)* would be pared down to only those items that are non-textual.

Another basic problem is the *ISBD(G)* which is the basis for AACR2 chapter 1, which we have stated is too book-based. We recognize that this is not an easy issue. All of the needs and ramifications must be carefully examined. But at the very least, the types of changes that have integrated seriality into the *ISBD(ER)* chapter should be continued.

We understand that *ISBD(S)* is scheduled to be revised and hope that the ideas expressed at this conference will be taken under consideration.

¹² The 022 field is repeatable in USMARC but has not been used as a repeatable field in CONSER records.

CONCLUSION

We see now that seriality is not a class or format, but a fundamental dimension of the work. This ongoing dimension must be reflected in the cataloging code through a shift in emphasis from the detail of one item "frozen in time" to the identification of the publication as a whole. The approach of the FRBR study, conceptualizing the catalog record as a table of attributes and values, lays the groundwork for such an alternative method of bibliographic control.

New forms of library materials, new types of catalogs, and new user expectations do not change our ultimate goals of providing access, facilitating control, and sharing the workload in a cost-effective manner. The imprecision of today's automated Internet search engines and the proliferation of web sites that merely point among themselves remind us of the real strengths of our cataloging infrastructure. Our commitment to standards, the compatibility of our records, and our achievements with cooperation are the keys to our success. Authority control and standardized formatting assure effective data retrieval, minimize redundancy, and facilitate portability and exchange of bibliographic information. The specifics of terminology and cataloging conventions are merely the tools we use to achieve our goals.

We appreciate the opportunity afforded by this conference to work with our colleagues to design new means to achieve those goals, reshaping the cataloging rules to meet new challenges while remaining faithful to the spirit and intent of our profession.

SUMMARY OF RECOMMENDATIONS

1. Adopt the broad-based, pragmatic approach to categorization of publications as expressed in Model C.
2. Use the term *ongoing publication* to refer to types of publications that are not complete. Redefine *serial* to include all publications that are updating in nature or intended to continue indefinitely. Continue to define *monograph* as a publication which is complete or intended to be complete in a finite number of volumes.
3. For ongoing publications issued successively (i.e., with multiple chief sources), base the description on the first or earliest available issue. For ongoing publications issued with a single chief source, base the description on the latest (current?) iteration.
4. Allow greater flexibility in selecting the source of the title within the parameters of the prescribed sources and always require the source of title note. (Note: we will also need to define terminology for the sources within online publications.)

5. Following the principle that the method for cataloging should be appropriate to the form of issuance, changes of entry for successively-issued publications should continue to be handled successively. Changes of entry for updating publications should be handled by a single-record latest entry approach.
6. Redefine the definition of title change to reduce the number of records created to reflect minor variations in title and pursue further improvements in the rules for title changes following the work of the conference.
7. Explore new methods for providing and displaying descriptive data in order to accommodate a more identifying approach.
8. Create a conceptual chapter that will be the first chapter in a new or revised code.
9. Explore new ways of arranging the rules that will facilitate a three-dimensional approach to cataloging.

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