The Evolving Nature of Library Technical Services in Response to Outsourcing

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Abstract

The landscape of library technical services is evolving in response to the outsourcing of library work such as cataloguing, acquisitions, and processing. This literature review explores the body of research on the transitioning nature of library technical services and presents its findings with a thematic overview of the cost effectiveness of outsourcing, vendor quality control and evaluation, staffing levels, changing workloads, organizational restructuring, user experience, knowledge management as well as diversity, inclusion, and access. While the literature reveals little doubt that outsourcing has had a significant impact on library technical services, how can libraries guide their technical services teams forward through this transition? The themes explored here suggest that additional skillsets are necessary for increasingly complex workloads in response to changing library user needs. Library leadership will need to provide their staff with training and professional development to meet these changing needs all while having successful change management strategies in place that leverage existing skillsets and support the continued evolutionary landscape of library technical services.

Keywords: technical services, libraries, outsourcing, change management, quality control, library vendor, organizational restructuring, user experience

Outsourcing of library technical services (TS) has been around for over a century. The earliest instance dates to 1901 when the Library of Congress began mass production of catalog cards (Martin et al., 2000). There was a marked increase of industry-wide interest in outsourcing in the 1990's. The number of articles related to
outsourcing in the 1980’s was 3 per year and this skyrocketed to more than 600 articles annually in the 1990’s (Martin et al., 2000). Libraries followed this trend and subsequently, there was a surge in the 1990’s of both the practice and research of outsourcing library TS functions, namely cataloguing and acquisitions (Martin et al., 2000).

This literature review explores the current body of research on the outsourcing of TS work in a variety of library types. The costs and benefits of outsourcing are explored and their subsequent impact on staffing levels and types of work done in TS departments. Furthermore, the question of whether TS is disappearing or evolving is explored through the names and descriptions of roles currently employed within TS and how these changes have affected the flow of traditional TS knowledge and expertise. The themes explored attempt to cover a wide range of perspectives including stakeholders, workers, leadership, and users across various types of libraries.

Costs and Benefits of Outsourcing Technical Services
The cost-effectiveness of outsourcing for libraries must be determined on a case-by-case basis. A 5-month trial outsourcing monograph processing at Southern Illinois University Morris Library determined a lack of cost savings (Ballestro, 2012). Outsourcing of monograph copy cataloguing and processing was found to be associated with a higher cost compared to doing these tasks in-house at Radford University Library. However, there were other non-monetary benefits such as higher turnaround time, faster access, and the ability to use staff time towards other needed service areas (Johnson & McCormick, 2019). Using an example from a public library, Columbus Metropolitan Library uses very little outsourcing as they have determined that it is faster and cheaper to do most TS work in-house (Columbus Metropolitan Library,
2010). However, outsourcing was found to be cost-effective at Brigham Young University’s Harold B. Lee Library where shelf-ready materials cost 5.7% less and reduced lead processing time by 47% (Schroeder & Howland, 2011). Lam (2005) found that outsourcing was associated with favourable turnaround times and suggests that this is a significant factor in opting for outsourcing. Lubas (2011) notes that libraries may not necessarily save a lot of money by outsourcing, rather the benefit comes from freeing up staff time for more complex work. Medeiros (2010) argues that up to 80% of staff time would be consumed by tasks that would otherwise be outsourced.

**Vendor Errors and Quality Control**

At the heart of the matter is whether it is cost-effective for each individual library and whether the benefits outweigh common outsourcing challenges, such as vendor errors. The reason why Southern Illinois University Morris Library determined outsourcing as too costly was because of the high rate of vendor errors, which translated into a great deal of staff time monitoring and fixing errors (Ballestro, 2012). However, many libraries have been satisfied by low rates of vendor error as demonstrated by Lam’s (2005) study which found error rates within acceptable limits of less than 2%. Another study done at Western University in Ontario found errors in 4.62% of inspected records which was also considered to be low and within acceptable limits (Doran & Martin, 2017). Interestingly, the Western University study included a level of granularity that was able to determine that the bulk of errors were found in a particular subject area (e.g., English literature), and that most of the error types were associated with subject headings and call numbers. Doran & Martin (2017) suggest that by assessing where errors are most likely to occur, staff time may be allocated to
monitor only certain types of materials provided by vendors rather than spending more time to inspect all vendor provided materials. Lam’s (2005) questionnaire asked libraries whether they performed quality control on outsourced materials and found that 20% of respondents had no quality control practices in place, while the remainder largely had partial practices in place.

**Culture of Evaluation**

Based on the variety of findings on the cost-effectiveness of outsourcing, ideally each library would assess its own parameters of cost-benefit analysis, as there is no one-size fits all model when it comes to outsourcing. Hillen (2019) emphasizes the positive effect of having quality control processes in place on both the library and vendor ends of outsourcing to ensure ongoing maximization of cost-benefits. It’s apparent that libraries must not only look at the monetary costs of outsourcing but consider potential benefits such as saved staff time and faster access for users (Schroeder & Howland, 2011; Stalberg & Cronin, 2011). Cost-benefit analysis of outsourcing should be under continual evaluation along with monitoring for vendor errors. If libraries can maintain quality control assessments, then they can ensure that benefits are maximized while errors are minimized throughout the library-vendor partnership.

**Changing Staffing Models in Technical Services**

The literature shows a consensus that staffing levels in library TS are decreasing. A study of staffing levels in the Oberlin Group (a college consortium of libraries) demonstrates an 82.5% decrease of TS functions including acquisitions, cataloguing, and serials (Gremmels, 2013). There are many opportunities for libraries to decrease staffing levels in TS such as through attrition, or not replacing workers that resign or
retire. Other avenues for lowering staff levels could be through reorganization and/or lay-offs. Zhu’s (2012) survey found that most respondents perceived an overall decrease in TS staffing levels. Quotations from this study attributed this overall decrease to departures, layoffs, and retirements. Further, these positions were either moved to other departments or simply left permanently vacant. Workloads following vacancies tend to be distributed among the workers who remain in TS (Zhu, 2012). James et al.’s (2015) study also highlighted comments where a decrease in staffing was correlated to increased workloads resulting from a loss of staff with no replacement.

**Increasingly Complex Workload**

Not only is the workload increasing for workers left behind in shrinking TS departments, so is the complexity of the work. Turner’s (2020) study compared advertisements for cataloguing jobs over a period of two years to determine whether metadata jobs were now outpacing traditional cataloguing jobs. This study found that metadata jobs were not replacing cataloguing jobs but that a skillset in metadata was required in addition to traditional cataloguing skillsets, demonstrating the increasingly complex and demanding nature of library cataloguing roles. This aligns with Gremmels’ (2013) assertion that cataloguing positions are being extended, with the word ‘metadata’ being more commonly found in the job title. Zhu (2012) argues that it is the routine tasks that are outsourced and taught to vendors, leaving behind more complicated and analytical tasks for library TS departments. Collins and Wilson’s (2018) preconference workshop reinforces the notion that staffing in TS is shrinking and that this work is transitioning from production-based to analysis-based.

**Staff Reorganization**
If a given library decides to outsource, reorganize, or otherwise decrease their levels of TS staffing, it raises questions regarding which duties will be performed by those TS staff who stay on. If those workers who remain do not have the required skillset to take on more complex work, libraries may be left with few alternatives such as transfer or lay-offs—assuming they are not already constrained by limits imposed by tenure or unions (Gremmels, 2013). Many libraries are positioning paraprofessionals from TS departments as front-line service providers (Gremmels, 2013; James et al., 2015). Libraries facing budget constraints are being asked to do more with less. Brooklyn Public Library combined the outsourcing of processing with a reorganization to increase its service hours (Brooklyn Public Library, 2012) and centralize TS between Brooklyn Public Library and New York Public Library (Schwartz et al., 2013). Staff reorganizations are another way in which libraries may transfer workers into newly created positions (Davis, 2016; Zhu, 2012). A reorganization at the University of Maryland included the creation of a new Discovery Librarian position (Bradley & Guay, 2019).

Clearly, library TS workers need additional training and professional development as their roles become increasingly complex and “demand technology skills that were not required in technical services in the past” (Davis, 2016, p. 59). Unfortunately, the same budget constraints that are responsible for decreasing staff levels are also likely to cause a lack of access to training opportunities. Zhu (2012) found that one of the greatest areas of concern amongst library paraprofessionals was a lack of access to training opportunities. Since TS work may be misunderstood and overlooked by library administrators (Weber, 2015), it is likely that libraries will focus on cross-training TS staff...
for public service work, which has the added benefit of improved collaboration and workplace culture across departments (Weng & Ackerman, 2017). Even if libraries have resources available for training TS workers, it would be an easy solution for libraries to prioritize training TS workers for public service work, citing the benefits of addressing staffing shortages on service desks combined with improved collaboration and workplace culture. The caveat to this is noted by Weber (2015) who asserts that TS work needs advocacy to avoid disappearing altogether, otherwise libraries and communities may not even realize what has been lost, nor will vendors be able to provide all that is missing. While public service work is one way in which libraries may pursue the redirection of TS staff efforts, opportunities for forging new pathways in the areas of metadata, vendor quality control, discovery, and user experience must not be overlooked. Corrado & Jaffe (2021) suggest that library assessment efforts are largely focused on public services, which could account for Weber’s (2015) assertion that TS work is misunderstood and overlooked, and why TS workers’ time is redirected to public services coverage and/or expanding service hours as was the case with Brooklyn Public Library and New York Public Library (Schwartz et al., 2013). Corrado & Jaffe (2021) conclude that TS assessment needs to be aligned with libraries’ strategic goals and that more meaningful TS assessment could benefit from the inclusion of qualitative indicators in addition to the empirical data libraries typically collect.

**Technical Services – Disappearing or Evolving?**

The increasingly complex workload experienced in TS has been reflected in the trend of renaming both the departments and job titles using terminology that best conveys the nature of work currently being done. TS departments are evolving in
response to what Medeiros (2010) refers to as the “new digital realm” (p. 6). Davis’ (2016) study found that the name ‘technical services’ no longer adequately represents the changing workflow in these departments and observed that alternative terms are being applied to departments, such as collections, data services, and database and bibliographic control. Davis (2016) also notes the newly emerging functions of TS in the areas of digital repositories and Linked Data. The new names found within TS departments have been outlined in the literature and include data management, digital content creation, and collection management & access (Biswas, 2021) as well as acquisitions & data services, continuing resources & database management, discovery & metadata services, and database & special collections cataloguing (Bradley & Guay, 2019). These names express the new focus of TS work on data, databases, digital, metadata, and user experience (e.g., discovery). Similarly, TS job titles are changing as well. In addition to the term ‘metadata’ appearing more frequently in cataloguing job titles, new positions have been created that now include terms such as digital technology, e-resources, systems, and discovery (Biswas, 2021; Bradley & Guay, 2019).

It could be said that TS departments are both disappearing and evolving at the same time. TS jobs are decreasing through attrition while TS departments are being renamed and/or reorganized (Bradley & Guay, 2019) whereby traditional areas of TS are merging with other library departments (Collins & Wilson, 2018).

**User Experience**

User experience and discovery is an area in which libraries may leverage the cataloguing and metadata expertise of their TS staff. Stalberg & Cronin (2011) identify several ways that TS staff expertise would shine: assessing which MARC inputs are of
value to users, whether fully descriptive MARC records circulate more frequently, and the rate at which users go from brief results to full records, to name a few.

One of the greatest transformations of library users is their preference for interacting with internet search engines as opposed to library catalogues when seeking information (Lubas, 2011). The presence of MARC records in library catalogues means users must become proficient in understanding controlled vocabularies to fully utilize the information held in library catalogues. This preference for online search engines is confirmed by recent literature. Cross & Gullikson’s (2020) study found that users rarely used library catalogues unless it was as a last resort. This doesn’t mean that MARC records aren’t useful to users, rather that these MARC records need to be made accessible to users. Cross & Gullikson (2020) stress the importance of MARC data appearing in discovery layers and web-based search, e.g., the “Get it” button in Google Scholar. The skillsets of TS workers may be leveraged for the reuse of MARC records by mapping MARC fields to new metadata standards. Madden’s (2020) study similarly discusses the repurposing of cataloguing expertise to improve user experience.

Technical Versus Public Services

The two traditional functional areas of libraries arose from a divide between those who interacted directly with users, Public Services, and those who didn’t, namely Technical Services (Bismas, 2021). This division of functional areas has led to barriers including miscommunication, stereotypes, and differences in workplace culture as discussed by Weng & Ackerman (2017) whose study found that respondents from both public services and TS agreed that ‘user centered philosophy’ ranked highest in terms of what the focus of TS staff should be. Bridging the divide between public services and
TS is happening with respect to user experience and discovery. Increased collaboration was observed with University of Maryland’s new discovery librarian following their reorganization and this was leveraged to “distill the benefits of the outsourcing experience” (Bradley & Guay, 2019, p. 17). Breaking down the barriers between library functional areas through collaboration and improved workplace culture could be one of the greatest benefits of the evolving TS landscape for staff and users alike. Although outsourcing leads to reduced TS staff, reorganizations that merge departments and leverage staff expertise ultimately benefits the user experience.

**Knowledge Management in Technical Services**

With any organizational change comes the need for strong leadership and change management practices. The success of reorganization and new initiatives is often dependent on organizational culture. Medeiros (2010) discusses a TS collaboration initiative that couldn’t move forward due to the organizational culture. Library leadership needs to strategize in creating agile TS departments where transitions focus on staff involvement from the ground-up to acquire buy-in (Collins & Wilson, 2018).

**Knowledge Assets**

Understanding knowledge assets is an important consideration with respect to outsourcing TS work. If outsourcing leads to decreased staffing in TS, does it follow that there has been an exodus of TS knowledge away from libraries? Hillen (2019) describes outsourcing in way that means libraries are directing the work of a group of individuals that extends beyond the library’s employment. This kind of relationship is not strictly client-vendor, rather a partnership in which knowledge flows from libraries to vendors, and subsequently vendors may disseminate their acquired knowledge to other
libraries (Heinrich & LaFollette, 2009). This flow of knowledge requires that individuals on both ends of the partnership have the expertise to interpret and use that knowledge to further the goals of the organization. Patrick & McGurr (2019) underscore the importance of libraries understanding their own TS knowledge before outsourcing it. The authors describe outsourcing at a health library in which there were no staff fluent in TS knowledge. This undertaking led to a two-fold misunderstanding where the library couldn’t communicate its needs, and the vendor didn’t understand how to provide for the library’s lack of knowledge.

**Diversity, Inclusion, and Access**

A library’s use of vendors doesn’t happen in a vacuum and although TS staffing may be decreasing it needn’t disappear altogether. Due to outsourcing, libraries will need staff that understand the needs of the library and are able to communicate those needs to vendors. This has necessitated positions such as vendor-librarians demonstrated by the author Hillen (2019) who writes from the perspective of a vendor-librarian. The expertise of TS staff is well positioned for the advocacy of diversity, inclusion, and access in library collections. Hodges (2018) describes an example of a cataloguer who noticed an error in authorship that gave a white transcriber authorship of Sojourner Truth’s works. Barriers and errors in bibliographic data can have an impact on diversity, inclusion, and access that may be identified and resolved by staff with cataloguing expertise and/or communicated to vendors via specialized positions such as vendor-librarians.

An example of TS knowledge and expertise flowing from libraries to vendors and subsequently disseminated back to libraries involves Indigenous subject headings.
accessing an open-source term list from Greater Victoria Public Library, the vendor Library Services Centre began offering bibliographic records updated with Indigenous subject headings and retrospective catalogue changes (Library Services Center, 2020). Expertise with cataloguing and metadata is not only useful for providing access and discovery by reusing legacy records and mapping them to new metadata standards, but also in information organization practices that ensure diversity and inclusion.

**Conclusion**

The work of library TS has evolved into increasingly complex and analysis-based work. Although this has resulted in reduced staffing and reorganizations, libraries still rely on the expertise and knowledge of TS workers, albeit under new pseudonyms, to facilitate partnerships with outsourcing vendors. TS knowledge and expertise may no longer be restricted to siloed library departments. It is now disseminated cross-departmentally, into more specialized positions. Furthermore, TS knowledge is shared via outsourcing vendors and the library community at large. As workloads become increasingly complex and demand additional skillsets, library leadership needs to take stock of existing expertise that may be leveraged towards the expanding role of libraries into metadata, electronic resources, discovery, and with emphasis on user experience as it relates to diversity, inclusion, and access. TS library workers must be supported through the provision of training and professional development opportunities so they can meet the demands of this increasingly complex workload. Moreover, strong leadership strategies that involve workers are necessary for successful change management initiatives during times of organizational restructuring. A culture of evaluation is necessary for individual libraries to determine what their own TS evolution should look like, as there is no one-size fits all model when it comes to outsourcing.
Continued assessments of the costs and benefits of outsourcing, vendor error rates, and user experience will guide libraries on the best path forward for TS work. Though many of the examples mentioned here originate from academic libraries, they are general examples that may be widely applied to a variety of library types. Future research efforts could explore knowledge audits or meaningful TS assessments that combine quantitative and qualitative indicators that directly map the existing skillsets, knowledge, and expertise of TS workers onto the expanding services offered by libraries, and the changing needs of library users. Knowledge audits or meaningful TS assessments could also identify areas for skills improvement through relevant training and professional development.

**Conflict of Interest Statement**

None declared.

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