Analyzing Library Expertise: How Gonzaga University’s Foley Library Interrogates Expertise Data Towards Data-Driven Recruitment and Professional Development

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I. Introduction

The talents and expertise of library employees are critical to the future success of academic libraries, as reflected both in the voluminous literature on evolving roles and in the substantial expenditures of many libraries in travel and professional development opportunities.¹ With the dawn of COVID-19, austerity measures placed restrictions on hiring for both organizations and candidates, increasing the importance of professional development as a primary method of talent acquisition. Current investments are in place to develop employee talent in-house through upskilling or reskilling processes, but these efforts may not be data driven and may or may not be connected to the broader performance management and organizational development dialogue or processes. In 2018, Gonzaga University’s Foley Library and Skilltype established a partnership to identify a more sustainable model for analyzing in-house expertise, using that analysis to make better talent decisions in recruitment, and optimizing investments in professional development to cultivate the talents of existing employees.

II. Literature Review

Professional education and development have long been a topic of interest in the LIS literature. We have seen several themes emerge of particular interest in recent years related to the changing nature of work in libraries and in seeking opportunities to better leverage technologies to meet the ongoing professional development needs of LIS professionals. Debates over the MLIS, the examination of emerging roles for librarians and competency frameworks, and interest in libraries as learning organizations all reflect the struggle of libraries to align their human resources with emerging challenges of practice, and of the struggle of librarians to develop expertise to align their practices with the evolving and transforming needs of their campuses.

The MLIS has long been held as the primary credential for academic librarianship, reflecting both the educational pathway to professional work as a librarian and serving as a signifier of belonging to the profession. The degree has also been the topic of much debate for at least the past 25 years, in terms of the relevance of the degree’s content, the need for the profession to provide options for ongoing education beyond the degree, the necessity of the degree for library work,² and the impacts of the degree on efforts to diversify the profession.³ The American Library Association’s Steering Committee on the Congress for Professional Education made a number of recommendations in its 1999 final report. For example, recommendations for reforming the MLIS in the context of the day while also noting the needs for improved means of delivering continuing education: “enormous resources are directed at continuing education, whether national conferences, seminars and workshops, special programs, etc., yet there is no coordinated approach working to ensure quality and relevance in programming that will move the profession forward.”⁴ More recently, a report from the University of Maryland presents a framework for reimaging the MLIS for changing times, while acknowledging that there are opinions that the MLIS ought not to be required for all types of library work.⁵ Others have studied the ways in which professional education at the master’s level might be changed to support emerging specialties.⁶
There seems to be little disagreement, however, over the need for ongoing professional development for academic librarians. Engagement in continuing education can be seen as a distinguishing characteristic of professionals, and as a “shared responsibility of individuals employers” that may be delivered through many channels. Many have situated this responsibility within the notion of library as learning organization. Phipps uses Peter Senge’s model of the learning organization to propose a future in which libraries provide systems to facilitate ongoing team learning at the group or department level, as well as continuous learning at the individual level. A necessary element of becoming a learning organization is commitment to the process: “By understanding that learning is a continuous process and that individuals and groups learn from their mistakes, the library can encourage and support individual and team learning. The organization also needs an explicit plan for encouraging learning. Enhanced staff development programs, individual learning plans, and support for classes and workshops are among the tools an organization uses to model learning.”

Much attention has been given to the possibilities of leveraging technologies to enhance professional development. Gruber, for example, argues for the importance of online opportunities for learning and networking as a complement to in-person conferences and other traditional venues for professional development. Others have describes the use of web-based technologies to create online learning communities through personal learning networks or online conferences for enhancing professional development, while acknowledging that a significant challenge is navigating the sheer number of online resources available. Similarly, there has been interest in leveraging innovations in online education in a broader sense, such as MOOCs, for the professional development of librarians. A systematic review of the use of social media for professional development purposes finds strong potential for the exchange of learning resources and professional mentoring, although this potential is also not without potential limitations. These approaches, however, all require the identification of resources by the individual, whether it is identifying online courses or conferences of interest or developing personal networks online. Very little attention has been paid to the development of platforms for supporting online professional development, with the exception of OCLC’s WebJunction.

III. Background

When Skilltype approached Gonzaga to establish a partnership, three core challenges had been identified as necessary to address as prerequisites for developing a data-informed approach to talent management in academic libraries. The first challenge was establishing a shared descriptive framework for library expertise. Most organizations describe job titles, departments and roles in a colloquial manner, producing a high degree of variation across the sector. Second, we needed to design a sustainable method for developing library expertise. The business models and delivery models for professional development in libraries traditionally cater to those individuals able to pay, travel, or be selected to participate, leaving the majority of the organization without opportunity. Last, creating a methodology for aligning employee expertise data and activity with organizational goals was necessary to close the loop.

III.1. Shared Descriptive Framework for Expertise

Skills and Interests
One requirement for Skilltype’s descriptive framework was for it to be institution-agnostic, as the early community has been composed of libraries across types and geographies since the beginning. This required an evaluation of descriptors outside of Gonzaga’s local nomenclature such as job families, position titles, and department names. As an alternative, core competency frameworks maintained by professional associations provided a more durable baseline. For our exercise, we analyzed the core competencies from the organizations listed in Table III-1.
Table III-1. Core competency frameworks analyzed by Skilltype for controlled expertise vocabulary

<table>
<thead>
<tr>
<th>Framework</th>
<th>Custodian</th>
<th>Updated</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Competencies of Librarianship&lt;sup&gt;15&lt;/sup&gt;</td>
<td>ALA</td>
<td>2009</td>
<td>General Librarianship</td>
</tr>
<tr>
<td>Core Competencies for Information Professionals&lt;sup&gt;16&lt;/sup&gt;</td>
<td>SLA</td>
<td>2016</td>
<td>Special Librarianship</td>
</tr>
<tr>
<td>Core Competencies for E-Resources Librarians&lt;sup&gt;17&lt;/sup&gt;</td>
<td>NASIG</td>
<td>2019</td>
<td>E-Resources</td>
</tr>
<tr>
<td>Core Competencies for Print Serials Management&lt;sup&gt;18&lt;/sup&gt;</td>
<td>NASIG</td>
<td>2019</td>
<td>Serials</td>
</tr>
<tr>
<td>Core Competencies for Scholarly Communications&lt;sup&gt;19&lt;/sup&gt;</td>
<td>NASIG</td>
<td>2020</td>
<td>Scholarly Communications</td>
</tr>
<tr>
<td>Core Competencies for Music Librarians&lt;sup&gt;20&lt;/sup&gt;</td>
<td>MLA</td>
<td>2018</td>
<td>Music Librarianship</td>
</tr>
<tr>
<td>The Ohio Public Library Core Competencies&lt;sup&gt;21&lt;/sup&gt;</td>
<td>Ohio Library Council</td>
<td>2019</td>
<td>Public Librarianship</td>
</tr>
<tr>
<td>Competencies for Special Collections Professionals&lt;sup&gt;22&lt;/sup&gt;</td>
<td>ACRL</td>
<td>2017</td>
<td>Special Collections</td>
</tr>
<tr>
<td>Core Archival Functions&lt;sup&gt;23&lt;/sup&gt;</td>
<td>SAA</td>
<td>1999</td>
<td>Archives</td>
</tr>
</tbody>
</table>

A twenty-year range in publication dates spanned the nine frameworks we analyzed. The continuous evolution of jobs and their requisite skillsets during that time frame explained the overlap among frameworks from the earlier years, versus the variation displayed in the later years. The desired outcome for the analysis was to produce a machine-readable controlled vocabulary that could be packaged in an application programming interface (API) for descriptive purposes throughout the platform. After collecting the frameworks into a single list, the next step involved merging and de-duplicating the essential functions into a consolidated list. This was followed by condensing paragraph-style descriptors into one to five word terms. The exercise resulted in three hundred and fifty two terms being produced, encompassing skills unique to librarianship and information science, but also generic business skills used in libraries including human resources and information technology skills. Since the initial exercise concluded, the Skilltype interface has a suggestion tool for users to recommend missing skills to the
vocabulary. Suggestions are reviewed on a weekly basis, and have since contributed over one hundred new terms to the vocabulary.

The core competency analysis resulted in two types of metadata: skills and interests. For the project, we defined skills as traits describing what a person is capable of doing, whereas interests were defined as traits describing what a person wants to become capable of doing. A question left unanswered during the project was the use of the term expertise as a formal term in the Skilltype vocabulary, as opposed to expertise as a catch-all descriptor for the type of data in the platform. We concluded that expertise as a noun was something too elusive to measure at this stage in our development, as levels of expertise are determined by a variety of assessment instruments, and would be a future consideration for the platform to incorporate. Expertise as an adjective, as in, Skilltype collects expertise data, was a more fitting reference for our stage of development.

Priorities
Beyond skills and interests, the Skilltype development partner community identified a third type of expertise data that captures a more strategic aspect of professional attributes. These attributes, called priorities, align with organizational goals, and primarily exist within a larger context beyond one’s individual efforts. We downloaded and analyzed nearly 300 library strategic planning documents from a diverse cross-section of organizations including research libraries, private institutions, and public libraries.

Table III-2. Library strategic planning documents analyzed by Skilltype for controlled expertise vocabulary

<table>
<thead>
<tr>
<th>Library Set</th>
<th>Strategic Plans Analyzed</th>
<th>Priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Association of Research Libraries (ARL) members</td>
<td>110+</td>
<td>~30</td>
</tr>
<tr>
<td>Oberlin Group members</td>
<td>70+</td>
<td>~10</td>
</tr>
<tr>
<td>Other Carnegie research classified libraries</td>
<td>50+</td>
<td>~5</td>
</tr>
<tr>
<td>Top 50 largest Public Library Systems in the United States</td>
<td>50</td>
<td>~15</td>
</tr>
</tbody>
</table>

In keeping with the controlled vocabulary approach, we followed an identical process to our core competency analysis, converting the paragraph-style strategic directions into machine readable terms. This step was followed by merging and de-duplicating the list down to 57 discrete priorities an individual worker or organization can select.

Product Experience
The final type of expertise data in the Skilltype ontology are products and services used in libraries. Many jobs and duties require knowledge or expertise of tools, systems, and platforms where library business is conducted. Given the vast number of potential products and services used by libraries globally, we decided to focus on the key offerings our partner libraries rely on to manage their current operations as a starting point. Development partner libraries submitted spreadsheets of key services procured by their organization, along with links to web pages listing popular services made available to patrons. This produced a list of over 300 terms from over 50 vendors spanning software and content offerings such as
integrated library systems, discovery systems, reading list tools, e-book platforms, streaming services, and more. As with skills, interests, and priorities, each vocabulary continues to grow from user-generated suggestions made inside of the application.

III.2 Sustainable Approach to Scholarly Professional Development

Developing a shared descriptive framework for expertise data was originally intended for Skilltype’s development partner organizations and their staff. But the COVID-19 pandemic began to impact library budgets in March 2020, resulting in hiring freezes and other austerity measures. This rapid series of events made professional development a default mode of talent acquisition overnight. Conference organizers, professional associations, and commercial vendors that produce training were equally unprepared for a sudden shift in training delivery methods, resulting in event cancellations due to restrictions on travel and large gatherings among their primary customer base.24

During the development partnership, members of the Skilltype team served on the continuing education committee for the North American Serials Interest Group (NASIG), which conducted its first all-virtual annual conference in the organization’s history during summer 2020. In an effort to salvage the value of substantial planning efforts, accommodate financially-distressed members, and support newly unemployed members of the library community with quality professional development, the organizers decided to deliver the event free of charge. While generating good will and loyalty among members for offering support during a time of need, delivering free training and development is not sustainable for organizations who rely on training revenue to manage operation costs. This presented a two-sided opportunity for the Skilltype platform to redesign how scholarly professional development is discovered, distributed, accessed, and consumed by information professionals and their teams.

In addition to being a Skilltype development partner, Gonzaga’s Foley Library was also an early subscriber of a professional development database produced by non-profit membership organization LYRASIS. LYRASIS Learning, a growing online database of on-demand trainings produced by experts across the community, introduced an innovative model to provide access to a large number of trainings to all employees across the organization as opposed to the privileged few able to travel to a conference or workshop in the past. As a mutual member of both Skilltype and LYRASIS communities, this inspired a conversation between the two organizations to establish a partnership in August 2020 to integrate LYRASIS Learning into the Skilltype platform.25

Ingesting professional development resources into the Skilltype platform and describing them with the controlled expertise vocabulary enables organizations and their staff to receive personalized suggestions for training based on interests added to their profile. This new model of sustainable professional development being tested by NASIG, LYRASIS, and Skilltype is poised to improve access and affordability for libraries, while providing resilience and sustainability for the training providers by unlocking a broader, more diverse audience than those physically able to attend a place-based gathering, at a fraction of the cost.

III.3 Aligning Expertise with Organizational Goals

The final outcome of the development partnership was to establish a dialogue at the organizational level with the expertise data and professional development activity now being generated across its community. To facilitate this, we allowed organizations to create a profile that captures local learning priorities using the same vocabularies that individual employees used to describe their learning profile.
Table III-2. Mapping of personal data points captured by Skilltype, user profiles and their relationship to organizational data points captured by Skilltype organization profiles

<table>
<thead>
<tr>
<th>Personal Metadata Capture</th>
<th>Organizational Metadata Capture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills, Interests</td>
<td>Key Skills</td>
</tr>
<tr>
<td>Product Experience</td>
<td>Key Products</td>
</tr>
<tr>
<td>Priorities</td>
<td>Strategic Directions</td>
</tr>
<tr>
<td>Location</td>
<td>Location</td>
</tr>
<tr>
<td>Learning Activity</td>
<td>Skills Gap Data</td>
</tr>
</tbody>
</table>

After establishing a data model for organizations and individuals, along with a privacy policy to govern it, our work shifted towards developing a user interface for organization administrators to manage personnel and surface insights. The following sections detail the Gonzaga experience during the process, current status of the development, and future directions for the project.

IV. Gonzaga Case Study

Following a change in leadership, Gonzaga’s Foley Library engaged in a number of initiatives to better align its services and resources with the academic priorities of the campus. These included the development of a library strategic plan aligned with the priorities of the university, a reorganization of the library and an effort to invest in learning opportunities for its employees—librarians with faculty status and other staff members. One aspect of the library’s reorganization that is notable in the context of this case study is the creation of a series of library-wide committees intended to (a) consolidate the number of committees within the library, (b) focus committee efforts on initiatives identified in the library’s new strategic plan, and (c) lead cross-cutting initiatives that required significant contributions from multiple areas of the library. Among these committees was the Organizational Effectiveness Committee (OEC), focused on issues of organizational development including professional development initiatives. With membership coming from all parts of the library and representing all levels of employees, the OEC coordinated activities such as scheduling webinars for library-wide viewing.

In addition to the work of the OEC, other investments in professional development were made. This was important at Gonzaga for several reasons. First, as a Jesuit institution, one of Gonzaga’s core values is *cura personalis*, or care of the whole person. This is manifest in many ways at the institution, but one is in the commitment to the ongoing personal and professional development of employees. Second, as is true at many libraries, ongoing professional development is of strategic importance in a changing environment and it was clear from previous levels of participation that this was an area of need for the library. Finally, Gonzaga’s geographic location can make engaging in professional development an expensive proposition, particularly when travel is necessary. Providing appropriate resources for employees required commitment and intentionality in the library’s activities. Initially, new investments in professional development were represented by an increase in travel funding for conference attendance and workshops,
providing increased opportunities for webinars and other group learning, and subscriptions to online learning resources such as Lyrasis Learning.

While these efforts increased access to learning resources by library employees, there were still areas in which improvements could be made. First, employees were still confronted with challenges in identifying appropriate resources to meet their interests and the library’s needs. Second, the library was lacking an evidence base for being able to systematically identify opportunities for providing learning opportunities that would assist in matching employees with learning opportunities that would position them to participate in emerging library initiatives. Finally, the library was also lacking an evidence base for systematically identifying skills gaps within the organization that would be necessary for achieving its strategic goals. Leading a cohort of what has grown to nearly a dozen academic libraries across the United States, Gonzaga sought to develop sustainable models to analyze in-house expertise, use that analysis to make better talent decisions, and provide better tools to its employees for self-empowerment in engaging in professional development.

With these needs identified, the library became the first organization to begin research and development with Skilltype in February 2017. Skilltype is a team of library technologists and developers focused on rethinking talent management for the Library and Information Science (LIS) community. Starting with an on-campus kickoff meeting in February 2019, representatives from Gonzaga and six other libraries met virtually on a monthly basis to offer feedback on ideas and approaches presented by Skilltype.

Gonzaga’s participation in the development was led by the OEC, representing the organization’s views and needs within the broader Skilltype community. Work in the cohort was divided into two areas of research and development: the technology itself, along with the policy that governs its design. Each month, the Skilltype team met with the cohort of development partners as part of a feedback loop to solicit input for each release. Live sessions were archived online for later viewing. Representatives from a variety of types of academic libraries participated, including private and public institutions, large research institutions along with small liberal arts colleges. The community worked toward the goal of developing a sustainable solution for organizations of all sizes to analyze their expertise, develop personalized professional development pathways for each staff member, and eventually share this expertise across the community with other organizations.

The initial plan for roll-out of Skilltype at Gonzaga involved several steps. First, all employees were invited, but not required, to create profiles within the Skilltype platform as a resource for personal learning. In the process of creating a profile, employees identify areas of interest or expertise, which allows for the recommendation of professional development resources that match. Although participation was not required, most employees chose to complete a profile. This provided them with a customized feed of learning resources that are relevant to their interests and shared their interests with the library. Although there are other resources consulted for training opportunities (e.g., programs offered by various areas of the university), resources represented within Skilltype simplify the process of identifying LIS-specific materials.

Second, a new annual planning process was launched that integrated library-wide, unit, and individual planning each year with campus-level planning processes (Figure 1). As part of this process, identification of learning needs could happen at multiple levels and feed into library and university planning. For example, a library department might identify a goal that advanced a library-wide strategic goal. In the process of documenting that goal, departments are asked to identify resources, including training or skills, needed to complete the goal. This could feed into individual discussions between an employee and supervisor, who develop an annual learning plan as part of the performance management process.
Third, data from the library’s Skilltype profiles would be analyzed as part of the library’s regular assessment processes. The library uses Nuventive Improve to track assessment data, including assessment of the strategic plan and of library operations. The Skilltype ontology is used to identify skills necessary for operational areas, and coupled with the skill requirements identified in the unit planning process, will be used to identify (a) expertise already present to meet strategic and operational objectives, (b) expertise not present, or not sufficiently present, to meet strategic and operational objectives, (c) individuals with expertise that is not being leveraged as it might be, (d) individuals who have interests that align with organizational needs, and (e) the impacts of professional development investments on operational and strategic success. It is envisioned that this analysis will be used to identify new work opportunities for existing employees, identify areas for investment in library-wide training needs, and facilitate decision-making at the leadership level on how to prioritize future hiring opportunities.

V. Current Status and Future Directions

Gonzaga’s deployment of Skilltype to enhance organizational and individual learning at Gonzaga’s Foley Library was intended to occur during summer 2020’s normal annual planning process. This was necessarily delayed due to the need to develop a library response to COVID-19 for the fall semester, with all planning processes delayed until later in the fall. As this paper is being written, unit and individual learning plans are being finalized. Preliminary analysis of data to identify opportunities for staff
employment and future hiring will be conducted during the spring semester and incorporated into the planning process for the 2021–22 academic year. Preliminary analysis of the impact of professional development opportunities will be conducted during summer 2021 following the close of the current academic year as part of the process of closing the 2020–21 planning cycle. While there is little doubt that there will be areas in which new skills and expertise will be needed in order to achieve the strategic objectives of the library, it is hoped that use of Skilltype will allow for more informed discussions regarding recruitment versus up- or reskilling to occur, along with evaluations of organizational structures and practices that would necessarily follow.

Skilltype development continues as more institutions join the community, providing additional resources and use cases to operationalize the platform’s key principles. One example is with the University of Cincinnati Libraries, a February 2020 entrant into the Skilltype community, where the university’s accessibility lab is ensuring the platform complies with Web Content Accessibility Guidelines (WCAG).26 Another example is with the Michigan State University Libraries, a development partner who joined the Skilltype community in March 2020. Their current focus in the community is testing a learning playlist feature that facilitates the selection and measurement of specific sets of training content as part of a new product implementation at the libraries.27

One future direction for the collaboration look beyond an individual organization analyzing and developing internal expertise, to multiple organizations sharing expertise in a network. This could include Gonzaga’s membership in various library consortia, or with other organizations in the Skilltype community. We have also begun to explore an area for future development that involves training providers offering custom solutions to organizations based on skill gaps identified through their Skilltype analysis.

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Endnotes


