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Hebraica Catalogers and Cataloging Roles in North America: Today and Tomorrow

Introduction

The past fifteen years have been a period of change not only for Hebraica catalogers working in academic and scholarly libraries, government, special libraries, and archives, but also for the larger community of catalogers of which they are a part. Today this group of librarians is exploring new models for expressing bibliographic description; most likely at least one of these will replace the MARC21 system of encoding bibliographic data. Resource Description and Access (RDA) has largely taken over Anglo-American Cataloging Rules (AACR2 Rev.) as a cataloging standard. Digital collections which require description and access are expanding within our libraries. Knowledgeable staff is required to create and provide quality metadata to individual pieces of digital resources as well as across extremely large groups of similar types of objects to enable discovery.

Cataloging department heads are looking at new processes with particular emphasis on incorporating non-MARC metadata workflows in traditional cataloging departments. These include utilization of technologies such as eXtensible Markup Language (XML) or other markup languages; Linked Data (LD) and the Semantic Web; metadata schema such as Metadata Object Description Schema (MODS), Metadata Authority Description Data (MADS), Visual Resources Association (VRA) Core, Dublin Core (DC), or Encoded Archival Description (EAD) (Woodley 2008); Resource Description Framework (RDF), a tool that functions as a "model for data sharing" (W3C Semantic Web 2017); and Text Encoding Initiative (TEI), a standard for "representing texts in digital format" (TEI 2017). Such developments in the field blur the boundaries that used to define cataloging, metadata creation, or remediation. Stanford University Libraries (SUL), where the author is employed, has encouraged cross-pollination between traditional cataloging and non-MARC metadata management since the beginning of the new millennium. The directors, managers, and section heads have come to agree that metadata projects tend to be better executed when enhanced with insights from traditional cataloging practices.

The author's experience working in a large academic, non-Judaica specific library has provided a baseline on how cataloging/ metadata/ technical services units and departments can approach their future. In 2001, the Associate University Librarian for Technical Services in SUL issued a document on metadata services strategy, stating that the department would be "collaborating with the Digital Library Program and Systems staff to design, test, and adapt data models for ingesting and storing metadata into the Libraries' digital archive" (Tierney and Hoebelheinrich 2001). In 2003, the metadata coordinator wrote in the Frequently Asked Questions section of the Metadata Department (formerly the Catalog Department) webpage, then available publicly on the SUL website, that "Not all research libraries provide metadata services for their digital collections—at least not yet. And, if metadata services are provided, they are not necessarily

organized in the same way that the Stanford Libraries has chosen to do so" (Hoebelheinrich 2003). In the summer of 2015, the Digital Library Systems and Services (DLSS) and Metadata departments were relocated together to the third floor of Stanford's Lathrop Library. This move very intentionally brought together the expertise of both departments to collaborate successfully on the myriad of digital projects and initiatives emanating from SUL. The staff in the Metadata Development Unit (MDU), of which the author is a part, are expected to spend some part of their time advising, remediating, enhancing, and creating metadata for digital projects.

Against this historic background, the author assumed that her Hebraica cataloging colleagues' jobs as well were expanding and changing to include more digital resources and non-MARC cataloging.

Various studies and surveys have examined the roles and responsibilities of catalogers in academic libraries, and how catalogers are preparing and responding to ongoing changes within the profession. The author, however, has not found any research that endeavors to look at the workflows, current awareness, and practices of individual cataloging communities specializing in specific disciplines or linguistic resources such as music, East Asian studies and languages, Slavic studies, Middle Eastern studies and languages, or Hebraica (resources in languages written in Hebrew script such as Hebrew, Yiddish, Ladino, Judeo-Arabic, or Judeo-Tat, among others). This paper is based on a survey sent to Hebraica catalogers in April 2016. Ideally, some of the questions asked in this survey will inform Hebraica cataloging staff and their managers on how well they are preparing for a future in the profession.

Literature Review

There exists a body of research on how catalogers handle different workflows, keep abreast of current trends in cataloging, and prepare for the future. Eskoz (1990) presented the results from two surveys that she took of catalog librarians in academic libraries in the United States. She described how changes in organizational structures have affected the roles of professional catalogers and para-professional staff in cataloging roles. She concluded that in spite of catalogers having access to the newest tools and technologies, their basic job functions and way of doing their work remained essentially unchanged.

Buttlar and Garcha (1998) looked at how North American catalogers' job functions changed over the previous decade. Significantly they found that catalogers were increasingly moving into library systems and database work. They also cataloged more electronic formats. British catalogers in academic libraries were surveyed at the end of the 1990s on how their jobs were changing. By that time, almost all of them worked with online cataloging utilities; their roles had moved beyond cataloging print materials and into cataloging of digital resources; and assumed a significant increase in administrative duties (Garcha, Buttlar 1999).

Russell (2004) surveyed special cataloging practices among members of the Association of Research Libraries (ARL). Units and departments varied widely in their job requirements, staffing and organizational structure. He described the mounting pressures to dispense with special collections backlogs and the importance of interdepartmental collaboration.

Catalogers need to remain knowledgeable and up-to-date in their field after completion of library school. Hider (2006) looked at what kinds of continuing education and training catalogers are undertaking to keep up their skills and also prepare for future changes and modifications to their traditional roles. His survey revealed that catalogers recognize the need for further knowledge to advance their careers, but he found that many were not completely satisfied with the level of institutional support that they received for this kind of activity.

Of interest to the cataloging community is how metadata functions are being added to, and integrated into the workflows of traditional cataloging librarians. Veve and Feltner-Reicher (2010) developed a survey looking at non-MARC metadata creation and its impact on the productivity and workloads of cataloging librarians. This survey was sent out to four cataloging email discussion lists: Online Audiovisual Catalogers (OLAC), AUTOCAT, OCLC-CAT, and Digital Library Federation (DLF) email discussion lists. The survey revealed that most of the integration of metadata duties into the workflows of catalogers started after 2004. The catalogers demonstrated much satisfaction learning new skills and ways of describing data.

Just as digital resources became more common in the 1990s, so too was there a growing need to describe them and make them accessible. The number of positions for metadata librarians began to proliferate. Han and Hswe (2010) looked at library job opening announcements to see how the requirements and skill sets required for cataloging librarians and metadata librarians were similar and how they differed. Quantitative data from the survey showed that requirements for metadata librarians were more extensive, requiring prior experience in the management of digital assets, XML, and other skills necessary for digital library management. Of equal importance in the job announcements was a desire and willingness to learn new skills and technologies.

Wu (2012) presented her findings from a survey developed to look at the knowledge and skills future catalogers will need to navigate the many technological and intellectual challenges that will define the profession. Survey questionnaires were sent out to four cataloging listservs since the research was not limited to one kind of library. Wu concluded that library schools need to modify and adapt their curricula to better prepare their students.

Boydston and Leysen (2014) described the results of the ARL 2011 survey of workflows, duties, and the changing roles of catalogers in research libraries. Surveys were sent out to heads of cataloging departments at major libraries (which tend to be at the forefront of utilization of new technologies). The responses, though numerically few (about 30 percent), did indicate that catalogers were increasingly working with electronic resources, and that training was being provided to help catalogers remain competitive and up-to-date in their job skills.

Park and Tosaka (2015) described the ways cataloging and metadata librarians navigated RDA training and implementation. Their findings showed that cataloging staff in large research libraries had better access to specialized training sessions, especially those conducted in-house. Cataloging professionals in smaller and non-research libraries had to depend on external training methods such as webinars and training materials provided by other institutions.

Purpose of the Study

The purpose of this study was to develop awareness of the current job functions that members of a specific cataloging community carry out and how they might be changing. Of significance was an examination of what types of training they receive or seek out to meet the job demands of the future. Results of this survey will ideally provide relevant and crucial information to the Hebraica cataloging community and their library managers and administrators about how to remain dynamic and ready to absorb new types of job responsibilities and workflows. The study looked at the current demographics of Hebraica catalogers in research and special libraries and surveyed them for their type of library and size of collection, department name, and job title. Participants were asked to describe workflows and responsibilities they may have, the types of resources they describe, and the descriptive cataloging rules being used. Finally, participants were asked what skills Hebraica catalogers will need in the future and how their institutions are preparing them for these changing functions.

The author also looked at a sampling of job postings from spring 2016 through fall 2017 to see what commonalities and differences occurred between positions advertised for catalogers versus job postings for metadata librarians in research and special libraries.

Survey Methodology

The research targeted catalogers and metadata librarians who work in research libraries in Judaic institutions or in similar, non-Judaic institutions with Judaic collections. Such librarians utilize the standard cataloging tools of large North American research libraries: MARC standards, Library of Congress Subject Headings (LCSH), ALA/LC romanization, Library of Congress (LC) Classification, Anglo-American Cataloguing Rules 2002 revision, (AACR2 Rev.), Resource Description and Access (RDA), Descriptive Cataloging of Rare Materials (Books) (DCRM(B); and Encoded Archival Description (EAD).

Excluded from this survey were Judaica and Hebraica catalogers who work in synagogue libraries, libraries in Jewish day schools and Hebrew schools, Jewish community center libraries, and libraries serving non-academic Jewish organizations such as a local Jewish federation library or a Jewish museum library. These librarians were excluded from the study because they largely work with English language collections and for the most part, they do not use the same cataloging standards and tools as librarians in research libraries.

Several email discussions lists were utilized to reach out to Hebraica catalogers. Survey questionnaires were sent out to a general email discussion list operated by the Library of Congress (PCCLIST) and the two major lists catering to North American Judaica librarians: Association of Jewish Library (AJL)'s ha-Safran and Hebrew Name Authority Funnel (HEB-naco). Of these lists, HEB-naco, with approximately sixty readers (Galron-Goldschläger 2017), was the most promising in terms of survey participants due to its focus on issues of Hebraica cataloging in research libraries. The author considered this a fairly reliable number for potential respondents. The AJL 2009 member survey reported that about half of the approximately 120 respondents who work in academic and research libraries, archives, special collections and museums had cataloging as a responsibility (Leket-Mor and Levine 2010). The similarity in the number of catalogers identified in the 2009 survey and the number of the HEB-naco listserv subscribers suggests that a certain level of job stability exists within the profession.

Twenty-three surveys were returned. The author assumes that not every subscriber to Heb-naco is an employed cataloger and estimates that a little more than a third or more of currently employed North American Hebraica catalogers submitted a survey response; not all of the respondents answered every question. However, the results of this survey provide an awareness of current and future roles and practices for Hebraica catalogers (see survey questionnaire in Appendix I).

Findings

Hebraica Catalogers: Their Roles, Job Titles, and Workflows

The survey was intended for catalogers who work in research, special and government libraries and archives, most of whom are affiliated with the Research, Archives, and Special Collections (RAS) division of the Association of Jewish Libraries (AJL). Fifty-seven percent of respondents work in academic libraries; with government libraries employing the next largest group of Hebraica catalogers at 22 percent; 9 percent work in seminary libraries, and just 4 percent each work in a yeshiva library, public research library, or other (no information provided; Figure 1).

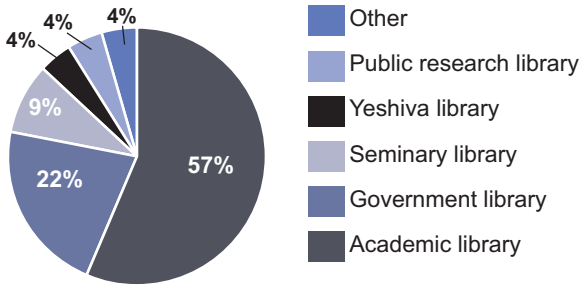

Figure 1. Type of library, n=23

Over 50 percent of the 23 survey respondents were called cataloger or cataloging librarian; less than 10 percent were called metadata librarian. In contrast, as far back as 2010 job postings for cataloging librarians versus metadata librarians indicated a divergent trend with the number of postings for metadata librarians increasing and the number of postings for cataloging librarians getting smaller (Han and Hswe 2010). Almost 40 percent had another job title: Librarian, Library Director, Bibliographer; Special Collections Librarian and Hebraica Cataloger; Assistant Head, Cataloging & Metadata Management Section; and Section Head. Many universities and especially smaller institutions.

budget constraints, retirements or moving staff from one job to another. One solution to staffing lost positions was to incorporate Hebraica catalogers who can utilize their expertise in a variety of library functions beyond cataloging and metadata creation.

As workflows change and the types of resources described multiply, catalog departments and units are changing their names to reflect shifting job responsibilities (Figure 2). Twenty-two percent of respondents worked in cataloging departments/ units (or similar name); 17 percent worked in a metadata department or unit (or similar name); 17 percent worked in a catalog/ metadata department or unit; almost half (44 percent) worked in some other type of unit. A few of the departments/ units that were identified as "other" had names related to cataloging and metadata, such as Technical Services, Resource Management and Acquisitions, or Processing Unit.

When asked about the physical size of the their collections (Figure 3), 70 percent of the 23 respondents worked in libraries with more than two million volumes. Thirteen percent each worked in libraries that have respectively 100,000–500,000 volumes or one to two million volumes. Four percent worked in libraries with less than one hundred thousand volumes. No responses were received from libraries with 500,000 to one million volumes. There was a strong correlation between the number of volumes held by an individual library and the name of the unit or department that respondents worked in: two-thirds of the libraries that held over one million volumes housed respondents in departments/units called cataloging, metadata or cataloging/ metadata (or similar). Those respondents who worked in libraries that held under one million volumes carried out their assignments in the Special Collections, Processing Unit, Technical Services, Resource Management and Acquisitions, Library Services, or as a solo librarian.

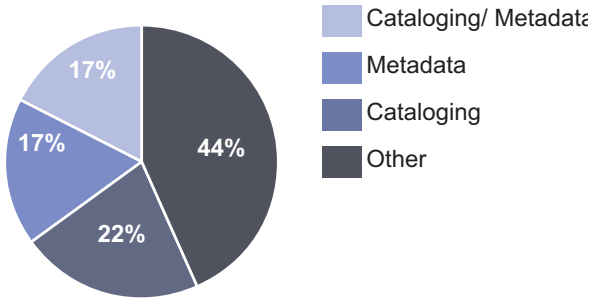

Figure 2. Name of unit or department, n=23

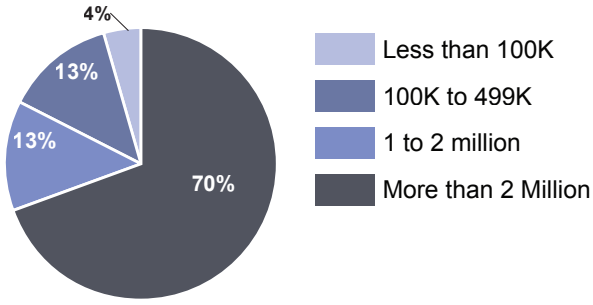

Figure 3. Number of volumes, n=23

All the catalogers surveyed cataloged monographs; 48 percent cataloged print serials as well. Approximately 22 each percent cataloged electronic serials and/ or worked with archival materials. Sixty-five percent of catalogers cataloged audio-visual resources on physical media such as DVDs, videos, or sound recordings.

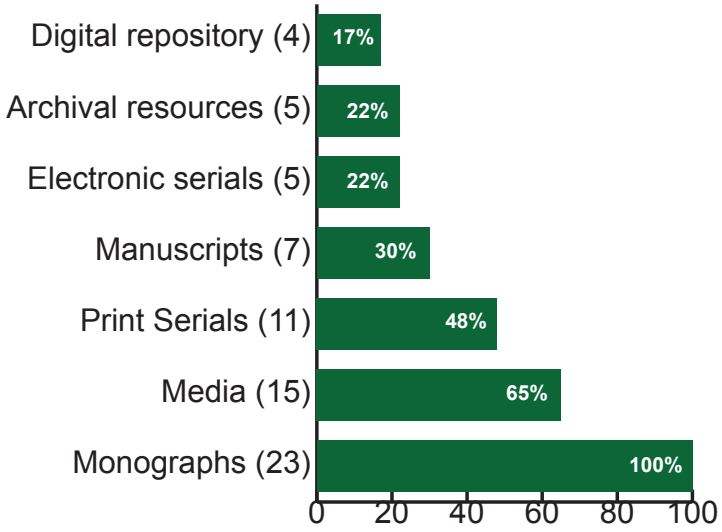

Figure 4. Types of resources cataloged, n=23

Thirty percent cataloged manuscripts, 22 percent worked with archival materials. Only 17 percent worked with resources ingested into their digital repository or other groups of digital collections. The job title for half of those working with digital resources was metadata librarian; the others identified as bibliographer and cataloging librarian (Figure 4).

Because many libraries include resources in Latin and other non-Hebrew script resources, the author wanted to know how much of a cataloger's workflow involved Hebraica cataloging (Figure 5). Thirty-nine percent of the responding 23 catalogers had workflows involving 90–100 percent Hebraica/ Judaica; similarly, 39 percent of the respondents cataloged less than 50 percent Hebraica/ Judaica resources. Less than a third of respondents (22 percent) reported that 50–75 percent of their cataloging output involved Hebraica resources.

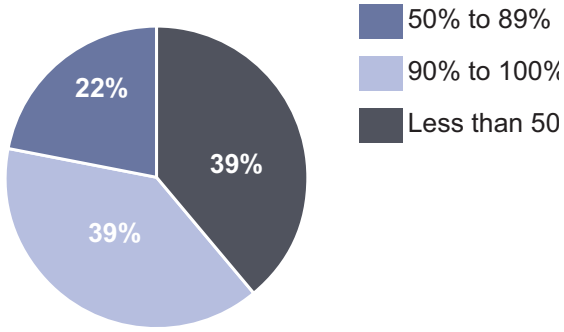

Figure 5. Percentage of cataloging output related to Hebraica resources in Hebraica catalogers' workflows, n=23

AACR2 Rev. was issued in 1988 as the final edition of a set of cataloging rules that had been the standard for English language descriptive cataloging since 1967. Impetus for the development of RDA emerged as leaders in the North American cataloging community began to envision a new way of structuring descriptive cataloging that could take advantage of emerging web technologies. Plans for training catalogers in the implementation of RDA began in early 2012. The official implementation date for RDA by LC was March 31, 2013 (LC 2012). Members of the PCC soon followed and today most major North American libraries have adopted RDA for original cataloging of monographs, serials, and audiovisual resources.

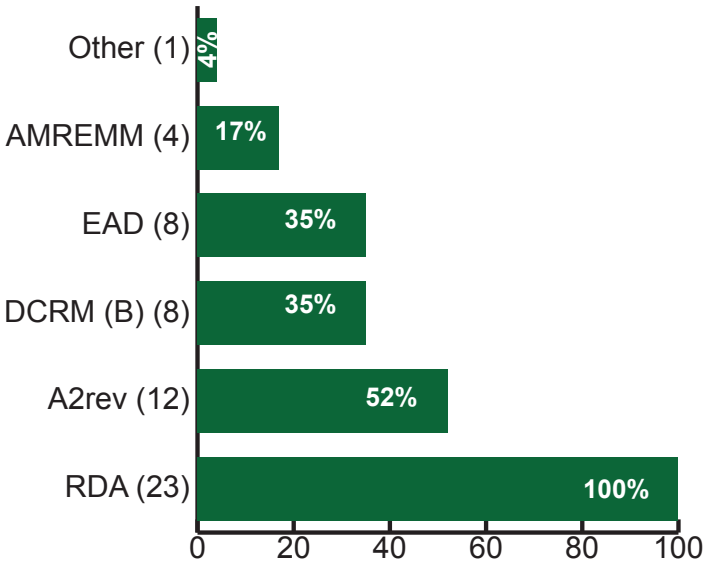

Figure 6. Descriptive cataloging rules currently used by Hebraica catalogers in research libraries, n=23

Hebraica catalogers use a variety of descriptive cataloging rules in their daily workflows: All of the 23 respondents (Figure 6) used RDA for at least some of their cataloging; 52 percent used AACR2 Rev. to describe some of their resources; 36 percent of catalogers each DCRM(B) and EAD to describe rare and archival materials. Seventeen percent used AMREMM for manuscripts and just 4 percent used other cataloging rules (unspecified).

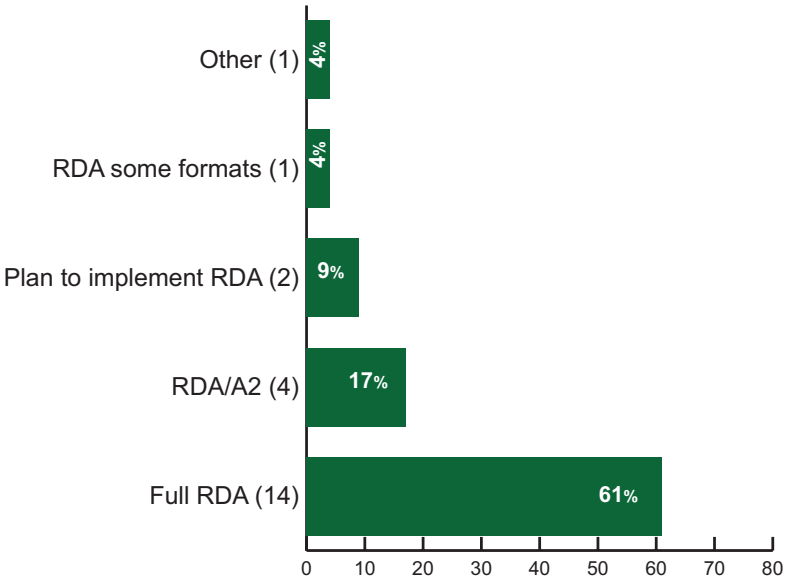

Figure 7. RDA implementation among institutions, n=23

Over 60 percent of the respondents (Figure 7) have fully implemented RDA for all original cataloging; 17 percent used a mix of RDA and AACR2 Rev. for original cataloging. Four percent each reported that their library had implemented RDA for some, but not all formats, or used another set of cataloging rules. Almost 10 percent plan to implement RDA but did not have a fixed timeline. Significantly, no cataloger reported that their library would not implement RDA in the future.

In response to the survey question regarding types of cataloging standards, more than 90 percent of the 23 respondents reported that their institutions adhere to national standards. Four percent reported that they equally followed national and internal/ local standards. One cataloger reported that they followed other types of standards (but did not specify what types).

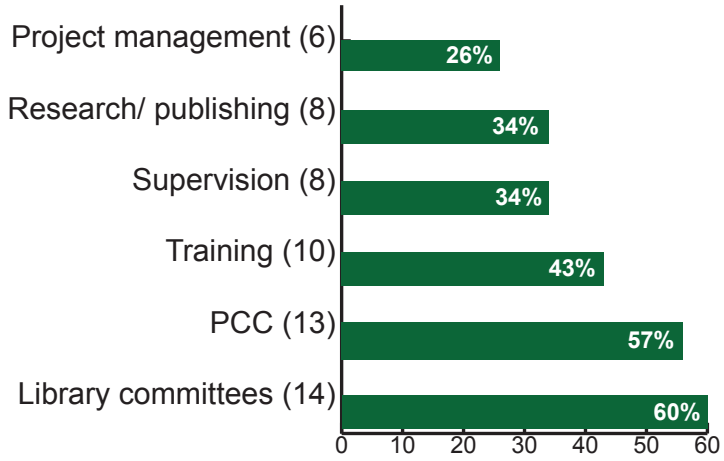

Figure 8. Non-cataloging duties and responsibilities of Hebraica catalogers in research libraries, n=23

In addition to cataloging, Hebraica catalogers have many other duties and responsibilities (Figure 8). Most of the respondents reported having at least two more assignments or responsibilities. The largest number of the 23 respondents (60 percent) reported that they also served on library committees both inside and outside their institution. Impressively, 57 percent participated in one or more of the national cooperative programs available within PCC, which comprises NACO, BIBCO, SACO and CONSER. This demonstrates individual and institutional commitments to cataloging that adheres to recognized standards. Over 40 percent of the respondents were involved in training other staff. This could include working with paraprofessionals and support staff. They also trained colleagues on how to catalog in different formats, undertake authority work, and work with non-MARC cataloging schema. Thirty-four percent carried out research or had supervisory responsibilities.

National Trends for Cataloger and Metadata Job Competencies

As catalogers examine the present and think about the future, they may want to monitor current job listings to learn what kinds of staffing are needed to provide description and access to library resources and collections. Positions for metadata librarians have been proliferating in the past decade but are still not completely distinct from those of cataloging librarians. This trend appears to move in tandem with the expansion of digital resources and the need to describe them.

Because of the small scope of this paper, the author randomly selected 20 current job listings as they came up in a Google search (not related to Hebraica cataloging) that had at least one of the following words or phrases in the title: cataloger, cataloging librarian, metadata librarian, and cataloging/metadata librarian, or slight variants of these (Figure 9; see job listings in Appendix II). The 20 jobs were posted by 17 academic libraries of varying sizes, two special libraries, and one by LC. Three postings only had the words cataloger or cataloging librarian in the title, nine postings had cataloger/ cataloging and metadata in the title, five postings had just metadata librarian in the job title. There was one job posting each for Discovery Metadata Librarian and for Metadata Transformation Librarian. LC had the job title of librarian in its posting for a Hebrew language specialist to fulfill duties of "both the acquisition specialist and the cataloger."

The institutions that posted for "metadata" jobs with or without "cataloging" in the title had a minimum requirement and/or duty to "stay current with cataloging and metadata developments

and provide expert advice to the library and campus on providing access to information resources." Most of these positions required a master's degree in Library and Information Science (MLIS), or equivalent in education and experience. Other required competencies listed in this group of descriptions included knowledge of best practices in electronic resource management, knowledge and familiarity with institutional repositories and digital projects, experience with non-MARC metadata standards, and experience in project management. The most detailed list of requirements called for "Experience creating and manipulating data sets; experience with metadata crosswalks, knowledge of practices with LD, Semantic Web applications, BIBFRAME bibliographic framework (Library of Congress 2017a), and authority/ identifier initiatives" (Audiovisual Archiving Jobs 2017).

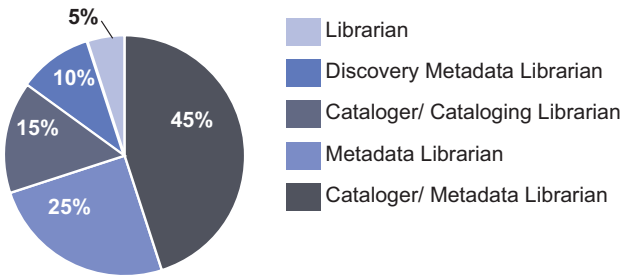

Figure 9. Cataloging Librarian or Metadata Librarian, n=20

The job listings that included metadata and catalog/ cataloging in the job title also asked for experience in original (and other levels of) cataloging; familiarity with RDA, AACR2, LCSH, MARC21 format, and LC classification. The three jobs listings that only had catalog/ cataloging librarian in the title made no mention of metadata experience or experience with digital assets; and did not ask for any familiarity with LD, BIBFRAME, or the Semantic Web. The three job listings that only had metadata in the job title made no mention of cataloging experience or familiarity with the standard North American cataloging tools such as RDA, AACR2, LCSH, or the MARC21 format. These findings correlated with those of Han and Hswe (2010).

Non-MARC Metadata Creation and Remediation

The next question asked whether or not Hebarica catalogers were involved in creating metadata for digital and physical objects using non-MARC standards such as Dublin Core, MODS, MADS and others, as well as remediation of legacy metadata from older collections or collections utilizing owner supplied descriptive metadata. This question (Figure 10) only received 15 answers from among the 23 respondents. The author is not clear why this particular question did not get a full response rate. Sixty percent of the 15 respondents reported that they did not spend any time on working with non-MARC metadata. Thirty-three percent devoted up to a quarter of their time on non-MARC metadata creation and remediation; only 7 percent spent between a quarter and half of their time working with non-MARC metadata. The author finds it significant that no cataloger spent more than half of their time of non-MARC metadata creation or remediation.

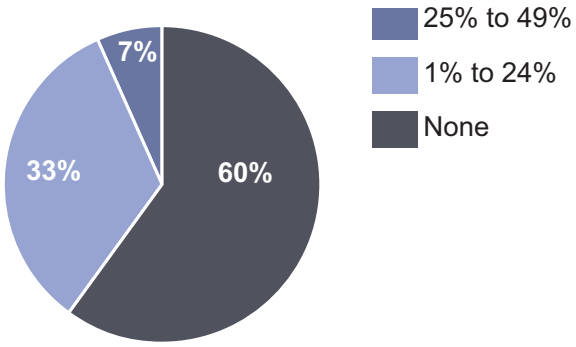

Figure 10. Time spent working with non-MARC metadata creation/ remediation, n=15

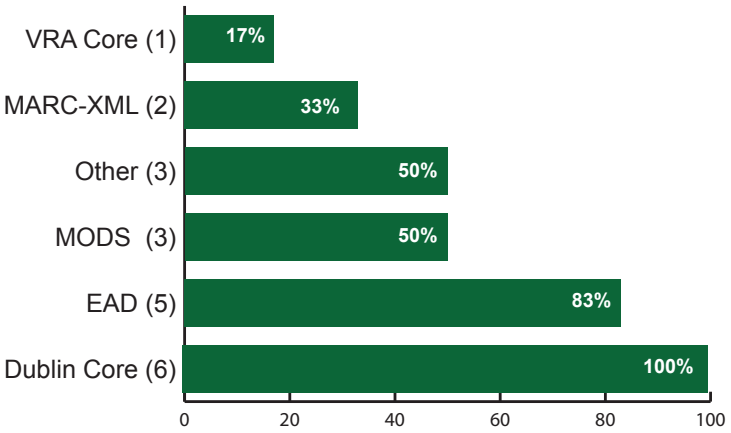

Figure 11. Non-MARC metadata in use, n=6

On a follow-up question, only 6 of the 15 respondents (Figure 11) reported that they actually worked with various types of non-MARC metadata and schema. Dublin Core (DC) was used by all of them; EAD had the next highest percentage of users at 83 percent; Metadata Object Description Schema (MODS) usage came in at 50 percent. Thirty-three percent of dents used MARC-XML; and VRA CORE had just 1 percent. Fifty percent reported that they used another type of non-MARC metadata, but did not specify. Of the respondents that did participate in non-MARC metadata creation and remediation on the previous question (40 percent of participants who responded to question 11 on the survey), 54 percent volunteered and 45 percent were assigned. Those who volunteered to take on non-MARC projects (Figure 12) gave the following reasons (respondents had multiple choices in this question): 60 percent wanted to diversify their job responsibilities, 60 percent wanted to be involved in the newest cataloging and descriptive metadata technologies; 20 percent gave reason "other." Significantly, 80 percent knew that their job responsibilities were changing soon and wanted to remain employable.

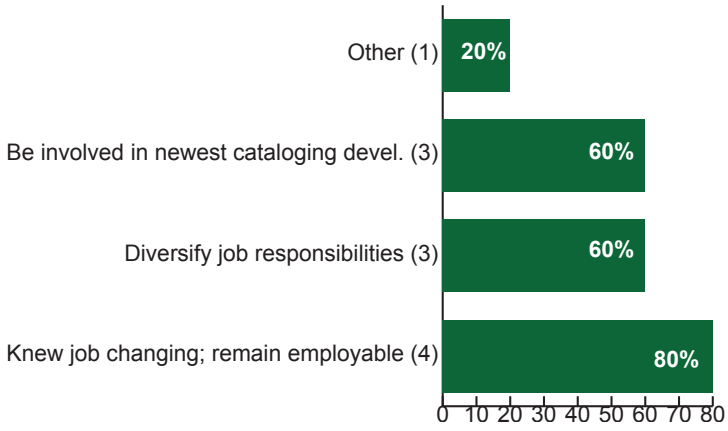

Figure 12. Reasons Hebraica catalogers volunteer for non-MARC projects, n=5

One of the ways to follow the changing responsibilities and roles of cataloging librarians is to review their training and plans for future training (Figure 13). When asked about the circumstances of their training, 56 percent of respondents reported receiving both formal and informal training at their institution; 33 percent received financial support for workshops/ online courses outside their institution; 11 percent took classes in library school; and one person had no training or exposure at all. One respondent indicated that other training was received, but did not specify where or how the training was carried out.

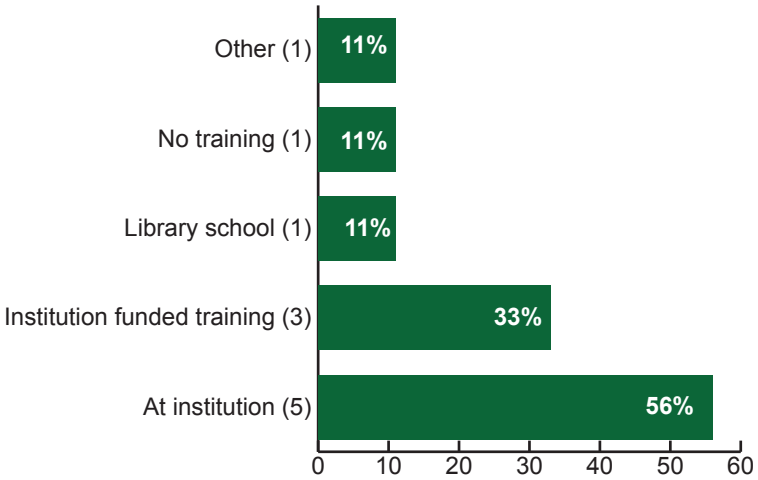

Figure 13. Where Hebraica catalogers received training in non-MARC cataloging, n=11

Most Hebraica catalogers have been exposed to RDA via training or implementation (Figure 14). Less than half of this group have been exposed to other types of resource description and associated technologies. When asked whether they anticipated receiving this type of training, 50 percent reported that they would receive training in non-MARC metadata schema, which correlates with Hider's (2006) report that metadata formats were by far the greatest area of interest for further training among his survey population. Eight percent said that they would be trained in XML or other markup languages; 66 percent said that they would be trained in LD and Semantic Web technologies ; and 25 percent reported that they would receive some other type of training.

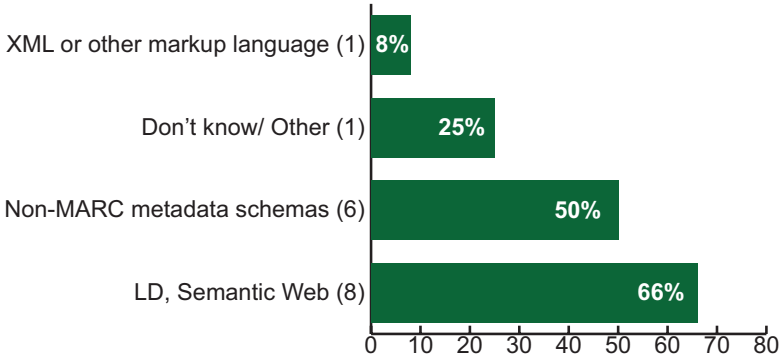

Figure 14. Future training for Hebraica catalogers in research libraries, n=12

Discussion

This paper reported on the survey results of a discreet group of specialized cataloging and metadata staff, in this case, Hebraica catalogers who work in North American research libraries. The survey asked questions about their current demographics, workflows, and responsibilities; and the experiences of this cataloging community with emerging information standards and technologies, as well as what kinds of training they have received.

The author did not find a clear pattern as to why some institutions had fully implemented RDA and others only partially. Since 2013, all new cataloging from the major national libraries like Library of Congress (LC), the British Library (BL), Deutsche Nationalbibliothek, and National Library of Canada (NLC) is based on RDA. Since 2015, all libraries that contribute bibliographic records to PCC via the BIBCO program must submit those records created according to RDA. The major cataloging utility OCLC now prefers RDA records over AACR2 ones. As time goes by, it will become more expensive for libraries to remain on the old standard of AACR2rev. (U.S. RDA Test Coordinating Committee 2013).

Half of the respondents had the word "cataloger" (or similar variant) in their job title. The small survey of current job listings for catalogers/ metadata librarians showed a fairly equal distribution of job titles that had either cataloging or metadata in the posted positions, or included both terms. However, the titles of the positions in the postings with metadata in the title were accompanied by a demand for experience working with metadata schema beyond MARC21. More than half of the respondents reported that they did not work at all with any non-MARC metadata schema. Comparatively, Boydston and Leysen (2010) found in their survey that almost 70 percent of ARL catalogers did work with schema such as DC, MODS, or VRA.

All of the catalogers in the survey had undergone some kind of training in new and changing cataloging technologies, with 55 percent trained within their own institution. This finding is significant, because training is one of the best ways to keep cataloging librarians up-to-date with new developments in the profession. Yet, if this training is not accompanied by implementation, the associated skills remain undeveloped. Almost half of the survey respondents reported that they had some training in the non-MARC metadata schema that are used very frequently when describing digital resources and assets; significantly; less than 20 percent actually worked with those resources. All the respondents who did receive in-house training worked in institutions with over two million volumes. This information correlates with the findings of Park and Tosaka (2015).

The question remains: are cataloging, and metadata creation and management, two different specialties? Some librarians do not consider them the same thing, because they require different skill sets and generate different deliverables. Other librarians view them as the same type of work; both involve describing resources that libraries collect and create. Even this small sample of the 20 job descriptions indicate that the integration of new technologies into traditional cata-

loging has affected nearly every aspect of the cataloging profession: job titles, competencies and skills, and responsibilities. Newly created positions can require technical knowledge and skills that traditional catalogers may not have; conversely legacy MARC data needs to be maintained, because most of our library systems are still MARC-based.

Over half the survey participants responded that they plan to learn about LD and the Semantic Web soon. Earlier in this decade, the term Linked Data was used quite a bit in conjunction with cultural heritage metadata. Foreseeing the potential impact of LD on Jewish Studies, Dov Winer described his vision of a "world in which all digitized Jewish content in a variety of databases worldwide is aggregated and made accessible to users and applications anywhere, at any time" (Winer 2014). Judaica resources that utilize LD technologies include Judaica Europeana (JE 2016) and Fondazione Centro di Documentazione Ebraica Contemporanea (FCDEC 2015). During the past five years, the conversation has expanded and LD is being recognized as a viable and significant option for the descriptive work of libraries and archives.

Many librarians, including catalogers and metadata specialists, have been exposed to LD concepts via research and whitepapers, in-person and online classes, conference workshops, and webinars. The information is often presented rhetorically and instructors can extol the virtues of LD. Many predict that LD will be the technology to finally retire the MARC standards of encoding that have been driving bibliographic record creation since the 1960s (Arlitsch 2014). Others will more critically look at the potential of LD to move our collections out of their silos, to leverage the knowledge base represented by our collections, and to enrich our intellectual landscape by creating connections and relationships between research data (Hallo et al. 2016).

Momentum to move forward with library initiatives in LD and the Semantic Web is growing among leading research libraries in North America and LC. In April 2016, the Andrew W. Mellon Foundation announced that it awarded Stanford a 1.5-million-dollar grant in support of advancing the use of linked open data in libraries. A team from Columbia, Cornell, Harvard, LC, and Princeton, led by Stanford libraries, will "upgrade the current infrastructure libraries use to create, store and share bibliographical data" (Andrew Mellon Foundation Resources/ News 2017).

The author and colleagues in Stanford's MDU have been notified that they will play an active part in the Mellon project. In the summer of 2016, Roger Kohn of the LC Hebraica and Judaica Division participated in a pilot project alongside other LC catalogers to catalog materials using the BIBFRAME editor (Kohn 2015). In a PCC document titled "Vision, Mission and Strategic Directions January 2015–December 2017," PCC acknowledged its important role in facilitating the shift to new cataloging practices. "As the community begins to develop new standards and mechanisms for making library data compatible with LD structures the PCC recognizes it has a unique role to play in advancing a common understanding of semantic querying and data structures across PCC institutions" (Program for Cooperative Cataloging 2015). Sixty-one percent of the survey respondents reported that they were members of the PCC.

The granular question of membership in some of the cooperative programs within the PCC, such as NACO or BIBCO, was not asked in this survey. The author currently provides leadership to the Hebraica NACO and BIBCO funnels. Most of the Hebraica catalogers affiliated with PCC represented in this survey results are members or contributors to the NACO program only. Ideally, these catalogers and their administrators will expand their contributions to the BIBCO program which would encourage them to develop and maintain their training and experience working in the newer technologies such as LD and the Semantic Web.

Conclusion

It is not simple to separate a discussion of the survey findings from the author's own experience of working in a large, forward-thinking academic library. Because of the small and targeted survey population, we cannot conclude that these findings are applicable to other cataloger populations. Hopefully, other specialized cataloging communities will take the time to find out if their constituents are seeking out, and getting the kind of support that they need, to keep abreast of the newest developments in the field of resource description. Ideally, the results of this study will encourage Hebraica cataloging staff and their managers to seek out digital projects and initiatives, and become familiar with the technologies that will shape the future roles of catalogers and metadata creators.[1]

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[1] Since this survey was sent out in April 2016 more announcements emerged of new developments in cataloging and metadata description. RDA Toolkit will undergo a major restructure and redesign project to be completed by April 2018 (Glennan 2017). The International Federation of Library Associations and Institutions (IFLA) announced the release of the draft version of the FRBR-Library Reference Model (Riva 2016). This new model covers all aspects of bibliographic data and is to be implemented into RDA in 2018 (Glennan 2017). Librarians are looking at new visions of authority control that will open NACO to more participants such as the use of ISNI (ISNI 2017) and a simplified way of creating records called "NACO Lite" (CMCKG 2017).

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Appendix I: Survey questions

1. What is your job title? Please choose one.
    - Metadata Librarian
    - Cataloging (Catalog) Librarian
    - Other_____
2. What type of research library do you work in? Please choose one.
    - Academic library
    - Seminary library
    - Yeshiva library
    - Public research library
    - Government library

- Archive
- Special Library
- Other_____

3. What is the name of the unit or department that you work in? Please choose one.

- Metadata Dept./ Services (or similar)
- Cataloging Dept./ Services (or similar)
- Cataloging and Metadata Dept./ Services (or similar)
- Other_____

4. How many volumes there are in your library? Please choose one.

- Less than 100,000 volumes
- 100,000 to 499,999 volumes
- 500,000 to 999,999 volumes
- 1 to 2 million
- More than 2 million

5. What type of resources do you catalog? Please select all that apply.

- Print monographs
- Print serials
- Electronic serials
- Media (DVDs, videos, sound recordings, other audio-visual)
- Manuscripts
- Archival materials
- Digital repository

6. What percentage of your workflow is spent on cataloging Hebraica/ Judaica? Please choose one.

    - Less than 50%
    - 50–74%
    - 75%–85%
    - 90%–100%

7. What descriptive cataloging rules are currently used in your organization? Please select all that apply.

    - AACR2 Rev.
    - RDA
    - DCRM(B)
    - EAD

8. Has your institution implemented RDA? Please select all that apply.

    - We have fully implemented RDA for all original cataloging
    - We still do a mix of A2rev. (or other descriptive cataloging rules and RDA for original cataloging
    - We have implemented RDA for monographs only
    - We have implemented RDA for some but not all formats (please describe in "Other")
    - We plan to implement RDA but do not yet have a fixed timeline
    - We have no plans to implement

9. What are your institution's major cataloging practices? Please choose one.

    - Mostly or completely adhere to national cataloging standards
    - Roughly an even split between adhering to national and internal standards

- Completely adhere to internal standards
- Other_____

10. What other current duties and reponsibilities do you have in your job? Please select all that apply.

- Project management
- Supervision
- Training
- Research and publishing
- Serve on internal and external library-related committees
- Participate in 1 or more national cooperative cataloging programs within the Program for Cooperative Cataloging such as NACO, SACO CONSER
- Other_____

11. How much time do you spend on non-MARC metadata creation and remediation? Please select one. If you reply "none" please continue on question to no. 15.

- None
- 1%–24%
- 36%–49%
- 50% or more

12. Which non-MARC schema are you using to create and work with metadata creation/mediation? Please select all that apply.

- Dublin Core
- MODS
- EAD
- VRA

- MARC-XML
- Other_____
- None

13. Did you request (volunteer) toa dd non-MARC metadata creation/remediation to your workflow? Please select one. If you answer yes, continue on to question no. 14; if you answer no, skip to question no. 17.

- Yes
- No (Was assigned to on add non-MARC metadata creation to your workflow)

14. If you expressed interest and requested/volunteered to add non-MARC metadata creation/remediation to your workflow, why did you do so? Please select all that apply.

- I wanted to diversify my job responsibilities
- I wanted to be involved in the newest cataloging and descriptive metadata technologies
- I knew that our jobs would be changing in the near future and I want to remain employable
- Other_____

15. What method of training did you undergo to work with and create non-MARC metadata? Please select all that apply. If you checked boxes 1-5 skip to question no. 16; if you checked box 6, continue to question no. 17.

- My institution provided formal and informal training
- My institution provided financial support for workshops/online training outside of my institution
- My institution did not provide training and I had to fund myself for training outside of my institution
- I took classes in library school
- I had experience working with Non-MARC data in a prior job(s)
- I have not received any training

16. What types of training have you undergone either at your institution or outside your institution to work with and create non-MARC metadata? Please select all that apply.

    - RDA
    - XML or other markup language
    - Linked Data and the Semantic Web
    - MODS, MADS, VRA Core, Dublin Core, EAD and other non-ARC metadata schema (check this box if you have received training in at least 1 of these)
    - Other_____
    - None

17. What kinds of training sessions are going to be made available to catalogers at your institution in the next 12 months? Please select all that apply.

    - Non-MARC metadata schemas
    - XML or other markup language
    - Linked Data and the Semantic Web
    - Other_____

Appendix II. List of job ads for catalogers/ metadata librarians

1. Academy of Motion Picture Arts and Sciences, Margaret Herrick Library (Beverly Hills, Calif.). Metadata Librarian job posting. Posting date: December 21, 2015.
2. Armstrong State University (Savannah, GA). Catalog/ Metadata Librarian job posting. Posting date: April 9, 2016.
3. Boeing Company (Renton, WA). Metadata Librarian job posting. Posting date: April 2016
4. Bridgewater State University (Bridgewater, MA). Cataloging and Metadata Librarian job posting. Posting date: April 20, 2016.
5. Columbia University (New York, NY). Metadata Librarian job posting. Posting date: November 1, 2017.
6. Georgia State University, Atlanta Campus (Atlanta, GA). Cataloging and Metadata job posting. Posting date: July 24, 2017.

7. Idaho State University (Pocatello, ID). Cataloging & Metadata Librarian job posting. Posting date: July 31, 2017.

8. Library of Congress (Washington, DC). Librarian Job Posting. Posting date: April 22, 2016.

9. Louisiana State University (Baton Rouge, LA). Catalog Librarian job posting. Posting date: April 19, 2016.

10. Loyola University Maryland (Baltimore, MD). Cataloging and Metadata Librarian job posting. Posting date: November 8, 2017.

11. Stanford Medicine (Stanford, CA). Metadata Transformation Librarian job posting. Posting date: October 20, 2017.

12. Stony Brook University (Stony Brook, NY). Cataloging and Metadata Librarian job posting. Posting Date: February 13, 2017.

13. Syracuse University (Syracuse, NY). Metadata Catalog Librarian job posting. Posting date: April 13, 2016.

14. University of Alabama (Tuscaloosa, AL). Metadata Librarian job posting. Posting date: April 11, 2017.

15. University of California, Irvine (Irvine, CA). Cataloging and Metadata Librarian job posting. Posting date: May 25, 2016.

16. University of Nevada, Las Vegas (Las Vegas, NV). Cataloging and Metadata Strategies Librarian job posting. Posting date: August 1, 2017.

17. University of North Carolina (Chapel Hill, NC). Music Cataloging Librarian job posting. Posting date: April 4, 2016.

18. University of Utah (Salt Lake City, UT). Original/Special Collections Cataloger job posting. Posting date: July 3, 2017.

19. William and Mary University (Williamsburg, VA). Cataloging & Metadata Librarian job posting. Posting date: October 13, 2017.

20. Yale University (New Haven, CT). Discovery Metadata Librarian job posting. Posting date: November 4, 2016.