

Change and Adaptation in the Technical Services of a Group of Mid-sized Academic Libraries: A Fourteen-Year Overview
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This paper presents a multiple case study of evolution, adaptation and change in the cataloguing and other technical services functions in a selected group of medium-sized academic libraries in the United States and Canada. The study is based on the analysis and comparison of the responses given by this group of libraries to what are essentially the same survey questions at a fourteen-year interval, in 1989 and in 2003.

The Context of the Study

For the vast majority of academic libraries, the period since 1989 has seen the transition from local card catalogues and early online systems to fully implemented integrated library systems and sophisticated online catalogues, most of which are now web-based and therefore accessible globally. Cataloguers and cataloguing departments have successfully managed, and indeed have guided and influenced, this fundamental environmental shift with flexibility, creativity and imagination, while at the same time coping with ever-increasing demands for quality access to research and information resources of all types.

Yet, the past fourteen years have been difficult ones for library technical services operations. It is a given that the whole of the library profession has been experiencing great change and that this change is continuing. For librarians in the traditionally defined technical services areas of practice, in particular cataloguing, the rate of this change has been especially great and its trajectory has generally been discouraging. Cataloguing, together with reference, was until recently accepted as fundamental to professional librarianship. In spite of that, we have witnessed a major decline in the number of cataloguing positions in academic libraries. Indeed, as Wilder reports in his study of the changing profile of research library professional staff in ARL member libraries: "In 1998, there were 302 fewer cataloguers in ARL university libraries than in 1990... a drop of 25% in just eight years." (Wilder 2000, p.3). Whether or not one agrees that it is a good thing, it is probably true, as Wilder asserts, that this decline is part of a larger shift in priorities among the ARL libraries. Nevertheless, the possibility of absorbing a decline of this magnitude has depended upon the impact of what are well-recognized trends. These include: the very positive effect that successful standardization and sophisticated technology have had on productivity (enabling and facilitating the shared cataloguing that has led to a major falloff in the amount of original cataloguing required by any given institution, and making the reference tools and information sources essential to the cataloguing process easily accessible from the desktop); the pressure to increase the efficiency of operations brought on by shrinking library budgets; the resultant tendency to delegate previously professional level tasks to support staff; and the corresponding effort to redefine the cataloguing professional as a manager rather than as a practitioner.

At the same time that the decline in the number of professional cataloguers has been taking place, there has been no diminution in the amount of material to be catalogued. Granted that many academic libraries have faced cuts in their materials budgets, there has been an

increasing demand for more access and enhanced access to materials in all kinds of formats: maps, audio-visual materials, government documents, even grey literature and ephemera, and of course to electronic resources of all kinds. In addition there has been a burgeoning of roles and tasks that, although not defined in terms of the cataloguer's traditional skill set, nevertheless demand expertise of the same kind—non-MARC database development, the devising and implementation of appropriate metadata schema, the provision of enhanced access to special collections and so forth. The investigation and analysis of the ways in which organizational structures have changed and are changing provides some insight into how cataloguing librarians and other technical services personnel have been enabled to meet the unprecedented demands placed on their operations over this time period. In an important survey of the changing role of professional cataloguers, Eskoz (1990) included an examination of the common organizational patterns of cataloguing departments in ARL libraries in the mid to late 1980's. The present study updates and complements the results of that earlier survey. Although more limited in terms of the number of libraries surveyed, the survey reported on here is more detailed in regard to organizational patterns and covers not only cataloguing departments, but also the larger context of technical services operations.

Methodology

As noted above, the present study is based on the analysis and comparison of the responses given by the sample group of libraries to what are essentially the same survey questions initially asked in 1989 and again some fourteen years later. The first survey, conducted in 1989, was designed as an information-gathering tool with the purpose of discovering alternative approaches to organization for possible application at my own institution. Accordingly, the intent was not strictly to compare and quantify existing practices. The survey questions were therefore free text and open-ended.

A total of seventy-two survey questionnaires were mailed in May 1989, with follow-up letters sent to non-respondents in July. A total of thirty-seven full responses were received, a return rate of 51%. The surveyed libraries were selected from the 1989/90 edition of the ALA Directory to be 'middle-sized' on the basis of enrollment, staff size and reported holdings. In practice, middle-sized was defined quite broadly. Holdings of the selected libraries varied in size from a low of 462,000 to a high of 2,065,000. The average size was just over 1,200,000. Eleven libraries included are currently ARL members. An attempt was made to select libraries with a representative geographic spread.

The 1989 survey questionnaire comprised seven questions: the first three concentrated on the organizational structures themselves, the other four explored the roles and responsibilities of the staff within those structures. In addition to these same seven questions which were repeated in 2003, the follow-up survey included three supplementary questions designed specifically to address some major aspects of the changing environment: direct involvement in systems-related activities and the provision of access to digital resources, as well as a more general question regarding the emergence of new roles for cataloguing and technical services personnel. Then, as a final question, survey contacts were asked what, in their opinion, had been the greatest change in cataloguing since 1989 and what had been the catalyst of that change. Copies of the 1989 and 2003 survey questionnaires are appended in Appendices I and II respectively.

In January 2003, the follow-up survey was sent by e-mail to each of the libraries that had responded in 1989. A scanned copy of the questionnaire as completed in 1989 was included to provide contacts with context. Reminders were sent to non-respondents in March. This time twenty-nine full responses were received, for a response rate of 78.4%. Follow-up questions were directed to several respondents to clarify certain points in their responses. The results summarized here represent information provided in the responses from these twenty-nine libraries. The 1989 responses from the eight libraries for which the second survey was not received have been eliminated from discussion, except that four of those libraries provided partial responses, mainly based on the fact that they were in the midst of a major reorganization and either did not have the time or felt that any responses would soon be out-of-date. Three of these libraries did, however, provide responses to the final survey question regarding the greatest change in their cataloguing operations and their responses are included in that section.

The survey questions were intended to elicit a picture not only of the organizational structure itself but also of the size, makeup and responsibilities of staff within that structure. Although the detailed emphasis was on cataloguing functions, the larger context of technical services organization and responsibility was also examined. Because the survey questions were free text and open-ended, a certain amount of interpretation is reflected in the analysis of the results. What follows is a series of comparative “snapshots” of the organizations in these twenty-nine libraries, and comparisons of how they have evolved and adapted over the intervening years.

For the purposes of this discussion, the analysis of the results of the first three survey questions has been reordered to begin with the examination of the broader technical services organization and then to move on to the organization and staffing of cataloguing departments and their functional units and finally to the roles and responsibilities of librarians and support staff in cataloguing operations. Overall, the survey responses fall into three broad categories and for convenience I shall review these under the following headings: Technical Services Organization; Changing Responsibilities of Librarians and Staff; and Responses to the New Environment.

Technical Services Organization

Organization is a key element in establishing and maintaining a successful and flexible working environment, an environment that serves both to reflect and to influence the development of effective working relationships. The larger environment in which cataloguing activities take place is, of course, that of the cluster of operations termed technical services. Gorman (1990, p. 2) defines technical services as “...all the tasks carried on in a library that are concerned with the processing of library materials in order to make them accessible to the users of the library.” In organizational terms, technical services is usually defined as some combination of the operations carried out in the acquisitions, cataloguing and serials departments or units. With the advent of integrated library systems the interaction and interrelationships among these functions have perforce become greater and more complex. Paradoxically, such interaction has also largely become easier, since the requirements imposed by systems processes make close cooperation both mandatory and natural. In order to develop a picture of the changes in this larger environment, the survey asked respondents how cataloguing is related to other technical services functions. The 1990’s were a time that saw a major trend toward the flattening of bureaucratic hierarchies in

both public and private sector enterprises, a trend that led to the elimination of many middle-management level positions. In order to gauge the extent to which that trend was realized in academic library organizations, the survey also asked whether or not there is a Head of Technical Services position in the library.

Head of Technical Services as Middle Management

In 1989, twenty-three libraries (79.3%) reported having a Head of Technical Services or the equivalent, although one of these positions had been vacant for three years. All but one of these positions carried the designation “technical services” in its title. In the 2003 survey, this number had dropped to sixteen (55.2%), once again with one position reported as vacant. Six libraries, including the one in which the position was unfilled in 1989, have eliminated this role as a recognizable component of their organizational hierarchies. However, in one other library reporting no ‘head of technical services’ the administrative structure has been organized to split what are traditionally technical services functions between two different middle management positions.

Of the sixteen libraries retaining some version of the technical services position, ten continue to apply the designation ‘technical services’ in 2003, although one of these has expanded the title to include ‘information resources’. The other positions now carry titles that for the most part reflect a broader mandate with an emphasis on the management of activities surrounding the library’s resources and collections. These titles include: Associate University Librarian for Collections Services; Associate Director for Collection Management, Organization and Preservation; the above-mentioned Assistant Director for Information Resources and Technical Services; Associate Director for Resources and Collections Services and Associate Director for Information Systems and Access (technical services functions under both rubrics); Assistant Dean for Bibliographic and Access Services; and Head, Collection Management Services. Two libraries report having added the equivalent of a head of technical services since 1989. One of these positions, however, is currently vacant.

Functional Units Under Technical Services

The functions most often reported as separate administrative units under the mantle of technical services are still acquisitions and cataloguing. In 2003, twenty-four of the responding libraries (82.7%), report having administratively separate acquisitions and cataloguing operations, compared to twenty-seven of twenty-nine (93.1%), in 1989. The persistence of the pattern of separate acquisitions and cataloguing departments is rather surprising given that integrated library systems have made the interrelationship between these two basic functions especially close, with searching, verification and the importation of bibliographic records constituting common activities within acquisitions. Indeed several libraries report that some basic cataloguing, usually of titles with full LC copy, has been moved into acquisitions in rapid cataloguing or cataloguing on receipt operations.

Of the two other libraries in 1989, one reported combining acquisitions and cataloguing in each of two separate departments, monographs and serials, while the second did not provide this information. In 2003, only three libraries report having combined acquisitions and cataloguing operations within a single department. One of these libraries has a single technical services division with the functions divided internally into sections. Another has a combined acquisitions and cataloguing department that also includes interlibrary loan. The

library that had separate monographs and serials departments in 1989, now has a unified processing department divided into monographic and serials sections. All three of these departments include serials as well as monographs. However, a fourth library now has separate monographs and serials departments each of which combines cataloguing and acquisitions functions by format and is headed by a librarian cataloguer. One other library reports a team structure in which the discrete functions are unclear.

Serials is the third grouping of operations traditionally considered to fall under the jurisdiction of technical services. Already, in 1989, the isolation of serials operations at the departmental level was reported in a minority, or ten, of the libraries (34.5%). This number had dropped to seven (24.1%) by 2003. One library has added a separate department for serials since 1989. In addition, one library reports having two separate serials departments: one for serials acquisitions and one for serials cataloguing. In contrast are the two libraries noted above that have operations divided into monographic and serials units, in each of which cataloguing and acquisitions are combined. Finally one of the libraries that now has discrete cataloguing and acquisitions departments is planning a reorganization into a materials- or format-based model configured as print and non-print (including electronic) departments. This will be a unique configuration among this group of libraries.

Currently, the majority of the survey libraries integrate serials, and most often electronic resources as well, with monographs in both cataloguing and acquisitions operations--this despite the fact that as serials are increasingly represented in electronic form, the ways in which they are handled has changed significantly. The integration of serials into cataloguing and acquisitions departments has been incremental. In several libraries reporting separate departments in 1989, the cataloguing component of serials management was carried out in the cataloguing department, leaving the serials department to manage subscription and holdings matters. This is true of one of the separate departments in 2003 as well.

In the responses for 2003, both preservation (eight libraries) and collection development/management (seven libraries) were reported as departments under the rubric of technical services more often than was serials. Other departments included in technical services groupings were: special collections (in three libraries), access services (circulation and interlibrary loan/document delivery), database management, and systems (in two libraries each).

In the survey group, the technical services divisions of twenty-two libraries (75.9%) have been reorganized since 1989, by adding, removing, dividing and/or combining functions into new configurations. Interestingly, an examination of these changes reveals very few definite trends. As noted above, in this group of libraries at least, the division of materials by format is becoming less common at the departmental level, although there are clear exceptions to this trend. Also, more libraries are combining activities that relate to resource management, such as collection development and preservation and special collections with the traditional technical service areas. Access services, including circulation and/or interlibrary loan/document delivery, which Gorman (1990, p. 3) includes in his defining list of technical service processes, have been combined with traditional technical services in only two libraries, and moved elsewhere in a third, even though this function in fact has a considerable commonality with technical services because of integrated systems and the utilization of large bibliographic databases.

One library has a particularly unconventional organizational structure: one associate director oversees acquisitions, cataloguing, serials acquisitions, collection development, preservation, and special collections operations. A different associate director has responsibility for electronic resources, which includes serials cataloguing, and also for documents management, all database management activities, and authorities maintenance. The wide administrative separation of functions that are essentially similar, and in the case of database management and authorities, interdependent with other technical services activities, is unparalleled and therefore particularly interesting. The survey response did not provide detail as to how the departments interact on a day-to-day basis, but it is reasonable to assume that cooperation is close and effective.

Organization of Cataloguing Departments and Operations

In spite of the difficulties and challenges presented by the vast proliferation of information in all formats and the shrinking of academic library budgets, cataloguers and cataloguing departments do, as noted by Eskoz in 1990 (p. 390), continue to exist as recognizable and viable entities in today's academic libraries. It has doubtless been necessary for departments to reorganize in flexible and creative ways just in order to continue to fulfill their traditional functions while absorbing complex new responsibilities. Predictably, all of the cataloguing functions in the survey have been the subject of organizational change since 1989. The greatest quantifiable change in cataloguing departments has been the loss of staff, at both the professional and the support staff level. Most purely clerical level positions, those that were dedicated to typing, card-filing, data inputting and labelling, have been eliminated by automation.

Staffing

The first survey question asked for a breakdown of staff in the cataloguing department by level, as well as how many titles were catalogued annually. In the twenty-nine libraries surveyed, the number of titles processed ranged from a high of 91,000 (actually reported as items) to a low of 6,000. The majority of libraries were, however, in the 20,000 to 50,000 title range, and the average annual production was 31,750. Some of the discrepancy in numbers is no doubt due in part to differences in the way institutions keep their statistics, for example, as titles or items and what kind of and how materials are counted. Staff sizes ranged surprisingly widely from thirty to three and a half. To some degree these numbers too reflect differences in functional structures, in what activities and groupings are or are not included under the general rubric of the cataloguing department. In cases where different functions were combined, the numbers are of those engaged in cataloguing, in so far as it was possible to determine from the survey responses. One library has a considerable portion of its cataloguing done by librarians outside the cataloguing department and these cataloguers have been included in the numbers. Average staff size was just over fourteen, the average number of librarians per department was four. Librarians accounted for about 29% of the cataloguing positions in this group of libraries. However, the proportion of librarians to support staff in cataloguing departments ranged widely from as low as 7% to as high as 56%.

The majority of these cataloguing departments, sixteen (55.2%), have had a decrease in overall staff size since 1989, several suffering dramatic losses of up to many as 50% of positions. At the same time, however, eight of these same sixteen libraries reported substantial, even impressive, increases in productivity reflected in titles catalogued annually.

Four more of the sixteen maintained the same level of productivity enjoyed in 1989. Six catalogue departments reported staff sizes of approximately the same size as in 1989, although the level and/or deployment of positions may have changed. On the other hand, seven libraries actually reported increases in staffing. This was, in at least two cases, in response to major increases to the library's materials budget. In others, the increase may be more the result of redeployment and restructuring than the addition of actual positions. Given the wide range of organizational change and restructuring that has taken place, staffing increases *per se* are perhaps not so surprising as at first glance.

Looked at another way, fourteen cataloguing departments (48.3%), report increases in productivity. Eight of these also report having suffered staff losses. Another seven libraries maintained the 1989 level of productivity, four with decreases in staff. Finally two libraries did report a fall in productivity, one of these because serials were no longer included in the statistics. Comparative data from 1989 was not available for the other libraries.

Four libraries report outsourcing some portion of their cataloguing workload, mostly monographic copy. Interestingly, only two of these libraries report an actual decrease in cataloguing staff and one has even seen an increase. Several libraries also batch load vendor records, from aggregators for example, and these records may be reflected in their production statistics. Two libraries reporting increased productivity volunteered the fact that they maintain large active backlogs—of two-three years in one case and of 20,000 titles in the other. Since both of these libraries make use of rapid cataloguing procedures, the existence of these backlogs demonstrates the enormous increase in materials to be catalogued.

As noted above, these numbers are open to more than one interpretation and in many cases the situations in 1989 and 2003 are not comparable one to one. Nevertheless, the numbers do serve to demonstrate clearly that, for this sample group at least, cataloguing departments are indeed managing to do more with less.

Organization of Cataloguing Functions

As might be expected, in both 1989 and 2003, survey responses indicate a wide variety of organizational patterns, although all libraries reported carrying out cataloguing activities within definable organizational structures. The histories and cultures of specific institutions no doubt have shaped the kinds of practical and creative organizational solutions developed in response to the challenges of both the internal and external academic library environment.

In her earlier comparative study of the role of catalogue librarians, Eskoz investigated the most common organizational patterns found in the catalogue departments of a group of American academic libraries. She identified three major patterns: 1) departments with a basically flat structure, having few internal subdivisions; 2) departments divided into two basic sections: original and copy cataloguing; and 3) departments with multiple formal internal sections. (Eskoz 1990, p. 383-384).

Although these three basic patterns were represented in the 1989 survey reported here, the departments described were often difficult to categorize distinguishably in these terms. The majority of libraries, seventeen (58.6%), had multiple internal divisions, although these divisions were formalized to varying degrees. Seven libraries (24.1%) had flat departmental organizations, and only two had the basic copy/original cataloguing split. One additional

library reported having two formal sections, but these were designated as ‘record creation’, including both copy and original records, and ‘record maintenance’. But some libraries had less conventional organizations. One library combined serials cataloguing and catalogue maintenance in a department separate from monographic cataloguing. Another library had separate departments for original cataloguing and for database maintenance while copy cataloguing was a section under the purview of the head of the acquisitions department. Only one library in the 1989 survey had cataloguing operations organized into teams, which in this case were structured according to broad academic disciplines.

Of the cataloguing functions detailed in 1989, copy cataloguing was most frequently defined more or less formally as a separate section within the department—in fifteen libraries (or 51.7%). This was closely followed by database or catalogue maintenance in fourteen libraries (48.3%), and original cataloguing in eleven (37.9%). Original cataloguers were not formally organized in a distinct unit in five libraries, either because they worked independently or because they also had responsibility for other functional units. Six libraries (20.7%) reported separate sections for serials cataloguing, while separate recon and physical processing sections were reported in several libraries. In general, with the exception of serials, the pattern for most of the 1989 survey libraries was an organization built around functions or types of activity within the cataloguing operation, such as copy cataloguing or database maintenance, rather than around format or type of material handled.

In 2003, the number of cataloguing departments having basically flat organizations had grown from seven to eleven. Strikingly, only three of these eleven were among the seven libraries which had flat structures in 1989. The number of departments with multiple internal sections had declined from seventeen to eleven (37.9%), and the nature of these sections had in many cases evolved. Although functional divisions based on type of activity are still relatively prevalent, there has been a definite trend toward what Eskoz (p.384) referred to as specialty “clusters”, which for this group of libraries are based mostly on the type or format of material handled. Four of these libraries characterized their organized groups as ‘teams.’ The team structure shares many characteristics with the specialty cluster and may in practice be difficult to distinguish from it. In fact, in a 1994 survey of cataloguing teams in academic libraries, Schuneman and Mohr (1994, p. 257) defined the team cataloguing mode as being essentially the same as Eskoz’s cluster pattern. The ‘cluster’ or ‘team’ pattern combines original and some copy cataloguing and is staffed by a mixture of librarians and non-professional staff. Examples from the survey responses include groups dedicated to monographs, serials, electronic resources, documents, special formats and/or combinations thereof. One of these libraries also has a group dedicated to East Asian materials and another a section dedicated to fine arts, while yet another organizes its teams predominantly around broad subject and language areas. This last library is not, incidentally, the same library that made use of discipline-centered teams in 1989. That library has since reorganized into a more conventional structure.

However, three other libraries that characterize their organization as team-based have operations that appear to be less clearly demarcated organizationally—organizations in which responsibilities and reporting lines as well as group boundaries seem to be more fluid and less clearly drawn and where there appears to be an emphasis on group and cooperative action. For example, one of these libraries assigns librarians to primary and secondary responsibilities, so that one’s place in the organization is more fluid.

In any case, although Eskoz (p. 384) found that in 1987 the cluster pattern seemed to be less common than it had been, the results of this survey would certainly indicate at least a temporary resurgence. Schuneman and Morh (p. 384) also found that this pattern was not uncommon. However, contrary to their finding that subject-based teams were the most prevalent kind of cataloguing team, the present study found that organization around format was the dominant approach.

In regard to the organization of specific cataloguing functions, it is noteworthy that in contrast to the 1989 results, only four libraries (13.7%) report having a separate section dedicated to copy cataloguing in 2003. A fifth library, one of those employing a team organization, designates a discrete copy cataloguing unit. Although, as noted above, at least four of the survey libraries are outsourcing some portion of their monograph copy, copy cataloguing is still being done in all the survey libraries. Responsibility for this work is attributed to specific groups of staff in the survey responses of the vast majority of libraries. In those libraries having internal divisions, copy cataloguing is most often included with original cataloguing in the specialty groupings discussed above. It also should be mentioned that simple copy cataloguing, usually defined as that using LC copy, is done as a 'fastcat' or cataloguing-on-receipt operation in the acquisitions department of at least two of the sample libraries and is being considered in two more. In two libraries LC copy cataloguing is actually being done by student assistants. Finally, in two other libraries this level of copy is handled by database maintenance staff.

The second most common functional unit reported in 1989 was catalogue or database management or maintenance. In 2003, ten libraries (34.5%) still have separately designated sections or teams dedicated to this function. (One of these includes "enhancement" in the title of the section). Five more libraries indicate specific responsibility for maintenance work among departmental staff. One library has a completely separate database management department. In contrast, twelve libraries do not indicate where database or catalogue maintenance responsibilities reside. Because this area has changed dramatically with the advent of integrated systems and web-based catalogues and portals, it may be that some libraries categorize this work more as a systems-related function. Several libraries, for example, report making use of system-generated reports to check for errors and to monitor cataloguing activity.

Other functional sections reported in 2003 include physical processing and preservation/conservation sections in three libraries, remote storage in one library, and interlibrary loan in one library. No libraries reported having separate recon sections, although recon is still ongoing in at least two of the responding libraries. Three libraries designate responsibility for metadata apart from broader electronic resources or serials cataloguing. There is a fuller discussion of metadata-related activities in the digital/electronic resources section below.

In view of the deepened interest in and emphasis on the importance of authority control, particularly in the global environment of web-based catalogues and internet resources, it is surprising that authorities work is not more obviously represented in the organizations of the survey libraries. Only ten libraries indicate responsibility for authorities, in most cases (six) as part of the database maintenance operation. There are no sections dedicated to authority control itself, although individual responsibility is specifically assigned in four departments. In the case of the other libraries, it seems reasonable to assume that authority control

activities are integrated with the processes of both cataloguing itself and of database management, and consequently are not specifically highlighted.

Finally, serials cataloguing is done in the cataloguing departments of twenty-two of the survey libraries (75.9%), ten of which have separate serials units or teams; two of these combine serials with electronic resources and one with catalogue maintenance. Six of these departments have assumed responsibility for serials cataloguing since 1989. In only five libraries (17.4%) are serials still catalogued in a separate serials department. In one library, only original cataloguing of serials is done in the cataloguing department, while copy is in fact done in acquisitions. And one library having no cataloguing department *per se* combines acquisitions and cataloguing in a serials unit.

Summary -- Organization

In searching for trends or patterns in the organizational changes that have taken place in this sample group of medium sized academic libraries, one is struck by the fact that the only truly dominant pattern is change itself. This coincides with the findings of the earlier comparative study of cataloguing departments, conducted in 1986-87: "Regardless of the present structure of catalog departments, reorganization and experimentation with new procedures are ongoing...One interviewee summarized it succinctly: 'Things continually shift.' The wide variations of such shifting can be epitomized by two examples. One administrator stated that several cataloguing sections have merged. Another reported that what was formerly one large department has been separated into four units." (Eskoz 1990, p. 385). The results of the present study demonstrate the continuing prevalence of this kind of organizational change in cataloguing departments and in their parent technical services divisions. Loss of staff has of course had an impact on the flexibility that these units can exercise in establishing effective organizational structures. It seems reasonable to assume that the changing configurations that are documented here are the result of creative and thoughtful efforts to cope, within the constraints of their individual institutions, with the pressing, even relentless, demands placed on these operations by the changing world of information and research. In other words, they represent the results of successful and effective coping strategies, rather than the results of the concerted attempt to structure ideal organizational frameworks.

Changing Responsibilities of Librarians and Staff

There is considerable literature on the changing nature of the role of the professional librarian, especially the professional cataloguer. At least two recent surveys: one addressing professional cataloguers (Buttlar and Garcha 1998) and one addressing paraprofessionals (Mohr and Schuneman 1997) have explored the ways in which the roles of these respective groups have been evolving.

Original cataloguing

At one time, original cataloguing was generally considered, in academic libraries at least, primarily to be the role of professional librarians. The extent to which this responsibility in particular has been progressively delegated to paraprofessionals or support staff has been the subject of much discussion in the literature, and is documented in the surveys noted above. In order to gauge the degree to which this trend applies in the survey libraries, respondents were asked who was responsible for original cataloguing in their institutions.

In 1989, just over half, sixteen, of the responding libraries reported that original cataloguing was the sole responsibility of librarians at their institutions. Of the remaining thirteen libraries, eleven (37.9%) reported that support staff assumed some responsibility for this task. The share varied considerably: in six libraries, support staff did only specific and limited types of materials, for example, local theses, minimum level cataloguing, literature (belles lettres), children's books, editions for which copy for a variant was available. In one library, support staff prepared the description then passed the title on to librarians for the assignment of access points. Four institutions gave experienced support staff responsibility for unspecified types of original cataloguing. It could be argued that cataloguing that is based on a variant edition, or performing simple description without establishing access points, does not really constitute original cataloguing. This would leave seventeen libraries (58.6%) where professional librarians were solely responsible. However, in two libraries original cataloguing was mainly the responsibility of support staff. One of these had its staff divided into very broad subject-oriented teams doing verification, copy cataloguing, original cataloguing, added copies and volumes, withdrawals, and shelflist maintenance. This was the only library where librarians did virtually no cataloguing. At the other of the two, the bulk of the original was done by support staff, though librarians in the section also did some.

In 2003, there is nearly an even split: thirteen libraries (44.8%) report that, with the exception of adapting copy from variant editions—a practice characterized as “cloning” by one respondent—original cataloguing is still the responsibility of librarians only. Fourteen libraries (48.2%) now have support staff doing some share of the original, two more than in 1989. The same two libraries which reported in 1989 that most original cataloguing was done by support staff continue that practice. Eighteen libraries (62%) report no change in the assignment of this responsibility. However, the responsibility undertaken by support staff has increased in nine libraries, either because they are now doing some original cataloguing where none was done in 1989, or because the amount and/or type of material undertaken has increased. In two libraries some original cataloguing was done by non-librarians in 1989, but none is being done now. In both of these libraries, the delegation of responsibility had been quite limited. Although these findings do support the trend toward increased delegation of original cataloguing, the change has not been dramatic in this group of libraries. One might speculate on possible reasons for this. The amount of original cataloguing overall has diminished substantially for all but the larger research institutions. What remains is often very specialized or esoteric in nature. (Lee-Smeltzer 2000, p. 319). This, coupled with the fact that most of the libraries in the survey group have also seen losses of staff level positions but increases in materials to be catalogued, may mean that support staff have more than enough to handle already and that there is consequently a diminished need and a reduced scope to delegate further. Finally, the qualifications or indeed the pay scales of available staff may make the delegation of such highly demanding work impractical or unethical.

Revision

One of the concerns, justified or not, surrounding the use of support staff to perform original cataloguing is that of maintaining a high level of quality control in cataloguing. This concern is directly related to the issue of cataloguing revision. The systematic review or revision of cataloguers' work, usually prior to final entry into the catalogue or database, has been a standard approach used by cataloguing departments to ensure an acceptable level of quality control. With the shrinking of cataloguing staffs and the pressures toward efficiency and

streamlining, this final step would seem to be a likely candidate for elimination. This issue was addressed in the survey with the following results.

In 1989, the level of routine, systematic revision after the training period was already relatively low, although revision during the training period was the norm. Twelve (41%) of the twenty-nine libraries reported some level of ongoing routine revision. The actual level of revision was in some cases difficult to determine from the responses. However, in four of these libraries, all or most work was revised, while only original cataloguing was revised in six. Three libraries specified that original work done by support staff was revised. Notably, in two libraries original cataloguing was revised by support staff. In one of these libraries non-librarian staff had sole responsibility for original cataloguing, but in the other the work was done by librarians. In the libraries in which routine revision was not done, several reported using sampling, or spot-checking, or revising as the need was perceived by either the individual or the supervisor. Some libraries reported the practice of proof-reading, often using shelflist cards. One library reported using its systems capability to flag new headings as a way to catch errors. Seven (24.1%) libraries reported no regular efforts of revision or checking continued after the training period.

In 2003, one might expect the amount of revision to have declined sharply in light of improved standardization of copy and constant pressures to increase efficiency. However, although there is a decrease overall, and eleven libraries (37.9%) now report that no continuing effort is placed on revision beyond the training period, an equal number, eleven libraries (37.9%) still engage in some routine revision of work. This revision is limited to original cataloguing in seven libraries, four of which specify that originals done by support staff are routinely revised. Notably, in two libraries, revision takes the form of the review by librarians of system-generated reports of cataloguing activity, through which problems are identified and addressed. This approach may be seen as a replacement for the older practice of proof-reading shelflist cards. From this one might infer that this practice, or some variation of it, is in fact more prevalent than was explicitly reported on the survey. As in 1989, other libraries indicate the use of spot-checking or revision not as done routinely but in response to a perceived need.

The level and/or type of revision has changed between 1989 and 2003 in twelve libraries. The level has been reduced in only five libraries, however. On the other hand, revision has actually been increased in four libraries. In two of these cases, original cataloguing is now being revised where it was not previously. In both of these libraries, support staff have now been delegated a share of original work. In one library spot-checking has been introduced. Furthermore, one library that reported no systematic revision after training in 1989 now has all cataloguing revised.

The results from this group of libraries tends to support the findings of Mohr and Schuneman (p. 211) that the systematic revision of original cataloguing was more likely to apply to the work of paraprofessionals than to that of librarians. Accordingly, in a significant number of the libraries surveyed, librarians continue to exercise control over the process of original cataloguing through revision and oversight, even though the responsibility for that activity may now be shared with support staff.

The decline in the overall quality of cataloguing records is often commented upon, although the validity of such concerns has not been convincingly demonstrated. In an environment

where productivity depends so heavily on the cooperative sharing of catalogue records through large databases such as OCLC, the potential for the replication of errors, sometimes serious errors, in individual catalogues is undoubtedly cause for concern. Whether or not some level of systematic revision can be an effective means to maintain the overall quality of cataloguing records is a matter for further research.

Supervisory Roles of Librarians

Many in the profession believe that, as previously professional work is delegated to the paraprofessional group, the role of the professional librarian in cataloguing should properly become that of a manager. Mohr and Schuneman (p. 206) referred to the "...emerging thought about the proper role of the professional librarian in technical services—and in the profession in general—as managers, leaders, innovators, less involved than previously in day-to-day operations." To discover the extent to which this trend is demonstrated in this survey group, contacts were asked how many and to what extent cataloguing librarians are involved in supervisory or management roles *vis a vis* support staff.

In 1989, nineteen institutions (65.5%) reported that one or more cataloguing librarians below the level of the department head had formal supervisory/management roles, typically in section head positions. Nine libraries had either an assistant head or a principal cataloguer. Among the other positions reported were: Head of Copy Cataloguing or the equivalent (8 libraries); Head of Database Management or equivalent (5 libraries); Head, Serials (4 libraries); Head, Original Cataloguing (2 libraries) and Head, Recon Unit (2 libraries). Presumably, most of these positions also had a cataloguing component.

Ten libraries (34.5%) reported that no formal supervisory responsibilities were delegated to librarians other than the department head. Five of these indicated that, although they had no formal responsibility, one or more of their line librarians were involved in providing direction, advice, problem-solving for staff on an informal basis: that is, they filled the role of resource persons. Some of these did take part in staff training, monitoring workflow or deputizing for regular supervisors. However, in twenty-one libraries (72.4%) at least one catalogue librarian had no supervisory or management role. A total of seventy (48%) of the librarian positions in the survey group were non-supervisory/managerial. The great majority of these were engaged in original cataloguing.

In 2003, the same overall numbers still apply. Once again nineteen libraries (65.5%) report that in addition to the department head, one or more cataloguing librarians have formal supervisory/management roles. In the other ten libraries (34.5%), no formal supervisory responsibility is delegated, although informal, resource and advisory roles are noted in five. However, the situation within some individual libraries has changed. Six libraries which reported delegating supervision in 1989, now do not; whereas another six have delegated responsibility when they did not formerly do so. Much more indicative of the change is the fact that now only forty positions have no supervisory component, or just under 34% of the total positions reported. The number of professional librarians in these cataloguing departments has fallen from 146 in 1989 to 118 today, a drop of 19%--not as large a drop as that reported in the ARL group as a whole (25%), but still very substantial. Clearly it has been the non-managerial positions that have sustained the greatest loss: that is, it is not necessarily so that more cataloguers are becoming managers, but rather that fewer non-managerial positions exist.

At a time when cataloguing courses are no longer mandatory in many library schools, and there has been a marked decrease in the number of professional positions for cataloguing practitioners, the question of where future librarians are to acquire the complex knowledge and skills needed to successfully manage large, multi-faceted cataloguing operations has no easy answer.

Participation of Support Staff in Policy and Decision-making

Survey respondents were asked whether there was any mechanism in place at their libraries to allow for the participation of support staff in policy and decision-making. There was general consistency in both sets of responses to this question. Only one library in 1989 and none in 2003 indicated that there were no such channels or mechanisms in place. Responses generally expressed an openness to and a welcoming of staff input into cataloguing issues, although at least two libraries qualified this to apply mainly to input in an advisory capacity and/or regarding procedural matters.

By far the commonest formal mechanism for staff participation was and still is the regular departmental, section or unit meeting. Eighteen libraries reported using regular meetings in 1989 and fifteen in 2003. Meetings of other formal library committees or groups such as library councils or staff organizations were specified by four libraries in 1989 and by seven in 2003. Other methods mentioned were direct input by staff supervisors and section heads, frequent consultation and active encouragement of participation by staff in at least the idea and opinion level, and the use of a collegial team approach. One library actually encourages initiative and innovation on the part of its staff by providing monetary rewards.

For the most part, the survey responses did not give a clear indication of the extent to which the input of staff into the policy and decision-making process has a real impact beyond the advisory on the policies and decisions made. Of course, the degree to which any management is truly responsive to direct influence from non-management personnel is very much a matter of individual and institutional philosophy and style. Nevertheless, it is notable that, without exception, the 2003 responses do indicate that the ideas and opinions of support staff are valued, and in many cases are actively encouraged.

Summary – Changing Responsibilities

On the evidence of the 2003 survey responses, the changes in the responsibilities of librarians and staff in technical services have been considerable, but they have been evolutionary rather than revolutionary. In the survey group of libraries, there has certainly been an increase in the delegation of previously professional responsibility, most often of original cataloguing, to the support staff group. Nevertheless, original cataloguing continues to be a primary role for catalogue librarians even in those departments where this work is shared with staff. Although the practice of systematic, routine revision has declined, some revision is still done in the majority of the survey libraries. More of the librarians left in cataloguing departments are now engaged in some level of supervision, often leading and overseeing the activities of functional sub-units. All the libraries in the survey have formal and/or informal mechanisms in place to facilitate and encourage the expression of ideas and opinions on the part of staff.

Responses to the New Environment

The responses to the final three questions, which were designed to address the impacts of some of the major issues presented by the new information and research environment, as well as the fourth identifying the major changes and their sources, shared an emphasis on the challenges of adapting to dramatic and rapid advances in information technology both internally, with sophisticated library systems, and externally, with the emerging dominance of the Internet and other electronic resources.

Involvement in Systems Work

During the period covered by the two surveys, technical services librarians have been confronted by a double conundrum: how best to employ the emerging technology to ensure that it functions as an agent of efficiency and greater productivity, while at the same time absorbing the additional workload in terms of both format and content presented by the proliferation of electronic research materials.

Not surprisingly, therefore, the reported involvement of technical services personnel in systems-related activities was relatively high, especially in relation to the implementation and maintenance of integrated systems. Nine libraries (31%) do, however, report little or no involvement in systems work, although one of these comments that people work closely with the library's systems staff, while another has a cataloguer maintaining the departmental web site. It may be that the question was interpreted more broadly in some cases than in others.

Eight libraries (27.6%) report moderate involvement in which the activities detailed include collaborating closely with systems units on ILS implementation and maintenance issues, and on such specific issues as coding and indexing, record displays and information content, providing report specification and catalogue profiles, as well as the testing of system upgrades. In addition, two of these libraries are involved directly or indirectly in the development and maintenance of departmental or staff web pages and/or in efforts to establish cataloguing documentation online.

Two responding libraries did not elaborate on the extent or nature of activity, but did indicate that professional staff were directly assigned to systems work: in one, the current head of technical services also serves as systems librarian; in the other, the former head of cataloguing has been reassigned to the systems unit with responsibility for technical services matters.

Finally, ten libraries (34.5%) indicate that cataloguing or other technical services staff are extensively or heavily involved in systems work, which includes responsibility for indexing and field structure and the maintenance of system tables for the ILS, direct responsibility for various ILS modules, the import and export of MARC records, data loading and extracting, writing systems loaders, updating the proxy for remote access, the creation and maintenance of databases using various metadata, developing Web-based interfaces, and addressing indexing and metadata solutions for digital resources. One of these libraries has a computing consultant position shared between cataloguing and acquisitions, and in another the head of cataloguing serves as backup for the systems librarian.

These findings clearly demonstrate the trend toward greater demand for computer and systems skills among cataloguers and other technical services personnel. These skills are over and beyond those day-to-day skills virtually all staff in technical services must have in order to cope with and effectively adapt to the instability and near-constant change in the essential tools of a workplace that is overwhelmingly systems-dependent.

Provision of Access to Digital/Electronic Resources

The importance of providing access to digital resources in academic libraries is incontestable. Although there has been considerable discussion and debate over whether or not conventional cataloguing practices are adequate to this task, the vast majority of libraries in the survey sample are in fact cataloguing at least some category of electronic material. Many are also involved in creating and implementing alternative methods of access.

Only one of the twenty-nine survey libraries reported no involvement in the provision of access to digital resources, commenting that although they should be involved, there has as yet been no time available. Of the other twenty-eight libraries, at least twenty-six (89.7%) catalogue digital resources and the specific approach to access was unclear in the other two. Five libraries specify only cataloguing e-serials. In addition four libraries also maintain web site access for e-journals, databases, and/or other web materials. Three libraries indicate involvement in URL checking, although the method and extent of this checking was not detailed. Three libraries comment that they also make use of records from commercial sources (from aggregators or e-book suppliers, for example) to supplement their in-house cataloguing.

In addition to standard cataloguing, nine libraries (31%) also are involved in providing alternative access to digital resources and collections. These efforts include: providing Dublin Core descriptive, administrative and structural metadata for locally created digital resources; involvement in ETD developments; provision of access to databases of images, slides or photographs; working with other areas to develop metadata standards and guidelines; playing a leading role in metadata implementation for digital library development—setting content standards, developing the search architecture and the search interface; and setting up a geospatial data repository.

In view of the loss of cataloguing positions over the last decade, it is interesting to note that seven libraries in the sample group have professional positions dedicated to metadata and electronic resources. At least three of these are newly created positions rather than re-structured existing positions. Despite different degrees of involvement by different respondents, it is evident that participation in the organization of access to electronic resources by cataloguing departments is trend that can be expected to grow substantially. There is much work to be done to devise and implement effective access to digital and electronic materials—work that is well-suited to the skills and expertise of a new generation of cataloguers.

New Roles for Technical Services Personnel

Survey contacts were asked to describe any new roles that have developed for cataloguing and other technical services staff. Predictably, there was considerable overlap between the answers to this question and those of the preceding two regarding systems involvement and

especially access to digital resources. In fact, twenty-five libraries (86.2%) described new roles involving electronic resources, metadata and/or systems-related work. The roles detailed included cataloguing of electronic resources, of course, but there was also an emphasis on alternative access, especially metadata development, standards, implementation and support. Some of the responses expand on those given above, such as: involvement in campus-wide consultation on metadata standards and automation needs, creating a web site for the distribution of staff information, the creation and development of SQL and other non-MARC databases, leading digital library projects and initiatives, contracting with vendors and registering databases and e-journals, managing descriptive metadata for a subject-enhanced table of contents for a full-text journal article database, and participation in the development of linking systems. Five libraries noted the purchasing and batch loading of vendor records for e-books and various collections.

Several libraries did describe other kinds of new roles. Among these were the management of documents and remote storage, the cataloguing of maps, sound recordings and other types of media, the practice of fiscally-oriented management, and participation in information desk work. It was somewhat surprising that only one library mentioned information desk work as a new role for technical services personnel.

Major Changes in Cataloguing Since 1989

Technology and systems were overwhelmingly considered the major catalysts of change in cataloguing operations since 1989. The major changes themselves named by respondents were divided nearly evenly between the implementation of integrated library systems (fourteen respondents) and issues surrounding the advent of Internet and other electronic resources (sixteen respondents). Nine respondents specified the development of sophisticated cataloguing sources and tools such as bibliographic utilities and desktop access. Specific changes cited relating to systems and/or electronic resources included: movement from a model dealing primarily with individual titles and items to a model emphasizing the batch processing of data from various sources (three libraries); taking a more proactive role in the provision of access and the establishment of content standards; the complexity that electronic resources have added to acquisitions procedures due to the contracting and licensing requirements; and the use of cataloguing workstations that allow cataloguing to be done outside the cataloguing department, enabling adoption of a team organization and of cross-divisional appointments (one library each).

On a different note, eight responses cited reorganizations of departments and functions, two of these specifying the flattening of administrative structures. Related to this were three responses highlighting the development of a more collegial organization, characterized by team action and the blurring of traditional roles. More basic changes cited included: loss of staff (three libraries), greater delegation of responsibility to staff (three libraries), completion of recon or reclassification projects (three libraries), and outsourcing and the standardization that has made it possible (two libraries).

The loss of staff was the only major catalyst named that did not deal directly with systems and/or electronic resources, and even this may be seen as a related consequence of the impacts of information technology. Specific statements of the major catalysts for change included user demand for remote access, especially to full-text; budgetary reallocation in

support of digital projects; administrative support for access vs. ownership; and the determination not to be marginalized in the effort to meet changing users needs.

None of these statements regarding the major changes in cataloguing operations, their influence and their causes, are surprising in the context of the survey results as whole, or in that of the broader situation of today's academic libraries.

Conclusion

For cataloguing and technical services operations, at least in this group of survey libraries, the past fourteen years, though challenging and difficult, have nevertheless been a period of continued success and productivity. Reorganization, restructuring and the realignment of roles and responsibilities have enabled librarians and staff in these operations to continue to function at a level sufficient to serve the changing needs of their users while mastering complex new technologies and a multiplicity of new resource formats. As demonstrated by the responses to this survey, many technical services librarians are already involved in exciting and challenging work that requires the application of their expertise beyond the MARC-based environment. With the globalization of our catalogues and databases, and with the growing movement toward a convergence among cultural institutions—universities, museums and archives—particularly in such areas as authority control (International Conference Authority Control 2003), the demand for this expertise will certainly grow. But there is a finite limit to what can be accomplished through reorganization, automation and ingenuity alone. Technical services librarians must be wary not to fall into the role of Boxer in George Orwell's *Animal Farm*, whose response to problems in productivity was always "I must work harder" [or better, or smarter]. Rather, a new generation of technical services librarians, above all cataloguers, must be recruited—librarians able to continue to balance the complex in-depth expertise in MARC-based cataloguing essential to understanding, interpreting and transforming the future's online catalogues, with the ability to transfer that skill and expertise beyond the MARC environment to multiple alternative modes of resource description, discovery and access.

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Appendix I

1989 QUESTIONNAIRE

Questionnaire

1. Please describe the general reporting structure of the cataloguing department, including the overall size and the breakdown of staff by level (or attach an organization chart.)
Approximately how many titles are processed annually?
2. How is cataloguing related to other technical services functions? Is there a Head of Technical Services?
3. Briefly describe the functional units or sections in cataloguing including the number and level of staff in each.
4. Who is responsible for original cataloguing—librarians? If not, what qualifications are required?
5. Are there mechanisms in place to allow for the participation of support staff in policy and decision-making?
6. What type and extent of revision/supervision is routinely undertaken?
7. How many and to what extent are cataloguing librarians involved in supervisory or management roles vis a vis support staff?
8. Other Comments.

Appendix II

2003 QUESTIONNAIRE

Questionnaire

1. Please describe the general reporting structure of the cataloguing department, including the overall size and the breakdown of staff by level (or attach an organization chart.)
Approximately how many titles are processed annually?
2. How is cataloguing related to other technical services functions? Is there a Head of Technical Services?
3. Briefly describe the functional units or sections in cataloguing including the number and level of staff in each.
4. Who is responsible for original cataloguing—librarians? If not, what qualifications are required?
5. Are there mechanisms in place to allow for the participation of support staff in policy and decision-making?
6. What type and extent of revision/supervision is routinely undertaken?
7. How many and to what extent are cataloguing librarians involved in supervisory or management roles vis a vis support staff?
8. What is the nature and extent of direct involvement by cataloguing and other technical services units in systems work?
9. Are technical services units involved in providing access to digital resources?
10. Describe any new roles that have developed for cataloguing or other technical services personnel.
11. In your opinion, what is the greatest change in cataloguing and technical services in your library since 1989? What has been the main catalyst of that change?
12. Other comments.