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# Characteristics of Serial Title Changes and Recognition of New Serial Works: Theoretical and Practical Implications

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# TITLE CHANGES AND NEW SERIAL WORKS


## ABSTRACT

The paper reports findings from a study to identify characteristics of serials with title changes and then make recommendations for recognizing new works for these serials. Findings show title changes occur due to underlying subject, function, corporate, geographic, frequency, or format changes, with 80.8% of the changes being subject or function changes. It is recommended that reasons for title changes be determined from clear statements in text or elsewhere, and that new works be recognized based upon the requirements of a definition of a work. With the FRBR definition, a new work would be recognized only for a significant subject or function change.


## INTRODUCTION

The library catalog often has multiple records for serials that have changed titles. There has been controversy over this issue, with American cataloging rules offering differing solutions over the years as to when a serial title change warrants the creation of a new record. One of the issues has been whether a new record should only be created when a new work has emerged. Developers of the revised *Anglo-American Cataloguing Rules* (*AACR2*) attempted to revise the rules so a new record would be created only when there had been a change in the underlying work.[1] However, in *AACR2* there is no clear definition of a work.[2] Cataloging rules are now in a state of change, with a new cataloging code, *RDA* (*Resource Description and Access*), recently published.[3] In *RDA*, the concept of a *work* is specifically defined, as: "a distinct intellectual or artistic creation."[4] A *serial* in *RDA* is: "a resource issued in successive parts, usually bearing numbering, that has no predetermined conclusion."[5]

Though *RDA* provides more guidance on the concept of a work than in *AACR2*, both the *RDA* and *AACR2* rules provide similar mechanisms for recognizing the existence of new works based upon certain changes occurring in the serial.[6] The term "major change" is sometimes used to describe these qualifying changes. According to the *CONSER Cataloging Manual*, used by serials catalogers who participate in the Library of Congress Cooperative Serials Program: "Major changes include certain changes to the title, main entry heading, or edition statement and the physical format of the serial."[7] Another resource for understanding major changes is found in a publication by the Association for Library Collections & Technical Services, entitled: *Differences Between, Changes Within*.[8]

Serials with title changes are especially problematic, with some questioning whether the rules for major changes are effective in identifying new works for these serials. Tom Delsey commented on this issue following the 2002 revision of *AACR2:*

> Recent changes to AACR rules pertaining to the creation of a new description when the title of a serial changes will have the effect of reducing the number of new works that emerge, so to speak, by default. What is not clear is whether the rule changes were considered explicitly as a means of creating a citation that would recognize a new work. If the rule changes were made simply to reduce the number of successive descriptions required, further thought needs to be given to the implications of the changes as they relate to the citation for the work.[9]

The *RDA* rules for serials with changed titles replicate much of what is found in the revised *AACR2* rules. The *RDA* rules, like *AACR2,* recognize new works when there has been a major change in the title, with lengthy rules for discerning between a major and a minor title change.[10] The rules provide a superficial mechanism for recognizing new works based upon specific changes occurring in the title, such as the addition or deletion of certain kinds of words in the title.

Rules for recognizing new serial works should be based upon the requirements found in a definition of a work and not on mechanisms that artificially determine when a new work has emerged. As *RDA* is implemented, it is anticipated that discussion will take place in the serials community on this issue. To provide background to inform this discussion, there is a need to understand the characteristics of serials that have changed tiles. Information is needed concerning the underlying changes that occur in serials when titles change, and which of these changes are

of the kind and magnitude to warrant recognition of a new work. Though some studies have identified reasons for title changes, no studies were found that discussed how to apply the findings in identifying new serial works.

The purpose of the study was thus to identify characteristics of serials with title changes and then use the findings to make recommendations for identifying new works resulting from changed serial titles. The study was limited to serials that have had title changes. The study did not address other kinds of serial changes (e.g., changes in responsibility) that might also lead to the recognition of a new work. The study is expected to have both theoretical and practical implications, with the findings contributing to the theoretical body of knowledge concerning serials with changed titles, and also providing information for improving serials cataloging rules. The findings are expected to be broad enough to have relevance with differing views of the serial work, though more specifically to be relevant to the FRBR concept of a work, used in *RDA*.

## LITERATURE REVIEW

The purpose of the literature review was to locate studies that identified the reasons for serial title changes. Carol Monroe Foggin has prepared a review of the earlier title change literature,[11] with a more recent review available in a study by Rebecca Soltys Jones.[12] Some of the literature on serial title changes focused on specific aspects of title changes, for example, the rate of title changes by discipline, noted by both A. (Sam) Khosh-Khui and Jones.[13] Relatively few publications were concerned with the reasons for title changes.

Five studies investigating reasons for title changes were identified and will be reviewed here: Van B. Afes and Paul E. Wrynn,[14] Rebecca Soltys Jones,[15] Marilyn Geller,[16] S. K. Lakhanpal,[17] and B. Guha, B. K. Sen, and R. N. Neogi.[18] The studies differed somewhat in purpose, in serials studied, and the sources used for the title change information. The features of each study are described below, along with a comparison of the findings (see table 1).

**Table 1. Studies reporting reasons for title changes**

The purpose of the studies was to determine the reasons for title changes. Some of the studies also had a larger or overriding purpose. Guha, Sen, and Neogi, for example, noted they were primarily concerned with prompting publishers to create fewer title changes, rather than with identifying cataloging problems relating to changed titles.[19] Lakhanpal, similarly, had a larger purpose of promoting the creation of international standards for title changes.[20]

The sources of information used in the studies to determine the reasons for title changes varied. Two studies (Jones; and Guha, Sen, and Neogi) relied mostly on words in titles for this information.[21] Two studies (Afes and Wrynn; and Geller) used a combination of sources, including editor or publisher statements, along with words in titles.[22] Lakhanpal implied that reasons for title changes were determined mainly from working with the serials in the collection that was studied.[23]

The serials studied also differed, as shown in table 1. Two of the studies dealt with scholarly or academic serials (Geller, and Lakhanpal). Two other studies were limited to specific subject areas, with Guha, Sen, and Neogi studying scientific serials, and Afes and Wrynn looking at biomedical journals. Jones studied serials from a variety of subject areas, representing the sciences, social sciences, and the humanities. Sample sizes varied, ranging from 302 in the Afes and Wrynn study to about 1000 in the Guha, Sen, and Neogi study. Geller and Lakhanpal did not indicate the size of their samples.

The reasons for title changes identified in the studies are listed in table 1. Each of the studies used their own categories to classify the reasons, making it difficult to compare the findings. Four of the studies used categories developed from the collected data, whereas one study (Jones) used pre-determined categories taken from the *CONSER Cataloging Manual*.[24] The number of categories used ranged from three categories in the Afes and Wrynn study, to ten categories in the Jones study. The studies differed in how categories were assigned, with Jones assigning categories only for the most prominent type of change in each serial, and Guha, Sen, and Neogi assigning all relevant categories to each serial.[25]

A broad grouping of the major reasons for title changes identified in the studies follows:

- subject change (including changes in scope, meaning, or coverage) – reported in 5 studies
- corporate change (including changes in sponsoring body, publisher, or issuing body) – reported in 4 studies
- language change – reported in 4 studies
- editorial change – reported in 3 studies
- frequency change – reported in 3 studies
- function change (including changes in policy, the nature of the publication, or peer review status) – reported in 3 studies
- geographic change (including changes in geographic audience, or national or territorial origin) – reported in 2 studies
- merger – reported in 2 studies

Some unique features were found in each study. Afes and Wrynn stated they were not able to identify reasons for title changes for a third of the titles surveyed: "These unsupported title changes are defined by the authors as inconsistently reported titles or those that change in one place and not in another. Included in this category are changes that vacillate between two or more forms of the same title and those where a printer or graphic artist seems responsible."[26] Geller, in turn, found that sometimes publishers did not intend a title change.[27] Lakhanpal identified the many undesirable effects of title changes for libraries, including the impact on library routines.[28] Jones noted that scientific serials had a higher frequency of change than the social science and humanities serials.[29] Guha, Sen, and Neogi, finally, after describing each title change in detail, made comments as to whether they expected the title change to last.[30]

# METHODOLOGY

## Conceptual Framework

The purpose of the current study was to identify characteristics of serials with title changes, and then use the information to make recommendations for identifying new works resulting from changed serial titles. The research was descriptive and exploratory, allowing further questions to be formulated as the data was gathered. The *RDA* definitions, noted above, were used, since *RDA* is soon to replace the *AACR2* rules in American cataloging. Thus, a serial was defined as: "a resource issued in successive parts, usually bearing numbering, that has no predetermined conclusion (e.g., a periodical, a monographic series, a newspaper)."[31] A work was defined as: "a distinct intellectual or artistic creation (i.e., the intellectual or artistic content)."[32]

The *RDA* concept of a work corresponds with the definition used in the FRBR model that forms the conceptual basis for the *RDA* rules. The FRBR model is described in the document *Functional Requirements for Bibliographic Records,* which was prepared by an IFLA (International Federation of Library Associations and Institutions) Study Group on the Functional Requirements for Bibliographic Records. The document provides the following additional guidance for recognizing new works from modified works: "By contrast, when the modification of a *work* involves a significant degree of independent intellectual or artistic effort, the result is viewed, for the purpose of this study, as a new *work*." [33] Since serials with changed titles often undergo internal change and modification when the title changes, the foregoing guidelines for modified works were used, in conjunction with the FRBR definition of a work.

The goal of the research, to identify characteristics of serials with title changes, was pursued by seeking answers to three research questions. First, it was determined to look at the underlying reasons for title changes and categorize the reasons found. Categories relating to intellectual or artistic content could then be identified. When a title change occurs, the reason for the change could be categorized and if falling into a qualifying category a new work would be recognized. The primary research question was thus: What are the reasons for serial title changes?

Second, though the initial plan was to use statements in the serials themselves as the source of information for identifying the reasons for title changes, it was later decided to also collect information from words in the serial titles, since titles are a frequently used source in serials cataloging for determining when to create new records. A comparison between the textual content of the serials and the words in the titles could then be made to determine the pros and cons of each. An additional research question was thus: How does textual content compare with title words as a source of information for determining reasons for serial title changes?

And third, in the exploratory phase of the research, another question emerged, having to do with the timing of serial changes that occur when a title changes. Since serials are sometimes viewed as being in an ongoing state of change, there is a need to determine at what point a new work should be recognized when a title changes. For example, do underlying serial changes occur before the title changes, or at the time of the title change? This information could provide guidance in establishing boundaries between old and new works. Another research question was thus: When do serial changes occur relative to title changes?

The research questions were thus:

- Primary question: What are the reasons for serial title changes?
- Secondary question (A): How does textual content compare with title words as a source of information for determining reasons for serial title changes?
- Secondary question (B): When do serial changes occur relative to title changes?

## Sample

There was a need to limit the scope of the study, due to time constraints in performing the research. There was also a need to identify serials for which content was available to the researcher. With these constraints in mind, it was determined to obtain a sample from the JSTOR (short for *Journal Storage*) database, an online archive of full-text digitized back issues of academic journals.[34] Though described as a journals archive, the archive includes various kinds of serials, including bulletins, reviews, annuals, newsletters, yearbooks, and proceedings. Four JSTOR

collections were chosen for study: Arts and Sciences I, Arts and Sciences II, Arts and Sciences III, and Life Sciences. These collections were chosen because they covered a variety of disciplines, including the humanities, social sciences, language, literature, and life sciences. The collections were complete or substantial at the time of the data collection.

Within these collections, serials were identified that had changed titles, as of July 19, 2010, using the complete detailed list of JSTOR Currently Available Journals. The JSTOR list provides entries for all currently available titles, along with any previous titles due to title changes, as well as information on serial mergers and splits. A total of 305 changed titles were identified, with beginning dates ranging from 1683 to 2009. Ten non-English serials were excluded due to limitations in reading non-English text. Twenty-seven additional serials relating to splits and mergers were also excluded, since these serials were already considered different works and did not require analysis to determine whether a new work had emerged. After excluding the 37 serials above, 268 serials remained. Another 148 serials (55.2%) were excluded because no explanation of the title change was found in the textual content of the serials. The final sample, listed in Appendix A, consisted of 120 serials, with beginning dates as follows: 1683 (one serial), late 1800's (eight serials), 1900's (103 serials), and 2000's (eight serials).

Due to the nature of the study population, with a focus on academic serials, there will be limits in generalizing the results. Since the sample was not randomly selected from a broad pool of serials, the findings will not be broadly applicable to all kinds of serials, especially those that are non-academic in nature.

## Procedure for Determining Reasons for Title Changes

The data collection began by seeking an answer to the primary research question: What are the reasons for serial title changes? Reasons for title changes were examined in the 120 sampled serials, using two different sources of information: textual content, and title words. The procedure for the data collection is outlined below.

Using Textual Content as the Source. In this phase of the data collection, reasons for title changes were determined from statements appearing in the sampled serials, following the steps below:

- Analyzed textual content. The first issue of each serial following the title change was examined, using the page images available in the online JSTOR database. Other issues were also occasionally examined when clarification was needed. The front matter (text preceding the first article) and back matter (text following the last article) were checked, and any text providing reasons for the title change was copied. Relevant information was underlined or noted. The following information was not copied: simple statements that the title had changed; instructions to authors; and descriptions of changes in editors, publishers, cover design, font, layout, number of pages, or other aspects of the serial not directly related to the title change.

- Assigned title change categories. A table was created for recording the descriptions of reasons for title changes noted above. A category code was assigned to each reason, using the following categories, developed in a preliminary examination of the serials: subject change, function change, corporate change, geographic change, frequency change, and format change. For example, the subject category was assigned if an overall change in coverage was indicated, such as a change from zoology to the broader field of biology. The title change categories assigned are described in detail in table 2 (column 2), along with examples.

**Table 2. Title change categories**

- Created title change category lists. The information recorded above was subdivided into six lists, one for each of the six title change categories. The subject category list, for example, was created by grouping all descriptions of reasons relating to subject changes (e.g., added a subject to a serial, deleted a subject from a serial, etc.). The descriptions were reformatted into uniform phrases, where possible, to make the descriptions more consistent. The lists included the relevant serial numbers pertaining to each reason that was listed. If a title change occurred for more than one reason, the serial was listed under each of the relevant categories.

- Itemized all reasons for title changes. A count was then made of all reasons for title changes falling within each of the six categories. Multiple reasons falling in the same category were counted only once for a given serial.

- Itemized primary reasons for title changes. Finally, a count was made of the primary reasons falling within each of the six categories. A primary reason was defined as: "the reason for a title change having most relevance in identifying a new work, when using the FRBR guidelines for recognizing new works." For example, a subject change was given first priority since it would involve a change in intellectual content, a requirement for recognizing a new work according to the FRBR guidelines. A function change was given second priority since changes in function involve a change in the kind of intellectual content. The remaining types of changes were prioritized, somewhat arbitrarily, according to the expected impact of the change on the content of the serial. The priorities assigned were as follows (from high to low): subject change, function change, corporate change, geographic change, frequency change, and format change.

Using Title Words as the Source. In this phase of the data collection, reasons for title changes were determined from words in titles in the sampled serials, following the steps below:

- Analyzed title words. The words in the old and new titles of each serial were compared for evidence to explain the title change. The titles used for this analysis were the titles as they appeared in the complete detailed list of JSTOR Currently Available Journals, on the JSTOR website.

- Assigned title change categories. Descriptions of the word changes noted above were entered in the table previously created for recording information from the textual content. A category code was assigned to each word change, using the same categories as in the previous procedure. Thus, if a function word changed in a title, the function category (u) was assigned and a note made, such as: *forum* [old title] → *review* [new title]. The kinds of changes required to assign a specific category were determined in the preliminary stages of the data collection and are described in table 2 (column 3), along with examples. Logic was used in developing the list of word changes for which a specific category was assigned. Thus, the subject category was assigned if there was a change, addition, or deletion of title words denoting subjects, such as the change from: Systematic zoology, to: Systematic biology. Though logic was used in developing the list of changes relevant to each category, changes in title words may have occurred for reasons other than what might be expected. For instance, a word may have been left out of the new title not because the subject denoted by the word was no longer covered in the serial, but simply to shorten the title. Due to these issues, there will be limitations in generalizing the findings derived from title words.

- Created title change category lists. The information recorded above was subdivided into six lists, one for each of the six title change categories. The subject category list, for example, was created by grouping all descriptions of title word changes relating to subject changes (e.g., added subject words to a title, deleted subject words from a title, etc.). The lists included the relevant serial numbers pertaining to each title word change that was listed. If a title change occurred for more than one reason, the serial was listed under each of the relevant categories.

- Itemized all reasons for title changes. A count was then made of all reasons for title changes falling within each of the six categories. Multiple reasons falling in the same category were counted only once for a given serial. If more than one type of format change occurred in a serial, only the highest priority format change was counted, based upon the magnitude of the change according to the following order (from high to low): language change, terminology change, acronym change, qualifier change, and shortened title.

- Itemized primary reasons for title changes. Finally, a count was made of the primary reasons falling within each of the six categories. Primary reasons were determined as in the procedure above for identifying primary reasons from the textual content.

## Procedure for Comparing Sources of Information

Data were next collected concerning the secondary research question (A): How does textual content compare with title words as a source of information for determining reasons for serial title changes? The information collected above, in the procedure for determining reasons for title changes, was used to obtain the following counts:

- number of unique reasons from a single source
- number of overlapping reasons from both sources
- total reasons from both sources, excluding overlap

## Procedure for Determining Timing of Serial Changes

Data were finally collected regarding the secondary research question (B): When do serial changes occur relative to title changes? Information on the timing of serial changes that accompany a title change was located for the primary reason for each title change. The textual content of the serials was used as the source of information. For example, if the primary reason for a title change was that the subject content of the serial had broadened, information was sought in the serial text as to when the broadening of content began. The following categories, developed in the preliminary stages of the data collection, were used to categorize the timing of serial changes:

- before title change
- before and during title change
- during title change

## RESULTS AND DISCUSSION

The collected data were analyzed with regard to the three research questions, relating to: reasons for serial title changes, sources of information for determining reasons for serial title changes, and timing of serial changes relative to title changes.

### Reasons for Title Changes

The primary research question was: What are the reasons for serial title changes? Two sources of information were used in determining reasons for title changes: textual content, and title words. The reasons were tabulated in two different ways: first by total reasons found for each title change, and then by the primary reason for each title change. The following six categories were used to classify the reasons: subject changes, function change, corporate change, geographic change, frequency change, and format change. For some serials, there was just one reason for the title change and for others there were multiple reasons.

Findings for All Reasons, from Textual Content. Table 3 provides a summary of all reasons found for each title change (e.g., a subject change as well as a function change), using textual content as the source. Multiple reasons falling in the same category for a specific serial (e.g., two subject changes for the same serial) were counted only once, with a parenthesized number showing the count when including the multiple reasons. A total of 187 occurrences of the six title change categories were identified in the textual content of the 120 sampled serials, excluding multiple occurrences of categories for the same serial. An average of 1.56 reasons was identified for each title change (187 / 120 = 1.56). The two most frequently found reasons were function changes (53.3%) and subject changes (50%).

**Table 3. All reasons for title changes from textual content**

Phrases such as "new journal," "new periodical," and "new publication(s)" sometimes appeared in the textual content. The 14 occurrences of these phrases (excluding one that referred to a former title) had various meanings, with three mentioning only that the title or format had changed, and two indicating the new journal or periodical was not really a new publication or change in direction. The nine remaining phrases were accompanied by indications that a change had occurred in the serial, including seven referring to a subject change. For at least one of the serials, there was strong evidence for a new work, with indications that the "new journal" had entirely replaced the suspended bulletin and that the function of the publication had changed.

Findings for Primary Reasons, from Textual Content. Table 4 provides a summary of the primary reason for each title change, with textual content as the source. Primary reasons for title changes were identified according to the following priorities (high to low): subject change, function change, corporate change, geographic change, frequency change, and format change. Subject changes were the primary reason for 50% of the title changes, with function changes accounting for another 30.8%.

**Table 4. Primary reasons for title changes from textual content**

Findings for All Reasons, from Title Words. Table 5 provides a summary of all reasons found for each title change, using title words as the source. Multiple reasons falling in the same category for a specific serial (e.g., two function changes for the same serial) were counted only once, with a parenthesized number showing the count when including the multiple reasons. A total of 263 occurrences of the six title change categories were identified in the title words of the 120 sampled serials, excluding multiple occurrences of categories for the same serial. An average of 2.19 reasons was identified for each title change (263 / 120 = 2.19). The three most frequently found reasons were subject changes (57.5%), function changes (51.7%), and format changes (50%). The findings reported here involve some uncertainty due to limitations in determining reasons for title changes when using title words as the source, as discussed previously. There are thus limitations in generalizing from these findings.

**Table 5. All reasons for title changes from title words**

Findings for Primary Reasons, from Title Words. Table 6, finally, provides a summary of the primary reason for each title change, with title words as the source. The list of priorities above was used in identifying the primary reasons. Subject changes were the primary reason for 56.7% of the title changes, with function changes accounting for another 28.3%. The limitations noted above also apply in generalizing the findings reported here.

**Table 6. Primary reasons for title changes from title words**

Discussion of Reasons for Title Changes. It was difficult to compare the results from the current study with findings from previous studies, because of the different kinds of categories used in each study to classify the reasons for the title changes. The six categories identified in the study, however, matched well with the Guha, Sen, and Neogi categories and also with the Afes and Wrynn categories, except that Afes and Wrynn used larger categories that included subcategories. The following summary shows how the categories from the five studies in the literature review matched with the categories in the current study:

- subject change – 5 studies
- function change – 3 studies
- frequency change – 3 studies
- geographic change – 2 studies
- corporate change – 4 studies
- format change (including language changes) – 5 studies

The reasons for title changes found in the current study thus confirm findings from previous studies, though the categories in the various studies were sometimes grouped and labeled differently. Since the reasons identified in the current study match well with the reasons found in other studies, covering other subject areas and types of serials, the findings reported here may have application beyond the range of serials in the population that was studied. The findings would have most relevance, of course, to the study population, consisting of English language scholarly serials in the social sciences, humanities, and life sciences.

The current study was different from other studies in having the objective of relating the findings to the identification of new serial works. One of the goals of the study was to categorize reasons for serial title changes and then determine which categories could be used in identifying new works. To determine which of the title change categories provided evidence for a new work, the FRBR definition of a work was used, along with the FRBR guidelines for modified works. The FRBR guidelines state: "By contrast, when the modification of a *work* involves a significant degree of independent intellectual or artistic effort, the result is viewed, for the purpose of this study, as a new *work*."[35] These guidelines require that a significant degree of independent intellectual or artistic effort has taken place. A serial with a changed title must thus be analyzed in two areas: kind of change, and significance of change.

In determining the kind of changes required by the FRBR guidelines to recognize a new work, it seemed logical that a subject change would qualify, since there would be a change in the intellectual content of the serial (e.g., broadening content or adding new areas of coverage). It also seemed that a function change would qualify, due to the change in the kind of intellectual content provided (e.g., a change from a newsletter to a scholarly journal). Subject and function changes were the most frequently occurring reasons for title changes found in the sampled serials, with 80.8% of the primary reasons falling into one of these categories, when using textual content as the source. Thus, a high proportion of serials with title changes would potentially qualify as new works. Corporate and geographic changes, as well as frequency and format changes, unless accompanied by a subject or function change, would not involve a change in intellectual or artistic content and thus do not provide evidence for new works.

In determining the significance of change required to recognize a new work, a standard is needed by which to measure level of significance. The concept of "significant change" must be defined. This was an area beyond the scope of the current research, requiring a study of the kinds of subject and function changes that occur and then a determination of which kinds of changes would be great enough to recognize a new work. From general observations of the sampled serials, it was noted that both subject and function changes varied in magnitude. The subject changes ranged from a slight shift in subject matter to a major shift, and included such changes as broadening content to include new topics, stopping coverage of certain topics, or changing the focus of the serial.

The function changes covered a similar range, and included changes in purpose (e.g., changing from a newsletter to a fully refereed journal) or type of content (e.g., adding columns or sections to the serial, such as a book review section).

Finally, the role played by the occurrence of phrases, such as "new periodical," appears to be limited in determining whether a new work has emerged. Such phrases were found to have various meanings and often were not accompanied by a subject or function change, needed to recognize a new work. Since subject or function changes are required to document a change in intellectual or artistic content, according to the FRBR guidelines, the occurrence of subject or function changes would take precedence in recognizing a new work over the occurrence of the various phrases.

In summary, the results show the majority of changes occurring in serials with title changes are for subject or function changes, both of which have potential for signaling the emergence of a new work. Since "significant change" has yet to be defined, it is unknown at this point whether a serial with a subject or function change would qualify as a new work according to the FRBR guidelines. The occurrence of phrases in serials, such as "new journal," does not provide sufficient evidence on their own for recognizing a new work.

## Sources of Information for Reasons for Title Changes

The next question was: How does textual content compare with title words as a source of information for determining reasons for serial title changes?

Findings Using Combined Sources. When using both sources of information (i.e., textual content and title words) and considering all reasons for title changes, 450 reasons (187 + 263) were identified, excluding multiple occurrences of the same category for a specific serial. However, 126 of the reasons were duplicates, found in both sources, leaving 324 reasons after excluding the duplicate reasons. There were 2.7 reasons, on average, for each title change (324/120 = 2.7). A summary of the reasons from the combined sources is found in table 7.

**Table 7. Reasons for title changes from combined sources**

There was an increase in the number of reasons identified when both sources were used. With the combined sources, function changes were identified for 67.5% of the serials, in contrast with 53.3% for textual content alone, and 51.7% for title words alone. Likewise, with the combined sources, subject changes were identified for 66.7% of the serials, in contrast with 50% for textual content alone, and 57.5% for title words alone.

Findings Using a Single Source. The 324 reasons for title changes found when using both sources included 126 reasons that were identified in both the textual content and the title words. The remaining 198 reasons were unique to either the textual content or the title words. A summary of these unique reasons is provided in table 8, with column 2 showing the number of reasons found exclusively in the textual content, and column 3 showing the number of reasons found exclusively in the title words.

**Table 8. Reasons for title changes from a single source**

Over twice as many unique reasons were found in the title words (137 reasons) as in the textual content (61 reasons). The biggest difference between the two sources was in format changes, with title words providing 47 unique format change reasons (40 of which were for a shortened title), and textual content providing only 4 unique format change reasons. For subject changes, there were 11 serials for which a subject change was described in the textual content but not in the title words, and 20 serials for which a subject change was potentially discerned in the title words but not in the textual content. For function changes, the figures were reversed, with 19 function changes identified in the textual content but not in the title words, and 17 function changes potentially identified in the title words but not in the textual content.

Discussion of Sources of Information. The studies identified in the literature review did not compare sources of information for determining reasons for serial title changes. The findings from the current study thus provide new input on this issue. The major limitation of the study had to do with the limited focus of the population studied.

Perhaps with a different range of serials, there would have been a higher or lower proportion of reasons found in each of the sources.

Textual content was found to be the preferred source for determining reasons for title changes. The title changes were explained in concrete statements in the text, in contrast with the lack of explanation found in title words and the need to determine the reasons on one's own. A number of unique reasons identified solely in the textual content were not discernable in the title words. However, less than half of the serial population studied (44.8%) had textual content explaining the title change, limiting the use of this source of information.

Title words were less advantageous in identifying reasons for title changes. Though some unique reasons were identified in the title words, two pitfalls were encountered in using title words. First, some reasons were not revealed in looking just at the old and new titles. For example, it was not evident in the change from: *Biometrics bulletin* to: *Biometrics* (no. 26) that there was a change from a bulletin to a journal. Likewise, in the change from: *Background on world politics* to: *Background* (no. 36) one would not know that the publication now includes longer, more interpretive articles. Second, the deletion of words from new titles was at times misleading. For example, the omission of subject terms from a new title suggests these subjects are no longer covered in the serial, whereas the words may have been omitted simply to shorten the title. This was the case in the change from: *The journal of philosophy, psychology and scientific methods* to: *The journal of philosophy* (no. 12), which was done simply to shorten the title.

In summary, the findings show the most straight forward way of identifying reasons for serial title changes is from statements in the textual content of the serials. These statements provide the reasoning behind the title change, whereas title words require subjective interpretations to determine the reason. However, since only 44.8% of the serial population studied had textual content explaining the title change, efforts will be needed to obtain valid title change information for many serials elsewhere, such as going directly to the editors or publishers for the information.

## Timing of Serial Changes Relative to Title Changes

The final question was: When do serial changes occur relative to title changes?

Findings on Timing of Serial Changes. In analyzing the timing of serial changes relative to a title change, only a serial's primary reason for the title change, as found in the serial's textual content, was considered. The findings are summarized in table 9. One would expect a title change to be accompanied by changes in the serial occurring simultaneously with the title change. This was true for close to two-thirds of the serials in the sample (64.2%). The remaining one-third of the serials had changes that began (21.7%) or were completed (14.2%) prior to the title change. Of the 43 completed or in-process changes, 41 were for subject or function changes, with the remaining two relating to a geographic change.

**Table 9. Timing of serial changes relative to title changes**

Discussion of Timing of Serial Changes. The title change studies in the literature review did not discuss the timing of serial changes in relation to title changes, or how to identify boundaries between serial works. The findings from the current study thus offer new input on these issues. The findings are limited, however, in that the study population was limited in focus. Perhaps with a different range of serials, a higher or lower proportion of serials would have been identified in each of the time categories.

As previously discussed, a qualifying subject or function change must occur in a serial before a new work can be recognized, when following the FRBR guidelines for recognizing new works. Once a qualifying change is identified, the boundary or dividing point between the old and new work must be established. The findings show that work boundaries are not always obvious, with some possible scenarios being:

- Qualifying change occurs at the same time as the title change (two-thirds of the sampled serials). For these serials, the boundary between the old and new work would logically be the point at which the title changes.

- Qualifying change occurs before the title change (one-third of the sampled serials). For these serials, one must decide if the new work should be established at the time the change begins or at the time of the title change.
- Qualifying change occurs with no accompanying title change. Since the study showed ongoing change in a third of the sampled serials, one wonders whether serials that haven't changed titles may also be changing in ways that would warrant the recognition of new works. It would be difficult, however, to track these changes with no title change to alert one of the changes. This topic was beyond the scope of the current study.

In summary, the findings show there is no perfect way to identify boundaries between serial works with changed titles. However, some possibilities would be:

- Option 1. Recognize a new work at the specific point at which a subject or function change begins, not when the title change occurs.
- Option 2. Recognize a new work at the point at which the title changes, and not when the subject or function change occurs, to eliminate confusion in designating the new work while still under the old title.
- Option 3. Do not recognize any new works for serials, with or without title changes, except in very limited circumstances, since change is part of the life of a serial, making it difficult to establish boundaries between old and new works. Further study would be needed to determine how to identify these exceptions.
- Option 4. Recognize a new work for any change in title even if changes occur in short order.

Options 1 and 2, above, would obviously result in the recognition of more new works than option 3. Option 4 would result in the greatest number of new works being recognized and would conform with current cataloging standards for single-part monographs, as described in the ALCTS document: *Differences Between, Changes Within.*[36]

## RECOMMENDATIONS

A goal of the research was to use the findings to provide recommendations for identifying new works resulting from changed serial titles. Using findings from the study, a procedure was developed for identifying new works for these serials. The procedure is discussed below and also outlined in table 10.

The recommendations that follow are based upon the specific concept of a work that was used in the study, namely the FRBR definition and accompanying FRBR guidelines for modified works. Since *RDA* is based on the FRBR model, the recommendations will have specific relevance to the forthcoming implementation of *RDA* in American cataloging. Should the serials community choose a different concept or interpretation of a work, the study's findings will still have use, though some steps in the procedure would need to be changed.

**Table 10. Procedure for identifying new works for serials with title changes**

Once a work is defined, a source of information for determining the reasons for title changes must be identified. It is recommended that statements in the serial's text be used. However, since this information occurred for only 44.8% of the serials studied, alternate sources must also be available. Statements in serials that describe the reasons for a title change are normally provided by editors or publishers. If such statements are not found, direct contact with the editor or publisher should be made. This may not be possible, of course, if the title change occurred in the past and the editor or publisher is no longer available or knowledgeable about the change. In these cases, the words in the old and new titles could be compared, as is done in current cataloging. However, the limitations in using title words as the source, described previously, would require close attention.

Using the selected source of information, one must determine if a new work has emerged, evidenced by the occurrence of a significant subject or function change in the serial. More study is needed, as previously mentioned, to determine which subject and function changes are significant enough to warrant the recognition of a new work. It is anticipated that a list could be created of the kinds of subject and function changes that occur. The subject and function changes could then be ranked by level of significance, with more significant changes providing stronger evidence for a new work. For example, a total shift from a non-scholarly to a scholarly publication might be regarded as highly significant, whereas the addition of a book review section to a serial would be less significant. The determination of where to draw the line between changes considered significant and those not as significant in recognizing a new work would require input from the serials community. A list of significant subject and function changes could be developed and then used by catalogers in determining when to recognize a new work.

Another factor to consider is that sometimes several subject or function changes occur when a title changes. A list could be developed, again with input from the serials community, of the kinds of co-occurring changes that would be significant. For example, the combination of two less significant subject changes and two less significant function changes might collectively be considered a significant change. The list of qualifying changes could be used by catalogers in determining when to recognize a new work in these circumstances. On the contrary, it might be decided that no insignificant changes would warrant the recognition of a new work.

Optionally, cumulative change over a range of title changes could be considered if the change between two successive titles is not significant. For example, a serial could first change from a newsletter to a newsletter having some scholarly articles. It might then change to a journal having just scholarly articles. The change from title one to title two, or from title two to title three might not be considered significant, but the change from title one to title three would be significant. Whether to consider cumulative change in recognizing new works is an area needing further study. If one were to recognize cumulative change, it would require tracking in the catalog record the serial changes that occur each time a title changes.

Finally, the boundary for the new work must be determined. It is recommended that the boundary be the point at which the title changes, and not when any associated serial changes might have begun. This would eliminate confusion in designating a new work while still under the old title in cases in which the serial changes begin before the title changes.

The foregoing procedure was applied to the serials in the sample, with some hypothetical results indicated in table 10. Depending on whether the optional step is implemented, either 20% or 25% of the serials in the sample would potentially be recognized as new works. The results would vary, of course, depending on how the concept of significant change is defined and pending the outcome of the additional research that has been suggested.

## CONCLUSION AND FURTHER RESEARCH

The purpose of the study was to identify characteristics of serials with title changes and then make recommendations for identifying new works resulting from changed serial titles. The study sought answers to questions concerning: the reasons for serial title changes, the value of different sources of information for identifying reasons for serial title changes, and the timing of serial changes that occur when titles change. The study focused on title changes and did not consider other kinds of changes that might also lead to the recognition of a new work.

It is recommended that serials cataloging rules provide a definition of a work that will form the basis for developing procedures for identifying new works. The cataloging rules should then specify the use of reliable sources, such as editor or publisher statements, that provide clear descriptions of the reasons for title changes. Once the reason(s) for a title change are identified, the chosen definition of a work should be used to determine if a new work has emerged. If using the FRBR definition of a work, one would determine whether an underlying subject or function change has occurred, and then whether the change is significant. The boundary for the new work would normally be the point at which the title has changed. Unless reliable sources are used and procedures followed that correlate with the requirements of a specific definition of a work, there is no assurance that meaningful decisions will be made in the recognition of new works.

Topics that might be considered for further research include:

- identifying reliable sources of information for determining reasons for title changes when a serial's textual content does not provide this information
- identifying reasons for title changes in serials that have not been well represented in previous studies (e.g., popular magazines and trade magazines)
- identifying reasons for title changes in serials based upon a random sample of serial bibliographic records with 780 and/or 785 fields
- developing a standard for determining the significance of subject and function changes in serials with title changes
- exploring the potential of cumulative subject or function changes over a range of title changes as evidence for a new work

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