Library Technician Programs: 
Skills-Oriented Paraprofessional Education

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ABSTRACT
To better understand the work that library technicians can and should do in libraries, the formal programs that train library technicians are discussed. Library technicians are trained to carry out much of the day-to-day operations of libraries. The curriculum from Seneca College of Applied Arts and Technology, the largest library technician program in Canada, is used to show that the training is largely skill based. Knowledge-based components are only included in the curriculum to provide the context for those skills and to socialize the prospective library technicians into the profession to ensure that they operate as paraprofessionals and not as clerical staff. Librarians, the workplace, technology, and the students that enroll in library technician programs all have influenced the nature of the programs as they exist today. While there are many similarities and some differences between Canadian programs and those offered in Australia and the United States, all strive to resolve issues such as the definition of library technicians, role differentiation among staff, certification, and accreditation.

INTRODUCTION
Formal programs for training library technicians have existed in Canada since the 1960s predominantly offered through colleges and leading to the awarding of diplomas. The early history of these programs has been thoroughly documented (Moriarity, 1982; Nettlefold, 1989).

The Library and Information Technician Program, the official name

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of all such programs in Ontario, is a two-year program mainly offered at Colleges of Applied Arts and Technology (CAAT) and leads to a diploma upon graduation. It is offered at four colleges both full- and part-time (i.e., Algonguin, Fanshawe, Sheridan, and Seneca Colleges) and two colleges part-time only (Georgian and Mohawk Colleges). (One university, Lakehead University, also offers this diploma program on the same basis as colleges, rather than as a standard university degree program.) Students are accepted after graduation from Grade 12. Standard undergraduate degree program entrance at universities requires successful completion of a designated number of OAC subjects (formerly Grade 13).

Curriculum at Seneca College

The Library and Information Technician Program offered at Seneca College is the largest of such programs in Canada with enrollments of approximately seventy students in each of the two years of the program. Students complete four semesters in the two-year program; each semester consists of five to seven fourteen-week courses within a semester. Each course is held three hours per week. The courses prepare graduates to work in all types of libraries (for a list of courses, see Appendix).

The curriculum objective of the Library and Information Technician Program at Seneca College is to train library technicians to perform the skills required for the day-to-day operations of libraries. Consequently, the majority of course time is spent learning skills. The types of skills that are acquired take library technicians far beyond the work of the library clerical staff. In some areas, library technicians are better able to perform library tasks than are librarians. At the same time, the emphasis on skill acquisition is balanced with a modest amount of knowledge-based learning. This learning provides a context for the skills that students are learning, socializes them into the profession, and helps them understand their responsibilities. Not only is the amount of knowledge-based learning limited, the complexity of the knowledge is at a low level. Thus there are tasks in libraries that library technicians have not been prepared to perform hence the paraprofessional status. These tasks include establishment of policies, selection of materials, and tasks requiring analysis of complex information.

Reference

There have been numerous discussions about the role of library technicians in the delivery of reference services (e.g., Murfin, 1988). Many have argued that such services should only be delivered by professional librarians with a graduate library degree. At Seneca College, prospective library technicians take a course called “Ready Reference” in which they are prepared to answer ready reference questions using typical resources.
found in a reference collection as well as Internet resources. By the end of this course, students are able to: (1) analyze ready reference questions to identify the category of information needed; (2) identify the appropriate category of ready reference source to answer questions; (3) describe the features of categories of ready reference sources; (4) use effectively and efficiently representative titles from each category of sources, focusing on content of the sources; (5) describe the components of a reference collection; and (6) describe ready reference in terms of definition, points of service, sources, and examples of questions.

Dedicating an entire course to ready reference illustrates that it is considered to be a type of reference service that can be delivered by library technicians. It is possible to teach someone without a post-secondary education to use directories or encyclopedias to find information and to know different types of these standard sources. It is much more difficult, if not impossible, to teach those without post-secondary education to conduct research in such areas as medicine or law.

The learning outcomes of the ready reference course also illustrate the nature of the reference work that technicians will perform. They will be able to identify, to describe, to use. They are not expected to select the best encyclopedia to buy for an academic library or discuss the merits of using one directory over another. This higher-level decision making is not required for the day-to-day operation of a library.

The emphasis on day-to-day operations is also evident in the teaching of other reference services. In the course “User Information Services,” students learn about, and how to perform, reference services such as user instruction, document delivery, and current awareness. This means that, in user instruction, students are taught how to explain the use of the library catalog to users or how to produce pathfinders; in document delivery, they learn to order documents from suppliers; in current awareness, they learn to create automated saved searches. The time is spent learning to do these activities, not discussing, for example, individual versus group instruction; inhouse versus vendor saved searches; UMI versus ISI. Students are not taught to make decisions about what services to offer but to perform services that are in place in a library.

When reference service policy is taught in “User Information Services,” students learn to respond to it, not to create it. Accordingly, they are evaluated on how they would respond in different situations according to different policies. For example, it would be expected that a technician could respond to the following:

The reference policy of a library states that 10 minutes or less should be spent on a typical reference question. After 15 minutes, the technician has been unable to find any information. What should be done?
Cataloging

Just as there have been numerous discussions about the use of library technicians versus librarians in providing reference services, so too have there been discussions about the use of library technicians for cataloging (Rider, 1996; Chapman, 1984). The arguments have been less intense because of the increasing use of derivative cataloging, which most agree can be performed without the knowledge base required for original cataloging. Students take a course in derivative cataloging at the end of which they are able to: (1) explain the types of catalogs, sections of the catalog, and parts of a bibliographic record using correct cataloging terminology; (2) search NUC and Canadiana effectively for cataloging information; (3) use efficiently and effectively the search, edit, and filing functions of a cataloging system on CD-ROM; (4) code bibliographic and authority records using the MARC format; (5) describe the role and parts of name authority records; (6) describe the role and parts of subject authority records; (7) use efficiently and effectively the LC and Canadiana authorities; and (8) apply Cutter’s three-figure author tables. They also take a course in descriptive cataloging at the completion of which students are able to: (1) catalog print and nonprint materials to the second level of AACR; (2) choose main and added entries; and (3) choose the correct form of personal names, corporate names, geographic names, and all appropriate cross-references. While the learning outcomes are still written as skills that can be attained, the nature of accomplishing these tasks is much more difficult, reflected further by the use of “choose” in the learning outcomes. The cataloging cycle is completed by a course in subject cataloging and classification. As with the “Ready Reference” course, it is possible to teach descriptive cataloging and subject cataloging to those without prior post-secondary education; however, experience has shown that the best catalogers have a broad general knowledge base.

Acquisitions, Circulation, Interlibrary Loan

The role of the library technician in materials acquisition, circulation, and interlibrary loans is uncontested. For many years, nonlibrarians have performed these tasks and even supervised staff in these units. The exception is selection of materials which has predominantly stayed within the domain of librarians or subject specialists, largely because of the knowledge of specific subjects required for the job.

Students take a course dedicated to materials acquisitions, including serials control. Students learn to complete acquisition forms, use standard acquisition tools, maintain budget accounts, check-in and route serials, and handle order and receipt problems. Another course covers circulation and interlibrary loans with half the time spent on circulation and half on interlibrary loans. Again, the majority of time is spent on the acquisition of skills—i.e., conducting circulation routines, solving com-
mon circulation problems, conducting interlibrary loan routines, and using appropriate resources for interlibrary loan. Policy is dealt with on a practical level in this course also. The teaching techniques and methods of student evaluation described for the "Reference Services" course are the same for circulation and interlibrary loan.

Since library technicians often have supervisory responsibilities in the areas of acquisitions, circulation, and interlibrary loan, some classroom time is spent on tasks usually performed by clerks. Skills such as materials processing, materials repairs, shelving, filing, and weeding are taught in a first semester course called "Basic Library Skills."

Database Searching

Given the prevalence of electronic products in libraries, there can be no dispute that library technicians must learn database searching. In fact, nearly as much curriculum time is spent on database searching as is spent on cataloging and reference. Students begin searching library catalogs and using Internet search engines in "Computers in Libraries," a first semester course. They proceed to "Database Searching 1" in the second semester where the emphasis is on menu-based searching as available through EBSCO, KR OnDisc, SilverPlatter, etc. Finally, in the third semester, they take "Database Searching 2" and learn to use online applications, including the command languages used by major online services and via the Internet.

Traditionally, research for reference has been the predominant use of database searching by librarians. This function is only one of many that necessitates technicians to search databases. Following from the skill areas developed in the reference component of the program, graduates are more likely to use their database searching skills to retrieve ready reference answers or to instruct users in searching library catalogs, CD-ROM products, and Web sites. They also search databases extensively for acquisitions work, interlibrary loans, and derivative cataloging, functions within the library that have previously been discussed as falling within the domain of library technicians. Where technicians have library jobs with a large research component and use database searching for this function, they most often have qualifications in addition to their library technician diplomas.

Libraries, Ethics, History, Legal Issues

While the curriculum overall emphasizes skill-based components that form the vast majority of topics taught, there are two courses with strong knowledge-based components. In order to provide a context for the skills that students are learning and in order to socialize them into the profession, students are introduced to the types of libraries, to the roles which libraries perform in their communities, and to a brief history of library development. The students are not expected or taught to evaluate the
validity of the roles. Rather, they are expected to use this knowledge in order to better understand the service needs which they will be providing. Similarly, the ethical and legal issues (e.g., copyright, censorship, privacy, and access to information) are presented so that graduates will understand their own responsibilities. The ethics of the profession are presented again to provide context and socialization. There is no debate or exercise suggesting that students should spend time theorizing. In every case, the issue at hand is dealt with in terms of libraries' needs, clients' services, and workers' development.

Without the framework of the profession, the graduate would merely be a clerical worker with skills. With this framework, the graduate becomes a paraprofessional.

**General Education**

The amount of time allocated to general education electives has decreased as a result of budget cutbacks. Seneca College policy currently requires successful completion of a college-level English course as well as three other general education electives.

**Curriculum Design**

There are a number of mechanisms by which the education of library technicians is achieved. Learning outcomes for various courses have been mentioned previously. Each learning outcome begins with an action verb whenever possible which denotes skills such as “search” or “catalog.” More importantly, these terms reflect activities in the day-to-day operations of libraries. To further illustrate this distinction, when students learn to search various library catalogs, the learning outcome of this training is that students will be able to use diverse library catalog software. Consequently, one of the things that students are taught is what the various terms in the catalog mean. When learning to use a particular package, such as DRA's catalog software, they are taught the difference between selecting “subject” versus “subject keyword.” The intention is that graduates working in a library will not need to be trained to search library catalogs. In a best case scenario, they will actually have been trained with the specific software used by that library. At worst, they will have learned enough various library catalog software packages to be able to use a specific library's catalog. There are no learning outcomes that state that students should be able to select the best software to use in a library or that they should be able to design screens for library catalogs. Such outcomes would reflect higher-level activities than intended in the technicians' training.

When knowledge acquisition rather than skill acquisition is required, the learning outcomes use verbs reflecting less complex levels of learning. Verbs such as “describe” and “explain” are used rather than verbs such as “discuss,” “compare,” and “analyze.” For example, in the course “Introducing Libraries,” students are required to describe the various types
of libraries: school, public, academic (college and university), and special and distinguish among these types of libraries according to background, roles, staff, clientele, collections, services, and relevant government relationships. There are no outcomes that require them to discuss the appropriateness of specific roles for particular libraries, such as the role that information should play in public libraries. Library technicians must know what public libraries do in order to work in them, but they are not taught to plan the future direction of public libraries.

There are also learning outcomes that apply to the entire program rather than to the individual courses. One of these is the ability to follow instructions; another is to be accurate. These are outcomes that are considered necessary in technicians' work regardless of the course.

Teaching techniques further reflect the emphasis on skills versus knowledge-based learning. The majority of courses include laboratory (computer and/or library) time where students perform hands-on work. During classroom time for courses, students view demonstrations from faculty and engage in work-related exercises. Only when knowledge-based learning is required are lectures given. With the level of knowledge-based learning required, little time is spent on discussions.

When students are evaluated to ensure that learning outcomes are met, assignments and tests continue to emphasize skills rather than knowledge. Typically, students have to perform searches of electronic products, catalog items, and order items. They have to follow the instructions given for specific tasks and complete tasks without errors in copying and spelling. When knowledge acquisition is evaluated, the students are required to identify, describe, and explain.

The time spent on specific content is also an important component of the curriculum. As described earlier under the section entitled Acquisitions, Circulation, Interlibrary Loan, much more time is spent in library technician programs on these topics than in the M.L.S. or M.L.I.S. programs. Time is also spent on topics that may not be included in programs for librarians, such as materials processing, materials repairs, shelving, filing, and weeding. While it is unlikely that library technicians will perform these tasks as a significant part of their jobs, they may supervise clerical staff who will.

Finally, library technicians gain practical experience through field placements. In each of semesters two, three, and four, students take a two-week, approximately thirty-five hour per week, field placement. A student completes one field placement in each of a school or academic, public, and special library.

**Curriculum at Other Ontario Community Colleges**

The core curriculum at the various Ontario community colleges offering Library and Information Technician Programs is similar. All in-
clude libraries and the information industry, acquisition of information sources, organization of information sources, information retrieval and dissemination, and client services (Ontario CAAT Library and Information Technician Steering Committee, 1995). The Ontario Association of Library Technician Instructors (OALTI), which consists of the faculty from various library and information technician programs, meets at least annually to discuss curriculum. Most recently, the programs have combined to deliver courses via distance education.

Differences that exist are largely the result of influences at the individual community colleges. Courses vary in the way topics are combined depending on the availability of faculty. Perhaps more importantly, because community colleges largely train students to be employed within the communities where they are located, curriculum emphasis depends on the types of libraries where students may be employed. General education requirements differ significantly from one college to another.

It also must be acknowledged that, within the community of library technician program faculty, there is a range of opinion regarding the appropriate level of responsibility and training of library technicians in relation to professional librarians. The faculty at Seneca College present a fairly traditional and conservative viewpoint consistent with that of the Canadian Library Association (CLA) (1991) and American Library Association (ALA) (1997).

FACTORS INFLUENCING CHANGE AND DEVELOPMENT OF LIBRARY TECHNICIAN PROGRAMS IN ONTARIO

During the past ten years, the program at Seneca College has increased curriculum components in the areas of database searching, interlibrary loans, and Internet use. During the same period, it has decreased the time spent on cataloging to a small extent, to audiovisual training and children's programming to a large extent, and practically eliminated training in readers' advisory, records management, and bookkeeping. Community colleges enjoy a considerable advantage in the world of education in being able to change program direction quickly. While the changes must be carefully orchestrated, it is possible, within a semester, to bring about small modifications, such as adding new content to a course and, within a year, to develop an entire program. Even when program advisory committees must be consulted, changes can happen as quickly as the faculty are able to develop curriculum. The factors are discussed in order of significance.

Community College Mandate

The community college mandate is to respond to needs in the community and to train people in up-to-date methods and systems. Colleges
use a range of sophisticated market research techniques to ensure that
they meet the needs of employers and prospective students.

Program Advisory Committees are required for all programs. The
intention of these committees is to keep the programs responsive to the
needs of employers and to changes in the profession or environment in
which graduates will work. Specifically, the library technician programs
include major employers in the college’s catchment area and representa-
tives of major library organizations such as the Special Libraries Associa-
tion (SLA), the Canadian Library Association, and representatives of the
local library technicians’ association. An effort is made to balance the
membership with appointments from various types of libraries. When
major curriculum changes are needed, they review, respond, suggest, and
consider proposals.

Growth of Libraries

During the 1960s in Canada, there was a dramatic increase in the
number and size of libraries, particularly public and academic libraries.
The collections were growing quickly, yet there was a serious shortage of
qualified library staff. Many librarians spent a large amount of time train-
ing clerical staff, among whom there was a high rate of turnover, or doing
clerical level work themselves because of staff shortages. The community
colleges, which started to open near the end of the decade, provided the
opportunity to have trained staff who could arrive on the scene ready to
work as paraprofessionals, taking over the lower end of the work that li-
brarians had been doing.

Librarians

Librarians have been a major influence on, and are crucial to the
evolution of, library technician programs and are responsible for many of
the changes in direction and development. As described earlier, librar-
ians are in the majority on individual program advisory committees and
usually teach librarianship courses in most programs. In the broader world
of the profession, librarians, with some input from library technicians,
have decided which roles are appropriate to various staff levels. Librar-
ians have designed provincial and national program guidelines, suggested
accreditation procedures, and spearheaded certification attempts, all of
which have an impact on curriculum. While library technician associa-
tions have been consulted or included, librarians are always in the major-
ity on these committees.

The Canadian Library Association produces a small booklet, Guide-
lines for the Education of Library Technicians, which is updated from time to
time. These guidelines have been developed by various committees, largely
comprised of librarians.

In order to differentiate between the work of librarians and library
technicians, the Canadian Library Association created a task force to clarify
their respective roles and responsibilities. The resulting report (Canadian Library Association, 1989) used training as the criterion for allocating tasks rather than work carried out in unregulated workplace situations. Task allocation for librarians was relatively straightforward since ALA also accredits professional programs in Canada. The CLA guidelines for the education of library technicians, which includes lists of tasks that library technicians are expected to be trained to do, was used since there is no accreditation process for library technicians.

Related activities in the United States have also strongly affected Ontario programs. The Council on Library/Media Technicians (COLT) was formed in 1967 and has been involved with the ALA in the education of library technicians (http://lib-www.ucr.edu/COLT/history.html). The ALA's Task Force for Review of the Criteria for Programs to Prepare Library Technical Assistants (1997) has released for discussion the revised document Criteria for Programs to Prepare Library Technical Assistants.

The ALA (1997) states that the overall role of LTAs is to "keep specific functions of a library operating on a day-to-day basis. It is, however, beyond their scope to set policy or to define how the needs of users should be met" (p. 2). This reaffirms the position of the Canadian Library Association (1989) which found that library technician programs "are very limited in what is taught about planning and organization or financial management" (p. 11). Activities related to planning, policy setting, and financial matters are designated as a librarian's responsibilities. Library technicians are credited with many supportive responsibilities in connection with administrative management functions. These include public relations, staff selection and evaluation, preparing reports and compiling data, and supervising support staff in various areas. Similarly, activities in both public and technical services reflect that division of responsibility. In public services areas, most of the task areas in circulation and interlibrary loan are designated as library technicians' tasks (Canadian Library Association, 1989, pp. 19-20). In collection development, most of the selection responsibilities are designated as librarians' tasks while most of the order tasks are allocated to library technicians. In cataloging, all but the most complex tasks are listed as library technicians' responsibilities.

These various reports and guidelines all influence curriculum development, which in turn solidifies the work level for potential employers. Unfortunately, librarians also influence the library technician programs by having poor control of their own profession. Just as, in most jurisdictions, there is no legal definition of a professional librarian, no legal requirement for professional education in order to perform the tasks of a librarian, and no clear regulation for roles of librarians, library technician roles in the workplace are equally unregulated and uncontrolled. As Oberg et al. (1992) explain, although role separation between librari-
ians and other staff groups has long been a desired situation, the blurring of roles has long existed and continues to be a reality (p. 215). It is our observation that in many cases this blurring has increased in recent years. When skills become standard requirements for jobs, there is pressure on the program to add them to the curriculum.

Workplace

It is advantageous to almost everyone connected with libraries to hire college-trained library technicians rather than develop in-house training. Support staff could be trained within each library as they always were in the past and often still are. The specific skills taught in-house can be comparable to those taught in the library technician programs. College-trained technicians who receive a limited amount of theoretical framework, however, can incorporate new skills more quickly and effectively than those trained in-house in local practices only. For those libraries with specialized subject demands, it is almost always possible to hire a graduate library technician who also has the subject background required in addition to the library training. Having seen the benefits of hiring graduate library technicians among their colleagues, others follow suit.

Moriarity (1982) pointed out that "college-trained graduates require little or no in-service training" (p. 237). Librarians as supervisors can be confident that the training received in a college program will adhere to standard library techniques and that graduates understand the ethics and values required in the profession. The skills acquired through the program allow for much more limited in-house training to familiarize the new staff member with local practices and systems. Thus the trained library technician is able to go into the library and perform at a good working level immediately. Similarly, when new procedures are introduced, the trained library technician will be able to connect current practices, new practices, and previous formal education thus learning the new system much more quickly than an untrained staff person would.

Because library technicians are trained in all areas of librarianship, they are able to work across departments with minimal additional training. The technician has a solid overview of all areas of the library and so is able to work as part of the team. This broad skill base allows for a high degree of flexibility for management and potential for promotion and personal growth for the individual, and she or he is able to be transferred to different work areas. We have seen, during recent downsizing operations, how limited many of the nontrained staff are in moving to different functional areas.

Many of the changes in program emphasis respond to changes in the job market. The recent decrease of positions in public libraries and increase in special libraries in Metropolitan Toronto led to shifts in curriculum content partly because some skills are specific to a type of library
(e.g., children's programming in public libraries) and others relate to the breadth of tasks assigned to the library technician level staff (e.g., database searching in special libraries). Since many more of the jobs posted are in corporate libraries than was the case in the past, the program now trains for those jobs.

A review of many years worth of job descriptions and postings at Seneca College shows a clear development of, and enhancement in, the work that library technicians have been hired to perform. However, the range of work is very diverse. Many positions combine, in one job, tasks that are extremely clerical and routine with those at the highest level of difficulty. For example, a single position may include tasks such as circulation and serials control, original cataloging, children’s programming, and database searching.

Job responsibilities, such as interlibrary loan, once considered clearly within the job descriptions of professionals, are now routinely assigned to library technicians. Increasingly, heads of small public library cataloging departments are experienced library technicians. Children’s librarian positions are being eliminated and library technicians are being hired to conduct programs such as story hour. In corporate libraries, database searching has been routinized and passed on to senior library technicians.

Even in these times of economic difficulty, corporate libraries suffer from staff turnover. Since the graduate library technician has consciously chosen this field and completed a lengthy program, the satisfaction level of being in this job should be higher than for those who merely slip into the field when other things fail to develop. Similarly, having chosen this field, the library technician is not likely to be lured to another position within the corporation with the promise of a small hourly rate increase. Graduates show a high commitment to the world of librarianship.

**Technology**

Many program changes are technology driven. In the early days, computer programming was taught. With the shift in types of programs used, this is not currently needed. However, the high degree of automation within libraries has led programs to increase automation components in the curriculum in all areas including cataloging, circulation, interlibrary loan, and acquisitions. Again, technological developments have led to changing roles of library technicians in the workplace, encouraging the addition of skills such as Web page creation. Since colleges provide programs in many other areas where computer technology is used extensively, there is little resistance within the college to increase this aspect of the curriculum. In fact, it is usually supported and even encouraged.

**Student Characteristics**

The student body itself, by showing the ability to handle more or less complex processes, influences the development of programs. While the
colleges are mandated to provide tertiary job-related training and education to high school graduates and must ensure that the average high school graduate is capable of succeeding in the program, the reality is that a majority of applicants for the library technician programs have higher educational qualifications. Many applicants have chosen this career after working as pages, clericals, or volunteers in various types of libraries. Many have additional post-secondary education, either in liberal arts or in other technical subject areas. The high quality of many of the students influences the program content to some degree. Knowing that students are capable of comprehending more complex information encourages faculty to include higher level skills when appropriate. However, it is still necessary to educate the students from the current high school graduate group.

The student population in the individual programs reflect the community where the college is located. At Seneca College, the library students are on average somewhat older than most college students and have a higher level educational background. Many are career changers. Others have come from other countries and have additional language skills, attracted in part to the program in the belief that foreign languages are useful in library work. The diversity of ethnic and cultural background is broader than is common in many programs, reflecting the entire college population. There are still far more women than men in the programs; however, there has been a gradual shift, we believe, because of the increased emphasis on computers. Many of these men are relatively young and well-educated.

The profile of applicants has changed during the past ten years, reflecting the larger society. There are more applicants with university degrees or partial degrees. Fewer are “stay at home moms”; those who have stayed at home have done so for only a few years, compared to past years when they may have been at home for fifteen to twenty years. Many more of the applicants have had interesting and challenging careers and are changing fields, either because of layoffs or burnout or having foreign qualifications. The backgrounds have included nursing, teaching, physiotherapy, pharmacy, law, travel and tourism, and accounting.

There are several reasons for choosing to become a library technician. For some there is a choice to be made between graduate library programs and library technician programs. Where the applicant is qualified to choose, there are several reasons, often complex in their combinations, given for choosing the library technician program. These often concern the applicant’s personal situation: many of the highly qualified applicants are older; some have children or other family responsibilities; in other cases, the applicant has good undergraduate or even graduate degrees but is from a foreign country and uses English as a second language, making graduate school an overwhelming challenge; for some who
are qualified, the financial outlay of a two-year graduate program is not possible; for others, going to a graduate school in another city is an insurmountable obstacle.

Most library technician applicants who are qualified and able to go to graduate school truly understand the differences between the work of librarians and library technicians and consciously choose to become library technicians. For some applicants who are bright and well-educated, previous experience in professions where there is considerable pressure has prompted a career change into a paraprofessional position. In these cases, they decide that working in a library at a paraprofessional level has social and personal advantages over other fields. This decision allows people to fulfill their desire to have a good and interesting job without the personal commitment of a professional career. For still others, the desire to work on the “front lines” rather than in management positions is very compelling.

In our experience, these bright and often mature individuals excel but rarely complain that the work is not hard enough, stimulating enough, or at a high enough level during the program. After graduating, they often assume relatively sophisticated positions that meet their intellectual needs. A few go on to graduate library programs, either full time or part time, when their circumstances change.

The majority of applicants are not qualified for graduate school. Their undergraduate marks may be too low to allow admission to a graduate facility without considerable upgrading. In some cases, their marks are close to the line and acceptance at a graduate school comes after admission to the library technician program. Others without undergraduate degrees need to enter the workforce fairly quickly and cannot spend an additional four years preparing for graduate school. For many applicants, with or without degrees, social or cultural background is a major factor and attendance at a university, and especially at graduate school, is not perceived as being an option.

Whatever their educational background, the majority of applicants are looking for practical skill training in an area where the jobs are relatively pleasant and satisfying. Most have had positive experiences in libraries and decide that a career as a library technician will be fulfilling. Many have worked in libraries and understand fully the various levels of staffing. These are the people for whom the programs are primarily designed.

EDUCATIONAL PROGRAMS IN OTHER PARTS OF CANADA

The majority of programs in Canada started during the 1980s with new programs opening in British Columbia and the Atlantic provinces. The English language library technician programs in other Canadian prov-
Educational Programs in the United States

In Canada, post-secondary programs have been developed for library technicians, while in the United States they have been developed for library technical assistants (American Library Association, 1997). These programs are recommended for the American college level. As in Canada, local advisory committees consisting of a broad cross section of library employers also are proposed to assist with the direction of the programs. In terms of major subject areas, these include libraries and the information industry, technical services including acquisition and cataloging processes, public services including circulation, information sources and services, and workplace. Computer skills are included throughout the various areas. Within these major subject areas, the attainment of skills is emphasized. For example, the performance objectives as outlined by the American Library Association (1997) for acquisition processes state that students will be able to check for possible duplicates using locally designed catalogs and/or databases; identify bibliographic data for ordering; prepare orders; and claim missing materials (pp. 10-11). A similar emphasis exists for cataloging with such performance objectives as “search for an existing bibliographic record in online bibliographic utilities”; “match materials to existing bibliographic record” (p. 11). Absent from the education of the library technical assistants are “tasks that require an in-depth knowledge and ability in production of material, equipment maintenance, or programming, to the extent that specialized training at the technician level is required” (p. 3). In comparison to the education of librarians, absent are “tasks that require a full knowledge of librarianship or instructional technology and exercise of judgement based on a broad knowledge of library resources, their intellectual organization or their educational informational, cultural, or scholarly use. Establishment of policies, materials selection, complex information and guidance services, are illustrations” (p. 3).

Educational Programs in Australia

The early history of education for library technicians in Australia has been documented and compared with that of Canada's (Bowman, 1988; Nettlefold, 1989). Such similarities as the methods of setting standards and the role of advisory committees have been noted. The first book to be written about library technicians in Australia, including many articles written by library technicians, describes the education and the work of library technicians in Australia today (Bailey, 1993). Margaret Hyland and Pamela Naylor’s contribution deals specifically with the education of library technicians.
In Australia, library technicians are educated at Technical and Further Education (TAFE) colleges with the exception of one program at Edith Cowan University in Western Australia. These programs are post-secondary two-year full-time or part-time equivalent. Graduates are awarded associate diplomas with names that vary depending on the state where the colleges are located. As in Canada and the United States, programs continue to include courses in the core library-based skill areas and work experience components.

**COMPARISON WITH GRADUATE LEVEL PROGRAMS**

Library technician programs have been described in this article to be practical, skills-based, and with minimal theory. In contrast, graduate library science programs emphasize higher level concepts such as planning, designing, evaluating, and implementing. Librarians develop specialization by type of library, by functional area, or by subject because of the elective courses that provide breadth and depth. While library technician programs have few if any choices in library courses, the graduate programs have very few core or required courses. This results in librarians having varied skills sets different from each other while all library technicians have similar skills.

Although the masters of library science programs at the University of British Columbia, University of Toronto, and University of Western Ontario are considered typical, the number of core and/or required courses is fewer than half of the total program. Among these are research methodology courses which are not taught in library technician programs. Usually there are required and elective administrative management courses that are at a much higher level than the workplace behavior and supervisory techniques courses taught in library technician programs. The core courses in subjects such as organization of materials provide a theoretical basis for later elective courses in these areas should students wish to pursue them.

Over the last thirty years, changes in both library technician programs and graduate library science programs have led to increased divergence. The library technician programs have added increasingly in the skills-based areas of librarianship and information technology. In every case, the amount of hands-on skill acquisition has increased. The skills taught in areas such as cataloging and database searching have increased in complexity. This is possible because of new technologies that have made some of these activities routine. During the same time period, following from the bachelors of library science programs in the late 1960s, graduate programs have developed in organizational management and information theory.

**UNRESOLVED ISSUES**

*Definition of Library Technicians*

While the term “library technician” is well established in Canada and
Australia, the designation of library technical assistant is also commonly used in the United States. The ALA (1997) defines Library Technical Assistants as "persons with certain specifically library related technical skills" (p. 2). This document further clarifies that this is not merely a method to accommodate the senior clerk within a library but to establish a separate category of staff. There is no designation in Canada equivalent to the "library associate" title used in the United States nor are there bachelor's level librarianship programs in Canada. Library technicians are usually classified as "support staff" or "paraprofessionals" along with library assistants and library clerks. A paraprofessional is one who works alongside professionals under the guidance and supervision of a professional thereby deriving practices and ethical framework from the theory and practice of the parent profession. The paraprofessional is not expected to take ultimate responsibility for the effectiveness of standards and practices designed by the professional. Library technicians fit this model well. Theory and practices derive directly from those of librarians with no body of knowledge specifically developed for or by library technicians. The education and professional development is largely designed by librarians for library technicians.

As described earlier, the curriculum in library technician programs clearly focuses on skills that are not at the higher level of professional work, emphasizing "how to" rather than "why." Oberg (1992) describes the paraprofessional in terms of position within the library organization: "Paraprofessionals occupy the middle stratum of a three-tiered hierarchical staffing structure. Within this model, paraprofessionals are ranked below librarians, but above clerical employees" (p. 100).

Library technicians in Canada can be distinguished from other library support staff in that they are trained formally in post-secondary community college programs. While the title might vary for the purposes of job descriptions, library technicians, like librarians, can be defined as much by their training as by their functions within a job. A library technician is a trained paraprofessional carrying out much of the day-to-day operation of the library—i.e., maintaining records, providing basic reference service, cataloging routine materials, and supervising clerical functions such as circulation, collection maintenance, and the ordering of materials. Library technicians relieve librarians of many of the routine, but still complex, activities in the library.

**Role Differentiation**

There is a discrepancy between what tasks should be assigned to staff on the basis of training and expertise and those that are actually assigned. In a detailed survey of task allocation in public libraries, Urban Dimensions Group, Inc. (1980) found that the range of tasks performed varied significantly from one library to another, and the assignment of tasks to
librarians and paraprofessionals overlapped a great deal. In many cases, both librarians and library technicians were doing tasks for which they were untrained. One can only speculate on the reasons for this. In many cases, it appears that the decision to assign similar tasks to a librarian in one library and to a library technician in another relates to local interpretations of complexity or professional responsibility or budgetary limitations. The training that has been received seems not to have been considered consistently in the hiring or assigning of tasks. Again, without certification, there is no official set of tasks that must be adhered to for each group.

There have been many attempts by library associations to clarify appropriate task distribution, usually based on educational criteria. The Canadian Library Association (1989) lists appropriate tasks for library technicians at various career stages. Nettlefold (1989) also lists tasks appropriate to paraprofessionals based on his analysis of a wide range of sources (p. 525).

While the Canadian Library Association (1991) allows that “technicians may ... be in charge of a small library” (p. 6), the American Library Association (1997) makes it clear that library technical assistants are supervised by librarians or other supervisors (p. 3). In Canada, the practice of hiring a library technician to maintain and operate a small library without the supervision of a librarian has been a long-standing one and appears to be growing. These are minority situations, however, with most of these libraries having one or very few staff. More commonly, library technicians are hired to carry out operations in one or more technical areas, supervise clerical staff, or work in situations requiring a wide-range of support functions to be carried out.

The actual tasks performed by library technicians within individual libraries vary greatly, leading to library technicians performing above or below the recommended task level based on training guidelines. It is recognized that, after graduation and with experience and strong proven abilities, an individual library technician may perform beyond the limits of initial training. In addition, the situation in individual libraries alters the level of tasks assigned, reflecting local needs. Oberg (1992) documents a high degree of “overlap” between tasks of librarians and support staff which leads to staff discord (pp. 100-01). Although there was no specific mention of library technicians within the discussion of paraprofessional tasks, Oberg et al. (1992) found that tasks assigned to paraprofessionals were wide-ranging and within areas that previously had been limited to librarians, including original cataloging and database searching. Nettlefold (1989) also observes that library technicians have taken on higher level tasks because of changes in library techniques and technology (p. 524). Whether it is for logical reasons, such as technology change, or in response to budget problems, the trend has developed to
remove tasks from librarians' job descriptions and add them to the library technician designation—e.g., such tasks as leading a children's story hour. Whether this "de-skilling" of librarians' work and, by extension, up-skilling of library technicians' work is ethical or not, libraries are sometimes willing to accept the limitations of the training of library technicians and even untrained staff in those areas.

Library technicians earn salaries in a range between those paid to clericals and librarians. The starting salary for a library technician is not generally significantly higher than that for senior clericals. The ceiling for library technicians usually overlaps with the starting salary for librarians. Other support staff, such as library assistants, usually earn salaries similar to library technicians. Where library technicians move into administrative positions, the salaries are similar to those of other administrative staff, whatever their educational background. Usually in these cases the job itself, rather than the person, is graded. When library technicians move into administration, it is often in areas such as circulation and collection maintenance where salary grading is lower. In very small libraries, the salary differential is often minimal.

There is also the reality of the marketplace—i.e., if someone who is paid less can do a job then that becomes the pay rate for the job. Since many of the hiring organizations have only one or two staff in the library and no professionals to advise, they will sometimes hire a library technician to fill a position that has one or more professional components. Without legally accepted certification, this situation cannot be changed. For example, some employers will hire a library technician for a position that is a combination of a librarian and a library technician position having had poor experience with new librarians who command higher salaries but who have limited day-to-day library operation skills and have left after a relatively short time for jobs that are more intellectually demanding. There have also been instances where librarians decide to promote exceptional library technicians into positions classified as professional. Again, with no certification process, this practice, while sometimes unethical, cannot be stopped.

Emotions are a major factor in the relationships among groups of workers. Some librarians fear that library technicians will take over the basic jobs held by librarians. To a large extent, the fear is based on ignorance about the training of library technicians. That fear is realistic in situations where the librarian performs work that is clearly within the scope of lower paid library technicians. Where librarians perform work that requires a professional education and where the clientele can see the validity of the requirement, it is less likely that the hiring of a library technician will become a reality. Certainly in budget-cutting times, it is essential that job descriptions reflect reality, allocating tasks to those qualified ap-
appropriately to do them, neither under- nor over-qualified. Library technicians are not trained to perform tasks in areas such as management and planning, collection development, research, development of systems, and creation of complex procedures. These require a broad knowledge of librarianship, theoretical knowledge of systems and organization of material, specific training in methods and techniques relating to the area, and a strong general education.

Some library technicians also resent librarians who they perceive to be doing work essentially the same as their own but who are receiving higher salaries and prestige. While this perception is based on reality, in some situations where poor management practices are in place, it is also an unfortunate interpretation of modest librarians who refuse to be blunt about the complexity of what they do.

Similarly, the relationship to untrained library assistants' jobs is complex. Untrained staff who can be trained on the job to perform specific tasks may be hired where there is sufficient staff complement to allow task differentiation. These staff may be paid less than library technicians. Again, there is the emotional response of library technicians to the hiring of untrained staff who threaten library technician positions. Generally, the pay differential is not great and the problems created when these untrained staff want to apply for promotion should discourage inappropriate hiring. Unfortunately, it does not. We have often been told by librarians, who take considerable pride in telling us, that they have been able to hire people with advanced degrees to do clerical work. This attitude causes great hostility among library technicians who see their territory threatened.

Disputes concerning the appropriate roles and responsibilities for library technicians abound. These disputes are not usually based on the education of librarians and library technicians, however. They usually result from the confusion within a profession that is not regulated or credentialled. Any employer, librarian or otherwise, can hire anyone to do any information job regardless of training level or, indeed, lack of training. In this misguided and often exploitive situation, management function, information provision and organization, and client services may be conducted by librarians, library technicians, untrained individuals, or staff moved from any other department in the organization. The quality of the work done may be entirely satisfactory or may be judged without any real understanding of the potential for either error or superb work. Given this situation, the very competent individual library technician resents limits placed on the level of responsibilities.

Accreditation

Program accreditation has long been established for master’s level programs in librarianship. In Canada, all graduate programs are accred-
There are some differences in the accreditation of Canadian programs, but the process is basically the same as for American programs. There is no equivalent process for library technician programs. As referred to earlier, there are guidelines covering program content, teaching methods, etc. While there is no official requirement for programs to follow the guidelines, there is general acceptance of the guidelines with Canadian colleges following them to a high degree. There is provision for a review process that is akin to accreditation but is not accreditation per se.

The Canadian Library Association has made several attempts to begin the process of program accreditation in Canada. In the early days when programs were new and not yet firmly established in the world of librarianship, there were regular program reviews with teams going from college to college and publishing the findings in *Feliciter*. A survey of programs was conducted in 1984, and a summary of results was published ("Library Technicians Tackle Education and Employment," 1987). Also published was a self-study questionnaire that was designed as a preliminary for professional review and was intended to be used as part of any program review process (Canadian Library Association, 1991). While the intention was that this review turn into accreditation, it has not yet occurred.

Ontario colleges regularly review their programs, including library technician programs; most require a formal review every few years. External reviews are not generally popular at higher administrative levels, where it is sometimes perceived as bureaucratic and suggestive of outside interference. Consequently, internal reviews are prevalent.

Although there are definite benefits that would come from a full accreditation, it is a very labor-intensive and time-consuming process. Since most of the programs in Canada have only two or three full-time faculty, the process is onerous. However, most of the programs adhere quite faithfully to the CLA guidelines (Canadian Library Association, 1991).

**Certification**

Just as programs may or may not be accredited, individuals may or may not be certified. Librarians are not certified in any part of Canada except Quebec. Library technicians are not certified at all. There has been a great deal of interest in the process by library associations.

COLT has recently published a position paper (http://library.ucr.edu/COLT/coltcert.html) promoting a consistent "national skill/standards certification program for library/media technicians and other support staff" (p. 2). Successful examination results would provide individuals with "portable credentials that will reflect their competencies and that will qualify them for many selective positions" (p. 2).

The Ontario Library Association has struck committees several times
to examine certification for both librarians and library technicians. The idea has not yet come to fruition and is currently stalled.

CONCLUSION

Library technician programs provide intensive skill-based training intended to prepare graduates to work as paraprofessionals in all types of libraries and in varied positions. The training is practically oriented with modest theoretical and philosophical components that allow the concepts to be applied in context. The programs are responsive to the demands of the labor market and the professional concerns of librarians and library organizations. Programs are dynamic, the curricula responding to changes in technology and the library environment. Overall, the curricula has become more technically based over the years and less concerned with the management and policy level concerns that are the territory of graduate schools of librarianship. The issues of certification, accreditation, and role differentiation continue to be of major interest to a profession which is generally unregulated by legislation.
REFERENCES


Course List

Year 1, Semester 1
LIT 122 Library Research Skills
LIT 150 Introducing Libraries
LIT 154 Basic Library Skills
LIT 158 Computers in Libraries
EAC 150 College English

General Education Elective

Year 1, Semester 2
LIT 222 Derivative Cataloguing
LIT 250 Placement and Work Skills
LIT 254 Acquisitions
LIT 255 Circulation and Interlibrary Loan
LIT 256 Ready Reference
LIT 258 Database Searching I

Year 2, Semester 2
LIT 322 Descriptive Cataloguing
LIT 354 Subject Collections
LIT 355 Library Promotion and Programming
LIT 356 User Information Services
LIT 358 Database Searching II

General Education Elective
FPL 100 Field Placement (2 weeks)

Year 2, Semester 4
LIT 400 Professional Issues in Libraries
LIT 420 Human Relations in Libraries
LIT 458 Library Automation
LIT 462 Subject Cataloguing and Classification
LIT 464 Alternative Organization of Materials and Information
FPL 300 Field Placement (2 weeks)