CATALOG THEM AGAIN FOR THE FIRST TIME

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ABSTRACT: Original cataloging of archival materials into online catalogs is a resource-intensive enterprise and should be undertaken only after thorough planning. The purpose of this article is to provide archivists with guidelines that may prove useful in creating online bibliographic records, based on lessons learned from the experiences at the University of Wisconsin-Milwaukee. The article provides both the library cataloger's and the archivist's perspective on automating bibliographic records for an archives, focusing on the reasons for implementing and the consequences of an automation project, and offers ten recommendations for archivists and technical services staff.

Retrospective conversion of archival cataloging and original cataloging of archival materials are resource-intensive enterprises and should be undertaken only after thorough planning. Such a project often involves personnel from one or more library departments in addition to the archives staff, especially in a college or university setting. Despite the many benefits promised by automation, archivists may be unsure what steps are necessary for a successful project, and library catalogers may hesitate to address problems outside the domain of their normal work. The purpose of this article is to provide archivists with recommendations that may prove useful in creating online bibliographic records, based on lessons learned from the experiences at the University of Wisconsin-Milwaukee (UWM). It focuses on some of the larger issues involved in creating the records, rather than on technical details.

The article is divided into three sections. The first section, written by Janet Padway, provides a library cataloger's perspective on automating bibliographic records for an archives. It concentrates on the need to adhere to strict rules and procedures and on the inherent reluctance of catalogers to deal with "unusual" formats and new procedures. Archivists need to be aware of the cataloger's perspective because catalogers can provide the technical expertise and training that is crucial to successful archival automation.

The second section of the article, written by Mark Vargas, provides the archivist's perspective on automating an archives. It focuses on the reasons for implementing, and the consequences of, an automation project. It emphasizes
the need for open communication with the catalogers in a library’s technical services department, and it concludes that an automation project is likely to reveal both unexpected problems and benefits.

The third section of the article, written by Padway and Vargas, offers ten recommendations for archivists and technical services staff based upon both the successes of and the problems encountered during their project at UWM.

The Cataloger’s Perspective

Like archivists, librarians suffer from negative stereotypes. Catalogers in particular have a reputation for being perfectionists, largely because they must follow strict interpretations of the cataloging rules and standardization requirements. However, strict interpretations insure consistent bibliographic records, and consistent data facilitates the automation of collections and the creation of accurate online computer catalogs. Over the years, catalogers’ adherence to stringent rules has protected the integrity of the information in card catalogs. Thus, when computers were first introduced to library work, catalogers led the effort to make library holdings more accessible. Indeed, in most libraries, automation of services begins with the conversion of the card catalog and evolves from there.

Although catalogers may appear conservative and resistant to change, the technical services department is a natural beginning point for automation projects. The Library of Congress created the MARC format in order to convert the information on the catalog card into machine readable form. In spite of the debates today on the pros and cons of using MARC formats, they have remained the national standard format for the creation of cataloging data. The consistency maintained by the cataloging profession provided libraries with a central, manual data file—the card catalog—that possessed a logical structure and predictable data elements, which was then adapted to the MARC format.

Years before major libraries could set up inhouse computer systems, catalogers gained experience in computerization by working with national bibliographic databases, like OCLC or the Research Libraries Information Network (RLIN). Catalogers readily accepted and encouraged the computerized integration of all library services when inhouse or local computer systems became feasible for libraries. They recognized the opportunity to bring a library’s departments and collections together, providing access to multiple collections within a single database and providing more information more quickly via integrated activities such as acquisitions, serials holdings, and circulation control.

Despite the orientation of technical services departments toward “inclusive” or “integrated” services, catalogers normally carried no responsibility for providing intellectual access to the archives. Catalogers, like everyone else, tend to find their niche and view the rest of their institution from that perspective. At many facilities, it is only recently that archives have become an integral part of the library. Traditionally, archives were physically in but intellectually apart from the library. Archivists were often unwilling or unable to consider the intellectual integration of their holdings through the library’s main catalog.

In most libraries, catalogers quickly become focused on the technical expertise for which they were hired. Consequently, they become more and more involved with details that catalogers understand and appreciate, such as Library
of Congress rule interpretations, MARC tagging, and acronym upon acronym to describe their work. In a large library, catalogers are usually assigned an area of specialization. Soon they become so comfortable with their focus on a single form of material that even learning to process both monographs and serials at the same time can be a challenge. Many monograph catalogers do not want to be distracted by other formats, such as microforms, audiovisual materials, or manuscripts, and to invest the time necessary to learn the intricacies of the cataloging rules specific to them requires convincing.

Along with their assigned area of specialization, catalogers acquire a specific and tangible goal: the shelves of books waiting to be processed. Most libraries are underfunded and understaffed. As catalogers concentrate on increasing output and, like archivists, eliminating backlogs, they prefer to direct their energies toward the materials that they are able to process most efficiently and quickly. Thus, nontraditional and ephemeral materials, archival collections, and materials in foreign languages and in unusual formats will wait—sometimes for years—to be processed after the English-language monographs and serials.

For all the preceding reasons, technical services staff members feel proprietary toward cataloging and the bibliographic database. It is with mixed emotions that they greet staff from other departments interested in creating bibliographic records. What kind of access to the computer hardware will the other department want in order to facilitate the new cataloging? By permitting other staff to have special access to the computer hardware will technical services create additional work for itself? Will the others follow the rules to the extent that catalogers believe necessary in order to create a clean database? Or will they adopt nonstandard shortcuts that make the cataloging staff look incompetent? Can technical services expect to receive an increase in the number of OCLC error or change reports due to their cataloging? Will they create additional errors for catalogers to clean up in local catalogs?

Generally, a technical services department is willing to help noncataloging personnel, but it needs to know the level of commitment that may be expected in return. Catalogers are skeptical of outsiders and their potential hidden agendas: How committed are they? Will this interest last? Will they attempt to shift an additional cataloging burden onto technical services when they become bored with the novelty of it?

The amount of training time invested by a cataloger from technical services can be significant. The most frustrating part of the training is the cataloger’s realization that, once trained, an individual must perform cataloging regularly, or the knowledge is lost. The staff can consult reference manuals and lists of procedures but nothing else compares with regular, hands-on exposure to the cataloging system. When the trainee comes back two months later with basic questions, the trainer feels the effort was a poor investment of time even though there may be legitimate reasons for the “lapse.” As archivists have come to understand, there are many cataloging rules and standards that must be applied in order for the bibliographic records to be readily accessible to the staff and patrons, and it takes time and practice to learn them.

When a technical services department becomes involved in an archival retrospective conversion (or “recon”) project, the catalogers must explain innumerable rules and justify why they are so finicky and demanding. Not only is there a question of the archivists learning MARC tagging for OCLC or RLIN, but
they must also learn about the local computer system, including the subtle differences in MARC format translation by the different computer systems. Furthermore, some of the Library of Congress rules that govern the content of cataloging and subject and name headings are arbitrary and not easily adapted to exceptional situations. Catalogers are well aware of these problems, and there are numerous discussions of them in professional library literature. Should archivists retread the same ground?¹

At the University of Wisconsin-Milwaukee, the technical services department provides the cataloging for most areas within Golda Meir Library. Today, cataloging for the general collection (primarily monographs) is approximately 89 percent converted to machine-readable format and available in the local online public access catalog (OPAC). All new cataloging appears in the OPAC. Since August 1987, when the OPAC first became operational, technical services staff have focused efforts and energies toward automating the entire collection and cleaning up inconsistencies in the database, but retrospective conversion efforts have often been thwarted by limited funding.

Technical services staff also have a long history of training the general staff in the use of the catalog. To the credit of the UWM catalogers, they have trained staff members in other areas of the library, such as the music collection and special collections, so successfully that they now perform the majority of their own cataloging. These persons are invited to all meetings when cataloging issues are discussed, and they train with the rest of the technical services staff. Training may be in a group or individual setting, and it includes refresher courses and instructions in new procedures. Questions relating to MARC tagging are always referred to technical services. Despite the danger of nonstandard cataloging appearing in the library’s database, one of technical services’ major goals continues to be the inclusion of all of the library’s collections in the online catalog.

In 1989 technical services staff agreed to help when the new staff of the Milwaukee Urban Archives (MUA) at Golda Meir Library decided to undertake an automation project. Being new, the archivists were not burdened with the previous history of the archives and its earlier relations, positive and negative, with the rest of the library staff. The new staff was willing to discuss openly various options, including whether the archivists would be able to continue to handle their own cataloging further down the road. They had enough knowledge and understanding of descriptive cataloging rules and MARC-AMC tagging to accept, if not always agree with, national standards. Thus, the new archives staff certainly appeared to be interested in integrating themselves with the rest of the library. Successful description of archival materials in the online catalog required much cooperation between the archivists and technical services staff.

The Archivist’s Perspective

The Milwaukee Urban Archives, located in the University of Wisconsin-Milwaukee’s Golda Meir Library, consists of two related archival programs: the Milwaukee Area Research Center (ARC) and the university archives. The ARC is one of the thirteen branches of the State Historical Society of Wisconsin (SHSW) and was established twenty-five years ago. There are 600 collections in the ARC, totaling 5,000 cubic feet of material, with a similar amount of holdings in the university archives. Like many archives, the MUA was plagued for
years by a shortage of trained staff and physical resources. The repository was
cut off intellectually from the rest of the library because no bibliographic
records for it existed in either the library’s manual card catalog or in the OPAC.

When new personnel arrived at the MUA in 1989, they immediately agreed
that the intellectual isolation had to end. The archivists wanted to demonstrate a
new philosophy that the archives was an integral part of Gold Meir Library and
affirmed it in a variety of ways, including creating online bibliographic records.
At UWM, the archivists believed that automation was as much a political issue
as it was an intellectual one.

The rational for loading bibliographic records into the computer catalog was
quite simple. The new archivists wanted more people to find out about more of
the archival collections through the library’s OPAC. As Randall Jimerson
recently noted, “our importance as archivists comes not from hoarding informa-
tion but from our ability to process data and assist others in using it.” However,
the archivists learned from talks with the library’s reference staff that if patrons
failed to find what they were seeking in the catalog they rarely asked for help.
Before automation, if users were to discover the archival collections, they had
to presume that such material existed even though it was not in the OPAC and
make the effort to inquire at the general reference desk, where the staff may or
may not have known something about the archives. In other words, the normal
library reference procedures yielded almost no use of archival materials.

At the MUA, automating the catalog was only one of a series of activities
undertaken because a major overhaul of operations was needed. The staff also
inventoried the entire ARC and university archives holdings; developed an
automated locator file and records management database system; processed a
backlog of collections; moved a large number of the holdings; and implemented
many new procedures. The point of all this activity on a broad front was the
efficient delivery of information. It made little sense to describe collections in
the online catalog if one could not even find them. With all of their other duties,
the staff was able to devote no more than one-quarter FTE to the cataloging pro-
ject. It should also be noted that the archivists had little experience as catalogers
but found themselves in that role.

The archivists began planning in November and December 1989, with four
goals:
1. Establish the principle that the Milwaukee Urban Archives was an integral
part of the Gold Meir Library.
2. Create online bibliographic records for all 600 ARC collections.
3. Create online bibliographic records for the university archives.
4. Develop specialized guides to the holdings that would supplement the online
bibliographic records.

The archives staff needed help from technical services personnel but did not
want to overburden the other department. The catalogers’ workload was such
that they could not drop everything just because the archives wanted to auto-
mate. The archivists wanted guidance, not complaints. To this end, the archives
staff arranged a crucial meeting with the acting technical services department
head in December 1989 to address four basic questions: 1. What authority records would be needed? 2. In which computer system would the catalog records be loaded?
3. Who would input the catalog records?
4. Who would perform quality control?

The answer to the first question was unexpected. The archivists found that the State Historical Society, the University of Wisconsin-Madison, and the University of Wisconsin-Milwaukee did not create authority records. This was surprising because the archives staff had expected to spend a good deal of time on this part of the project. Eventually, the MUA decided to create authority records only when necessary to prevent obvious conflicts in the databases.\(^7\) As other archivists have noted, the basic disadvantage of establishing the proper form of names in authority files is the amount of staff time required to create them.\(^8\)

The answer to the question about where the bibliographic records would reside turned out to be more complicated. The libraries at UW-Madison and UW-Milwaukee are OCLC members. OCLC records are downloaded into NOTIS software, where local information (such as special locations) is added, and the NOTIS records are then downloaded into the OPAC.\(^9\) However, the ARC is a branch of the SHSW, which is a member of RLIN. The SHSW had RLIN records for about 120 of the ARC's 600 collections. For a variety of reasons, the MUA wanted the 120 records loaded into OCLC. In order to load copies of the RLIN records into OCLC, the archivists believed the most efficient method would be to download them into the NOTIS system and then upload them into OCLC. Unfortunately, technical incompatibility of the local system prevented this transfer, and the RLIN records could not be downloaded.

The question remained as to how all the bibliographic records—the 120 in RLIN and the 480 new ARC bibliographic records, plus the university collections—would be loaded into OCLC. The archivists were aware that technical services' usual practice was to catalog new items in OCLC, download the records into NOTIS, and then download those records into the OPAC six times a year. Thus, the archivists had expected that the records would be keyed directly into OCLC as a first step.

But this did not happen for two reasons. First, the acting technical services director informed the archivists that the records could be keyed into NOTIS and uploaded into OCLC later. This procedure was convenient because it was much easier to gain access to a NOTIS terminal than to an OCLC terminal. Second, the archivists believed that placing the records in the library's OPAC was more important than placing them in a national database. At UWM, the primary clientele for the archives, and the one that the archivists especially want to increase, is the faculty and students. Thus the archivists were not concerned about a short delay in getting the records into OCLC if they were first available in the OPAC. Things did not quite turn out as expected.

The answers to the third and fourth questions, who would perform the data input and quality control, were simple: the work fell to archivists. In the beginning of the project they were the only staff available to do the work. The library catalogers were already too busy, but technical services staff agreed to look at the initial records and provide feedback.

The archivists began by inputting only five records into NOTIS as a test run and suffered a few surprises when they saw their records displayed by the OPAC. A number of fields did not show up or did not look right. For example, the scope and content note (MARC tag 520) had disappeared. The technical ser-
vices staff investigated and found that the people who programmed the OPAC defined incorrectly or deleted altogether certain fields. Perhaps this situation would not have arisen if archivists had been consulted when the OPAC was designed or implemented. The archivists decided to place the vanishing data into MARC fields that the OPAC did display. As one example, the scope and content note (tag 520) became a general note (tag 500). It is not clear if most local systems will be as troublesome as UWM's, but it seems worth the effort to double check and make sure that one's local system will do what it is supposed to do before beginning a large automation project.

In June 1990, after completing the input of 175 local government records into NOTIS, the archivists asked the head of technical services about the procedure for uploading them into OCLC. Another surprise. The archivists learned that they had received incorrect information when they were told that the library could upload the records from NOTIS to OCLC. All the NOTIS records were stranded in the local system; and once again, the culprit was the programming of the local system at UW-Madison and UW-Milwaukee. Although this news caused consternation at the time, the archivists eventually decided it was not a great setback because the primary clientele, which they most wanted to develop, is the faculty and students at UWM. However, the archives staff immediately changed its procedures and began inputting records into OCLC directly, from which they were downloaded into NOTIS.

The mistaken assumption about being able to upload from the local system to OCLC had gone uncorrected for six months. The archivists were ignorant about the technical details of the computer systems, so they accepted unquestioningly the information that they received. The acting technical services director and the archives staff were the only ones who did not know there was a mistake. The other technical services staff thought the archivists only wanted the records in the local system and not in OCLC, which explained why they were input into NOTIS. The archivists thought they were clear on their position, but apparently that was not true. In hindsight, the library catalogers' interpretation seems reasonable, but this misunderstanding highlights the need for better communication between staffers from different departments.

Generally, after the test runs, the work progressed smoothly but still was not easy. During this period, the archivists had to learn the details of standard cataloging rules and of the local system's requirements. Once the regular archives staff had learned enough about the computer system to administer the project, however, student workers took over much of the burden of filling out worksheets with the drafts for each record. The archives was fortunate in being able to employ students enrolled in UWM's archival education program who were eager to master the MARC-AMC format. In order to allow the students and the regular staff to focus on the challenge of describing one subject area at a time, the archivists divided the nongovernment collections into broad categories. This categorization helped them to be more efficient in deciding which index terms from the Library of Congress Subject Headings (LCSH) to assign to each collection.

As an experiment to determine whether the students could create records that matched the quality of those from the State Historical Society, the archivists intentionally did not show the students the printouts of the 120 RLIN records. The students caught on quite quickly; indeed, their proficiency was remarkable.
After about six weeks, the archivists compared the students’ records with those from the SHSW and were shocked by the near duplication. The students did a magnificent job even though some editing and a few technical changes were necessary. Altogether, five students wrote almost four hundred MARC records on worksheets.

The workflow was straightforward. The archives staff complied with the cataloging rules in *Archives, Personal Papers, and Manuscripts*\(^6\) The worksheets used by the students were forms set up in WordPerfect wordprocessing software. The students filled in the necessary information and deleted unused fields. Two professional archivists reviewed and edited the drafts. Printouts of the edited worksheets were submitted to technical services for a second review, and then the data was entered into OCLC. It took, on average, about 1-1/2 to 2 hours to create a complete MARC record in draft form on the worksheet, including authority searching, and another 1/2 to 1 hour for inputting and making system changes. These figures almost match the results reported for the Northwestern University Archives and the RLIN AMC Recon Project (1984-1986).\(^7\) Thus, to complete the inputting of 600 records took about 1,500 staff hours.

The archivists began with the assumption that the bibliographic record “is usually a summary or abstract of information contained in other finding aids”\(^8\) but discovered that the finding aids were often inadequate. Many of them did not provide necessary details about specific subject contents, the languages present, microfilming, the size and quantity of materials, and any restrictions on use. The MUA staff did not keep track of exactly how many finding aids lacked sufficient information, but they probably constituted more than the 20-40 percent noted by the repositories participating in the RLIN AMC Recon Project.\(^9\) Some archives staff members wanted to look at each collection before creating the bibliographic record for it. But if every collection had been reexamined, the catalog records probably never would have been completed. The staff archivists limited their inspections of the original materials primarily to the many collections for which no finding aids existed. In those cases, the staff had to compile the information largely from scratch.

Writing good descriptions was by far the most difficult part of the automation project. Looking carefully at the old descriptions and at those from many other repositories, the archivists found that most contained a list of forms of material, such as correspondence, minutes, or photographs. Many also provided a historical identification of the person or organization that generated the records, detailing their occupation or purposes. But frequently the catalog records did not tell what subjects the collection documented. Nor was there much professional literature that provided much guidance on the type of information that should be included in a scope and content note.\(^10\)

The archivists also found that the old card catalog was poorly designed. Many collections that contained extremely rich sources of information were not accessible through the catalog. The chief reason for the inadequacy of the intellectual control was probably that the card catalog and other finding aids were unconsciously, if not intentionally, designed for low use and the need for an archivist’s intervention. There was little need for a good catalog or quality descriptive inventories when the archivists could orally provide all the necessary information to a few researchers. Moreover, what the archivists told researchers could scarcely be challenged because the staff completely controlled
the flow of information inside the reading room. In the online environment, however, the information that the archivists had previously controlled became known throughout the library and beyond. The traditional access system broke down when the archivists needed to provide sufficient information for researchers outside of the archives.15

The creation of index headings was a matter of great concern to the archives staff.16 The chief weakness of the old card catalog was the paucity of name and topical index headings, and local government record series had none at all. The archivists linked the assignment of index headings to the content of the scope note. If a name or topic was mentioned in the scope note (MARC tag 520) it received an added entry in one of the MARC index fields (tags 6XX and 7XX) that most online catalogs allow researchers to search. Unfortunately the local system imposed a limit on the length of each record that did not allow the archivists to provide much detail in the scope note or to make a large number of index headings. In some cases, especially for large and complex collections, it was necessary to provide only a general description in the scope note in order to save room for the index headings that would serve as access points to the collection.

Despite the length limitation, the archivists found an increase of about 25 percent in the number of index headings per collection when they made a comparison between the bibliographic records in the old card catalog and the online system. This increase in the number of index headings assumes that more is better, an issue long debated in the library literature.17 To test the effectiveness of the index headings in improving access, the archivists tried a few simple experiments. In one, they asked the student workers to find collections dealing with civil rights in Milwaukee during the 1960s by using the card catalog and by searching online in the OPAC. No student found more than three collections in the card catalog even after more than twenty minutes of looking. The students found seven collections within less than a minute using the OPAC. In fact, several of the students gave up their hunt through the card catalog, checked the OPAC, and then went back to the card catalog to identify the same collections by using the cards.

The archivists used LCSH and the LCSH free-floating subdivisions. When making choices about which LCSH terms to assign as index headings, the archivists tried to find a balance in the depth of subject analysis and presumed user needs. It was immediately apparent that subject headings that had been sufficient in the archives' freestanding card catalog were totally inadequate in the new environment, where they would be integrated with much larger numbers of records for the library's monographs. For example, the MUA had one subject index card for "Africa," but in the OPAC, a search on the same term found 4,585 "hits" for publications related to Africa. Knowing that the typical search done on the OPAC is a keyword search through the combined author/title/subject fields, the archivists decided that they could facilitate successful searches best by assigning to new records the most specific applicable terms available in LCSH.18 Although LCSH index headings did not provide all the terms that the archivists desired, they certainly proved sufficient.19

The creation of the archives' MARC records took far longer and was much more labor intensive than expected largely because of inadequacies in the old finding aids. To paraphrase the television commercial, the archives staff cata-
logged the collections again for the first time. To correct the shortcomings of the descriptive inventories and other finding aids, however, will be another major project. In order to complete the automation project, the staff relabeled boxes to match the online records.20

One benefit of the project was the ability to create new printed guides to the holdings derived from the MARC records. The staff learned that online access does not replace the need for printed guides. Many persons do not have access to the online catalog, or they may wish to peruse a printout rather than concentrate on a computer screen. A new collection-level guide to the archives, created with WordPerfect with all the index terms imbedded in the descriptions, has proven extremely popular among patrons. Even more popular are specialized pathfinders that the staff can generate quickly on any topic that it chooses, such as Polish-Americans, women, or law enforcement, extracted from the complete guide. Each pathfinder even has its own index. The staff found the computerized version of the new guide to be more effective for its searches than using the OPAC, let alone the old card catalog. In essence, patrons can receive a copy of the text of the entire archives catalog on disk and conduct their own searches without having to interface with the OPAC, OCLC, or RLINE.21

Staff issues were most important in completing the project. Automating the archives involved the library’s general reference staff as well as the technical services department, and of course, the archives staff. One of the enlightening discoveries for the archivists was learning how little the library’s general reference staff knew about the archives. Informing the reference staff members about the archives was essential because they were the people who would be called upon to answer most questions asked by library patrons who noticed the new archival bibliographic records in the OPAC. The archivists gave two presentations for the reference staff. They pointed out some of the differences between research use of published books and periodicals compared to unpublished and archival primary source materials, explained reference procedures, and displayed several archival collections. The reference staff was intrigued by the size and scope of the collections and wondered how archivists survived without imprint dates. The two meetings went well and there will be more on a regular basis.

As it turned out, the relationship between the archives and technical services was muddied by impressions and feelings that should have been clarified early in the project. Simply put, job responsibilities were not sufficiently defined, and there was a communications breakdown on both sides. The catalogers gave the archivists the impression that they did not want to help much with the project but also did not like the idea of noncatalogers doing their work. The archivists felt that catalogers did not like outsiders to ask questions, and so questions were not asked. Whenever possible, the archivists tried to figure out the problems on their own and thereby spent a great deal of time with technical issues that a cataloging staffer could have answered quickly.

The technical services staff was upset over some of the archivists’ technical mistakes (such as forgetting a subfield indicator), but this was never reported in any detail. When the archives staff asked what the catalogers thought of the project, they received positive responses. The archivists did not know about the catalogers’ concerns about the records or procedures. The key mistake was not sitting down together and studying the records. Most of the problems were rela-
tively small and easily corrected, and many of them could have been prevented or resolved in a simpler fashion if there had been better communications. Indeed, the technical services staff was willing to answer questions and provide assistance.

What should the archivists have done differently? It is hard to determine because both departments were hamstrung by limited resources. Ideally, at least one cataloger should have been assigned as a liaison for the archives to answer any questions or address any problems that arose. However, with technical services already overloaded, there was no one to spare for this duty. After all, one of the reasons the archivists had to do even the initial keyboard input was that no one else was available.

In addition to establishing a cooperative relationship with other departments, the automation project forced the archivists to address three internal issues regarding the allocation of resources. First, what kind of access would the new cataloging provide for "nonscholars," such as genealogists, the general public, or undergraduate students? Did the archivists want new users who were inexperienced in research?

The second issue related to the first. An increase in use by nonscholars would presumably mean that the types of research requests would be different. Undergraduates, especially, would be working with extremely tight deadlines. In effect, automation required a commitment to educate a growing number of users who would have no idea of what an archives is, or how archivists organize materials. Patrons will usually be seeking books and periodicals, not archival materials. They may stumble upon the archival materials listed in the online catalog quite by accident.

Some archivists complain that patrons will see the bibliographic records, come into the archives, and then not want to use the materials. This is the least of our problems, for it is no different from researchers putting books back on the shelf because they did not satisfy the information need. It may be true, as writers have noted, that archives provide high recall and low precision in reference. The needs of most patrons is exactly the opposite: they have neither the time nor inclination to learn all about primary documentation and how to conduct thorough research. If an archives wants an increase in usage through online catalog records, it must reexamine the efficiency of the rest of the reference process that actually delivers the pertinent material to the researcher.

The third issue involved retrospective conversion. As noted earlier, automation reveals many problems with access to the collections. Where does the archives draw the line in improving descriptive inventories or reevaluating or recataloging collections before the work becomes an overwhelming burden? Realistically, there is only so much that any repository can do.

**Recommendations**

Based on the UWM experience, the authors have compiled the following ten recommendations for an archives staff that is planning an automation project.

1. Develop a good working relationship between archivists and the technical services staff. Evaluate the relationships of the two units, both past and present. Everyone involved should ask many questions. Determine the appropriate time to burden the cataloging staff with additional responsibilities for
training, reviewing, and monitoring the work of others. Where does the library want or need to be in terms of automation or retrospective conversion?

2. *Educate* the technical services and reference staff members on what the archives is doing. If possible, identify a single resource liaison from technical services to work with the archives staff throughout the training period and beyond. This provides for consistency in training and interpretations and assures continuous interaction for as long as the archives staff requires. Technical services staff should become familiar with the archives collection and its variety of materials. The idea of cataloging a collection is not the norm for catalogers, and they are especially uncomfortable with a collection that includes a variety of media. At the same time, the archivists should share its unique knowledge with the cataloging staff and expose them to the wonders of the collections. Most catalogers are thrilled when they have an opportunity to see and touch the materials in the archives and desire to learn more about them.

3. *Respect* the expertise of the catalogers. They spend years learning, interpreting, and understanding cataloging rules and standards. Technical services staff work with these rules and apply them daily; “speak in MARC;” work with national databases applying the rules; use records created by other libraries throughout the world; and apply these rules consistently in order to create databases.

4. *Establish* clear written goals for both the archives and technical services staff. Know what the archives wants to automate, and why, and determine if it is a short- or long-term project. Be sure that guidelines are understood by both staffs, and update them as necessary. Know the level of commitment toward sharing information within a national database, and establish MARC record production standards.

5. Work out a *review* process that is acceptable to both the archives and technical services staff. Make sure that all of the archivists’ questions are addressed and understood by the catalogers, and share concerns. The technical services staff should let the archivists know when the latter make mistakes, large or small. If the archivists are not informed, the mistakes will continue, causing greater frustration and inhibiting communication.

6. *Learn* what the local computer system is capable of doing. Load a few test records using every field possibly needed and find out if the system can handle them.

7. Look at the archives' access system and collections with a new perspective. During an automation project, archivists will probably examine their holdings more carefully than ever before. The staff should not be afraid to recognize the inevitable deluge of problems. If the catalog or finding aids are inadequate, *prioritize* what has to be done to get them up to par.

8. *Follow* the rules established in *APPM*, 2nd ed., which will make recataloging much easier.

9. *Allow* at least 2.5 staff hours per record for writing, editing, and inputting.

10. *Maintain* a consistent perspective on the work. It is very easy to get bogged down with technical details and forget why the project is really being undertaken. Automating is not a goal in itself; it is, rather, a means to an end. Automation is just one method of improving access to the collections.
Increasing access to archival collections through library databases requires extensive cooperation between archivists and technical services staff. Both groups entering a retrospective conversion cataloging project must recognize their respective perceptions and prejudices and communicate openly and freely. The cataloging project at UWM suffered unnecessary problems because of lapses in communication. Cataloging the collections is a major investment of the archives’ resources, and should be attempted only after careful planning and with the understanding that it will force the staff to look at the holdings in a new light. Properly done, access to the collections will be dramatically improved.

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NOTES

1. Throughout this article, “catalogers” refers to personnel in the technical services department who catalog materials. For a good overview of the role archivists have in a library setting see Archive-Library Relations, Robert L. Clark, ed., (New York: R.R. Bowker, 1976).

2. For the purposes of this paper, “automate” and “automation” refers to the creation of online bibliographic records.

3. For example, see Jill Tatem, “Beyond USMARC AMC: The Context of a Data Exchange Format,” The Midwestern Archivist 14 (1989): 39-47. Tatem certainly is correct to point out some of the problems with access points, LCSH, and OPACs. But these issues have been endlessly discussed in the library literature. Perhaps archivists need to expand their reading horizons.


5. It should be noted that the Golda Meir Library and technical services both had acting directors at the time of the meeting between the archivists and technical services. Thus, the decisions regarding archival automation were made without much guidance from the top administrative levels. The administration, however, did (and still does) support the decisions made at the time.


7. The staff at the Milwaukee Urban Archives is currently conducting an analysis of the personal and corporate names used in its MARC records. A review of the library and information science research on authority control can be found in C.P.R. Dubois, “Free Text Vs Controlled


11. APPM, p. 4.


13. The archival literature lacks references to ANSI standards, and to policies and research projects concerning abstracting and indexing services. Although abstracting and indexing is normally written for monographs or serials, there seems little doubt that archivists can learn a great deal from the literature and possible directions for research. See, for example, Helen R. Tibbo, "Abstracting Across the Disciplines: A Content Analysis of Abstracts from the Natural Sciences, the Social Sciences, and the Humanities with Implications for Abstracting Standards and Online Information Retrieval," LISR 14 (1992): 31-56. The National Information Standards Organization (NISO) standard for writing abstracts (Z39.14) and the International Council on Archives General International Archival Description (ISAD [G]) are currently under review. For information in the archival literature on writing scope notes, see Michael J. Fox, "Descriptive Cataloging for Archival Materials," in Smiraglia, ed., Describing Archival Materials: The Use of the MARC AMC Format, 27; and APPM, rule 1.7B2, 25-26.

14. Another issue, purposely ignored by the MUA staff, was the question of reappraisal of the collections. The close examination of the holdings revealed that many probably should not have been acquired in the first place. However, for logistical and political reasons, the staff decided to sidestep the issue and address it more carefully for all new acquisitions.

15. "Index headings" are found in the 6xx and 7xx fields. The most commonly used added entries at the MUA are fields 600 (subject added entry, personal name); 610 (subject added entry, corporate name); 650 (subject added entry, topical term); 651 (subject added entry, geographic name); 700 (added entry, personal name); and 710 (added entry, corporate name).


17. Unfortunately, the OPAC is not capable of keyword or Boolean searching through the scope or historical notes (520 and 545 fields).


19. The MUA is scanning older finding aids into the computer, thus making modifications to them much simpler to accomplish. This project will also open up research questions concerning keyword and Boolean searching through the finding aids. The staff has already had great success in Boolean searching through the existing electronic copies of finding aids, thus sidestepping the catalog altogether.

20. The staff is now experimenting with linking electronic copies of the finding aids directly into the computer version of the guide.

21. Traditionally, efficiency was measured by precision, recall, and relevance, but Saracevic demonstrated their complexity, and provided a number of definitions for different kinds of relevance. He also pointed out the need to understand the difference between the relevance of a
document and its pertinence to the user. Ultimately, the user does not know how "precise" the search has been unless it can be proven that every relevant or pertinent document was seen, and how does one determine that in a nonexperimental setting? Precision, recall, and relevance are not measures of how many items can be retrieved, but how effectively the user's needs are satisfied, which is a much more difficult problem to understand. For a thorough analysis of the issue see Tefko Saracevic, "RELEVANCE: A Review of and a Framework for the Thinking on the Notion in Information Science," *Journal of the American Society for Information Science* 26:6 (November-December 1975): 321-43; and the three parts of Tefko Saracevic, Paul Kantor, Alice Y. Chamis, and Donna Trivison, "A Study of Information Seeking and Retrieving," *Journal of the American Society for Information Science* 39:3 (May 1988): 161-216.