

Competencies for Knowledge Work in the Library

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ABSTRACT

Library staff are knowledge workers, yet it is not entirely clear what this means or how students prepare for it. This paper outlines five competencies for knowledge work in the library. Throughout their formal and informal education, library students will likely be exposed to the explicit knowledge of the profession, e.g., metadata standards. What is less clear, however, is whether students will receive training in tacit knowledge work. Knowledge workers in the library are adept at working with both explicit and tacit knowledge. They create the conditions for innovation, reflect and act on knowledge taken in through the physical senses, evaluate ideas equitably using both data analytics and intuition, capture and codify valuable knowledge in ways that promote reuse, overcome the gap between knowing and doing, and invite perceived outsiders into knowledge workspaces. The more training students receive in all forms of knowledge work, the more resilient the library will become.

ALISE RESEARCH TAXONOMY TOPICS

Knowledge Management; Education; Students

AUTHOR KEYWORDS

Knowledge Economy; Embodied Knowledge

INTRODUCTION

The 21st century came with promises of transforming the way people work. Machlup (1962) showed that, in a *Knowledge Economy*, the relevant stock of knowledge in any society was not what is recorded in books but rather “what living people know” (p. 167). Drucker (1999) suggested that the *knowledge workers* who fueled the success of this new economy would bring

their own knowledge to their work rather than the knowledge of someone else. The stopwatch of Frederick Taylor's (1911/2003) *Scientific Management*—long used to rigidly standardize work in the name of efficiency—would no longer be required: “In knowledge work, the task does not program the worker” (Drucker, 1999, p. 85). Yet, definitions of knowledge work remain contested (Pyöriä, 2005), and the extent to which workers engage in knowledge work is unclear. For instance, the gig economy failed to fulfill its promise of a new wave of knowledge work (Hasija & Rampal, 2020). Instead, American businesses have attempted to appropriate worker knowledge in ways that discourage creativity (Holford, 2019). And, although companies continue to hire for knowledge-intensive jobs, this work is being overly standardized around rigid job titles and predictable outputs (Martin, 2013).

While library staff have been labeled as knowledge workers (Materska, 2004; Asogwa, 2012), it is unclear how they approach and use knowledge or how students prepare for this work. Education tends to prioritize one form of knowledge as codified in texts and formalized in lectures, and LIS institutions are well-adept at preparing students to work with this explicit knowledge. Less is known about how to prepare students for the tacit and embodied aspects of library work, even though this is the work that most influences a library's long-term survival. To the extent that the study and practice of Library and Information Science (LIS) aims to craft a resilient future (ALISE, 2021), students must be prepared for all forms of knowledge work.

KNOWLEDGE WORK IN THE LIBRARY

Knowledge work is a term that is both highly controversial and ill-defined (Pyöriä, 2005). It is often associated with classifications of people. For instance, Machlup (1962) defined knowledge work according to occupational classifications. Some have defined knowledge work, in part, according to formal education levels (Sulek & Maruchek, 1994; Choi & Varney, 1995; Drucker, 1993). Similarly, library management may separate staff into the *creatives* and *non-creatives* (Freeburg, 2018). However, because neither formal training nor specific occupational experience—let alone *being creative*—encompasses all that a person knows or does, it is problematic to define knowledge work in this way.

One way to understand knowledge work is by examining the knowledge these workers engage with. Early research, especially in knowledge management (KM), adopted a possessions approach to defining knowledge. This suggests that knowledge is a “free-standing entity” (Nag et al., 2007, p. 823) that individuals cognitively possess either tacitly or explicitly. The focus of knowledge work under a possessions view is on capturing and transferring this knowledge to the right people at the right time, e.g., just-in-time KM (Davenport & Glaser, 2002). This approach has been criticized for reducing tacit knowledge to merely a set of skills and suggesting that the goal of KM is simply to convert tacit knowledge into something explicit that can be easily stored and accessed (Oğuz & Şengün, 2011). Thus, it shares much in common with early “mentalist approaches” (Hjørland & Albrechtsen, 1995) in LIS that focused on developing systems to

connect individual users with some objective store of knowledge that met specific needs (Radford, 2003).

A practice approach, on the other hand, suggests that knowledge is enacted through human action, situated within the practice of everyday work (Lave & Wenger, 1991). This is the realm of *knowing*, which includes the “situated practices of ordinary daily work” (Cook & Brown, 1999, p. 80) that are “negotiated, emergent and embedded” (Gherardi, 2009, p. 357). Tacit knowledge, rather than merely a set of skills or beliefs possessed within the minds of individuals, includes the entirety of knowledge that one relies on to do things and about which they have stopped paying attention—“we can know more than we can tell” (Polanyi, 1966/2009, p. 4). When driving a nail, for instance, one may be aware of the hammer, but their explicit focus is on the nail (Oğuz & Şengün, 2011). Tacit knowledge is also “materially and historically mediated” (Nicolini et al., 2003, p. 26)—what Lloyd (2010) referred to as embodied knowledge in information literacy research. Insofar as knowledge work is often viewed synonymously with *intellectual* work, this materiality is often ignored.

Another way to understand knowledge work is by examining the knowledge processes that these workers engage in. In a highly cited article, Bhatt (2001) outlined five knowledge processes within communities of practice in organizations, including creation, evaluation, documentation, sharing, and application. These are the things a knowledge worker in the library does with knowledge (Table 1). Based on the nature of the task, these workers will engage with both explicit and tacit knowledge. In its definition of knowledge work, the current paper adopts elements from both the possession and practice approaches, emphasizing “both knowledge used in action and knowing as part of action” (Cook & Brown, 1999, p. 53). There are times, for instance, when it is valuable and possible to codify knowledge. And library staff certainly bring individual skills, attitudes, beliefs, and experiences to their work. Yet, this knowledge work plays out within the practice of librarianship that is situated and material.

KNOWLEDGE WORK COMPETENCIES

Students graduating from LIS institutions should be prepared to do knowledge work. The definition of knowledge work and knowledge processes previously outlined suggests five competencies for this work in the library (Table 1). The competencies outlined below are not intended to represent the entirety of what LIS students should know. Instead, they represent the specific competencies—i.e., the knowledge, skills, and attitudes (Buttlar & DuMont, 1996)—that the author considers unique and relevant additions to existing LIS curriculum.

Table 1
Overview of knowledge processes and competencies

Knowledge Process	Definition	Knowledge, Skills, Attitudes
Creation	The emergent process that leads to the development of useful ideas, as well as the creative work done by library staff to navigate socio-cultural norms within the library workplace.	<ul style="list-style-type: none"> • Knowledge of the environmental conditions that support innovation • Sensuous learning skills • Awareness of the socio-cultural realities of the library workplace
Evaluation	The process of determining the <i>perceived quality</i> of knowledge (Kyoon Yoo, 2014).	<ul style="list-style-type: none"> • Fighting for the ideas of <i>outsiders</i> • Highly developed intuition • Value a holistic approach to idea evaluation
Documentation	The process of identifying, capturing, and formatting uncodified knowledge for future use.	<ul style="list-style-type: none"> • Awareness of relevant knowledge • Ability to translate knowledge • Knowledgeable in areas of cultural competencies, social informatics, and systems design
Sharing	The process of distributing knowledge throughout the library for wide evaluation, adoption, and application.	<ul style="list-style-type: none"> • Highly developed interpersonal skills • Rejection of stereotypes that limit sharing opportunities • Ability to clarify abstract knowledge
Application	The process of integrating knowledge into products, processes, and services.	<ul style="list-style-type: none"> • Integrated knowledge translation • Ability to translate abstract ideas into concrete and actionable steps

Creating Knowledge

According to Nonaka and Takeuchi (1995), knowledge creation occurs within shared virtual, physical, and mental spaces that provide the energy and platform for innovation—termed *ba*. To be successful in these spaces, knowledge workers need to know how to create the

conditions for innovation to occur, focusing on honesty, encouragement, shared values, exposure to conflicting ideas, the presence of diverse experiences, and technological infrastructure that supports collaborative problem solving (Choo & Alvarenga Neto, 2010). Of particular importance, knowledge workers value everyone's input in these spaces, understanding—for example—that innovation spaces are often considered open only to White men (Proudfoot et al., 2015; Schuster et al., 2020). The materiality of these spaces also suggests that knowledge work includes work with the physical senses. Creating knowledge, then, requires library staff to learn how to stimulate their senses and engage in questioning, listening, and observation to learn from the bodies of others (Lloyd, 2010). Knowledge workers engage in continuous *sensuous learning* (Antonacopoulou, 2018), which requires ongoing review, reflection, and reflexivity grounded in the physical senses. This informs not only the development of new products and services but also the creative efforts of workers to enact their identity at work (Lloyd, 2010), e.g., navigating stereotypical reactions to physical appearance (Rydzik & Ellis-Vowles (2019), adapting body language to the physical signs of others (Kuuru & Närvänen, 2020). Students should also be equipped, then, with knowledge of the socio-cultural realities of the library workplace.

Evaluating Knowledge

Knowledge work assumes no single truth or best answer (Newell et al., 2009), and the lack of a clear rubric can make it difficult to evaluate ideas. Thus, while knowledge workers are adept at finding and analyzing data to inform their decision-making, they are also equipped to harness intuition when this data does not exist. While they do not reject data, their success is contingent in part on their ability to also evaluate ideas in these data-less spaces and balance data analytics with intuition (Liebowitz, 2019). For instance, Davenport (2013) noted that Google describes its self-driving cars as big data projects. Yet, the move toward self-driving cars was guided—not by data highlighting the best solution for the future of transportation—but by the project lead's experience with a friend who died in a traffic accident. Knowledge workers are adept in the holistic evaluation of a library's intangible resources, helping to make decisions, informed by both data and intuition, about the need to keep, accept, reject, or throw out resources. Knowledge workers understand, in particular, that the ideas of those considered to be *outsiders* are often treated critically and harshly (Kane et al., 2005). They lead fair and equitable processes for evaluating knowledge resources.

Documenting Knowledge

Knowledge workers lead efforts to identify, capture, validate, and format valuable knowledge using systems that support its reuse (Janus, 2016). This helps negate the loss of knowledge through retirements, install protections over intellectual property, and improve the quality of decision-making. Of particular importance is understanding the larger socio-cultural context within which this documentation occurs. For instance, many information systems are designed in ways that do not equally distribute benefits (Costanza-Chock, 2018). Other systems are not designed with the end-user in mind at all, leading to large knowledge repositories that go

unused in *information junkyards* (McDermott, 1999). To the extent that tacit knowledge can be codified, it also tends to be *stickier* and more difficult to codify (Hippel, 1994). It takes a tremendous amount of time and effort to codify knowledge in a way that others can understand (Snowden, 2002). To do this, knowledge workers rely on training in cultural competencies, knowledge translation, social informatics, and systems design.

Sharing Knowledge

Knowledge sharing is the most widely studied concept in KM (Intezari et al., 2017), perhaps because of the myriad reasons why people fail to share knowledge (Riege, 2005). Formal education tends to focus more on how students develop ideas than they do on how they share and garner support for ideas (Kotter, 2010). To be skilled in knowledge sharing, knowledge workers must develop interpersonal and social skills (Riege, 2005). They are skilled at clarifying abstract knowledge (Snowden, 2002), and they learn to use narrative and stories to communicate highly tacit knowledge (Denning, 2011). They fight for everyone's ability to have equal opportunities to share what they know and advocate for their ideas—even when this is seen as *disagreeable* (Hunter & Cushenbery, 2014). They fight against racist stereotypes that often lead to the rejection of knowledge sharing attempts by people who are expected to act in more *agreeable ways*—e.g., the *angry Black woman* (Walley-Jean, 2009).

Applying Knowledge

Organizations typically spend more time creating knowledge than they do in figuring out ways to use it (Blanchard et al., 2007). As a result, gaps often appear between *knowing* and *doing* in an organization (Pfeffer & Sutton, 2000) as organizations struggle to turn knowledge into a series of concrete and actionable steps. One reason for this is that knowledge is often created outside of the context in which it is used—separate from the realities of those in charge of implementing it. As highlighted by *Two-Communities Theory* (Wingens, 1990), creators and users of knowledge often have different perspectives and cultures. Knowledge workers engage with the tools of Integrated Knowledge Translation to bring creators and users together to identify challenges, design methods, interpret findings, and disseminate knowledge (CIHR, 2016). This increases the likelihood that this knowledge will be applied in ways that contribute to the library's achievement of its goals.

SUGGESTIONS FOR RESEARCH

Research is needed into the presence of knowledge work in the library, including what it looks like, who does it, and how it influences library success and resiliency. Given the promises of the Knowledge Economy, we must learn more about the extent to which library staff participate. To the extent that library staff do work with knowledge, further study is also needed into the best ways to prepare students for this work. KM has a lot to say about what knowledge workers do and how they do this work most effectively. Kebede (2010) suggested that KM is the

logical continuation of Information Science, as both share the goal of facilitating knowledge transfer. In this way, the current paper is also a call to further integrate LIS and KM research.

CONCLUSION

Library work requires an extensive set of skills and competencies, and library staff are asked to engage in a variety of work tasks. Throughout their formal and informal education, students will no doubt be exposed to the explicit knowledge of the profession in the form of metadata standards, guidelines for facilities management, project management processes. What is less clear, however, is whether students will receive training in tacit knowledge work. Knowledge workers in the library know how to create the conditions for innovation, evaluate ideas using both data analytics and intuition, capture and codify valuable knowledge, share ideas effectively, and overcome the gap between knowing and doing. The more training students receive in these areas, the more resilient the library will become.

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