

Changing Professional Roles in Academic Libraries: Structures and Relationships

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Abstract

Investigators conducted a survey in February 2014 that captured perceptions from library technicians and librarians across Canada about the changing roles and dynamics of work relationships. Focused on results from the academic library sector, this paper will share how work responsibilities, professional roles, and relationships between librarians and library technicians are perceived to be changing, as well as provide suggestions for improving workplace culture. Results will be of interest to academic librarians and library technicians who seek evidence of changing professional roles, and relationships between professions, as well as the need to mindfully reinvent organizational structures and culture.

Introduction

Investigators conducted a survey in February 2014 that captured perceptions from library technicians and librarians, in all types of libraries across Canada, about changing roles and the dynamics of work relationships. This paper will focus on the results from the academic library sector. Results on how work responsibilities are understood by respondents, as well as how professional roles and relationships are perceived to be changing will be highlighted.

At the heart of the success of any academic library are people. This paper will be of interest to academic librarians and library technicians who seek evidence on changing professional roles and relationships between professions, as well as the need to mindfully reinvent organizational structures and culture. Presenting this overview from data provides the foundation for evidence-based solutions used to create and recreate a dynamic and respectful work culture that flourishes and engages staff.

A number of definitions must first be outlined. In Canada, the job title “library technician” is commonly used to define a graduate from a two-year (on average) diploma program from a recognized institution. The Canadian Library Association (CLA) “Guidelines for the Education of Library Technicians” states that a library technician program “refers to such programs as library studies, library arts and documentation technology, library and information technology, techniques de la documentation” (2). In the workplace, library technicians may work in positions titled otherwise, such as library assistant, for example, but the distinction of this particular professional role is the diploma education. The Guidelines state that “The library technician plays an important role on a library staff, occupying a position with a level of responsibility between that of a clerk and a librarian” (CLA 2).

In the United States, the job title “library technician” is less connected to a formal education program. The American Library Association (ALA) notes that “Training requirements for library technicians vary widely, ranging from a high school diploma to specialized postsecondary training” and adds that employers may hire based on previous work experience or educational training, or may provide on the job training to employees with no library experience or schooling (“Becoming a Library Assistant or Technician” par. 3).

Furthermore, the Australian Library and Information Association differentiates library assistants, who have no formal schooling, with library technicians based on their completion of a diploma program (“Qualifications”). In the literature, a number of terms are used to refer to the job designation “library technician,” including library assistant, technical assistant, and most commonly, paraprofessional. This paper will exclusively use the term “library technician” when referring to the results of the research study, however, other terms may be used within the literature review, in accordance with terms utilized in the literature examined.

It is also necessary to define the term “librarian.” The ALA affirms that “The master’s degree from a program accredited by the American Library Association (or from a master’s level program in library and information studies accredited or recognized by the appropriate national body of another country) is the appropriate professional degree for librarians” (“Becoming a Librarian” par. 2). To conclude, this study defines librarians as those who have obtained an appropriate master’s degree from an accredited institution, and library technicians as those who have received the appropriate diploma from a recognized program.

The research team consists of professionals who work in academic library settings and library education programs, and have thus observed changes in the workplace roles and relationships around them. The purpose of this study was to add evidence to daily informal observances by obtaining and examining a data set that may indicate how librarians and library technicians perceive changes that are occurring in academic libraries in Canada.

Literature Review

As reviewed in James, Koch, and Shamchuk (in press), only a small body of literature and research exists that investigates the evolutionary responsibility of librarians and library technicians in relation to each other, especially in regard to academic library environments. A current article by Delaney and Bates offers a comprehensive list of present and future trends occurring in academic libraries, including conjectures about how librarians can work to implement such changes, while making only passing mention of library staff as a whole, and no mention of the role of paraprofessionals. Similarly, each chapter in the book edited by Peacock and Wurm covers an area of role and responsibility change in academic libraries, from public service, to information literacy, to collections, to technology, all from a librarian’s point of view, with no direct mentions of how these changes affect paraprofessional staff.

Other studies examine changes in the staffing the reference desk, with library technicians taking over a larger percentage of reference interactions (Courtney; Dinkins & Ryan; Gremmels; Leong and Davidson), or the move to outsourcing of low-level cataloguing work and thus the addition of higher-level tasks previously associated with librarians being given over to library technicians in the technical services department (Cox & Myers; Leong and Davidson; Rider; Zhu). These two trends have allowed librarians to take on broader responsibilities, including administrative and management roles (Courtney; Cox & Myers; Leong and Davidson). Oberg describes the role of faculty status (101), lamenting the librarians and library technicians need to stop blaming each other and simply work together to further the goals of the library. Cox & Myers suggest the need for further research into fair and equal compensation across the library profession as a whole (221), while Leong and Davidson, Pilarski and Picasso, Rider, and Zhu advocate for fair training and the need to work to strengths as opposed to definitive titles or qualifications.

Regarding libraries in general, Hill conducted a survey of 200 library workers across all types of libraries, noting the changes that were occurring for both librarians and library technicians, even though respondents acknowledged the distinct level of education offered by each level of library schooling. Hill goes as far as developing a list of best practices for mitigating the tension between levels of library staff, stating the importance of role overlap clarification, noting this may lead to improved productivity and workplace environment (23). DeLong and Sivak further delineate the differences in training and competencies of both librarians and library technicians, addressing the opportunities and barriers to changing curriculum at the levels of library education programs.

A major inspiration for this research study came from research conducted by Fragola, which is one of the very few articles that directly focuses on the relationship between librarians and library technicians and the effect on this relationship as a result of crossover in roles, in libraries across all sectors. Fragola clearly states paraprofessionals are doing librarian tasks (17), and attempts to discover if in-group bias, or the feeling that your group is better than another group and thus deserves preferential treatment, has a negative effect on the way librarians and paraprofessionals perceive each other. Although Fragola's research uncovered a small level of in-group bias, this was not prevalent to the larger extent suggested in the literature and anecdotal stories. Fragola suggest the actions of administrators and management are the key to fostering mutual respect and resolving tension that may exist, a sentiment echoed by Gremmels (248).

Though the role definitions provided by Johnson may be dated, the discussion about the difference between librarians and library technicians and the causes cited, including societal, educational, and technological forces, are nonetheless useful to the larger discourse. Johnson also provides some solutions to the resentment, disrespect, and reluctance of librarians and library technicians to do away with bias, including revising library workflow to meet local needs, and the importance of administration communicating role importance to professionals, while considering union restrictions.

Litwin's article further examines the concept of deprofessionalization of librarianship, providing a historical background and definitions of professional status, while making assumptions about paraprofessional motivation, within a context of changing institutional practices. Once again, the effect of budgets and the role of management is highlighted.

Most of the literature regarding trends in work responsibilities and/or attitudes between librarians and library technicians are optimistic and offer suggestions for further enhancing workplace relationships, but there is a great need for further research on how the trends may affect working relationships, and for greater attention to specific library environments that are experiencing significant changes; in particular, academic libraries.

Research Methods

After sending out a request to answer an anonymous online SurveyMonkey survey to the Canadian professional library listservs JEROME-L and CLA-L, and sharing on social media including Facebook and library education alumni groups, 882 responses from respondents from all types of libraries were collected over a two-week period. Responses were included in the

analysis from librarians with an MLIS (or equivalent) qualification, library technicians with a two-year library technology diploma, or students of either a postgraduate master's degree in library studies or a library technology diploma. In order to draw conclusions about constantly evolving library roles and responsibilities, only respondents who had been employed in the library field within the past two years, or current students, were included. Students were included so that the origins of professional identity and perceptions might be attributed to the education streams. Respondents without either a master's degree in library studies or a library technician diploma were excluded, as the scope of this research was tied to job title due to educational attainment.

After answering four demographic questions, respondents who did not meet the employment and education criteria exited the survey. Of those respondents who remained, the survey split into two sets. Librarians, postgraduate master's students and those with both a master's degree in library studies and a library technician diploma answered one set of questions, and library technicians or diploma students answered another. The two question sets were the same with the only difference being minor word changes depending whether the respondent was a librarian or library technician, along with the referencing of their counterpart. Geographic location was not tracked, and the survey did not aim to draw conclusions about unionized environments.

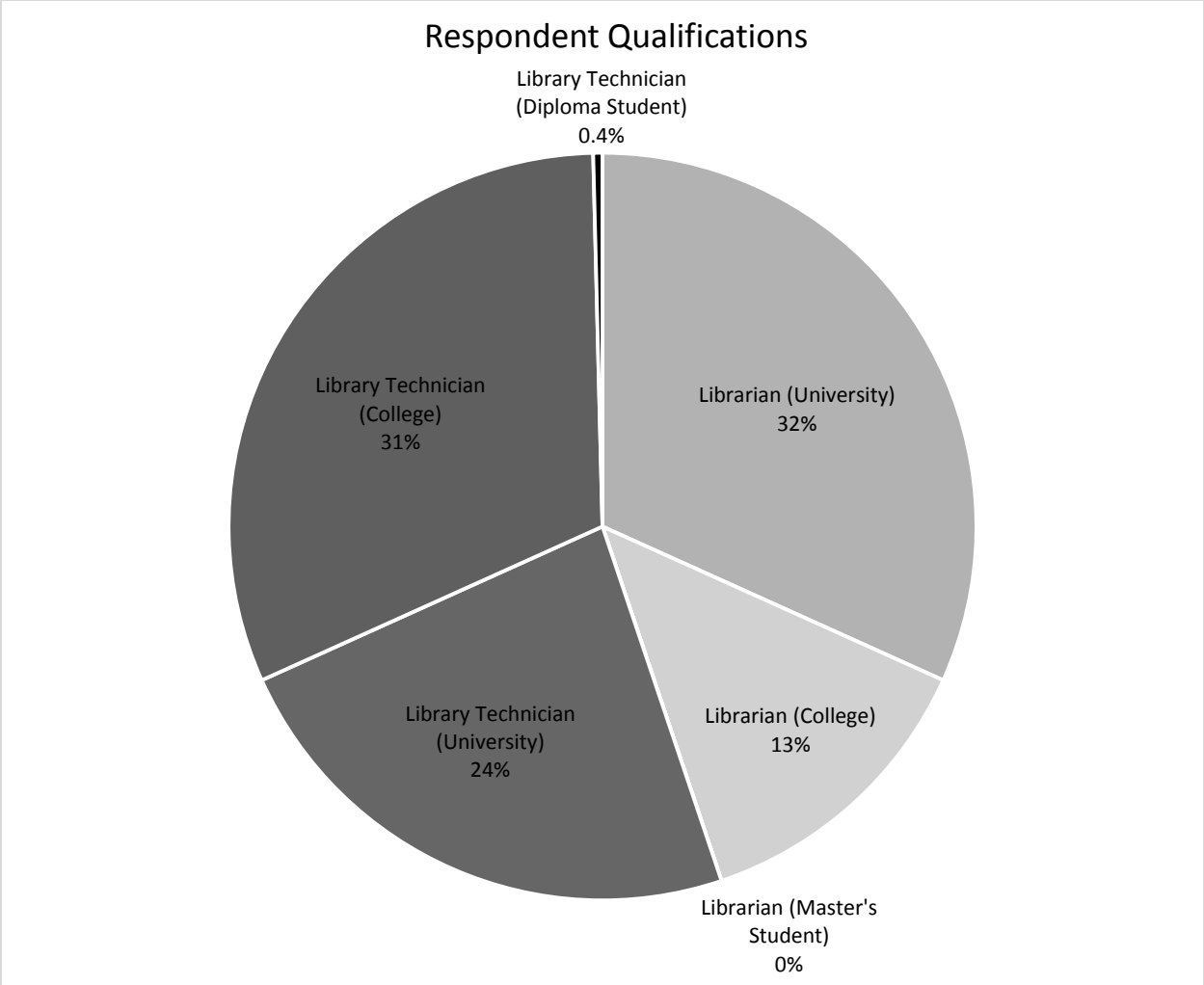
Respondents who indicated they currently work in an academic environment, either in a university or college, were extracted using a SurveyMonkey report. Of the initial 882 responses, 252 responses from librarians or library technicians who work in either a university or college library were further coded and analyzed.

Results

Demographics

Of the 252 respondents from academic library environments, 113 were librarians who had a master's degree in library studies. No current master's students aligned themselves to working in an academic library. Of these 113 respondents, 71% work in a university library, and 29% work in a college library. A further 137 respondents were library technicians who had a library technician diploma, and one was a current diploma student. Of these library technician respondents, 43% are currently working in a university library, and 57% work in a college library.

Table 1: Respondent Qualifications

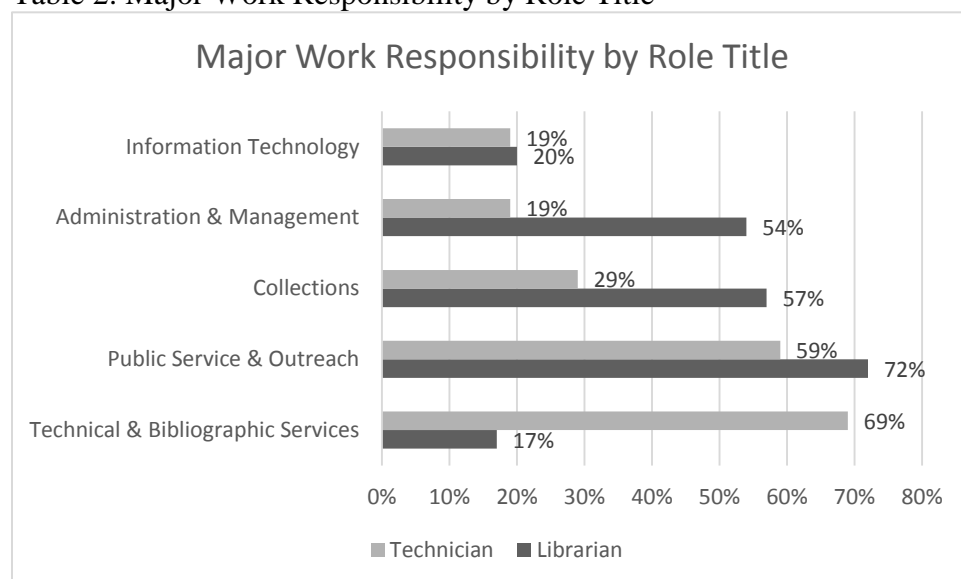


Of the librarian respondents, the majority (39%) graduated in 2000–2009 and close to half (46%) had worked ten or more years as a librarian. Of the library technician respondents, the distribution was similar, with the majority (38%) having graduated in 2000–2009. Over half of the respondents (58%) had worked 10 or more years as a library technician.

Major Work Responsibilities

Using the same categories as the 8R’s report (Ingles) on training gap analysis to delineate major responsibilities, all respondents were asked to identify their major work responsibilities. Respondents had the option of selecting more than one responsibility. The most common work responsibility identified by librarians was Public Service & Outreach. Public Service & Outreach was the second most common responsibility identified by library technicians, preceded by Technical & Bibliographic Services. Conversely, Technical & Bibliographic Services was the least common librarian responsibility chosen. Another difference was the percentage of respondents who identified Administration & Management as their main responsibility: librarians were almost three times as likely to identify holding these leadership roles over library technicians.

Table 2: Major Work Responsibility by Role Title



Other responsibilities identified by librarians included service, research, project management, library advocacy, and data. Other responses from library technicians included copyright, service, resource repair, supervising, social media, and graphic design.

Changes in Work Responsibility

The majority of librarians (54%) and library technicians (59%) responded that they perceived their roles and responsibilities had changed over the past 1–5 years.

Librarians

Of the librarian respondents who perceived that their role had changed, many indicated that their roles have shifted away from reference and/or contact with patrons, into more managerial or supervisory roles. Other common themes included an increase of dealings with faculty regarding research, and a change of duties due to technological advancements. Responses included:

- “More time working on projects, developing new directions of service, and analysis of services. Less time on the reference desk.”
- “I have less opportunity for hands-on work with patrons and more opportunity for problem-solving and assisting library staff with decision-making.”
- “Have been a librarian for just over 30 years and, naturally, experienced a number of changes, developments and evolving roles in the profession, largely due to technology.”
- “Support to research and research done by librarians is now encouraged. Also, cataloguing will be soon removed from our job description.”

Another new area of responsibility indicated by librarian respondents dealt with an added technological/digital/social media component. Some examples of comments are:

- “I do way more web development, coding, programming, and systems type work than when I started.”

- “Move from public service into digital resource acquisition and management (database ordering, license negotiation, budgeting and forecasting, assessment, etc.).”

Academic librarians in general responded they had taken on more administrative duties, with some indicating this was in addition to traditional duties of reference and instruction, and some commenting it is replacing the typical library responsibilities:

- “I was a research and instructional librarian. Now I am more of an administrator.”
- “No longer work on the reference desk...present at more conferences, coordinate more projects.”
- “More strategic planning, data collection and analysis.”

Library Technicians

Many library technicians noted a perceived increase in workload, with several stating that the scope of their workload had expanded due to taking on librarian duties. Some were promoted, and others were simply left with more work due to budget and staff cuts. The other big player is the addition of e-resources and the now endemic role of technology, seeing increases in IT/electronic workloads for many respondents. Direct comments provided were:

- “More technical work, more legal responsibility, more intensive & technical help requests from students, higher workload in general due to reduced staffing.”
- “Became a supervisor. Much more emphasis on electronic resources, less book cataloging. Reference services involve more online research, much faster changes in resources, more technology change.”
- “New functions (ie Ereserve, ILL systems, one on one reference appointments) introduced with fluctuating seasonal demands, leaving some work ignored.”

Comments from library technicians also included an added technological/digital/social media component, with others stressing an increase in patron-related work, supervision, or other tasks. Comments included:

- “More time online, less time answering questions face to face, more special projects with a focus on usability and making self serve services and tools.”
- “I do library orientations or bibliographic instruction, which was something librarians did at my last job. I also set up a volunteer-run library for patients, again something librarians have done in the past. I also contribute to social media.”
- “Increased time given to information technologies and web development. Supervision of junior staff has been added to my role. Also do more planning/leadership than previously.”

In general, a prominent trend was the perception that a higher level of work was being added to academic library technicians’ job responsibilities, including special projects, reference work, and systems responsibilities. Other more sophisticated tasks included:

- “More copyright knowledge, more technological work, more licensing.”
- “More projects involving data analysis.”
- “Added chat to reference work, more collaboration with other departments on campus (such as student outreach).”

Librarians & Library Technicians

Library technicians commented on how the librarians at their institution influenced their work responsibilities:

- “More supervision, less challenge. Not much chance to grow unless you have a uni[versity] degree.”
- “I have the skills and the training, and in some cases in more depth than MLIS students.”
- “No on the job training for higher level responsibilities due to union restrictions on performing duties of other employees, plus other employees (ie librarians) not wanting other staff to be able to do their jobs.”
- “I’m backing up others in other areas more than I used to, more training of staff, more activities a librarian used to do.”
- “There is also less Reference desk time being put in by librarians, so there is more interaction between techs and the public with ref-related questions.”

Some librarian respondents indicated changes to each other’s roles was a direct cause to their own perceived work responsibility changes. They stated:

- “Traditional management and technical services roles are seen as being no longer the purview of professional librarians and this work has been shifted to paraprofessionals. So I have fewer staff to supervise in Technical Services and less involvement in daily workflows.”
- “...more delegation of non-professional work.”

Perceptions of Professional Relationships

Both librarians and library technicians were asked to rate their agreement to fifteen statements using the qualifiers Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, and Strongly Disagree.

Librarians

Taking into account those who answered Strongly Agree, or Agree, the majority of librarian respondents (89%) perceive library technicians as important to the effective functioning of a library or information setting. A majority of respondents (70%) agreed that library technicians worked as hard as librarians, but only a quarter (25%) believed some library technicians could do a librarian’s job. Respect for library technicians and the work they do was near-unanimous (89%), and over half (65%) indicated that library technicians are doing tasks that librarians used to do.

Only a small percentage (27%) of librarian respondents acknowledged that perceived conflict, at least in terms of working together effectively, exists between librarians and library technicians. When asked to identify reasons for potential conflict, a quarter (25%) of respondents said that library and library technician schools emphasized differences between librarians and library technicians, and about one third (34%) indicated that an in-group bias towards one’s own profession is natural and cannot be avoided. Just over half (52%) agreed that radical changes in professional roles could be driving changes in relationship between library staff, as well as ignorance of what the other qualification does (62% of respondents). Another possible driving factor more than half (61%) agreed upon was that the workplace itself may be to blame because

of an environment of separation. Less than a quarter (20%) selected that conflict exists more in the past than it does now.

Librarian respondents offered comments and suggestions for other possible perceived sources of conflict, most of them having to do with changes in roles. There are some who fear being de-skilled in favour of library technicians being up-skilled and taking their duties. There were mentions of jealousy regarding pay-division, the fact that librarians and library technicians belong to different unions, and a divisive management element or workplace. Conflict was often characterized by a tightening job market and competition between the two job designations. One particular respondent commented that library technicians are envious of librarians and vice-versa, for the different perks that the other group appears to have. A number of respondents believe that the animosity comes as a reaction to librarian attitudes, salaries, or the increasingly thin demarcation line between librarian and library technician duties. Several librarians expressed concern over the training and hiring into library technician positions, as some hires have no diplomas. Direct comments included:

- “There is a fine line between understanding each other roles and being restricted (especially in unionized environments) by specific roles.”
- “Library administrators prefer to pass as much of the labour to the cheaper workforce and encourage senior professionals to retire. [This] sets up an atmosphere of resentment.”
- “Librarians are on the defensive. They generally do not feel secure within the profession. Instead of hiring librarians for positions, these roles are transformed into management or library tech positions. As a result, I think many librarians feel that their work and expertise is not being valued when they see this shift within the community and often within their own institutions.”
- “Over the years, what our workplace has allowed us to ask of technicians has changed. I used to have to think “this person is completely capable of this work,” but according to the rules I can’t offer this project to that person. Now I can, but that has never been clearly articulated or presented on paper. I’m quite concerned about where that line is and when I’m going to get into trouble for overreaching the classification.”

Library Technicians

Most library technicians (85%) indicated that librarians are as important to the effective functioning of a library or information setting, 87% acknowledged they respected librarians and the work they do, and 73% agreed that librarians work as hard as library technicians. Just over half of respondents (56%) believed that some librarians they knew could do their jobs. The majority of respondents (84%) perceive that library technicians are now doing tasks that librarians used to do. Under half (34%) agreed that there is a conflict between library technicians and librarians in terms of working together. About 45% believed that their respective schools emphasized differences between librarians and library technicians which could create a divide, with nearly the same (43%) believing that an in-group bias towards one’s own profession is natural and cannot be avoided. Over half (64%) indicated that conflict could come from radically changing roles, as well as from ignorance of what the other does (79% of respondents). The majority (76%) agreed that conflict could come from the workplace environment itself, and only 25% thought conflict existed more now than in the past.

So while library technicians overall seem to hold most librarians in high esteem, there are perceived issues of conflict in the workplace regarding the two groups, with the workplace environment, lack of knowledge of each other's roles, and training believed to be to blame, as indicated in the comments provided by respondents. Other common complaints included the reality of pay disparity and the feeling of being second class in the workplace, which is either enforced by management or by a perceived arrogance on the behalf of librarians. Library technicians commented:

- “Library technicians get treated like the personal assistants or secretaries of librarians (by non-library folks), even though our responsibilities are distinct & complementary.”
- “The librarians make all the decisions, and the library technicians do the actual day-to-day work. The techs are affected by the decisions the librarians make, yet are not consulted.”
- “Job insecurity—lack of opportunities leads to librarians taking tech positions and/or shrinking budgets leads to techs hired in traditionally librarian roles. In theory we do not compete for the same jobs but in practice it can happen and lead to conflict from both sides.”
- “I have never felt strongly that there was ‘conflict’ between librarians and library technicians. Everyone, in my experience, does their best to be respectful of others abilities and contributions.”

Solutions to Role Differential

Similar to the Likert scale questions regarding workplace perceptions, both librarians and library technicians were asked what efforts they perceive would help librarians and library technicians better understand each other's roles. Six areas for rating included: more focus on understanding each other's roles in library/library technician schools, more interaction between students between both schools, workplace seminars on roles, expectations and bias, social outings organized by management, more input by library associations, and clearer workplace roles.

Librarians

In all, none of the solutions presented were rejected by a majority of librarian respondents, nor were a significant portion of respondents unanimous or near-unanimous in their approval. However, the solutions that were most widely appreciated by librarian respondents was the idea of putting more focus on understanding each other's roles during schooling (96%) and making those roles clearer to everyone in the workplace (90%). Overall, 20% disagreed with managerially organized social outings, but agreed these activities should be initiated by staff.

The respondents in this section of the survey did provide additional solutions with their inclusion of comments. Some were in favour of removing the divide by making jobs accessible to both library technicians and MLIS graduates, a merger of professional associations, and giving tasks to those who are qualified to do them regardless of rank/position. Comments include:

- “I am expected to do what the library technicians generally do within the library, as well as my own job, and I do so with pride, but admittedly, often not as well as the techs. There is more work than I could do myself, so we all have to specialize at something and help one another when we can. Even with reference work, the library techs and the librarians should collaborate. I specialize with teaching, but often, they know resources that I don't. It's a group effort, and that kind of attitude should be encouraged.”

- “Management can create cultures of respect and clarity around roles, but it’s best if social get-togethers are initiated by staff wherever possible rather than just top-down.”
- “Less segregation will help. Have teams, committees, working groups, and/or projects where both librarians and library technicians work together. In my experience working on a project side-by-side with all of my colleagues, both librarians, library technicians, and faculty, have given most of us on the team a better mutual understanding of each other’s unique roles and skill sets.”

Library Technician

A majority of library technicians agreed that all of the proposed suggestions are amenable ones, with making roles clearer again being the most popular option by a narrow margin, similar to the results for the librarians, with 81% of library technicians in agreement. A close second to this option was having the different library associations work together (75%). The only idea that had any significant disagreement was staff outings arranged by management, with 18% of library technicians opposed.

Other solutions included in the comments from library technicians were the recognition of productivity and accountability, that staff outings could be arranged by anyone and not just management, and job sharing/training for staff to gain perspective of their co-workers’ duties. One comment specifically calls for a fiscal recognition of the skills both library technicians and librarians have acquired in order to fill the vacuum left by shrinking budgets. Other comments were:

- “I think it comes down to all staff respecting, appreciating and supporting each other rather than highlighting differences—we’re all here to work together and make our libraries better places to learn and work.”
- “In professional publications & forums, we need to stop using ‘librarian’ as a default title when discussing library professionals. I understand why the public does this, but within our own circles it is inexcusable.”
- “There is no sharing of information, no team feeling, no conference attendance across professional lines. Librarians might cooperate in presenting a paper at a librarian conference...but they won’t work with lib techs on a similar project.”

Discussion

The results reveal a perceived overlap between the responsibilities of librarians and library technicians in academic library settings. Overall, a majority of respondents indicated they perceived that the workplace environment and expectations have changed in the past 1–5 years. Library technicians believe they are finding themselves with what was once strictly librarian work, as well as vital technical jobs such as web design or e-resource management. Librarians believe they are increasingly assigned managerial duties or duties that take them out of the physical space of the library (such as embedded librarian roles or higher committee work), as well as technology or research related tasks. Shrinking budgets and new technology are suggested as potential causes of the task overlap, as well as the perception that management is handing down tasks without taking into account, recognizing, or being cognizant of the training provided during the education taken to obtain a library qualification, whether it be a master’s degree or diploma.

There are some comments that indicated subtle perceived discontentment between both librarians and library technicians, as well as between these groups and the wider workplace. The leading cause of potential perceived discontent among library technicians towards librarians seems to be threefold: an increase in workload without the equivalent increase in pay, a perceived arrogance on the part of librarians, and a general sentiment of being viewed upon negatively for not having a master's degree. There is also fear that technology is rendering their training obsolete which is, coupled with shrinking budgets, a recipe for job elimination during tight economic conditions. The leading cause of perceived discontent for librarians seems to be primarily of job security, as library technicians are paid less, yet are still doing some of the work traditionally assigned to librarians, which turns the issue into one of self-preservation.

Regarding what can be done to improve relationships in the workplace, both librarian and library technician respondents were unsure of the best course of action. Some fear that specification of roles could lead to unnecessary stratification of tasks, and others suggest that removing the divide entirely could be another option. Recognition of knowledge, skills, and abilities, as well as qualifications, seems to be a key factor, along with the idea that professional associations should be merged or at least attempt to be more amicable/cooperative. What comes across most clearly is the perception that there needs to be more collaboration between library technicians and librarians on this issue and in the workplace in general, as well as a general clarification of roles and responsibilities of both librarians and library technicians, as understood by administration and management.

The results are confirmation that library and information roles within academic institutions are perceived to be constantly changing, and offer suggestions for exactly how the roles are perceived to be shifting. It is evident library school curricula at the post-graduate master's of library studies and the library technician diploma level need to include discussions of the contemporary roles of both librarians and library technicians, as well as the need for education to constantly align with the changing responsibilities occurring in the workplace. This, along with further workplace role clarification and professional development as encouraged by administration and management, could be integral in preparing both librarians and library technicians for the transitioning nature of the workplace, while maintaining a respectful workplace environment.

The results provide clarity from the field on current and future perceived work relationships in academic libraries. It was confirmed that perceived work responsibilities of and relationships between librarians and library technicians are in flux because roles are less clearly defined and increasingly fluid in the transformational landscape of the academic library. Organizational structures that have traditionally been implemented in academic libraries are, in many situations, perceived to be no longer functioning as they should and may even hinder progress and success, in terms of establishing amenable working relationship. Some of these structures, as indicated by qualitative analysis of the comments listed above, can be perceived to compromise work culture and impact outcomes. The analysis proves that new and more fluid structures may be required as roles continually evolve and change, and that continual learning and training is essential to incorporate across all positions. This would require support from administration and management, which is perhaps what both librarians and library technicians need to strongly

advocate for, as a method of more formalized recognition of how both librarians and library technicians may more effectively work towards the strategic goals of the organization.

Limitations of the Study

Using a survey comes with many limitations. Some workplace technology infrastructures may block access to SurveyMonkey, which may have restricted employees from accessing the survey. As the survey was not distributed to a specific pool of respondents, the researchers cannot accurately identify how many respondents were obtained out of the potential total number of academic librarian and library technicians working in Canada. It cannot be assumed that all responses came from Canadian academic library contexts, as though the survey was only sent out via Canadian channels, respondents did not have to identify their geographical location. This also means trends or attitudes in specific regions of Canada could not be analyzed. Not all questions were mandatory, and since some respondents skipped questions or chose to not answer certain questions, the numerical data may be affected. Students were included, but due to the small number of respondents, accurate conclusions about how education programs affect responsibilities and working relationships cannot be drawn. Finally, the researchers also had to rely on the assumption that the anonymous respondents provided truthful qualifications, and acknowledge without the use of more rigorous research methods, information gathered must be considered as perception only, as opposed to the context as qualified by administration and human resources structures.

Conclusion

Librarians and library technicians employed in academic settings can be certain that the perceived responsibilities of librarians and library technicians will continue to shift away from traditional roles, due to the constantly evolving environment of library and information environments, as well as the trends generally occurring in higher education. Further investigation into role changes and relationships would provide clearer and more definitive directions for workplaces and library education programs. Themes may be uncovered in the future if more complex research methods are pursued that include a thorough qualitative investigation or ethnographic approach; the lived experiences of librarians and library technicians may provide valuable insight in how they perceive their roles. This is especially relevant when examining roles in specific kinds of libraries, such as university or college institutions.

Additionally, the role of faculty and staff associations or unions that may play a role in both responsibility and relationship demarcation is an area that requires further research. Much of the focus in this study and the literature is on librarians and library technicians, though it is evident from respondents' comments that administration and management play a large role in both the task and culture side of academic library work. Further research could be conducted on administration and management's knowledge and attitudes regarding the difference between librarian and library technician responsibilities, as a reflection of their qualifications, as well as potential efforts that could be undertaken to improve the workplace culture.

It is the investigators' conclusion that organizational culture in academic libraries must seek improved administration and human resources processes so that new and complex competencies can be acquired by staff to combat the ever-evolving nature of library work. Library education and workplace professional development and training must be nimble and responsive so that

these competencies may be acquired by all levels of library staff. Once this is achieved, we can be more certain that the skills of librarians and library technicians are maximized, while maintaining a workplace culture of mutual understanding and respect.

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