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Authority Control in the Online Environment: An Introduction

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This collection of experiences with authority control in various libraries in Indiana comes at a critical time in the state. Automation has been evolving at a very rapid pace over the past five years in Indiana, and, as a result, many pertinent issues have had to be faced, planned for, implemented, and cleaned up after. The same issues will be dealt with in the years to come as more and more libraries automate.

One of the important issues to consider for the database is authority work and all that it entails. When a panel discussion on this topic was held during the ILA/ILTA annual meeting in Fort Wayne in 1988 and met with a good response, it was obvious that there is a great deal of interest in authority control. This editor and the contributing authors hope that this issue of *Indiana Libraries* will not only answer some questions about authority work, but also raise some questions that might be the catalyst for planning and evaluating authority control in other libraries. At this very important time in Indiana, all the people involved with *Indiana Libraries* hope that this issue will benefit libraries who are considering automa-

tion and are evaluating the way they do authority work.

To begin the discussion of the topic, it is important to understand how the contributors conceive or define authority work and authority control. Throughout the planning of this issue the following definitions have been used, as set forth on pages 3 and 4 of *Cataloging & Classification Quarterly* (vol. 9, no. 3, 1989) edited by Barbara Tillett. First, an **authority record** refers to a unit (on a card or online) that shows an established heading and cross references, among other possible information. This unit records decisions made over time during authority work. The next level would be an **authority file**, or a group of authority records. Such a file may or may not interact with a library's bibliographic file. **Authority work** is the "process" and includes the research and intellectual effort involved in creating and updating authority records. Last, **authority control** is the overall term for the "concept" encompassing the operations of authority work; it emphasizes the control over variant forms of access points that might appear as cross references, etc., in an authority record.

Who benefits from authority control? Certainly when a library patron is confronted with the dilemma of searching for items by an author but is not certain what that author's real name is, or how to spell it, authority work helps that user either by entering all material by that author under one heading or by leading the user to other possible headings via helps such as cross references. When the patron is looking for material about a specific subject, and the library uses one of the controlled vocabulary lists such as LCSH or Sears for subject headings, subject authority work can help the user find out under what headings the library gathers material about his or her subject needs. When a library patron reads something that has been published as part of a series and wants more material in the same series, successful authority work will have gathered this series together for that user. For example, uniform title authority work will have gathered together all the manifestations of the *Nutcracker*, no matter what the various title pages, record album covers, or scores might say. Who then benefits from authority work? It is not the library patron alone. It is certain that the reference librarian answering a reference question or assisting a patron to use the catalog benefits also. It is definitely the cataloger, who provides the access points by which material is found, who also benefits from authority work. In the automated environment which truly integrates the technical record and its associated files with the record accessed by the public, the most successful authority work allows easy access and smooth, almost invisible, transition from an uncertain search to a definite hit.

What happens when there is no authority work done? At least one

of the contributors to this issue would say that authority work is ultimately done by someone, either by a library staff member or by the user him or herself, with or without the assistance of a reference librarian. When authority work is not done by the library, the chances are great that the user may not find all the library's material by or about a given heading if he or she must guess what that heading is or how it is used by the particular library.

Just how much authority work can or should be done (some would say just how much user error should be accounted for) depends on many factors. In a totally manual situation, particularly one with a small number of staff, authority work often must be minimal at best. There are staffing constraints and demands in every library situation, manual or online, and even though there might be some who would say that authority work is essential no matter what, these staffing constraints and other economic issues are very real indeed. On the other hand, should this decision be based on economics? Just how much authority work can a library afford to do or not to do? When does lack of authority control actually cost that library more, in terms of reference staff time as well as in user frustration? Each individual library must ultimately decide what it can afford to do to assist the user. Some libraries might have to decide that any authority work, much less extensive authority work, is impossible.

The way libraries have done authority work over the years has been greatly affected by the availability of the bibliographic utilities. As libraries found the utilities more accessible, so also did they find that those utilities could provide the basis for authority work. Some libraries

who were automated with local systems could download authority records from the utility just as they could bibliographic records, either by tape or by direct transfer. Other libraries who were not automated locally could still use those online authority and bibliographic records as the basis for their own manual files. This certainly made the "work" of authority control a little easier in some respects.

Automation, or the possibility of automation in the near future, has forced many libraries to re-evaluate the status of authority work locally. What a totally manual situation might demand could be quite different from what is demanded by an automated situation. Even implementing AACR2 ten years ago forced some libraries who had previously not done authority work to begin doing it in some form, because cataloging under those new rules demanded so many changes in headings and access points. Then the online record was not so different from any other record, and those headings designated as access points needed to be consistent. Otherwise whatever the form of the catalog, finding anything could have been chaotic. Many libraries chose at that point to do massive authority projects in order to better prepare their records for automation, whenever that might happen. At that time, many libraries changed the way authority work was being done in preparation for automation. Tapes were sent to vendors to have headings flipped to AACR2 forms. Authority files were begun to keep track of all the changes resulting from AACR2. More attention was given to converting records, including authority records, to machine readable form. Automation seemed more likely, more feasible, more necessary, and more imminent than ever before.

How does preparation for automation change the way one looks at authority work? Consistency of heading has always been important for maximum access to the information in the library. However, there was always the chance that the library patron might "stumble" upon all the material by or about a given heading especially if the variance in form of heading was only slight. Cards under variant headings might be in close enough proximity in the card catalog that material would be uncovered. In the online environment, however, the "machine" is usually capable of giving up information only in the version of the search string itself. Not many systems are so perfect that they can guess what the searcher means. Any variant search string must be built into a sophisticated and truly interactive system in order that any user error will be accounted for.

Even with Keyword/Boolean, truncation, or other sophisticated searches, there is still a need for authority work. Headings and access points are still integral parts of a bibliographic record and must be consistent to maximize success for the library user. This is especially true when one considers that, on certain index screens, consistency of heading is still needed to perform that "gathering function" that Cutter described so long ago and that Janet Hartzell mentions in this issue. As sophisticated as Keyword/Boolean capability is, not having those consistent headings when one does a "simple" author, title, or subject search would mean that not all material under one heading would be found or displayed together. One cannot depend on a system to read the mind and guess what is really meant. The MARC record, built around access points, is still the best that libraries have to offer at this time. Especially in the larger libraries, patrons do not want to

wade through a long list of heading variances. In other words, they want librarians to do the authority work.

Librarians are asking what should be done with their card catalogs when automation is in place. Should they be phased out? Should they be maintained, and if so, to what level? Should they be kept until retrospective conversion is 100% complete? These same questions are being asked of what were previously considered the working files of the library — the shelflist and the authority files. What should be done with those other manual files when automation is in place? This issue will not address the shelflist question but will offer some suggestions for the manual authority file.

The articles included in this issue on the topic of authority control cover a variety of library types in Indiana. Three automated systems are represented, CLSI, DRA, and NOTIS; One library is not yet automated. The contributors are from libraries which represent varying levels of past and current authority work, and each one has addressed a different aspect of authority work for the reader to consider.

The article by Janet Hartzell deals with several issues of concern to public libraries in particular. Although Allen County Public is a large library with several branches, the issues and questions raised in this article are critical in many public libraries, no matter what their size or stage in the automation race.

Steve Mussett of the University of Evansville reminds the reader that, even in libraries with a small staff, authority work is attempted on different levels, sometimes to the frustration of the staff who try to keep

up with it. His experience has been in two similar libraries which over the years have taken quite different approaches in their authority work. He maintains that authority work is done — if not by the library staff, then by the library patron. Staff in small-to-medium sized academic libraries will particularly recognize and relate to some of the choices necessary in their situations as described in his article.

Sylvia Turchyn describes authority control over the years at a large academic library, a complicated endeavor. Indiana University had a long history of very complete authority control and a large manual authority file. When the decision was made to automate with NOTIS, a vendor-produced authority file was created. The point is made that evaluating the need for authority control is an important task in any case. In this article, as well as in the article by Judy Hill, the necessity of cooperation between public service and technical service staff in authority control is discussed. Many of the issues raised in this article are useful to all libraries, not just to large academic ones.

At Indiana State University a multi-institutional online system has been in place for several years, including the process of authority work. Sally Baker and Pam Firestone describe the development of such a situation, the process of maintaining it, and the basic approaches one can take.

The special library is represented by Christian Theological Seminary and the article on uniform title authority control by Nancy Eckerman, formerly Associate Librarian for Technical Services there. This article addresses the very unique problems of creating special title

entries that collocate varying manifestations of titles proper. Even though, as Eckerman states, many libraries will never deal with this specific aspect of authority control, it is a very real and necessary component to many others.

Tom Lehman discusses the series authority file retrospective conversion project at Notre Dame as well as current series authority work there. Libraries facing the conversion of their various manual authority files will find the description of this project very informative.

Judy Hill traces authority practices over the years at Butler University and, in so doing, describes scenarios that are all too-familiar in many libraries. The way in which Butler has come to grips with a seemingly total lack of authority control and has undergone many adjustments, including re-classification of the entire collection, in preparation for automation makes a very interesting narrative. It provides good insights to others who find themselves in similar predicaments.

Each article is different. Each covers a particular aspect of authority control, and all combine to provide a collection that is very comprehensive in scope and practical in nature. As mentioned previously, if solutions are not always given, it is hoped that the questions raised can provide insight and lay the groundwork for planning as automation in Indiana libraries proceeds.

The editor wishes to thank the contributors for their work on this topic. All concerned hope that some part of this issue will benefit libraries who are planning for automation; who are coming to grips with the need for authority control in some form or at

some level; who have automated and discovered what lack of, or minimum level, authority control now looks like online; or who have done some amount of authority control and now find themselves ready to consider more, in other areas, such as uniform titles. Authority work is done by someone. Ideally, good authority work in an online environment will mean that the library patron does less of it.

Some Authority Control Issues in Public Libraries

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INTRODUCTION

Anyone in the throes of a discussion about or a local implementation of online authority control has probably experienced a sensation similar to that of Alice and the Red Queen in *Through the Looking Glass*. The pair were running so fast that their feet barely touched the ground, yet when they stopped to rest, Alice noticed that in spite of their effort, the scenery hadn't changed. The Red Queen responded: ". . . you see, it takes all the running you can do to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that."¹ If a library has attempted authority control with paper files and feels overwhelmed by that effort, it is entirely possible that they will be even more overwhelmed by a move to an online file. In the early days of library automation, many people erroneously assumed that a computer would reduce the work loads, and thus the staffing levels, of technical services departments. Such dreams have remained simply dreams for most libraries. The new reality is that if online authority control is fully implemented, then libraries may need

additional staff, not less.

BACKGROUND

To provide the reader with some understanding of my approach to the topic of authority control, permit me to review some of Charles Cutter's ideas, taken in their final form from the preface to the fourth edition of his *Rules for a Dictionary Catalog*. Even after 88 years, Cutter's concepts about access points still seem applicable to the purposes of most libraries. Cutter saw users looking for information in two ways: (1) by specific, known elements such as an author, a title, or a subject—what Cutter labeled the "finding function" of a catalog and (2) by general, broad categories such as what works of an author are available, or what is available on a subject, or what different kinds of literature are available—what Cutter called the "gathering function" of a catalog.² By controlling how information is entered in the access points which perform those functions, i.e., by using authorized and unauthorized headings, libraries have attempted to maximize the amount of usable material that a patron retrieves during a catalog search. Through a liberal use of cross

references from unauthorized to authorized headings and from authorized headings to related authorized headings, libraries try to direct patrons to usable information with the least amount of staff intervention needed.

At the Allen County Public Library, online authority control looms on the horizon, but the reality is that there is much groundwork to be laid before authority control can be implemented. Our manual authority files were abandoned several years ago. In order to create authority records quickly for some of the titles on our magnetic tapes we decided to use a commercial vendor. Before we began loading our database, copies of only the adult non-fiction MARC records were stripped from our magnetic tapes and sent to Blackwell North America for verification of names and subjects. In addition to "fixing" information within the bibliographic record, Blackwell either located a matching LC authority record or created an authority record for local headings. Until parameters for both the authority records and for the public access catalog have been established on our CLSI system, we cannot load those authority records which were created for us. An additional wrinkle is that the CLSI/OCLC interface currently is not capable of downloading authority records from OCLC to our own database. This means that all "new" titles that have been cataloged since ACPL stopped its OCLC tape subscription in February 1989 may need to be re-evaluated at some point in the future and necessary authority records added to the local system by re-keying the information found in the LC authority files. In addition, authority records for the adult fiction and juvenile titles will need to be added manually since bibliographic records for neither of these portions of the collection were

sent to Blackwell.

Each type of library—special, university, public, school—will have its own unique set of issues to deal with when faced with the idea of authority control. The remainder of this paper will focus on some issues that face ACPL. It is always easier to raise these issues than it is to solve them, and this paper is no exception. The answers lie ahead.

Cross References

Public libraries have the most disparate patrons of any type of library. The majority of users are not sophisticated at using a catalog—regardless of whether it's in card or online form. One ongoing criticism in the use of many LC subject headings is that the headings often aren't appropriate for the generalist patrons who frequent public libraries. To compound the problem, helpful cross references aren't always given. Library literature abounds with stories about this particular issue. Try looking up the French Foreign Legion in the latest edition of LCSH. The authorized heading is "France. Armee. L'etranger." There is no cross reference for the unauthorized, but more commonly known English equivalent, French Foreign Legion.

Establishment of Names

Another of Charles Cutter's principles, which was lost in the shuffle many Anglo-American cataloging rules ago, deserves renewed attention: "Choose that entry that will probably be first looked under by the class of people who use the library."³ In other words, why not put things where most people would expect to find them?

This principle seems particu-

larly important with regard to the large portions of a public library collection which have traditionally been browsing collections—fiction, much of the juvenile collection, and biographies. Regardless of the kind of catalog, many patrons don't use the catalog to access these collections. So, no matter how many cross references are made, patrons are not going to find material that is not placed on the shelves where they expect to find it.

Many public libraries wrestled with this issue prior to AACR2. The rules dictated that all the titles by Jean Plaidy, Philippa Carr and Victoria Holt be entered in the catalog under the "real" name of the author—Eleanor Hibbert—rather than under any of her pseudonyms. Since fiction books are traditionally shelved according to the author's last name, all of the titles by Jean Plaidy, Philippa Carr and Victoria Holt ended up in the "H's" under Hibbert. The scenario seems entirely possible that a patron looking for books by Jean Plaidy entered the library, located the "P's" in the fiction section, and, on finding no books on the shelves, erroneously assumed that either (1) the library had none of Jean Plaidy's books, or (2) all the library's copies of all Jean Plaidy's books were checked out. In either case the patron might well have left the library disgruntled, not realizing that he/she should have checked the catalog where a cross reference card would have led them from Plaidy to Hibbert or that he/she should have asked a librarian who would also have re-directed the search.

Along with belated implementation of AACR2 in January 1984 ACPL also began a policy change about establishment of names: the name on the title page became the authorized form regardless of what LC

had designated as such. Not until the summer of 1988, however, did we attempt to deal with the fiction titles that needed to be relabeled and subsequently reshelfed in order that the books and the 100 field of the MARC records matched. Extra summer staff was able to handle about three-fourths of the material at the Main Library.

Because of this decision about establishment of names—a decision that had the greatest impact on fiction, both adult and juvenile, we did not want to risk losing these names in the course of authority work. For example, at the time our records were being examined by Blackwell, all the bibliographic records for books by Victoria Holt would have been flipped to Jean Plaidy as the predominant pseudonym. Victoria Holt would have appeared in the authority record for Plaidy as a 400 field, i.e., a "Found under" reference back to Plaidy. [Note: in the CLSI system, 400 fields, traditionally thought of a "See" references display as "Found under" references; 500 fields, traditionally "See also" references display as "Also found under" references.] For this reason the adult fiction and all juvenile titles did not go through Blackwell's authority validation.

Making the decision about title page names solved several problems: (1) patrons could browse and find materials where they expected the materials to be; (2) processing staff no longer spent inordinate amounts of time tracking down the "real" name of an author; and (3) processing staff no longer had to change the spines of books, since the author we had chosen and the author on the piece were no longer in conflict with one another. In addition, it seems that our decision has now become that of the revised AACR2, at

least with regard to contemporary authors.

However, new problems have arisen that we must deal with on a case by case basis. Changes in personal names continue to be problematic, particularly in fiction. Even trying to make decisions using the yardstick question: "Where is the public most likely to look for this?" becomes sticky when dealing with a title like *Trevayne*. The hard cover edition of the title was published in 1973 under the pseudonym Jonathan Ryder, but the paperback edition, published several years later, appeared under the author's real name, Robert Ludlum. There is a similar problem with Clemens/Twain. Ninety-nine percent of the books in ACPL's collection have title pages listing the author as Mark Twain. But there is that problematic 1% which have Samuel Clemens on the title page. No easy solution is apparent. Based on our decision, books can be shelved by what actually appears on the title page. That splits the copies of *Huckleberry Finn* into two separate areas of the stacks—the majority of copies in the "T's" with a few copies in the "C's." The authorized heading for Twain must be altered so that the cross reference for Clemens is changed from a 400 field (Found under) to a 500 field (Also found under). In addition, an authority record for Clemens must also be created with the appropriate 500 field. The other alternative is to use Twain as the authorized heading and physically alter the spines of the books bearing the name Clemens to reflect the authorized name. Only one authority record would be required and no alteration would have to be made to the LC authority record.

An equally frustrating if less prevalent problem occurs with some transliterated names. For most

standard names there is now a standard, transliterated spelling—a spelling that even LC now uses. So Tchaikovsky and Chekov have settled firmly into place. With current names, however, a person's name may be transliterated by one publisher with one spelling and by another publisher with another spelling. In most cases, the variant spellings do not alter the initial letter of the name and thus the shelving may not be as dramatically affected as might have been the case in some instances, as with Tchaikovsky and Chaikovskii, for example.

A final issue concerning fiction names that has implications for authority control is those books whose title pages read "Someone as someone else." In some cases these names reflect the "real" name and a pseudonym, e.g., Charlotte MacLeod writing as Alisa Craig. In other cases these names reflect two pseudonyms, e.g., Ursula Bloom as Sheila Burns. Which should be considered the author? Should both names be established as authorized headings with appropriate 500 (Also found under) fields? Many writers indicate that this duality of names is to alert readers to a particular kind of "voice." If that is the case, then perhaps the name following the "as" is the appropriate name for the 100 field.

Subject Headings

Besides the difficulties with determining authorized name headings, particularly in fiction, another major difficulty in online authority control which is more likely to occur in public libraries is that of how to merge two different sets of subject headings—those used for adult and those used for juvenile materials. With card catalogs a library was able to utilize more than one source of subject

headings but isolate each source by catalog. As long as this information remained separate, the integrity of subject headings could be maintained within each catalog. At ACPL all the adult catalogs in the system contained LC adult subject headings. All the juvenile catalogs contained subjects that were generated through LC's Annotated Card Program. Many adult and juvenile subject headings overlap, but there are a number of discrepancies as well. Take for example, the juvenile subject heading for mystery books "Mystery and detective stories." In the LCSH "Mystery and detective stories" is not an authorized subject heading; instead "Detective and mystery stories" is the authorized heading. In an automated online catalog many public libraries experience difficulty in attempting to support more than one set of subject headings, so a decision must be made about whether the authorized heading for all material in the database, adult or juvenile, should be "Mystery and detective stories" or "Detective and mystery stories." If the decision is made to establish both as authorized subject headings, then the "Found under" (400 fields) will need to be changed to "Also found under" (500 fields) in both authority records. For users who are familiar with subject headings from the card catalogs, having both sets of headings would allow patrons to sort out the juvenile from the adult titles they retrieve in a search. But for users who are unfamiliar with such subject headings, having both headings means searching twice to see all the similar genre titles. In either case, some manipulation of authority records is necessary in order to create the references and give the access needed by the patron.

The final broad category of materials that may wreak havoc with an online authority control system is

those special collections in a library which may have been assigned local, non-standard (i.e., non LC) subject headings. In the case of ACPL this is the case in our genealogy and local history collection. About 80% of the subject headings created for the genealogy card catalog are local headings. Adhering to Cutter's gathering function, the old LC reverse geographic subject headings are used to gather all information, regardless of the topic, under the place name qualified by its next larger geographic unit. So, all materials dealing with Madison County, Indiana, are entered as a local heading which begins Madison County (Ind.) and is then subdivided, usually topically. Because the whole collection is accessed in large part by non-standard subject headings, authority records for these headings will not exist—ever—on OCLC or through any other service that supplies only LC headings. If the time arrives when authority records can be downloaded to our CLSI system, that fact will have little impact on the authority work necessary for this special collection. All the authority records will have to be keyed from scratch into our CLSI Authority File.

Decisions Ahead

Out of this apparent chaos come some decisions that ACPL (and other libraries) will need to address. First, whenever official, authorized headings are altered (specifically LC headings), the local authority control system will require more staff to evaluate and maintain these alterations than would be required if no alterations had been made. Is the library willing and financially able to support these alterations with adequate resources?

Second, does the library plan

to create and maintain authority records for every name and subject heading that exists in its database, or can the library operate just as effectively by creating authority records only for those headings that require cross references or that require notes to explain or distinguish seemingly duplicate headings from one another? What can the library afford initially? What can it afford in ongoing maintenance costs? (These costs would include not only the requisite number of staff but also the requisite number of terminals—both OCLC and local-system terminals.)

Third, if the library is using local headings for any part of its collection, does the library have adequate support in staff, number of terminals, etc., to continue this practice? Typing an authority card for a paper file takes less skill and time and less sophisticated equipment than creating a complete authority record online.

Fourth, who is responsible for the creation and maintenance of the online authority file? In the past at ACPL, the paper authority files were created by processing staff who followed instructions given them by cataloging staff. Is this division of labor still an appropriate use of staff in an online environment?

Fifth, who is responsible for dealing with exception reports or discrepancy reports generated by many local systems? These reports isolate bibliographic records recently added to the database that contain unauthorized headings. Can these discrepancies be resolved by clerical staff, or paraprofessional staff, or do they require the attention of a professional catalog librarian?

Sixth, if authority records are

purchased from a commercial vendor, does the library plan to evaluate those records and make modifications *en masse* or wait until specific problems arise in the course of daily operations and then deal with the problems at that time?

Final Thoughts

Libraries have wrestled with authority control for years in attempting to maintain card catalogs. The assumption that an online catalog will make authority control easier because of a capability like global change is generally erroneous. If a library had difficulty maintaining authority control in the card catalog—primarily because of inadequate resources to support this function—the same library will probably have difficulty maintaining authority control online. Simply loading authority records into a local library system does not guarantee any kind of practical or easy authority control. There will still be a need for a great deal of human intervention and decision making in order to tailor, as much as possible, the catalog's access points to the users of that catalog.

Footnotes

¹Lewis Carroll, Alice in Wonderland and Through the Looking Glass (London: Dean & Son, n.d.), p. 109.

²Charles A. Cutter, Rules for A Dictionary Catalog, 4th ed., rewritten (Washington, D.C.: Government Printing Office, 1904), p. 5.

³*Ibid.*, p. 6.

The Transition to Automated Authority Control in the Smaller Academic Library

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This article will examine the character of authority control in manual and automated catalogs from the viewpoint of the small-to-medium-sized academic library. It is based on the experiences and observations of the author in two such libraries, that of Jacksonville University in Jacksonville, Florida, where the author served as Assistant Cataloger from 1983 to 1987, and of the University of Evansville in Evansville, Indiana, where the author has served as Catalog Librarian since 1987. In addition, the article will review authority control activities currently underway at the University of Evansville, and will examine decisions which any small or medium-sized academic library will need to make in preparing for and implementing an automated system.

Authority Control in a Manual System

Before turning to online authority control, let us first examine manual systems. Perhaps the most outstanding feature of name authority work in this environment is that truly effective authority control is often just out of reach, certainly in the smaller library. This is usually because of the

lack of available staff whose time can be devoted to the task. It is ironic that catalogers find themselves in this situation at a time when OCLC has made up-to-date information readily available through its online Authority File. Presented with such a source of continuously updated and easily consulted authority records, the librarian is confronted with the problem of how to respond to heading changes as they are encountered, given the constraints of staff size and available time. A library could respond by attempting physically to make all the changes in the catalog as they are discovered, but this would entail an army of people to pull and refile cards, to erase and type headings, and to type cross reference cards. Those who have worked in libraries where this was actually attempted can assure any who doubt that this is not a satisfactory solution. For one thing it is very labor-intensive, and staff often cannot be spared from the cataloging of new materials to devote the kind of time required to undertake complete manual changes. Furthermore, there is a psychologically negative aspect to such an undertaking as staff may find it demoralizing to work on a project that, because of its

very nature, seems never to end and never gives one a sense of accomplishment. Instead, one is confronted with a list of headings to be changed which only seems to grow longer and longer. To retreat from this prospect, the alternative might be to make cross-references from all the old headings in the catalog to their replacements employing, for example, a card reading: "items cataloged before such-and-such a date will be found under the heading: . . ." In this way a considerable amount of work may be avoided, but in effect, the burden of authority control is now placed on users as you rely on them to encounter those cross-reference cards, to read and interpret the reference correctly, and to search as instructed on the card. That's a lot of "ifs," and one might suspect that many users do not always make it through this labyrinth. In addition, another undesirable consequence of this form of authority control is that the public catalog soon fills up with multiple headings or forms of headings which represent the different cataloging rules in effect at different times. Some libraries have tried to compromise between these two solutions, manually changing the headings when there are only a handful to be done and employing cross-reference cards in all other cases. The first alternative allows for a neat catalog, but usually must be forgone due to staff constraints, thereby forcing the library to be satisfied with the second alternative. Whichever method a library chooses, keeping up-to-date with heading changes while still coping with the demands of cataloging and processing newly acquired materials is daunting.

It is no wonder that, for catalogers, an online system may be seen as a way out of this dilemma. One must bear in mind that an online system cannot be expected to solve all

of a library's name-authority problems. Automation can, however, provide a more realistic chance of bringing headings into line in a timely fashion and can also eliminate the problem of having multiple forms of headings. This latter situation is made easier if a system provides for conflict detection and/or global changes.

Introduction of Online Authority Control at the University of Evansville

It would be appropriate at this point to review the history of authority control at the University of Evansville. Prior to 1985, OCLC was the only automated component of the cataloging process, the local catalog being entirely manual. A separate authority file was not maintained; instead, the catalog itself served as the authority file. As changes in headings were encountered through the *National Union Catalog*, through LC printed cards, or, in later years, on OCLC, cross-references were typed, and sometimes physical changes were made. With the introduction of AACR2, an attempt was made to set up a manual authority file, although it wasn't as much a true authority file as it was a record of established AACR2 headings and a tally of the number of records in the card catalog which matched those headings or variants of them. With the approach of automation this file had to be abandoned, because the time spent in maintaining it needed to be redirected to prepare for online cataloging. The NOTIS system was brought up for local cataloging in 1985 and priority was placed on finishing retrospective conversion through an OCLC Microcon project and on loading bibliographic records. Later priority shifted to barcoding the collection so that when it was possible to bring up the NOTIS

circulation module the entire circulating collection would already have been prepared, and the circulation staff would not have to contend with unbarcoded materials. While those projects were under way, no authority work of any kind was undertaken other than to check the OCLC Authority File as new materials were cataloged and to edit new records accordingly. In the spring of 1988, the NOTIS name authority module was brought into use experimentally, with the idea that eventually a vendor would be approached for an authority file, either by buying another library's file or by having a vendor create a local file by matching the local database against LC authorities. At that time, NOTIS software permitted name authority records to be searched themselves, but could not yet generate cross-references, either in staff mode or in the online public access catalog. Now, however, libraries running NOTIS release 4.6 have cross references in the staff mode, and NOTIS release 5.0 is expected to expand this capability to the public catalog.

Ironically, the online catalog represents, at this stage, a step backwards because we have temporarily lost the ability to provide patrons with cross references. The reference librarians can search NOTIS for individual authority records and provide the information they find to a patron, but this will happen only if the patron takes the initiative to ask for such help. There is nothing the system can do to help those who have difficulty searching but who do not ask a librarian for assistance. We have resigned ourselves to this situation only because we know that cross references will be available to the public eventually. In the meantime, authority records are being created for internal use following certain rather

elastic criteria. Records are loaded for compound surnames and for foreign-language names if they have variable spellings or if they are transliterated from non-Roman alphabets. Records are also loaded for corporate names and conference names which have been judged to be confusing or otherwise not obvious. For the most part, no attempt has been made toward any retrospective authority work, and the library will be reluctant to do so until experience is gained with the full authority control capabilities available on upcoming versions of NOTIS. However, a special project was undertaken to load the names of musical composers and of foreign-language literary authors. In addition, reference librarians are encouraged to recommend headings which need to be added to make access possible to certain names. As an example of this cooperation, a problem arose with the established form of the name Ferdinand Magellan. It appeared from our catalog that we had no materials at all with this name as a subject heading. The established form of the name Magellan is the Portuguese spelling, Fernão de Magalhães, a name which is not readily apparent to users. We loaded a name authority record in response to a request from the Reference Department, so that in the future library staff will have access to this name. This record is shown in Figure 1. Note that the Portuguese form of the name is in the field tagged 100. This is the established heading. The four fields which follow (all tagged 400) are cross references from variant forms of the name in Spanish, English, and Portuguese and serve as the basis for online cross references in NOTIS release 4.6.

When the university's system department is ready to install the NOTIS software which supports cross references, the names loaded in this

project will already be present. Admittedly, the problem with this method of building an authority file is that the authority work is done "after the fact." Once the first patron has searched unsuccessfully and then asked for assistance, we are at least able to get the record in the database. Lacking the staff to do retrospective authority work, the library is forced to be satisfied with this compromise. When cross references are available online and there is the opportunity to work with and experiment with the system, it is expected that priorities and workflow will change.

Considerations in Planning for Online Authority Control

If a local library makes the decision to begin preparing for an online system, there are some points that should be considered. These will have a bearing on decisions that must be made regarding workflow and allocation of staff resources to authority control.

One must always bear in mind which groups of users will have access to a particular feature or facet of authority control in the system to be chosen. Technical Services personnel, at least those responsible for cataloging and authority control, will need access to all the information provided by the authority records. Public Services personnel, especially reference librarians, also stand to benefit directly from authority records, not only in the form of cross references (if the system chosen can generate them), but also from the records themselves, which often contain useful information about library tracing practices, enumeration systems, call numbers, and so forth. Of course, this requires that Public Services librarians be trained to interpret the authority record, particularly if the system supports full

MARC records. Users of an interactive public catalog will also be using authority data indirectly in a system that supports such cross referencing. Some systems are also able to redirect a search to the established form of the search term, using the data contained in the authority records. The amount of time and staff resources devoted to authority control will depend on which of these groups of potential users will actually be using authority data.

The devotion of more resources to authority control may also be justified by special features bearing directly on Technical Services. NOTIS, for example, will detect headings in the catalog which conflict with established headings and list them in the form of a report, eliminating the need to search individually for errors and obsolete headings. Similarly, it will generate lists of new and dropped headings.

The authority control procedures at the University of Evansville are based on decisions reflecting the needs of various groups which will be able to access authority data in the system, as well as the desire to be cautious in decisions made, pending the installation of subsequent versions of the NOTIS software. Personal name authorities have been the primary concern, because it is apparent that this is an area needing immediate attention. The decision to place emphasis here is an attempt to address the needs of the users, as reflected in the nature of the questions posed at the reference desk, and the library staff. Beyond that, more emphasis has been placed on subject authorities than on other types of name authorities, such as corporate names, conference names, and series authorities. These have been placed on the back burner, not because they are unimportant, but because experience with a largely undergraduate

student population suggests that resources are better invested in personal names and subjects.

Conclusion

In summation, for many small- and medium-size academic libraries, the advent of the automated library catalog offers the prospect of systematic and effective authority control, something which is frequently out of the question in a manual environment. However, even with the greater power and control offered by these newer systems, the old problems of restricted budgets and limited staff will continue to force librarians to

analyze the nature of the service they wish to provide, and sometimes to compromise for the sake of efficiency. Still, for the University of Evansville Libraries, the potential benefits of automated authority control justify the gradual shift of resources to this previously-neglected activity.

Figure 1

LTUE DONE

CAM5310

NOTIS CATALOGING

UE# CAM5310 FMT A RT z DT 04/15/88 R/DT 04/15/88 STAT mc E/
LEV n H476 SRC LANG ??? ROM n MOD UNIQUE a GOVT S/
SYS a D/I n NUM n S/TYP n NAME a SUBJ c SER b AUTH a
H/ESTAB a T/EVAL a IP a RULES c

010: : \$a n 50039489

035/1: : \$a (OCoLC)00074705

040: : \$a DLC \$c DLC \$d DLC

100: 10: \$a Magalhães, Fernão de, \$d d. 1521.

400/1: 10: \$a Magallanes, Hernando de, \$d d. 1521.

400/2: 10: \$a Magellan, Ferdinand, \$d d. 1521.

400/3: 10: \$a De Magalhães, Fernão, \$d d. 1521.

400/4: 10: \$a Magallanes, Fernando de, \$d d. 1521.

670/1: : \$a Peillard, L. \$b Magellan . . . 1948.

670/2: : \$a Berzovic R., F. El descubrimiento de Chile por
Fernando de Magallanes, c1983: \$b p. ix, etc. (Hernando de
Magallanes; nacido en Oporto, approx. entre los años 1472-73)

Name Authority Control at Indiana University Libraries

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Maintaining authority control in a large academic library is complicated, challenging, occasionally frustrating and absolutely necessary. Imagine the bibliographic chaos in the Indiana University environment without quality authority work: library collections exceeding 23 million material items with nearly five hundred librarians, professional and support staff serving over 89,000 faculty and students at over forty campus and branch libraries. Although Indiana University Libraries belong in the category of large academic libraries with strong backgrounds in manual authority maintenance, experience in automated authority control is recent. On January 15, 1990 Indiana University Libraries began online cataloging production using the NOTIS software. Both bibliographic and authority work were included in the first phase of online cataloging. This article will discuss manual authority control procedures, the transition from a manual to an online authority file, using a vendor-produced authority file, and authority control in the automated environment.

Manual Files

For many years, the cataloging departments in the Main Library at Bloomington supported an elaborate system of authority control which was housed in various card files. In addition to the basic catalog files for names, series and subjects, the Main Library also developed a local aberration called the "Official File."

The Official File was essentially a duplicate file of all of the main entry cards found in the public card catalog. It was created as a convenience for the catalogers in the Cataloging Department who are situated two floors away from the public card catalog. Traditionally IU has generally accepted the Library of Congress form of heading as the correct form of heading. In the Official File, Library of Congress copy catalog cards represented a large percentage of the duplicated public catalog file. The personal and corporate name main entries on the LC cards functioned as authority records whenever a cross-reference structure was not needed. For those names requiring cross-references, a master card, with the complete reference structure and

citation, was prepared and filed in the Official File. Each individual reference heading was typed in duplicate and filed in both the public and official card catalogs.

Series were given their own unique home in a separate cabinet, with each card carrying treatment information in addition to form of entry, references, source citation, and classification when appropriate.

Maintenance of these files became very costly in terms of staff time, card stock, cabinets, and space allocation. Beyond these obvious economic concerns, IU also faced the growing demands inherent in preparing for an online system and the inevitable staffing reassignments it brings.

Authority Work in Transition

The decisions that were made to streamline card maintenance activities can be successfully applied and expanded in more than one situation. For example, those libraries which also have developed some mechanism for manual authority control and which must make cut-backs for financial reasons are the most obvious candidates. Perhaps not as obvious are the libraries which are not yet automated, and which don't have authority files, but which are considering some type of authority control in anticipation of a system. Evaluating the need for authority control is the first step. In this analysis, it is vital to consider not only the needs of patrons, reference staff, and the architects of the catalog, (i.e., catalogers) but also to consider the inevitability of an automated future. Take a visionary look at the possibilities for automated linkage with other academic institutions; then consider the nightmares that will be encountered if authority work is not stan-

dardized or not done at all.

Standardization does not necessarily mean homogenization of authority work. For example, it is a relatively minor grievance to add, delete or ignore references in an authority record. However, it is a much larger problem to reject totally the form of name already established in legitimate cataloging sources. Libraries which create or perpetuate a hybridized authority file should consult a library which faced the automation of a similar structure before proceeding.

You may also wish to examine those authority tools that are traditionally viewed as property of the cataloger. For this particular forum I am referring specifically to bibliographic utility authority files. Stop thinking of these files as technical resources and start thinking of how they can be converted into authority files for the public. Let the sources that catalogers consult also become the institution's authority file. Move the OCLC workstation out from behind the reference desk so that the patrons have easy access. If your library's budget can support the additional cost you may also consider installing additional OCLC workstations near the public card catalog.

OCLC's authority file may not contain every heading encountered in an academic collection. Before resorting to some level of manual maintenance, however, determine the length of time that will elapse before your library is automated. IU discontinued all manual reference work in 1985 in anticipation of the online file. Master cards were no longer prepared for the Official File and cross-references were not typed and filed.

Several positive by-products can result from a decision to use the bibliographic utility authority file as your own. First of all, the reference staff becomes part of the solution. Authority control is not just a technical services issue, it is a whole library issue. Reference librarians should be offered training in the form of mini-MARC workshops and sessions on reference structure by technical services staff. The confidence and support of the public service personnel are integral to the success of this approach. Reference librarians should be encouraged to apply their bibliographic instruction talents to the challenges of a bibliographic utility's database. Even if your library does not anticipate an online system in its immediate future, consider the benefits of having reference librarians who are already skilled in MARC and who understand the structure and format of a database authority record prior to any local online public access tools. Patrons who are accustomed to searching the OCLC authority file will make a smooth transition to a user-friendly, customized, integrated system. Appointed staff and hourly personnel, released from the labor-intensive maintenance of a manual authority file, can be redirected to online efforts or assigned to other pressing needs such as backlog reduction.

Series

The one particular type of authority work that may need individual attention is series authority control. Simply following the Library of Congress isn't always a solution because often more than one treatment or option may be offered. Some libraries have approached the series problem in an automated environment with the decision to trace all series, regardless of established or accepted

national practice. In fact, in the Library of Congress' *Cataloging Service Bulletin* issued in Winter 1990, LC announced its decision to trace all analyzed series established after August 31, 1989. As part of the preparatory work for an online system, the decision to trace series can be applied only to the database load of archive tapes or as a permanent decision for all new production cataloging. In institutions such as IU, where multiple cataloging agencies contribute to the authority file, the ability to record more than one series treatment decision is necessary. The NOTIS system does support authority control and access to multiple series decisions. Catalogers input Local Note fields (690) which contain coded information about each holding library and site-specific series treatment (See Figure 1).

NACO

At the present time two of the cataloging agencies on the Bloomington campus are authorized to create and contribute name authority work at the national level. The Main Library cataloging agency, specifically the Cataloging and Serials Departments, has participated in the National Coordinated Cataloging Operations (NACO) name authority project since 1981. In general, authority records are created for all headings new to the OCLC database, except those generated by Middle Eastern monographic cataloging. The other cataloging agency, the School of Music Library, contributes authority records as one of four national sites in the NACO-Music Project. A large number of the music authority headings are generated by a Title 2C funded retrospective conversion project of scores and a Title 2C funded opera recording cataloging project. Libraries with access to OCLC, WLN or RLIN au-

thority files can retrieve NACO name authority records by searching the authority file.

As NACO participants, catalogers create new name authority records which are input via the OCLC system. Using computer-to-computer links, the records are sent to the Library of Congress and then distributed by LC to the major utilities. These records must meet the standards of authority control set by the Library of Congress and, therefore, are accepted internationally as quality authority records. Among OCLC participating libraries, IU's contribution to NACO is third in the nation, surpassed only by the U.S. Government Printing Office and Princeton University. As of April 1990 Indiana University catalogers have contributed over 36,000 authority records.

Vendor-Produced File

As part of IU's preparation for an online system the decision was made to have a customized authority file created from its OCLC archive tapes. Indiana University contracted with Blackwell-North American to create this authority file from the 2 million bibliographic records contained on the archive tapes. In reality, BNA provided two authority files in one. First, as the IU tapes were run against the LC authority file, all exact matches in headings were stripped off with full cross-reference information. Similarly, all cross references in the LC tape that matched locally-used headings triggered the local headings to flip to the LC form. These corrected headings with full cross-reference structure were also added to the customized authority file. The unmatched headings were checked by BNA personnel to verify that misspellings or other entry problems did not prevent the machine match. Both the

matched and flipped headings comprised all of the customized LC headings in the authority file. Second, the remaining unmatched headings were loaded into the authority file. These are referred to locally as naked or minimal authority records. They contain no other information than the form of heading as it appeared on the bibliographic record. When cross-references or bibliographic citations are needed on a minimal authority record, catalogers pursue one of the following solutions: If an authority record has appeared on OCLC, it is downloaded into the local file, replacing the minimal authority record. If no OCLC authority record is found at a NACO cataloging agency, a new authority record, which eventually overlays the minimal level record, is created via the NACO process. All other cataloging agencies manually enter the additional data into the minimal authority record.

Online Environment

The workflow of authority control and authority file maintenance at Indiana University is similar to OCLC's practice, that is, quality control is everyone's responsibility. Locally we have adopted the phrase "Shared efforts for shared results." The responsibility is distributed among each of the nine cataloging agencies because the benefits will be shared by all of the University.

Great complexity is encountered in this pseudo-network environment (See Figure 2). The Indiana University system, which was named IO (Information Online) consists of multiple, autonomous libraries with jurisdictional lines. Sixteen NOTIS subfiles called "processing units" were designed to display the holding locations of each of the campus libraries in the Online Public Access Catalog.

Each bibliographic record is "owned" by one of these processing units. These bibliographic records are not shared. Conversely, individual authority file records do not belong to specific cataloging agencies.

All authority headings are collocated for retrieval and display purposes. Headings are established in the authority file and bibliographic records are modified to agree with the authority records. No cataloging agency is required to collocate interim records used for acquisition activities.

The development, management and maintenance of the authority file is a cooperative effort. To that end representatives from all cataloging agencies meet regularly in a forum known as the IO Cataloging Congress to discuss authority file concerns and to enhance local authority control procedures. All cataloging agencies have agreed to use Library of Congress name headings whenever they are available. In creating all other name headings, Indiana University cataloging agencies follow the current edition of *Anglo-American Cataloguing Rules* in accordance with Library of Congress practice.

The IO Catalog Management Department (IOCM) in the Main Library on the Bloomington campus serves as the authority coordination unit. Activities such as global heading changes and alerting units to adjust headings on bibliographic records are the responsibility of this unit. An inter-agency communication form is used to report heading changes to IOCM. However, individual cataloging agencies resolve all duplicate authority records encountered in the daily workflow.

Indiana University's participation in NACO has simplified the

creation of local authority work online. When a new heading is generated by an item being cataloged at a NACO agency, the authority record is created, transmitted, and downloaded from OCLC to the local database. Using NACO authorization, catalogers also update authority records in OCLC's authority file prior to downloading. Other cataloging agencies create and input new name authority records directly into the IO authority file or download OCLC authority records, if appropriate.

Conclusion

One of the greatest challenges of authority control facing a large and complex academic library is its ability to support the autonomy of its cataloging agencies within the structure of national standards. By building upon the high level of authority control that was established in the manual environment, Indiana University Libraries have successfully developed an online authority file that meets the needs of its diverse database users. With future releases of the NOTIS software, the authority work that catalogers have done and will continue to do becomes even more valuable to the public.

INDIANA UNIVERSITY LIBRARIES
SERIES AUTHORITY RECORD

LTAF DONE

AAA6540

NOTIS CATALOGING

PZ28

AF# AAA6540 FMT A RT z DT 11/15/89 R/DT 09/06/90 STAT mn E/L n
SRC LANG ROM MOD UNIQUE n GOVT S/SYS a D/I n SUBD NUM b S/TYP a
NAME a SUBJ a SER c KIND a H/ESTAB a T/EVAL n IP a RULES c

- 010: : |a n 42017239
- 040: : |a DLC |c DLC
- 130: 0: |a Music in American life.
- 643/1: : |a Urbana |b University of Illinois Press
- 644/1: : |a f |5 DLC
- 645/1: : |a t |5 DLC
- 646/1: : |a s |5 DLC
- 670/1: : |a Vance Randolph's Ozark folksongs, 1982.
- 690/1: : |a BB FW BM: fts
- 690/2: : |a IP CO: fns

FIGURE I

INDIANA UNIVERSITY LIBRARIES MAP OF IO AUTHORITY CONTROL

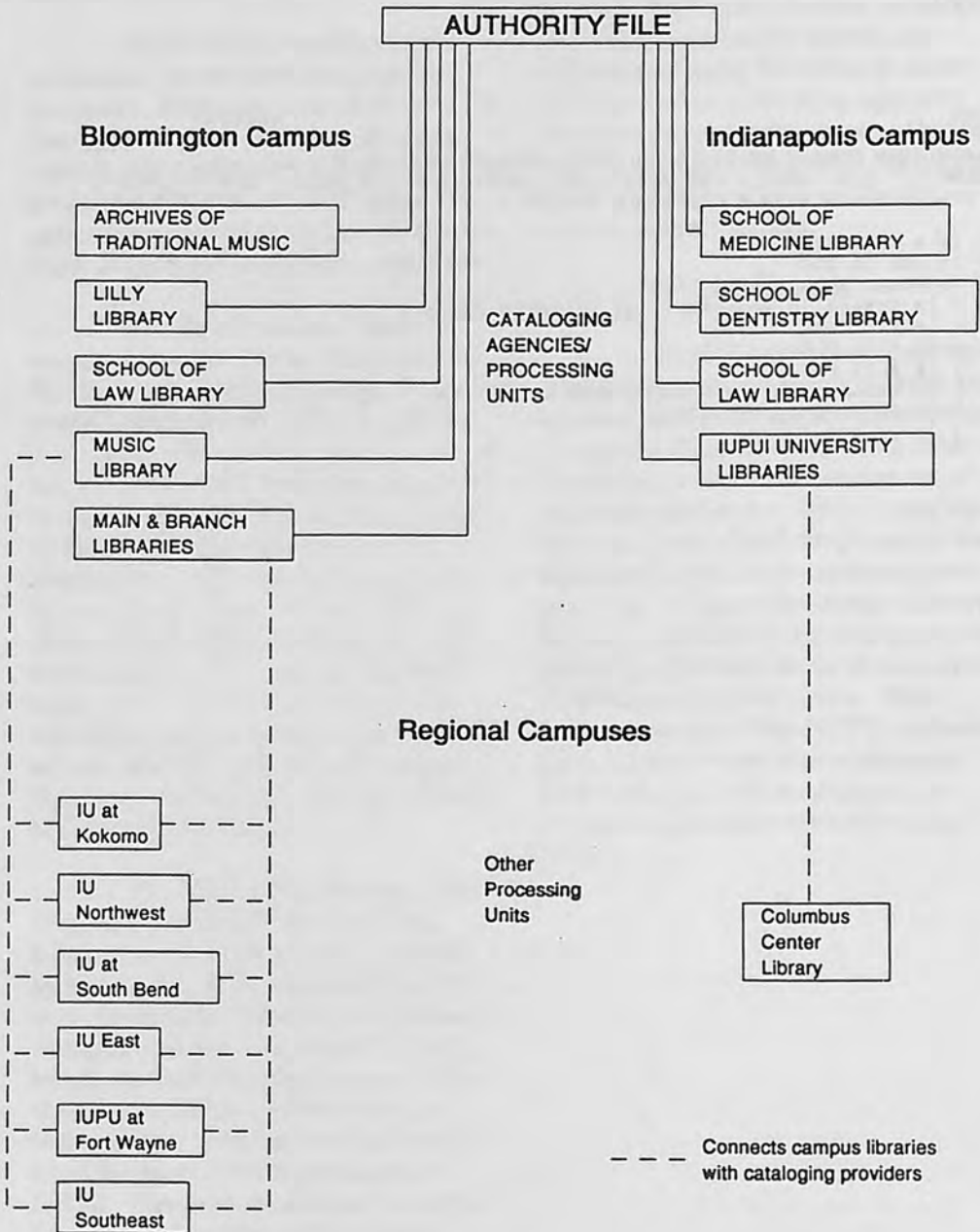


Figure 2

Authority Control in a Multi-Institution Environment

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and

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There are three basic approaches to authority control in a multi-institution environment:

1) A separate and autonomous approach: each member library maintains its own bibliographic and authority files. These files are not shared but can be accessed by the other member libraries.

2) A decentralized approach: each member library is a separate Processing Unit that contributes records directly to shared bibliographic and authority files.

3) A centralized approach: each member library is a separate Processing Unit that contributes records directly to a shared bibliographic file and indirectly to a shared authority file. One member library is responsible for the management and maintenance of the shared authority file.

Libraries must consider and answer several broad questions before choosing which of these approaches best meets their needs. Will all member libraries share the same files? If so, will they be "equal" partners, sharing fully in all aspects of authority control including decision-making, conflict resolution, and authority and

bibliographic corrections? If not, which member library will be responsible for the overall management and maintenance of the authority file?

This article discusses a centralized multi-institution approach to authority control. Indiana State University (ISU) shares its online database with two private colleges: Rose-Hulman Institute of Technology (RHIT) and St. Mary-of-the-Woods College (SMWC). This ISU NOTIS cluster came about as a result of a grant awarded to ISU in early 1986 from Public-Private Partnership Funds established by the Indiana legislature for the purpose of fostering joint instruction and research efforts between public and private institutions. This grant made possible the addition of the library holdings of RHIT and SMWC to ISU's online catalog and, conversely, the extension of the ISU libraries' online system to these two nearby colleges.

Background of the Participants

Indiana State University is a public co-educational university in downtown Terre Haute, with an enrollment of 11,300 students. The

ISU libraries house over a million volumes. Library staffing includes 29 librarians, 48 support personnel, and 130 student assistants.

Rose-Hulman Institute of Technology, a private all-male college enrolling 1300 students, is located on the east side of Terre Haute. Its library houses 70,000 volumes and is supervised by one professional librarian assisted by two support staff and eight student assistants.

St. Mary-of-the-Woods is a private women's college operated by the Sisters of Providence in St. Mary-of-the-Woods Village, just west of Terre Haute. It has an enrollment of 890 students. The library houses 140,000 volumes and is staffed by five librarians (two full-time and three part-time), and 25 student assistants.

ISU entered into a contract with RHIT and SMWC on July 1, 1986, creating a union database among the three institutions. The union evolved over two years of careful planning, selection, and preparation.

History of the ISU Online Catalogs

Public Access Catalog

Indiana State University selected NOTIS in 1984; loaded bibliographic tapes and introduced LUIS (the public access catalog) in the spring of 1985; and began cataloging online in late summer, 1985. Over 395,000 bibliographic records were loaded. Included were: OCLC records from archive tapes, Carrollton Press Remarc records, and brief records created from circulation tapes.

Authority File

At the time we loaded these bibliographic records we had no

machine-readable authority records and, hence, no online authority file even though ISU had practiced authority control for many years and had an extensive manual authority file. With this tradition, we did not consider NOT having an online authority file. In fact, the future availability of authority control was one of the reasons we selected NOTIS. The next question involved the acquisition of an online authority file. Would it be more practical to build our own file, record by record, or to buy an authority file?

To build or to buy? The catalogers' inclination was "to build," to convert the carefully-constructed card authority file into machine-readable authority records. That way we would know just what was in those authority records as our local information would be included. This was unrealistic and would have been expensive (in terms of both time and labor), and it would have been slow. We optimistically thought that authority control would be available in a relatively short time. From a practical standpoint, we needed authority records rather quickly. "To buy" seemed the answer. From whom do we buy? The obvious choice was to send our bibliographic file to a vendor who would build an authority file based on our own headings. This, however, was not economically feasible at that time. We learned that Northwestern University was willing to sell us a copy of its NOTIS authority file as it existed then, spring 1985. We purchased this file and loaded it.

Using Northwestern's Authority File as a Resource File

We began looking at the online records, studying manuals, and formulating procedures for our authority workflow. As we began to work with this online file, we found certain

advantages and disadvantages. Advantages included having a reference on which to base our authority records; we saw the fields included and studied various records with the manuals to better understand the meaning of certain fields, etc. In some cases, a Northwestern record yielded information which helped solve a problem. In addition to many local authority records, the Northwestern authority file contained many Library of Congress records from an earlier time. Many of these LC records contained information that is no longer on the same authority records now in OCLC (e.g., an earlier heading, old historical note). They often included an "n" number which enabled us to get to an OCLC authority that we hadn't been able to access under usual search strategies, usually because the search retrieved too many items. There were some disadvantages, too. They included: records being outdated by the time we began actively using the online file late in 1985; all had to be updated or revised to provide local information. If a record needed only a few revisions to be updated and claimed as an ISU authority, these were done by the head of the catalog management unit. (See Figure 1.)

The ISU symbol was added to the 040 field, name and cross-references were corrected; historical or local notes were added; the "used" date from OCLC was added in a 670 field; and initials of operator and date were added in a 690 field. We would overlay Northwestern records needing extensive revision with a newer authority record from OCLC, adding ISU symbol, local notes, the OCLC "used" date, initials and date.

Preparation for the Merger

In preparation for the merger,

the OCLC archive tapes from RHIT and SMWC were sent to SOLINET for the name headings "flip" to AACR2 forms. RHIT's tapes were loaded in July, 1987; SMWC's tapes were loaded in August, 1988. Microcon tapes from the two schools came straight from OCLC to ISU and were loaded beginning in July 1987 and continuing into 1988. Because there were several tape loads over a period of almost two years, many name headings had to be cleaned up online several times, causing some degree of confusion and frustration.

Early Authority Procedures

Procedures for online authority work were refined during the early part of 1986. When the union database became a reality, the catalog management unit expanded its workflow to incorporate authority work contributed by the other two libraries. Due to a lack of sufficient personnel and other library considerations, neither Rose-Hulman nor St. Mary-of-the-Woods libraries had been able to do much authority work in the past. SMWC had kept a manual authority file but found it difficult to keep headings in its card catalog updated. Since ISU had an existing authorities unit (Catalog Management Unit or CMU), this unit took on the responsibility for inputting/updating all name authorities from the three libraries. In addition, CMU would make corrections on headings in all three libraries' online records, thus ensuring the consistency of name access points in the union catalog.

Training sessions were held with the catalogers from each library in January, 1987. Procedures for authority work were outlined, discussed, and refined. Catalogers from each institution would do preliminary searching of name headings, recording

search results on authority request forms devised by CMU. (See Figure 2).

Preliminary searching included: first checking the ISU online authority file for the ISU symbol or tag in the 040 field of the authority record. If there was a record with our local symbol, catalogers used this name form. If the record did not have the ISU symbol, they included the authority record number on the authority request workform, asking for this name to be updated and claimed as an ISU authority.

If there was no record in the ISU authority file, the catalogers searched the OCLC name authority file. If a record was found, they printed it, sent it to CMU to be incorporated into the online authority file, and used that form of heading in cataloging the record. If nothing was found in the OCLC authority file, the catalogers searched the OCLC bibliographic file, with the hope of finding a DLC-DLC record on which to base a name decision. If a record was found, the cataloger included the OCLC bibliographic record number on the request form on line 4 and sent the form to CMU to be entered online as a provisional authority: a brief record including the name heading (line 1), 040 field with ISU symbol, a note field with the cataloger's initials and date of input (line 8), and often a 670 note citing the work in which the name appeared. The cataloger may also have included x-references (line 5), xx-references (line 6), historical or personal information notes, or other citation notes on the authority request form. (Figure 3 illustrates a provisional name authority record.)

The request forms and/or OCLC authority printouts from RHIT and SMWC were received via the

SHALSA van biweekly. The head of CMU reviewed the OCLC printouts to catch and correct problems with tagging, spelling, and coding. The new OCLC name authorities were then downloaded via black box interface into the ISU authority file. Names were then searched in the ISU manual authority file and the card catalog for old forms of the heading. The next step in the workflow was to search these new and updated name headings in the online author/title and subject indexes and make corrections to bibliographic records for all three institutions. This additional searching helped with the recon of the ISU manual authority file and with the clean-up of the online bibliographic database. The final step in the flow was to claim the authority record by adding the ISU symbol to the 040 field. (See Figure 4).

Current Authority Procedures

The Northwestern authority file had served as a basis for building the ISU authority file, but in February 1990, ISU ceased claiming the older Northwestern authorities in the online file. The records had become so dated it was necessary to make extensive revisions to each one claimed. It seemed more efficient to transfer new OCLC records into the file. The remaining unclaimed Northwestern authority records were removed from the file, resulting in the simplification of our earlier authority procedures in some respects. We no longer have to update or adapt Northwestern records. Catalogers no longer have to check the 040 field to see if the ISU symbol is there; if there is a record in the authority file, it is an ISU record.

Customizing the Online Authority File

As procedures have evolved,

we have made decisions about personalizing our online authority file. We have customized our records by adding extra cross references, local notes, literary call numbers, etc.

1. In cases where updated OCLC records have dropped the pre-AACR2 form but we have found usage of the old form in our card catalogs, we have added it as a cross reference to the authority record in our online file.

2. Specialized cross references are added when necessary. For example, we use references with "surname, sir" (omitting ic) because we have found old catalog and online records in this form. Also, we include New York (City) as well as New York, N.Y. as cross references because both forms have been used at different times.

3. Online access problems involving spaces in names have been addressed by adding cross references covering variant forms not found on OCLC records. Examples include Van der meer, Vander meer, Vandermeer; co-ordinate vs. coordinate, etc.

4. The most unique method of customizing was done to bridge the gap until the authority file is interactive with LUIS. In extreme cases we have created provisional bibliographic (information) records, instructing the user to search under a different name form. Example: If a patron calls up Vincent van Gogh under: Van Gogh, Vincent, the "pseudo-bib" record instructs him to search under Gogh, Vincent van, the actual name authority form. (See Figure 5). We also have such a record for Thomas Aquinas. The authority form is Thomas ic Aquinas, Saint; the ic does not index in LUIS. Therefore, the patron would retrieve no records if he searched under Thomas Aquinas.

5. In the online environment records are more complete and detailed than in their manual counterparts. Because they were typed on

cards, the manual authorities lacked the extra information we are able to include, such as extra source citations, cross references, historical and local notes.

The Merged Heading Index

Our biggest handicap has been the inability to see how the authority file would interact with LUIS as it actually guided the user to the correct name forms. With the arrival of NOTIS 4.6.1 and the Merged Heading Index (MHI, formerly known as Index Redesign), we have a preview of this interaction. The "OPAC-like view" in staff mode provides information to answer some of our questions concerning interaction of the authority file with the bibliographic database. For instance, we can see how the cross reference forms will display to the user. Some of our customizations may turn out to be unnecessary now; some may even be confusing and need to be undone. For instance, MHI provides for the indexing of additional subfields in name headings, eliminating the need for many of the special cross references we have provided to ensure access to the correct name forms. Entries for Vincent van Gogh and Thomas Aquinas can now be found without our special "pseudo-bib" records.

MHI has also shown additional problem areas. There will be more clean-up projects before we reap the full benefits of MHI; system-generated conflict and error detection reports will point out headings needing attention.

We continue to learn more about the expanding capabilities of the online system to improve the public's access to our collective holdings. Two new participants in the ISU NOTIS Cluster will not be using the central-

ized authority procedures at this time. The libraries of the University of Southern Indiana (USI) and Vincennes University (VU) are separate institutions in the cluster; each will maintain its own bibliographic and authority files, using the ISU authority file as a resource file only. Authority procedures will continue to be revised and refined as the NOTIS Cluster members' needs are addressed.

Conclusion

The decision to use a centralized approach to authority control for the libraries of Indiana State University, Rose-Hulman, and St. Mary-of-the-Woods was a good one and has

worked well. John Robson of RHIT's Logan Library feels the online system is working well and that the combined catalog has helped all of us to conform to a higher standard of cataloging. He also remarked that the continual "clean-up" of the online catalog by CMU has significantly helped to minimize user problems. Sister Leona Walsh, catalog librarian at St. Mary-of-the-Woods, agreed that the shared online system is a great improvement in accessing the three libraries' holdings.

NOTIS 5.0 will provide the long-awaited authority control in the online public access catalog. This will further improve access to the holdings of all of the libraries in the ISU NOTIS Cluster.

LTIS DONE

CAL7494

NOTIS CATALOGING

DOB1

IS# CAL7494 FMT A RT z DT 09/14/84 R/DT 05/03/89 STAT nn E/L n
 SRC LANG eng ROM n MOD UNIQUE n GOVT ? S/SYS n D/I n SUBD NUM n S/TYP n
 NAME c SUBJ a SER ? KIND a H/ESTAB a T/EVAL a IP a RULES c

010: : | a n 79103773
 040: : | a IEN | d ISU
 110:20: | a Hospital Research and Educational Trust.
 410/1:20: | a American Hospital Association. | b Hospital Research and
 Educational Trust
 410/2:20: | w d | a HRET
 410/3:20: | w d | a H.R.E.T.
 510/1:20: | a American Hospital Association. | b Educational Trust
 670/1: : | a LC/AF 8/30/84
 690/1: : | a PF:5/3/89

Figure 1. Updated Northwestern Record

1. NAME (1XX) _____ G/S
Search results (use + or o) Attach reference bib. or OCLC records. Supply record numbers if found.
2. NOTIS/ISU online authority file: _____
3. NOTIS bib. record no. of above entry _____
4. OCLC bib. file (DLC-DLC rec. no.) _____
5. x-ref. (4xx) _____
6. xx-ref. (5xx) _____
7. Pre-AACR2 form if known (4xx) _____
8. Date & initials (690) _____

Figure 2. Name Authority Request Form

LTIS DONE

DAC0547

NOTIS CATALOGING DOB3
 IS# DAC0547 FMT A RT z DT 10/31/88 R/DT none STAT nn E/L n
 SRC d LANG ??? ROM n MOD UNIQUE a GOVT ? S/SYS n D/I n SUBD NUM n S/TYP n
 NAME c SUBJ a SER ? KIND a H/ESTAB c T/EVAL a IP a RULES c

040: : |a ISU
 053/1: : |a A211 (Faculty Coll.)
 100:10: |a Adams, Carrie B. |q (Carrie Belle), |d 1859-
 400/1:10: |a Adams, Carrie Belle Wilson, |d 1859-
 400/2:10: |a Wilson, Carrie Belle, |d 1859-
 665: : |a ISU faculty member
 675: : |a Indiana authors, 1816-1916
 690/1: : |a Sp.C-Fac.
 690/2: : |a KSW:10/31/88

LTIS DONE

Figure 3. ISU Provisional Record

DAC6237

NOTIS CATALOGING DOB3
 IS# DAC6237 FMT A RT z DT 04/25/89 R/DT 05/01/89 STAT nc E/L n
 SRC LANG eng ROM n MOD UNIQUE a GOVT S/SYS a D/I n SUBD NUM n S/TYP n
 NAME c SUBJ a SER b KIND a H/ESTAB a T/EVAL a IP a RULES c

010: : |a n 50018373
 035/1: : |a (OCoLC)00053815
 040: : |a DLÇ |c DLC |d DLC |d ISU
 100:10: |a Cronbach, Lee J. |q (Lee Joseph), |d 1916-
 400/1:10: |a Cronbach, L. J. |q (Lee Joseph), |d 1916-
 400/2:10: |w nna |a Cronbach, Lee Joseph, |d 1916-
 670/1: : |a His Individual differences in learning to reproduce forms ...
 1941.
 670/2: : |a His Designing evaluations of educational and social programs,
 1982: |b CIP t.p. (Lee J. Cronbach)
 670/3: : |a NLM files, 9/27/85 |b (hdg.: Cronbach, Lee J. (Lee Joseph), 1916-
 ; usage: L.J. Cronbach, Lee J. Cronbach).
 670/4: : |a LC/AF 11/22/85
 690/1: : |a PF:5/1/89

Figure 4. Transferred OCLC Record

LUIS SEARCH REQUEST: A=VAN GOGH

BIBLIOGRAPHIC RECORD -- NO. 1 OF 1 ENTRIES FOUND

Van Gogh, Vincent, 1853-1890.

***** To search this author's name in either the author or subject file, use a=Gogh Vincent van or s=Gogh Vincent van. Circulation information appears on each title.

LOCATION: Main Library (Cunningham Mem Lib)

CALL NUMBER: see specific titles for call number

TYPE r TO REVISE, h FOR HELP, e FOR LUIS INTRODUCTION.
 TYPE COMMAND AND PRESS ENTER==>

Figure 5. Bibliographic Information Record

Uniform Title Authority; When You Automate, Some Reasons to Think About It

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From the ALA Glossary...

Uniform title. 1. The particular title by which a work that has appeared under varying titles is to be identified for cataloguing purposes. 2. A conventional collective title used to collocate publications of an author, composer, or corporate body containing several works or extracts, etc., from several works, e.g., complete works, several works in a particular literary or musical form. Synonymous with conventional title, filing title, standard title.¹

to use uniform titles in a particular instance on;

- a.) how well the work is known
- b.) how many manifestations of the work are involved
- c.) whether the main entry is under title (21.1C)
- d.) whether the work was originally in another language
- e.) the extent to which the catalogue is used for research purposes.²

Introduction

Since many non-catalog librarians can put in years on the job and at no time face the complexities of a uniform title, the first part of this article will attempt to be informational and instructive about the uses and nature of uniform titles.

The second part of the article contains some examples of how uniform titles and subject uniform title entries, that is subject headings constructed from uniform titles, provide useful if not essential access points in an automated environment as they traditionally have in a manual card catalog.

From AACR2 . . .

Use of Uniform Titles

Uniform titles provide the means for bringing together all the catalogue entries for a work when various manifestations (e.g., editions, translations) of it have appeared under various titles. A uniform title also provides identification for a work when the title by which it is known differs from the title proper of the item being catalogued. The need to use uniform titles varies from one catalogue to another and varies within one catalogue. Base the decision whether

The third part of the article describes features of an integrated automated online system, i.e. an automated system in which cataloging, the public catalog and other subsystems are interactive, that would increase the effectiveness of uniform titles and subject uniform titles in an automated library environment.

The Nature of Uniform Titles

Library collections generate uniform title entries in differing proportions. Law, theology, music, rare book and specialized literary collections are some types of collections in which uniform titles are a major factor in the cataloging process. Uniform titles become subject headings when a work is written about a work for which a uniform title is used, i.e. "Bible. - O.T. - Introductions", "Talmud - History and criticism", etc.

Some specific types of materials for which uniform titles are used are:

1. Sacred scripture (Bible, Book of Mormon, Talmud, Tripitaka, Vedas, Koran)
2. Liturgical works (Siddur, Haggadah, Missal, Breviary)
3. Legal materials (California-Agricultural Code, United Kingdom-Field Monuments Act, Universal Copyright Convention)
4. Treaties (Treaty of Versailles 1919, Treaty of Paris)
5. Anonymous Classics (Beowulf, Mother Goose, Chanson de Roland, Book of the Dead)
6. Manuscripts, Incanabula (Codex Brucianus)
7. Translations from another language (Caesar [De bello Gallico], Plato [Republic], Dumas [Trois mousquetaires], Kant [Kritik der reinen Vernunft])
8. Music (Mozart, Wolfgang

Amadeus, 1756-1791 - Deutsche Tanze; Bach, Johann Sebastian, 1685-1750 - Praeudium und fuge; Rogers, Richard, 1902- Flower Drum Song. Selections.; arr.; Klughardt, August Friedrich Martin, 1847-1902. Quintets, woodwinds, horn, op. 79.)

Several of the categories overlap. Some uniform titles are obvious, such as the translation uniform titles, listed in number 7 above. Other uniform title entries, such as *Book of the Dead*, *Mother Goose*, and *Dead Sea Scrolls* may not be so obvious as uses of a uniform title.

When cataloging an item which needs a uniform title entry, there are some questions which need to be asked. When was the work written? Is the item in hand a translation? Has the work in hand appeared with other titles? Is the item a collection of individual works or a selection from a larger work? Is it or is its subject matter about a law, treaty, sacred scripture, liturgical work, papal communication or musical composition?

Do not take this process for granted. Most North Americans would recognize the content of a work variously titled *Alice in Wonderland*, *Through the Looking Glass* and *Alice's Adventures in Wonderland* as parts of one work or the same work by Lewis Carroll. Here is a case of a work being so widely known that non-librarians could easily identify many variations of its title(s).

The exercise below is to test your skill at matching title proper (the title as it appears on the page of an item) with the uniform title appropriate for it.

Access Points Provided by Uniform Titles

Since a cataloger cannot predict what knowledge a patron or a reference librarian will bring to a search, it is not known whether she/he will know that *The Gates of Understanding* is a Jewish prayer book of the Reform Jewish tradition or that she/he is looking for a siddur, a Jewish prayer-book.

Librarians have seldom considered it the duty of the user to know correct forms for searches. Public catalogs have traditionally included cross-references, scope notes and/or external information, such as access to *Library of Congress Subject Headings*, *Sears*, etc. to assist a patron and reference librarian in finding items relevant to a patron's needs.

Although some automated OPACs allow for key word searching in the title, subtitle and notes, it would be unwise to assume that this information necessarily duplicates the information supplied by the uniform titles for a given item.³

The MARC format allows for a wealth of information to be given in the uniform title and indexed in sub-fields. An example of this is the music uniform title; "Hlobil, Emil, 1901-Sonatas, trombone, piano, op 86."

Music uniform titles are packed with information such as musical form "sonata", instrumentation "trombone, piano", original key, and number, i.e., opus number "86", etc., among other things.

Similarly, information commonly found in uniform titles of sacred works and literary works is as follows:

1. The part of the work such

as, "Genesis" in the uniform title "Bible. O.T. Genesis;"

2. The language/s in which that work appears in a given piece "Bible. O.T. Genesis. English & Hebrew;"

3. Version (often translator) of the work "Bible. O.T. Genesis. English. Zlotowitz;"

4. Form in which the work appears; "Bible. O.T. Genesis. English. Selections;"

5. Date of this manifestation of the work "Bible. English. Revised Standard Version. 1956;" and

6. Standard Romanization for titles not originally written in the Roman alphabet. (Bedny lidudi=Poor Folk; Teleutaios peirasmos = Last Temptation of Christ.

Providing the Romanization of a title or the title in the original language can also be a time saver for the reference staff and patron. Are Kant's *Critique of Pure Reason* and *Critique of Pure Logic* the same work? If the cataloging includes the original German title *Kritik der reinen Vernunft* as a uniform title, the librarian and patron will know at once that they are.

Uniform titles for translations of a work also group together translations of works into various languages:

Trois mousquetaires. English (The Three musketeers),

Trois mousquetaires. Spanish (Los tres mosqueteros).

The rules for uniform titles stipulate that works created after 1500 are entered as the title or form of title in the original language by which such a work has become known through use in manifestations of the work or in reference sources, i.e., *Trois mousquetaires*, *Kritik der reinen Vernunft*, *Teleutaios peirasmos*.

For Classical and Byzantine Greek works "Use a well-established English title for a work originally written in classical Greek, or a work of a Greek church father or other Byzantine writer before 1453. If there is no such English title use the Latin title. If there is neither a well-established English title nor a Latin title, use the Greek title. Aristophanes [Birds]; Apollonius, Rhodius [Argonautica] Latin; Meander, of Athens [Perikeiromene] Romanized Greek.⁴

Figure 2 illustrates four entries that a patron with accurate but incomplete knowledge would miss in her/his search if the subject uniform title, "Bible.-N.T.-Revelation.-Commentaries" were not properly constructed, tagged and included in the bibliographic record in an OPAC.

The patron's search is for books about or interpretations, i.e., commentaries, of the *Revelation of St. John the Divine*. Very few if any automated systems would lead the patron to any of the entries in Figure 2 with this accurate but insufficient title information. Only a system in which subject uniform titles are required and maintained accurately would allow the four bibliographic records in Figure 2 to be found by the patron.

If the fields of the subject uniform title are not searchable then the term "Revelation" is of no assistance to the patron. Unless there is a cross reference in the system to "Bible.-N.T.-Revelation" from *Revelation of St. John the Divine*, this patron would not be aware of the four items in Figure 2.

Many users of the system might not recognize that "Bible.-N.T.-Revelation" is the *Revelation of St. John the Divine*.

Important Features of an Online System for the Efficient Use of Uniform Titles

1. System Generated Reports on User Searches

Do librarians know how their patrons look for information and what influences them to search by certain terms? Many librarians will answer that they have very little information about the search strategies of their patrons in the public catalog, automated or not.

Would a patron look for the *Gospel of Thomas* as "Thomas Gospel", "Coptic Gospel of Thomas" or *Evangelium Thomae Copticum*?

The advent of OPACs with the capabilities to report information about patron searches, such as the rate of their successes and failures and what terms are being input by patrons, will permit librarians to study the effectiveness of current subject headings and uniform titles and their cross-references, in relation to user search strategies.

In the very few studies which have been attempted recently on the way in which catalogs are used, the old idea that the more highly educated a library clientele is the less likely they are to employ subject searches has been challenged. It has been found that even PhD's in science and engineering will make use of subject searching when they undertake cross-disciplinary studies, especially in an automated catalog.⁵

2. Subject and Title Browsing

To browse a file means that a user of an automated system can see entries on the OPAC screen, such as, author, title, subject, call number, in

alphabetical or some other order. The user may select a record from this list to view in full. In a manual system the user may flip through all of the "Gospel of Thomas-Commentaries" entries looking for the one written after 1980. In an automated system the browse search would necessitate that uniform title authority be maintained so that all the commentaries on the *Gospel of Thomas*, for example, would be displayed together in a "browse" search.

3. Global Entry Change Capability

A global change is the capability within an automated system to enter a series of symbols and letters representing a subject heading, name, etc. "Bible. N.T. Apocryphal Books. Coptic Gospel of Thomas," and then command the system to look for all occurrences of that series of letters/characters in certain fields or lines of a bibliographic record. When that series of characters is found it can be automatically changed to match the currently established phrase, title, etc. "Gospel of Thomas".

Unfortunately, this capability is not available in many automated systems even though many word processing systems have it. Word processing programs often refer to the process of making global changes as "Search and Replace" or "Find and Replace".

For example, the alternative method of updating this uniform title entry is to call up manually each bibliographic record which has the outdated uniform title entry "Bible. N.T. Apocryphal Books. Coptic Gospel of Thomas," delete it and replace it with "Gospel of Thomas", the updated heading.

4. Generations of Authority Cross-References and Scope Notes Displayed in the OPAC and Cataloging Sub-systems.

If a user is looking for *Evangelium Thomae Copticum* and is not led to *Gospel of Thomas* by cross-references then the authority work has been counter-productive for that user. Cross-references and notes have the potential of making automated system users much more successful than users of non-automated systems. At the same time an automated system which is not able to generate cross-references from authority records is less effective than a well maintained manual file.

5. Incorporation of Authority Records into an Automated System.

At a minimum an automated system should allow for the manual entry of authority records into a system in order to produce cross-references and scope notes in the cataloging and OPAC sub-systems. (Figure 3)

A more complex system would allow formatted and tagged authority records on tape or other input media to be loaded into the automated system when it is started up.

The ideal system will allow for the continual upgrading of authority records by downloading from a vendor, such as OCLC, the loading of purchased authority records for upgrading the system and the input of local additions or changes in standard LC or other authority records.

Automation demands that librarians re-evaluate cataloging practices. *AACR2*, rev. ed., makes it clear that the use of uniform titles will vary from library to library and from

item to item. Those libraries which have not automated need to analyze the demands that their particular collection will make as to uniform title authority control.

Libraries with automated systems should stay alert to the interaction of their authority policies and the ways in which their on-line catalog is being used.

References

¹ Heartsill Young, et al., eds., *The ALA Glossary of Library and Information Science* (Chicago: ALA, 1983), p.235.

² Michael Gorman and Paul W. Winkler, eds., *Anglo-American Cataloging Rules*, 2nd ed., (Chicago: ALA, 1988), p.484.

³ Alexis J. Jamieson, "Keyword Searching Versus Authority Control in an On-Line Catalog," *Journal of Academic Librarianship*, 12 (November 1986), p.277.

⁴ Gorman and Winkler, *AACR2*, p. 488.

⁵ Carolyn O. Frost, "Faculty Use of Subject Searching in Card and Online Catalogs," *Journal of Academic Librarianship*, 13 (May 1987), p.8.

Title Proper	Uniform Title
___1. Inferno	a. Dead Sea Scrolls
___2. Gates of Understanding	b. De Bellico Gallico
___3. On the Nature of the Gods	c. The Golden Ass
___4. Qumran Cave 4, I (4Q158-4Q186)	d. Catholic Church. Catechismus Romanus
___5. The Krt Text in the Literature of Ras Shamaru	e. Book of the Dead
___6. Catechism of the Council of Trent	f. Keret Epic
___7. Transformations of Lucius	g. Siddur (Reform, Central Conference of American Rabbis)
___8. Awakening Osiris	h. Bible.N.T.Revelation-Commentaries
___9. Crisis and Catharsis	i. De natura deorum
___10. War Commentaries of Caesar	j. Divina Commedia

Answers at end of article

FIGURE 1

Collins, Adela Yarbro
 Crisis and Catharsis : the power of the
 Apocalypse / by Adela Yarbro Collins.
 --1st ed.-- Philadelphia :
 Westminster Press, c1984.
 179 p. ; 23 cm.
 Includes bibliographical references
 and index.

Neall, Beatrice S.
 The concept of character in the Apocalypse, with
 implications for character education / Beatrice
 S. Neall.
 Washington, D.C. : University Press of America,
 1983.
 xii, 224 p. ; 22 cm.
 Bibliography: p. 208-223.

1. Character-Biblical Teaching

Collins, Adela Yarbro
 The Apocalypse / Adela Yarbro Collins.
 Wilmington, Delaware : M. Glazier, 1979.
 xiv, 155 p. ; 21 cm. New Testament message ; v.
 22
 "For further reading" : p. 154-155.

Edwards, Jonathan, 1703-1758
 Notes on the apocalypse
 Apocalyptic writings / Jonathan Edwards ; Edited
 by Stephen J. Stein. New Haven : Yale University
 Press, 1977.
 x, 501 p. ; 24 cm The works of Jonathan Edwards
 ; v. 5
 Includes bibliographical references and indexes.
 notes on the apocalypse. __An Humble attempt.

FIGURE 2

SAMPLE AUTHORITY RECORD
Manual system

Gospel of Thomas

see from

Bible.N.T. Apocryphal books.Coptic Gospel of Thomas
Evangelium Thomae Copticum
Thomas, Gospel of Local
Coptic Gospel of Thomas Local

see also (BT)

Apocryphal Books (New Testament) Local

Note: Not the same as Gospel of Thomas (Infancy Gospel)
ARN: 888164
LC Authority # : 82240484

FIGURE 3

ANSWERS TO FIGURE ONE

1.j	4.a	7.c	10.b
2.g	5.f	8.e	
3.i	6.d	9.h	

Series Authorities at Notre Dame: Conversion and Current Work

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Introduction

In 1989, the University of Notre Dame Libraries completed a project to convert its card series authority file. That project was undertaken as part of Notre Dame's implementation of cataloging on NOTIS.¹ This article describes Notre Dame's series conversion and correction projects, current series authority work at Notre Dame, and concludes by discussing the benefits Notre Dame gained from the series conversion project.

Background of the Project

Notre Dame began implementing NOTIS in August 1987, by bringing up the public access catalog.² The cataloging module was the next to be brought up, in January 1988. Circulation came up in the fall of 1988. Planning is underway to bring up Acquisitions and Serials Control.

Before Notre Dame began cataloging on NOTIS, series authority work was done manually. Books to be cataloged were checked for the presence of series. A student checked all series in Notre Dame's card authority

file, which contained both name and series authorities. (Subject authorities were in a separate file.) The student recorded series information on an Acquisitions form accompanying the book. During card order, Copy Catalogers used information on the form to edit series fields in the OCLC record.

When the Cataloging Department was making plans to implement current cataloging on NOTIS, the decision was made to carry out series checking online. Copy Catalogers would take series information from a fully tagged series authority record, rather than from a handwritten transcription on a form. To make this possible, an online series authority file was needed.³ In addition, having an online series authority file in place would make it easier to upgrade all series authority records to AACR2 form and to change pre-AACR2 series in UNLOC to the current AACR2 form.

Several delays in implementing NOTIS provided time during which NOTIS terminals were available but were not yet being used for current cataloging. The Cataloging

Department took advantage of this time to convert the card series authority file.

Converting Notre Dame's Series Authority

The series conversion project took place in three phases. The first phase was to search series authority cards against LC's authority file on OCLC (called OLAF⁴ locally), and transfer matching series authority records into the local online authority file. Not all series authority cards had matching records in OLAF. The second phase, therefore, was to input into the local online authority file locally-established AACR2 series for which no LC authority record was found in OLAF. The third phase involved converting pre-AACR2 series with no matching record in OLAF.

Series Conversion-Phase I

Before OLAF searching could begin, it was necessary to separate series authority cards from name authority cards. This was done as a one day project, in which everyone in Cataloging participated. Each card in the manual name and series authority file was examined. Series authority cards were transferred to empty drawers. These drawers were then reviewed to make sure they contained only series authority cards.

The next step was to search each card in the newly created Series Authority File (SAF) in OLAF. Drawers from the SAF were taken to OCLC terminals, and the individual SAF cards were searched in OLAF. If a matching OLAF record was found, the OCLC authority record number was written on the SAF card. A green dot was folded over the top of the SAF card, so it could be easily identified later. The card was then replaced in

the SAF.

Fifteen members of the Cataloging Department searched SAF cards in OLAF a total of 16.5 hours per day, completing the searching in 42 days. Of approximately 45,000 SAF cards searched, about one third, or 14,500, had matching records in OLAF.

To prevent disruption of current work, the green-dotted SAF cards were photocopied onto workforms (see Fig. 1). These workforms allowed departmental personnel to record editing decisions (e.g. use of a local classed-together call number or the addition of local cross references).

The workforms also allowed editors to indicate when the OLAF record being used differed from the SAF in form or tracing decision. This made it possible to correct bibliographic records containing these series in a subsequent series correction project, described below.

After the photocopying was complete, printouts were made of the OLAF records and stapled to the workforms. During the first four months, between 10 and 15 editors worked on the project, editing 14,000 series authority records. During the next three months, three editors edited 1,600 series authorities. Editors compared the printout to the SAF information, and indicated any changes that needed to be made to the OLAF record. The decision was made always to accept the LC form of series. Differences in the trace/not trace decision would be resolved in favor of tracing the series. Local classification decisions (whether the individual volumes of a series were to be classified in single call number for the series, or separately, for the subject of

the work) were maintained.

The next step of the project was to transfer the matching OLAF records into NOAH,⁵ the local name for the online authority file. OLAF records were loaded into NOAH using NOTIS' terminal-to-terminal transfer capability, which uses the OCLC print port to download records. The editors called up the matching OLAF record using the OCLC authority record number on the workform. Any changes noted on the workform were made to the authority record.

The transfer was carried out by a smaller group of staff working 12-15 hours per day over a period of seven months. Of a total of 15,600 series authority records transferred from OLAF, 12,100 needed no change, while 3,500 were edited in some way.

Series Conversion-Phase 2

After the OLAF transfer phase was complete, two kinds of SAF cards remained. The great majority were pre-AACR2 series, established prior to 1981. A much smaller number were AACR2 series, established beginning in 1981.

The second phase of the series authority conversion project involved inputting AACR2 series in the SAF into NOAH. These were easily identifiable, having been typed on red-banded cards. All AACR2 SAF cards were photocopied onto workforms (Fig. 2). Cataloging Department staff then tagged the workforms. Between 10 and 15 taggers spent two months tagging close to 4,000 workforms.

The tagged workforms were then input into NOAH terminals. After input, the newly created NOAH records were revised for accuracy. Between 12 and 15 hours per day over

a period of two months were spent inputting these series.

Series Conversion-Phase 3

The third and final phase of the series conversion project was to convert as many of the remaining pre-AACR2 series as possible.

Many of these series were in corporate author/title form. Since it had been decided to enter only AACR2 series⁶ into NOAH, the Cataloging Department was faced with the problem of how to determine the AACR2 form of these pre-AACR2 series. It is often not possible to determine the title of a series from a pre-AACR2 series authority. For example, consider the following pre-AACR2 series authority:

France, Office de la recherche scientifique et technique outremere.
Memoires

One can't tell from the above whether the title of this series on the piece is *Memoires*, *Memoires de l'Office de la recherche scientifique et technique outremere*, *Memoires O.R.S.T.O.M.*, or some other variation.

Since only a limited amount of time could be spared to work on the project, it was decided not to retrieve items from the stacks to determine the title of a series. If the title of a series could not be determined from UNLOC, the series would not be converted. Any unconverted series in the SAF that were subsequently encountered in current cataloging would be added to NOAH as part of departmental procedures for series authority work. Eventually the remaining cards in the SAF were discarded.

Cataloging staff began conversion of pre-AACR2 series by searching

OLAF. Enough time had passed since the initial OLAF search to make this worthwhile. If no OLAF record was found, staff searched UNLOC (using keyword searches, to find both traced and untraced series) for records containing the title form of series.

If the series was found in UNLOC in a series title field (MARC fields 440, 490, 830, and 840), a printout was made of the bibliographic record. The printout was attached to a NOAH input workform (Fig. 3), which was filled out. Authority work was done for any corporate bodies needed for name/title cross references. The series was then input into NOAH. Any series found in non-title fields (400, 410, 411, and 810) were not used. Using this procedure, about 3,000 pre-AACR2 series were converted.

Series Authority Work at Notre Dame: The Online Mode

As a result of the series conversion project, series checking is done completely online. Books entering Cataloging are searched on OCLC. If a matching record is found, a printout is made. If the record contains a series, the book is set aside and the series is searched in NOAH. If a matching series authority record is found, the NOAH number of the record is written on the printout. If the series is not found in NOAH, the book is sent to CADM, the maintenance and authorities unit, where the series is established in NOAH, whether by transferring in an OLAF record, or by inputting a locally-created series authority.

During card order, Copy Catalogers look up the NOAH record for the series, using the NOAH number written on the printout. Series in the OCLC record are edited to match

the form, tracing, and classification decisions given in the NOAH record.

Correcting Series in Bibliographic Records: The Fallout from the Project

In 1989, after completing the series authority conversion project, the Cataloging Department began correcting series in bibliographic records in UNLOC. Ten boxes of workforms (of perhaps 1,000 workforms per box) had been saved from the conversion project. The workforms were saved whenever a series authority entered into NOAH differed from the SAF treatment of the series, either because the series was now traced, when previously it had not been traced, or because it was now traced in a different form.

This project is still underway. The work is being done by two staff members who have received a fair amount of training. Excellent searching skills are needed to identify all instances of a series needing to be corrected. Together they are spending three hours per day on the series corrections project. As of this writing (September 1990) approximately 60% of the corrections have been completed.

Series corrections are carried out at NOTIS terminals. If the workform indicates that the form of the series needs to be corrected, all cross references on the OLAF record are searched in UNLOC. When a record is found with a series that matches the cross reference, the series is changed to match the currently used form of the series. In addition, keyword searching is done to find forms of the series that may not match any cross reference. If the workform indicates that a previously untraced series is now traced, keyword search-

ing is used to identify records containing the series. The series fields are then tagged so the series can be searched in UNLOC.

Conclusion

The Cataloging Department at Notre Dame experienced several benefits as a result of converting the series authority file.

First of all, the project served as a valuable introduction to cataloging on NOTIS. When current cataloging began on NOTIS, Cataloging personnel were already familiar with the NOTIS terminals and with many of the NOTIS commands used in current work. Because of this, current cataloging dropped only 10%, less than had been expected, and is now higher than before NOTIS cataloging was implemented.

As previously mentioned, the SAF contained many pre-AACR2 headings. Another benefit of the project is that NOAH contains only AACR2 series authority records. This means that all series being added to UNLOC are in AACR2 form. Most pre-AACR2 series in UNLOC have been identified, and are being corrected.

The payoff for current processing is that series work is now done more quickly and accurately in a totally online mode. Copy Catalogers do not need to look in two places for series information. They no longer need to decipher handwritten series information. Accuracy has been improved, because they are able to determine from the NOAH record how the series should be tagged. As a

result of the project, there are now more than 20,000 series authority records in NOAH. Most series encountered in current cataloging are in NOAH. Establishing NOAH records for series encountered in current cataloging that are not in NOAH has been easily absorbed into current work, occupying part of one staff member's time.

For this library, converting the card series authority file was an important step toward doing all authority work online.

Notes

¹ Northwestern Online Total Integrated System.

² Called UNLOC at Notre Dame, for University of Notre Dame Library Online Catalog.

³ Notre Dame purchased LC authority records for many of the names and subjects in the bibliographic database. These were then loaded into an online authority file. This file contained no usable series authority records, however.


⁴ Online Authority File.

⁵ Notis Online Authority Headings.

⁶ AACR2 normally calls for entry of series under the series title.

Fig. 1

SERIES AUTHORITY CONVERSION WORKSHEET



A.

___1. See also

___2. Also under

B.

1. OLAF needs to be edited as follows:

___a. (Correct) (Add) (Delete) 050 _____
(call number)

___b. Change 646 \$a: c a

___c. Change 645 \$a: t

___d. Change 667: ___ "Do not give as a series or as a quoted note.
Ignore."
___ "Give as a quoted note."

___e. Add cross references highlighted above

___2. OLAF can be transferred without change

<p>C.</p> <p>1. Notify CADM of the following:</p> <p>___a. Different form of series heading</p> <p>___b. Series now traced</p> <p>___2. No CADM notification needed</p>	<p>D.</p> <p>Edited by: _____</p> <p>Transf. by: _____</p> <p>UAF no.: _____</p> <p>SAF card moved by: _____</p>
---	--

Fig. 2 SERIES AUTHORITY TAGGING WORKSHEET

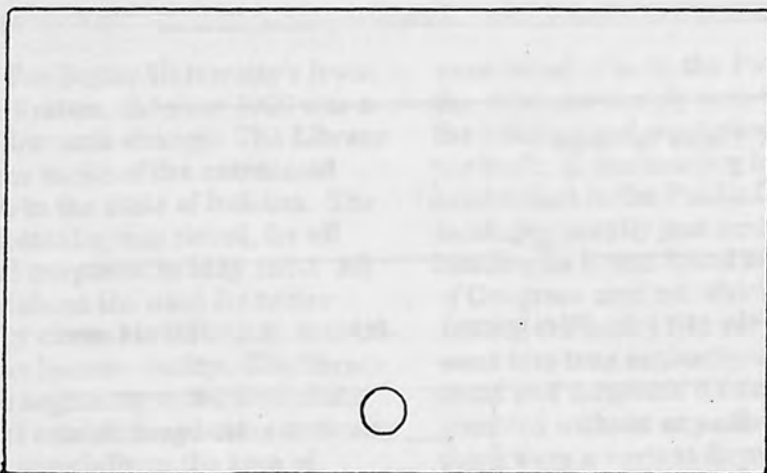
Fixed Fields (only those needing change are shown):

UNIQUE n NUM a b c S/TYP a c
(circle one) (circle one)

NAME b SUBJ b SER a

040 IND \$c IND

090 _____



642 _____

644 f

645 t n
(circle one)

Tagged by: _____

646 c s
(circle one)

Input by: _____

667 ___ Do not give as a series or a quoted
note. Ignore.

Revised by: _____

___ Give as a quoted note.

NOAH no.: _____

690 _____

SAF card
moved by: _____

Fig. 3 UNMARKED SERIES PROJECT TAGGING WORKSHEET

Fixed Fields (only those needing change are shown):

UNIQUE n NUM a b c (Circle one) S/TYP a c (Circle one)

NAME b SUBJ b SER c

040 IND \$c IND

090 _____

1 _ _ _ _ _

4 _ _ _ _ _

4 _ _ _ _ _

___ Additional 4XX fields on verso

642 \$a _____

643 \$a _____ \$b _____

644 \$a f 645 t n (Circle one) 646 c s (Circle one)

690 _____

___ Full rcd for name in NOAH

___ Brief record for name
in NOAH, search OLAF

___ No OLAF for name

___ OLAF transferred for name

___ OLAF overlayed for name

No. of NOAH record for name:

___ No NOAH brief recrd found

___ NOAH nos.: _____

___ OLAF overlayed

___ OLAF transferred

___ 0-OLAF

Searched by: _____

Tagged by: _____

Input by: _____

___ Route for CADM corr.

___ Form differs

___ Decision differs

Authority Work at Butler University: Preparing For A Future Online Environment

**Judy Siehl Hill
Head of Catalog
Irwin Library
Butler University
Indianapolis**

For Butler University's Irwin Library System, the year 1990 was a year of dramatic change. The Library joined the ranks of the automated libraries in the state of Indiana. The old card catalog was closed, for all practical purposes, in May 1990. All the talk about the need for better authority control in an online environment has become reality. The librarians are beginning to see if all their efforts at establishing better authority control, especially in the area of subject headings, have paid off as far as the OCLC tapes are concerned. This seems to be a perfect time to reflect on how far authority work has come at Butler University in the past ten years.

History of Authority Work at Butler University

Prior to 1980, no separate authority files existed in the Irwin Library System. The Public Catalog housed in the main Irwin Library was the only authority file for personal and corporate names, series, and subject headings. The cataloger, working in Irwin, used the Public Catalog to see if the heading was already established at Butler University. If the heading

were found to be in the Public Catalog, the cataloger simply took that form of the heading and went about cataloging the book. If the heading had not been established in the Public Catalog, the cataloger usually just accepted the heading as it was found on the Library of Congress card set which was used to catalog the book. Not very much effort went into true authority work. Personal and corporate names were accepted without any effort to see if there were a variant form of the name in the Public Catalog. No effort was made to connect the various forms of the names nor to establish one single form as the heading to be used for that name. Series were simply traced if the LC card set indicated that the series had been traced at the Library of Congress. If the LC card set had no series tracing, the series was not traced at Butler University. The fact that another cataloger at Butler University might have traced that series for another book was never considered. A person looking for books in a particular series could not be sure that he had found all of the books for the series which were housed in the Irwin Library System.

As for subject headings, whatever was on the LC card set was accepted. To be fair, there was some effort to use the Library of Congress Subject Headings (LCSH) red books to establish headings not found in the Public Catalog. Cross-references were checked and cards were typed for see and see also cross-references. Rarely did the cataloger make any effort to check to see if the subject headings in the Public Catalog had been superseded by up-to-date ones. For example, *History, Universal* had long been changed to *World History* by the Library of Congress. But, if the LC card set being used by the cataloger still had the old form *History, Universal*, it remained that way in the Butler University Public Catalog since that heading still existed at Butler University. To make matters worse, no cross-reference system was used to link the old subject headings to the new ones so that the patrons would know to look under both subject headings in order to find all the books that Butler University had on the subject.

This chaotic authority work was bad enough at the main Irwin Library. However, the problem was compounded by the fact that there were two other branches on campus. The Science Library was created in 1973 by combining the collections of the Pharmacy Library, the Botany Library, and the science collection housed at Irwin. The card sets in the Science Library reflected the subject headings used in each of the earlier libraries. Only a small percentage of the card sets actually reflected Library of Congress Subject Headings. In fact, for many books, there were no cards or, at best, only partial card sets in the Public Catalog at Irwin and/or the Science Library. Only the new books that were being cataloged by the Catalogers at the Irwin Library reflected validated subject headings

used in the Public Catalog at that Library. These new books were the only ones with complete card sets in both libraries.

The Music and Fine Arts Library was even more confusing since the books were being cataloged at Irwin and the scores and sound recordings were being cataloged by the Music Librarian who used a list of subject headings that were neither LC nor Sears. There were three separate public catalogs at the Music Library. One contained the cards for the books and reflected the practice at Irwin. The public catalog for scores and the one for sound recordings both contained headings reflecting the strange list found in the Music Library. No effort was made to coordinate any authority work between the branches and Irwin.

In 1978, Butler University went online with OCLC. The problems created by the lack of strict authority work became very apparent as the catalogers at the Irwin Library gained more experience with OCLC and the required national standards. The Music Librarian was also cataloging scores and sound recordings online, so the lack of standard subject headings and uniform titles became quite an issue for that library. At once, the old subject headings were dropped in favor of the Library of Congress subject headings. However, the old subject headings were left in the public catalogs for scores and sound recordings in the Music Library. Only the new materials reflected the LC subject heading practice.

Reasons for Changing Procedures for Authority Work

During the early 1980's, the use of the Public Catalog at the Irwin Library as the only authority file for

the Library System was halted for a variety of reasons. First of all, the use of OCLC for all of the cataloging made it very apparent that the old way of doing things simply would no longer work. Added to this realization was a new emphasis on better patron service by the whole library staff. The philosophy of the director and staff became one of helping patrons find what they needed in the easiest and quickest manner. This meant that obsolete subject headings and variant forms of personal and corporate names which were not supporting this philosophy had to be consolidated. The patrons had been forced to look in a multitude of places to find the materials that should have been located in the Public Catalog in one spot. The Catalog Department at that point began to put a high priority on strict authority control and good catalog maintenance.

The second reason for stricter authority control was the expansion of the Irwin Library System. Two more branches were added during the mid 1980's. These were Instructional Services, an educational curriculum center, and Holcomb Research Institute Library (HRI). The catalogers at Irwin were responsible for all the cataloging of the materials housed in these branches. Since HRI was an independent research institute dealing with the study of underground water and water pollution, new technical subject headings were needed. After much discussion with the researchers at HRI and the catalogers in Irwin, the librarian in charge of the materials housed in HRI recommended the use of LC subject headings. However, some of the researchers felt that the LC subject headings were not specific enough and wanted to invent their own subject headings. In fact, one of the researchers had set up his own database for groundwater research,

called Jupiter, and had invented his own subject terms. He wanted these terms to be used by the catalogers for HRI materials. This idea was discarded because the Library Director and the Head of Cataloging felt the catalogers should only use the subject headings authorized by the Library of Congress. However, a compromise was reached. The catalogers would catalog the HRI materials on OCLC using authorized LC subject headings. The HRI librarian would enter a short bibliographical record on the Jupiter database using Jupiter subject terms. This seem to satisfy everyone involved. But the need for tight control over subject headings became even more apparent.

The final reason authority work came to be more important for the Irwin Library System was the decision to convert the whole collection into machine-readable form. Embedded in this was the decision to reclassify the collection from the Dewey Decimal Classification System to the Library of Congress Classification System. Since the cataloging staff had to handle each book to change its call number, it was decided to recatalog each book on OCLC at the same time. The old card sets were pulled from the Public Catalog when the book was brought into the Catalog Department for reclassification. New cards were produced from OCLC and then refiled into the Public Catalog. In the process of recataloging and reclassifying the books, it was discovered that indeed there were many obsolete headings in the Public Catalog, both for subject headings and for personal and corporate names. After consulting the library director and the public services staff, the cataloging staff decided to keep all headings in the Public Catalog as current as possible. All personal and corporate names were to be put into AACR2

form, using the online LC authority files for all authority work. Subject headings were to reflect the latest headings found in the LCSH. The *Cataloging Service Bulletin*, put out quarterly by LC, would be checked for updating subject headings in the Public Catalog.

Series Authority File

Early in 1980, the first separate authority file was created in the Catalog Department. The Series Authority file was chosen to be first for several reasons, the primary one being that the Catalog Department staff had grown so much. The catalogers felt the need for improved communications within the department. The fact that a series was not in the Public Catalog at this point could be either because the series had never been traced or the series was encountered for the first time. The cataloger looking for the series in the Public Catalog could not be certain that this was a series which another cataloger had previously chosen not to trace. At the time this file was established, only the series that were to be traced were included in the file. The cataloger tracing the series would type an authority card for the series in the form in which it was to be traced and place it in the authority file. After following this procedure for six months, the catalogers reviewed the practice and decided that the basic question of whether the series was new to the Library System, or simply not traced, was still not answered. Hence, the series authority file was expanded to include the following information:

1. Whether or not the series was traced.
2. The form in which the series was to be traced.
3. The alternative headings for the series, which were to be used

as see-references to the form under which the series would be traced.

4. The call number (See Figure 1) if the materials in the series were to be classified together.

Every time a series was encountered that was not in the Public Catalog, the catalogers would create an authority card with all the pertinent information and place it in the authority file. Student typists would type any pertinent cross-reference cards to be placed in the Public Catalog. At first this meant that the catalogers would check the Public Catalog for all series in the 440 and the 490 fields. After the file was in existence for a while, it was the first place that the catalogers began to search for series authority work. All the catalogers agreed that this was an important first step in improving the authority control in the Irwin Library System.

When the Reclass/Recon project began in January 1986, the catalogers found that there had indeed been great inconsistencies in deciding whether or not to trace a series. Those series in the series authority file were extremely valuable since the catalogers could check there first and not worry about the series. As the project continued, the catalogers found that in many instances a series had been traced for one book, but not for another. Once the series was established in the authority file, the cataloging for the old materials became more consistent. If the series were established as being traced in the series authority file, the catalogers would trace the series for any work in that series, even if it had not been traced for that work in the past. The opposite was also true. If the series were established as not being traced in the series authority file, the catalogers would not trace the series for the book in hand even if

it had been traced in the past. If there were no cards for the series in the authority file, the cataloger would check the Public Catalog for the series, to see if it had been traced for another book. If so, the series was traced and a card was placed in the series authority noting that this series was to be traced. On the other hand, if there were no other books traced under that series, the cataloger would treat the series for the Reclash/Recon materials as they would for any other new series.

Personal and Corporate Names Authority Files

In January 1981, the catalogers at Butler University found themselves in the midst of the changes to personal and corporate names caused by the adoption of the new AACR2 cataloging rules. This seemed to be the appropriate time to establish the authority files for personal and corporate names in the Catalog Department. The files contain headings in AACR2 form and the appropriate cross-references found in the Library of Congress online authority files. These authority files were tailored to the Irwin Library System and reflected the cross-references used at Butler University. It was decided not to use all the cross-references found in the Library of Congress online authority files since some of them were strange spellings which simply reflected phonetic spellings of the headings in foreign languages. It was felt these headings were not useful to the patrons at Butler University although they might be useful to somebody at the Library of Congress. Although it may be argued that this is simply duplicating the online file, it was felt that it was necessary to establish this in-house file. With only one terminal in the Catalog Department to be shared among the entire

library staff, the cataloger was not always able to search the online authority file to verify a name. The catalogers also felt a need to have a record of the cross-references placed in our Public Catalog so that these references could be pulled at a later date if the heading was withdrawn. The name authority files in the Catalog Department also contain the date that the cataloger created the authority card since it was noticed right away that LC had a way of changing headings which they had already established in "AACR2" form. For example, the name Cody, William, 1846-1917, became Bill, Buffalo., 1846-1917. A few months later, LC had changed that name again to Buffalo Bill, 1846-1917. The same thing happen to the name Little, Malcolm, 1925-1965. It was first changed to Malcolm X, 1925-1965 and then to X, Malcolm, 1925-1965. The catalogers at Butler University had changed both those names to reflect the practice used by LC. Each time the new "AACR2" form of the name was changed, cross-reference cards had to be pulled from the card catalog. Those in-house authority cards became very useful. (See Figure 2)

As the catalogers came across these name changes in their day-to-day cataloging routines, they would pull the cards from the Public Catalog and change the headings to the new AACR2 form of the name. The manner in which this was accomplished has changed. At first, students were hired to work in a new "mini" department devoted to changing headings to the new AACR2 form. These students would erase the old headings from the catalog cards and type the new headings onto the card. When the Recon/Reclash project began in earnest in January, 1986, the students pulled the cards and matched them to the books. Both the books and the cards were

brought to the Catalog Department. The Recon/Reclass Librarian would then recatalog and reclassify these books in the order in which they arrived in the Catalog Department. It was planned to accomplish two tasks simultaneously by making the changes required by AACR2 at the same time the book was added to the OCLC tapes. Unfortunately, so many changes were encountered that a huge backlog of pulled cards was created. This was a disservice to the patrons as well as the Acquisitions Department personnel who always checked the Public Catalog to see if the library had a title before an order was placed. Therefore, the students returned to erasing the cards and retyping the new headings onto the cards. We had gone full circle, by this time, as far as the mechanics of updating the headings were concerned.

By the time the students were back to erasing the catalog cards and retyping the headings, the Catalog Department was converting old bibliographic records into machine-readable form via Microcon. Microcon is a software product from OCLC which allows libraries to enter search keys on data diskettes, add the appropriate call number information to the record, and send these diskettes to OCLC. At OCLC, the diskettes are run against the OCLC online catalog. If there is a one-on-one match, the library's three letter code is added to the holdings list. The library is then sent a tape which contains the records that matched. This tape can be used for creating the database of a library's older holdings. Since these tapes are not up-dated as far as old headings are concerned after the tape is sent to the library, the catalogers decided to maintain a file which indicated what the old headings were and what changes were made in order to get the correct headings. The plan at Butler

University is to use this file to make corrections to the Microcon tapes, if needed, once the tapes are processed and loaded onto the online system. However, the plan is that many of the necessary changes will be made at the time the tapes are de-duped and run against the LC authority files at Blackwell North American. Blackwell North American processes a library's online tapes and creates the online authority file for the library. The authority files are derived from the Library of Congress authority files. If the needed changes are not made by Blackwell North American the catalogers will use the list of changes created in-house to make these changes by using the global change command in the online environment.

Subject Headings and Authority Work

The whole area of subject headings has been very important to the librarians at Butler University. It was decided to keep the Irwin Library Public Catalog as the main authority file for subject headings used by the Library System. However, the ultimate authority for subject headings is the latest edition of the Library of Congress Subject Headings (LCSH). For current books published after the publishing date of the latest LCSH, the subject authority file on OCLC is checked. A separate authority file is not maintained for a variety of reasons. The primary one is that the LCSH is now up-dated yearly in hard copy and is available online through OCLC. The catalogers feel that it would be entirely too much duplication to keep a different file. This does not mean that authority control for subject headings is of less importance than for the other types of headings.

When the cataloger encounters

a subject heading not found in the Public Catalog, the LCSH is searched for the new subject heading. If the heading is found to be correct, all cross references are copied and the Public Catalog is checked for all the Broader Terms (BT), Narrower Terms (NT), and Related Terms (RT) so that blind cross-references are not created. Since all branch libraries at Butler University are now using LC subject headings, the subject headings are verified for the branches as well. All cross-references are also verified for those branches. The student assistants actually type the cross-reference cards for all the branches. The Catalog Department then sends the cards to the appropriate branch. When the subject heading is not in the LCSH, the catalogers then go to the online authority file on OCLC to verify the subject heading. If it is there, they print-out the cross-references and check the Public Catalog in the same manner as if the heading were in the LCSH.

When an old subject heading is found to have been replaced by a newer term, the catalogers at Butler University will pull the cards for those headings. The same students who make the changes for personal and corporate names will erase the old subject headings from the cards and type the new headings onto the catalog cards. As with the personal and corporate names, the catalogers create a card for the file so that these changes will be reflected in the new online catalog.

The librarians at Butler University know that many people feel that putting in a see-also card from the old to the new subject headings, and from the new to the old, is sufficient to help the patrons find all the works by a particular author or all the works on a particular subject. How-

ever, the philosophy of Butler University's Irwin Library System is to better serve the patrons. It is felt that the Technical Services staff, especially the Cataloging Department, does not exist in a vacuum. The catalogers try to support the Public Service Departments, whose input over the years has been "to make it as easy as possible for the patron to find what he/she needs when using the card catalog." The consensus was to make all the changes in the Public Catalog that were needed to reflect this philosophy. The Reference Department really pushed for this way of doing things in order to make their efforts to serve their patrons more efficient. They have been very supportive of the Catalog Department's efforts to make all the necessary changes in personal and corporate names and in subject headings. The Reference staff has spent much time explaining to patrons why things are not found in the Public Catalog at the time the patron is doing a search. Over the years, the Reference staff has come to include checking the Cataloging Department for materials that should be located in other places, but have been brought to the Catalog Department for reclassifying or for change of headings. They have even helped pull cards from the Public Catalog and the catalog housed in the Reference Department.

The desire to keep the authority work as current and as strict as possible had a great deal of impact on the Catalog Department's input into the choice of an online catalog for the Library System. The system Butler University chose was Data Research Associates' Atlas system. This system was given one of the highest ratings as far as authority work is concerned.¹ The catalogers were especially pleased to know that they could down-load the online Library of Congress authority

files into the DRA system in the same way they could down-load any MARC record from OCLC. The hope is that all future authority work for both subject headings and for personal and corporate names will be able to be down-loaded from OCLC into the DRA database. With this capability, and with the capability of making global changes on the Atlas system, the catalogers will continue their policy of changing all headings, both subject and name, to reflect current AACR2 and LCSH practices.

¹ Sarah Hager Johnston, "Current offerings in automated authority control: a survey of vendors", *Information Technology and Libraries* 8, no.3 (September 1989): 236-264.

<p>Fastback ; no. xx. Traced</p> <p>Classified: LA 25 .F37 no. ____</p> <p>Xref.: Phi Delta Kappa. Educational Foundation. Fastback. ; PDK Fastback.</p>
--

Figure 1
Example of Series Authority Card.

<p>Twain, Mark, 1835-1910.</p> <p>AACR2 form, OCLC Rev. (July, 1981)</p> <p>Xref.: Twayn, Mark. ; Snodgrass, Quintus Curtius. Clemens, Samuel Langhorne, 1835-1910. Mark Twain.</p>

Figure 2
Example of Personal Name Authority card.

IS# DAC0547 FMT A RT z DT 10/31/88 R/DT none STAT nn E/L n
SRC d LANG ??? ROM n MOD UNIQUE a GOVT ? S/SYS n D/I n SUBD NUM n S/TYP n
NAME c SUBJ a SER ? KIND a H/ESTAB c T/EVAL a IP a RULES c

040: : |a ISU
053/1: : |a A211 (Faculty Coll.)
100:10: |a Adams, Carrie B. |q (Carrie Belle), |d 1859-
400/1:10: |a Adams, Carrie Belle Wilson, |d 1859-
400/2:10: |a Wilson, Carrie Belle, |d 1859-
665: : |a ISU faculty member
675: : |a Indiana authors, 1816-1916
690/1: : |a Sp.C-Fac.
690/2: : |a KSW:10/31/88

Figure 3. ISU Provisional Record

IS# DAC6237 FMT A RT z DT 04/25/89 R/DT 05/01/89 STAT nc E/L n
SRC LANG eng ROM n MOD UNIQUE a GOVT S/SYS a D/I n SUBD NUM n S/TYP n
NAME c SUBJ a SER b KIND a H/ESTAB a T/EVAL a IP a RULES c

010: : |a n 50018373
035/1: : |a (OCoLC)00053815
040: : |a DLC |c DLC |d DLC |d ISU
100:10: |a Cronbach, Lee J. |q (Lee Joseph), |d 1916-
400/1:10: |a Cronbach, L. J. |q (Lee Joseph), |d 1916-
400/2:10: |w nna |a Cronbach, Lee Joseph, |d 1916-
670/1: : |a His Individual differences in learning to reproduce forms ...
1941.
670/2: : |a His Designing evaluations of educational and social programs,
1982: |b CIP t.p. (Lee J. Cronbach)
670/3: : |a NLM files, 9/27/85 |b (hdg.: Cronbach, Lee J. (Lee Joseph), 1916-
; usage: L.J. Cronbach, Lee J. Cronbach)
670/4: : |a LC/AF 11/22/85
690/1: : |a PF:5/1/89

Figure 4. Transferred OCLC Record

LUIS SEARCH REQUEST: A=VAN GOGH

BIBLIOGRAPHIC RECORD -- NO. 1 OF 1 ENTRIES FOUND

Van Gogh, Vincent, 1853-1890.

***** To search this author's name in either the author or subject file, use a=Gogh Vincent van or s=Gogh Vincent van. Circulation information appears on each title.

LOCATION: Main Library (Cunningham Mem Lib)

CALL NUMBER: see specific titles for call number

TYPE r TO REVISE, h FOR HELP, e FOR LUIS INTRODUCTION.
TYPE COMMAND AND PRESS ENTER==>

Figure 5. Bibliographic Information Record

Twain, Mark, 1835-1910.

AACR2 form, OCLC Rev. (July, 1981)

Xref.: Twain, Mark. ;
Snodgrass, Quintus Curtius.
Clemens, Samuel Langhorne, 1835-1910.
Mark Twain.

Figure 2

Example of Personal Name Authority card.

Fastback ; no. xx.
Traced

Classified: LA
25
.F37
no. ____

Xref.: Phi Delta Kappa. Educational Foundation.
Fastback. ;
PDK Fastback.

Figure 1
Example of Series Authority Card.

Fig. 3

UNMARKED SERIES PROJECT TAGGING WORKSHEET

Fixed Fields (only those needing change are shown):

UNIQUE n NUM a b c (Circle one) S/TYP a c (Circle one)

NAME b SUBJ b SER c

040 IND \$c IND

090 _____

1 _ _ _ _ _

4 _ _ _ _ _

4 _ _ _ _ _

___ Additional 4XX fields on verso

642 \$a _____

643 \$a _____ \$b _____

644 \$a f 645 t n (Circle one) 646 c s (Circle one)

690 _____

___ Full rcd for name in NOAH

___ Brief record for name
in NOAH, search OLAF

___ No OLAF for name

___ OLAF transferred for name

___ OLAF overlayed for name

No. of NOAH record for name:

___ No NOAH brief recrd found

___ NOAH nos.: _____

___ OLAF overlayed

___ OLAF transferred

___ O-OLAF

Searched by: _____

Tagged by: _____

Input by: _____

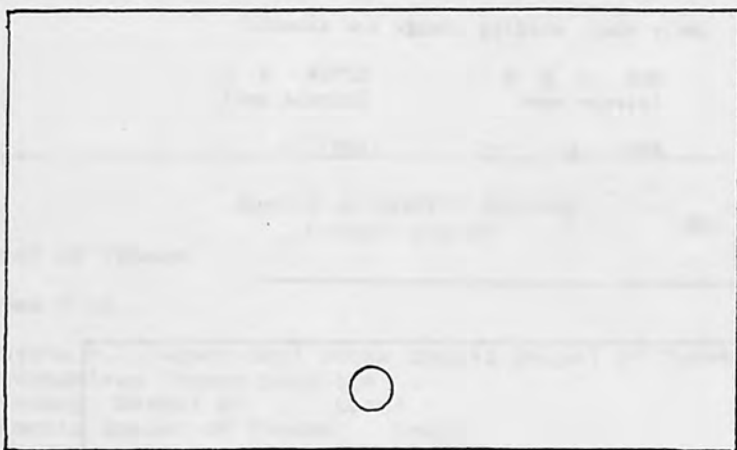
___ Route for CADM corr.

___ Form differs

___ Decision differs

Fig. 1

SERIES AUTHORITY CONVERSION WORKSHEET



A.

- 1. See also
- 2. Also under

B.

1. OLAF needs to be edited as follows:

a. (Correct) (Add) (Delete) 050 _____
(call number)

b. Change 646 \$a: c a

c. Change 645 \$a: t

d. Change 667: "Do not give as a series or as a quoted note.
Ignore."
 "Give as a quoted note."

e. Add cross references highlighted above

2. OLAF can be transferred without change

C.

1. Notify CADM of the following:

a. Different form of series heading

b. Series now traced

2. No CADM notification needed

D.

Edited by: _____

Transf. by: _____

UAF no.: _____

SAF card
moved by: _____

Fig. 2

SERIES AUTHORITY TAGGING WORKSHEET

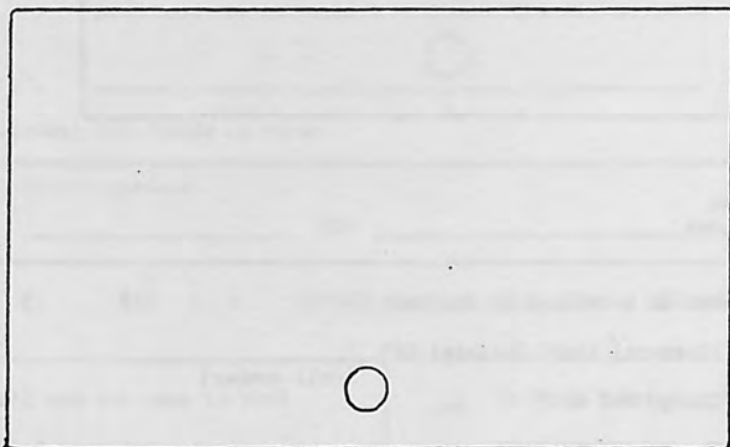
Fixed Fields (only those needing change are shown):

UNIQUE n NUM a b c S/TYP a c
 (circle one) (circle one)

NAME b SUBJ b SER a

040 IND \$c IND

090 _____



642 _____

644 f

645 t n
 (circle one)

Tagged by: _____

646 c s
 (circle one)

Input by: _____

667 ___ Do not give as a series or a quoted
 note. Ignore.
 ___ Give as a quoted note.

Revised by: _____

NOAH no.: _____

690 _____

SAF card
 moved by: _____

SAMPLE AUTHORITY RECORD
Manual system

Gospel of Thomas

see from

Bible.N.T. Apocryphal books.Coptic Gospel of Thomas
Evangelium Thomae Copticum
Thomas, Gospel of Local
Coptic Gospel of Thomas Local

see also (BT)

Apocryphal Books (New Testament) Local

Note: Not the same as Gospel of Thomas (Infancy Gospel)

ARN: 888164

LC Authority # : 82240484

FIGURE 3

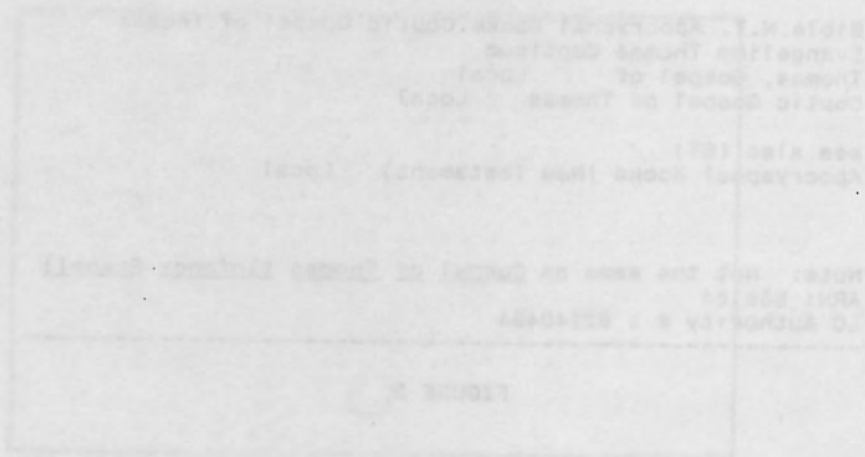
ANSWERS TO FIGURE ONE

1.j
2.g
3.i

4.a
5.f
6.d

7.c
8.e
9.h

10.b



Collins, Adela Yarbro
Crisis and Catharsis : the power of the
Apocalypse / by Adela Yarbro Collins.
--1st ed.-- Philadelphia :
Westminster Press, c1984.
179 p. ; 23 cm.
Includes bibliographical references
and index.

Neall, Beatrice S.
The concept of character in the Apocalypse, with
implications for character education / Beatrice
S. Neall.
Washington, D.C. : University Press of America,
1983.
xii, 224 p. ; 22 cm.
Bibliography: p. 208-223.

1. Character-Biblical Teaching

Collins, Adela Yarbro
The Apocalypse / Adela Yarbro Collins.
Wilmington, Delaware : M. Glazier, 1979.
xiv, 155 p. ; 21 cm. New Testament message ; v.
22
"For further reading" : p. 154-155.

Edwards, Jonathan, 1703-1758
Notes on the apocalypse
Apocalyptic writings / Jonathan Edwards ; Edited
by Stephen J. Stein. New Haven : Yale University
Press, 1977.
x, 501 p. ; 24 cm The works of Jonathan Edwards
; v. 5
Includes bibliographical references and indexes.
notes on the apocalypse. An Humble attempt.

FIGURE 2

INDIANA UNIVERSITY LIBRARIES

SERIES AUTHORITY RECORD

LTAF DONE

AAA6540

NOTIS CATALOGING

PZ2

AF# AAA6540 FMT A RT z DT 11/15/89 R/DT 09/06/90 STAT mn E/L n
SRC LANG ROM MOD UNIQUE n GOVT S/SYS a D/I n SUBD NUM b S/T/P a
NAME a SUBJ a SER c KIND a H/ESTAB a T/EVAL n IP a RULES c

010: : |a n 42017239
040: : |a DLC |c DLC
130: 0: |a Music in American life.
643/1: : |a Urbana |b University of Illinois Press
644/1: : |a f |5 DLC
645/1: : |a t |5 DLC
646/1: : |a s |5 DLC
670/1: : |a Vance Randolph's Ozark folksongs, 1982.
690/1: : |a BB FW BM: fts
690/2: : |a IP CO: fns

FIGURE I

INDIANA UNIVERSITY LIBRARIES MAP OF IO AUTHORITY CONTROL

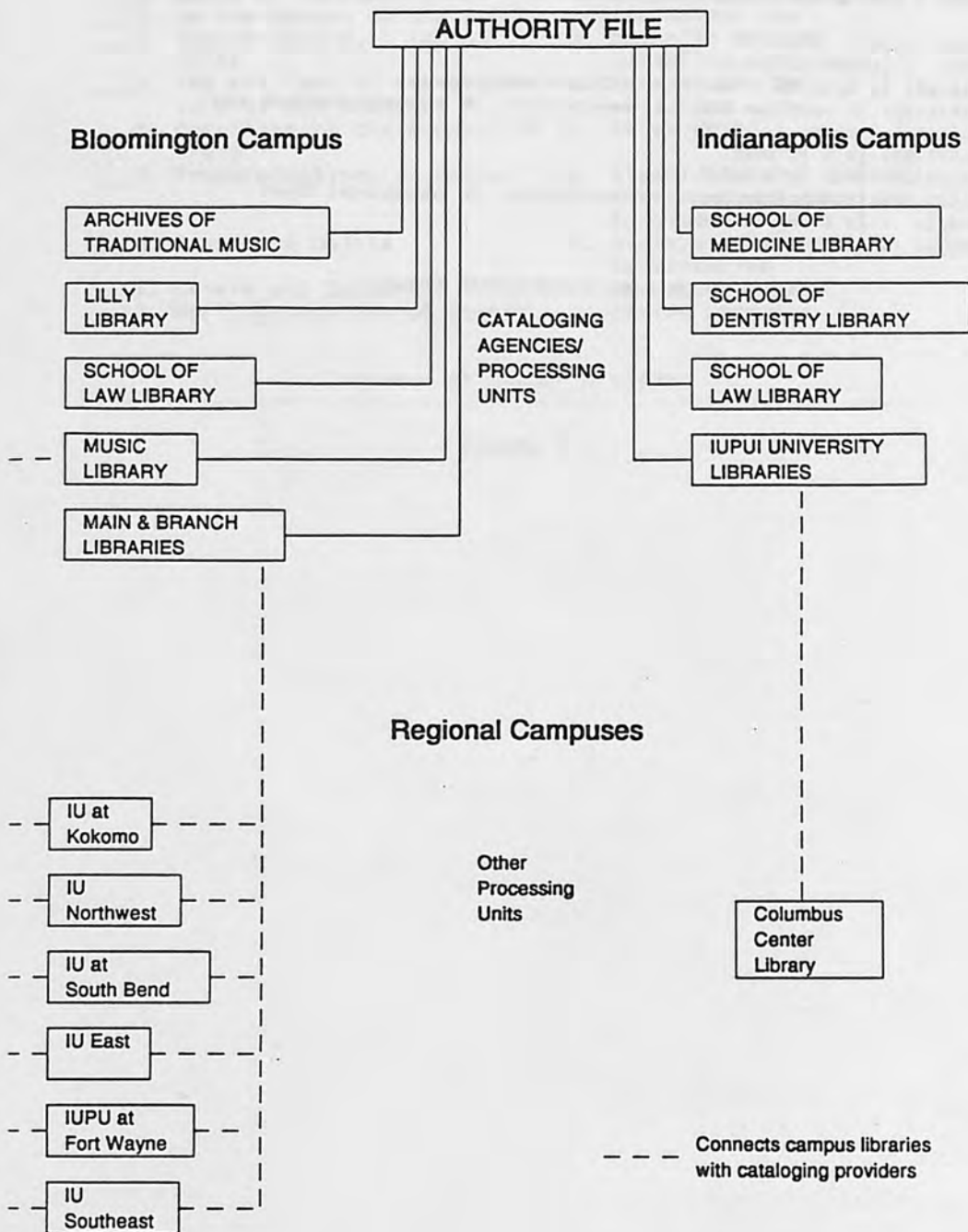


Figure 2

LTIS DONE

CAL7494

NOTIS CATALOGING

DOBi

IS# CAL7494 FMT A RT z DT 09/14/84 R/DT 05/03/89 STAT nn E/L n
SRC LANG eng ROM n MOD UNIQUE n GOVT ? S/SYS n D/I n SUBD NUM n S/TYP n
NAME c SUBJ a SER ? KIND a H/ESTAB a T/EVAL a IP a RULES c

010: : | a n 79103773
040: : | a IEN | d ISU
110:20: | a Hospital Research and Educational Trust.
410/1:20: | a American Hospital Association. | b Hospital Research and
Educational Trust
410/2:20: | w d | a HRET
410/3:20: | w d | a H.R.E.T.
510/1:20: | a American Hospital Association. | b Educational Trust
670/1: : | a LC/AF 8/30/84
690/1: : | a PP:5/3/89

Figure 1. Updated Northwestern Record

Title Proper	Uniform Title
___1. Inferno	a. Dead Sea Scrolls
___2. Gates of Understanding	b. De Bellico Gallico
___3. On the Nature of the Gods	c. The Golden Ass
___4. Qumran Cave 4, I (4Q158-4Q186)	d. Catholic Church. Catechismus Romanus
___5. The Krt Text in the Literature of Ras Shamru	e. Book of the Dead
___6. Catechism of the Council of Trent	f. Keret Epic
___7. Transformations of Lucius	g. Siddur (Reform, Central Conference of American Rabbis)
___8. Awakening Osiris	h. Bible.N.T.Revelation-Commentaries
___9. Crisis and Catharsis	i. De natura deorum
___10. War Commentaries of Caesar	j. Divina Commedia

Answers at end of article

FIGURE 1

1. NAME (1XX) _____ G/S
Search results (use + or o) Attach reference bib. or OCLC records. Supply record numbers if found.
2. NOTIS/ISU online authority file _____
3. NOTIS bib. record no. of above entry _____
4. OCLC bib. file (DLC-DLC rec. no.) _____
5. x-ref. (4xx) _____
6. xx-ref. (5xx) _____
7. Pre-AACR2 form if known (4xx) _____
8. Date & initials (690) _____

Figure 2. Name Authority Request Form