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INFO 231: Issues in Special Libraries and Information Centers

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Knowledge Management (KM) as a strategy, culture, and set of concepts and practices first emerged in the business world in the 1990s. KM today is far more robust, thanks in large part to the fact that it has been the subject of decades of voluminous scholarly research, case studies and business literature. An increasing recognition that knowledge is among the most valuable assets that organizations possess has also driven the adoption and elaboration of KM, and has helped usher in what is now called the "knowledge economy." It is also now found across a range of not-for-profit organizations including libraries, museums and other cultural memory institutions in the US and around the world. Skepticism of KM in executive suites persisted for many years past its modern origins roughly 25 years ago, but that resistance has gradually given way to a consensus by these same hard-nosed businessmen that KM is both necessary and is destined to play a large role in their organizations for the foreseeable future. The benefits of a concrete yet holistic, purposeful and dynamic implementation of KM are manifold. While a fairly young discipline, according to Husain and Nazim KM already has a documented track record of success by various measures including "organizational performance, economic success, organizational creativity, operational effectiveness, quality of products and services and economic sustainability" (2013). The goals of this paper are to provide an overview of KM that is generally agnostic in terms of the type of organization it is hosted in (though which will necessarily lean towards the more widely applied and studied corporate setting) and to discuss the particular strengths that special librarians bring to the KM field. I also reflect on the arguments in favor of the KM approach, the difficulties of installing KM tools and culture throughout an organization, and KM in the special library context.

There is support in the scholarly and informal literature for the notion that librarians, with their experience and expertise in technical services (cataloguing, metadata creation, etc.), reference services (providing research assistance, selecting and providing access to and literacy with electronic journals, etc.), networking and information technology (maintaining intranet content, assisting in use of databases, proficiency in Web / Library 2.0 tools and external web resources like OPACs, etc.), and certain administrative and support services, are uniquely positioned to help implement, customize, and manage both the technological and persondriven aspects of KM systems. There a great deal of overlap in the tools, terminology and techniques used in librarianship and in KM, from "databases, internets, collaborative tools" to concepts like "information audit vs knowledge audit, information mapping vs knowledge mapping, etc." (Husain and Nazim, 2013). Despite their strong ties to librarianship, information professionals in for-profit enterprises may also be known by a number of other job titles, including "competitive intelligence leader, knowledge and information manager, intranet content manager and knowledge coordinator" (Bishop, 2001).

Regardless of their title, special librarians are expert in providing high quality knowledge services to their clients, experience that works towards their efficacy in understanding the needs of their colleagues and the ROI they deliver to the organization. Key aspects of information professionals' work at a special library include assuming the role of knowledge manager, which involves serving as a hub in internal communication products and tools, such as intranets. Ajiferuke's research determined nearly 20 years ago that 80% of Special Library Association members who work in an organization engaged in KM activities were themselves involved in KM initiatives (2003). However, it's important to draw a distinction between

librarianship and KM by noting that while both are concerned with managing information and "explicit" knowledge, KM also places a high priority on "tacit knowledge," which is derived from the experiences and know-how of individuals in an organization. Several authors warn that special librarians with little experience in the for-profit domain that playing a successful role in a corporate KM framework / culture may require skills that are likely new to them: namely, those related to business environments such as leadership, managerial and interpersonal skills. LIS professionals may find themselves in a situation where they are competing with other "knowledge workers" outside the library and must continually update both their technical aptitudes and their concept of the role they are being asked to play, whether explicitly assigned or not.

Both the goals and theoretical underpinnings of KM — which are far from monolithic, as there are in fact a number of approaches from techno-centric to organizational and "ecological" — as well as its panoply of supporting technologies have evolved continually and strikingly over the span of the last few decades. But while the tools and methodologies used to enable the strategic framework of KM are constantly changing and becoming more sophisticated, the core concept of KM in special libraries can be boiled down to a basic principle which dates back to the earliest days of the field. In her book "Special Libraries as Knowledge Management Centres," Eva Semertzaki relates how in 1910, one of the founders of special librarianship, Guy Marion, wrote about the importance of "exercising our ingenuity in bringing the proper parties together" in reference to the librarian's unprompted sharing of knowledge between departments that were otherwise unaware of each other's work (2011). Semertzaki observes that Marion's fictitious but illustrative anecdote "describes what a special library exists to do: it

connects people together, collects and distributes the knowledge created by the organization" (2011). Another elementary way to describe the role of the special library in a business context - which also dates back to the early days of the field - is "Putting knowledge to work," a phrase that was adopted in 1915 as the motto of the Special Libraries Association (Semertzaki, 2011). The simplicity of such a mission statement belies the complex challenges involved in realizing it. As a special librarian's self-description, however, it presents to stakeholders a distillation of the argument that the special library, as the "knowledge nexus" (St. Clair, 2017) of its parent organization, is the best custodian of local institutional knowledge, and the best equipped to organize it according to knowledge management principles.

Ajiferuke offers a rudimentary but helpful definition of KM as the process of "putting mechanisms in place to ensure that intellectual assets are retained by the company" (2003). While that may sound straightforward enough, in practice KM entails a nuanced interdisciplinary approach, not just to organizing and maximizing use of intellectual assets, but ultimately to improving an organization's competitive advantages (among just a handful of other existential, bottom-line goals). The design and end use of KM frameworks are ultimately and always human-centered, yet the discipline also includes aspects of information science, management theory and, according to Guy St. Clair, "organizational" or "strategic" learning (2017). The people-first foundation of KM rests on several core principles including the notion that in addition to the data and information that is already visible and available within and used by organizations, individual employees and in some instances groups also possess indispensable "tacit knowledge" comprised of a subjective mix of experience, know how, insights and opinions, among other cognitive resources and psychological and emotional qualities. In many

organizations, the only time these vital but seldomly articulated intellectual assets are verbalized and exchanged is when they are shared in a small team setting or some type of dialogue. Dixon identifies several types of "local knowledge" including conversation, online networking, telephone calls, best practices guides and internal documents which constitutes useful content for a KM system (2001). KM facilitates the transformation of personal knowledge into corporate knowledge, recontextualizing what was transitory and local to a form that is accessible and global. As a system that ultimately depends on the production of local knowledge by "human brains" (to use another SLA phrase from 1915), KM and its managers also aim to encourage more dialogue and collaboration within and across departments, and to promote creativity and curiosity throughout the organization.

For KM to transcend mere data collection and information management, the means to capture the tacit local knowledge that exists in narrowly bound contexts must be achieved either through building new tools or inculcating new human processes or cultural values and qualities (or some combination of all three). Of course, it's equally crucial to make this captured knowledge more accessible to others who may need it, a goal that requires codification and dissemination, processes that I explore later. Depending on the mission, industry, goals and inner workings of an organization, a variety of processes and tools likely exist for the production and capture of "explicit" and objective knowledge, e.g. – facts and data, which can be aggregated into more complex, organized forms of information. Asllani and Luthans draw attention to a seemingly mundane property of institutionally circumscribed knowledge which is that when it is shared, though the knowledge is transferred, the original owner does not relinquish it. Elaborating, they write that "as a result, the better these "unique" resources are

used, the more they are shared and used, the more knowledge is created and the more competitive advantage is achieved" (2003). Companies that employ researchers whose work generates large amounts of quantified content, for example, would typically strive to transform some of that data or information into more enriched forms of knowledge that can be used by anyone in the organization. KM principles and methods like codification and distribution can be used to enhance and accelerate those transformations so that the resulting intellectual assets can someday be applied towards any number of business objectives, including building or improving products, services, or even transforming internal processes. This is generally a question of "packaging" the information and making it available throughout an organization through some type of KM system or database. Many of these facets of information acquisition and formatting play to librarians' strengths, though it's always worth remembering Guy Marion's unsolicited intra-departmental sharing, a challenge to librarians to go further than simply making information available. The librarian who answers this call will no doubt endear themselves to his patrons and managers.

A broad outline of the KM process, whose components are ideally oriented in a flexible architecture designed to pursue strategic ends, would start with knowledge generation and capture, continue with the organization and classification of that knowledge, and culminate (though not terminate, as the process is cyclical and ongoing) with the distribution, access and utilization or transformation of knowledge. Managing these processes and the knowledge content they're concerned with involves both the technology embedded to store and circulate information and the skills and behavior of knowledge managers.

There are some rather blunt instruments that can be used to try to extract tacit knowledge such as structured interviews and surveys of employees, but they are likely less effective in coaxing out local knowledge than embedding the right low-overhead tools, incentives and cultural norms and tightly integrating them within workflows, professional events and at least some daily activities of the various role players. If deployed in ways that are thoughtful and relatively frictionless, a combination of tangible and intangible methods can support more comprehensive and refined knowledge generation, capture and dissemination. In many cases this information will be lost without some mechanism for acquisition. Some authors suggest creating "communities of practice" that are designed to support lasting knowledge-rich relationships empowered by tools that enhance knowledge creation and acquisition. Kim and Abbas, who write about the use of Web 2.0 and Library 2.0 technologies in academic libraries, surmise that because "the processes of developing the knowledge and the community are highly interdependent," communities of practice share "similar sense-making, worldviews, and know-how" (2010). Evidence of communities of practice being used in corporate settings to create and share knowledge - as with related tools like online forums and discussion groups - is not prevalent but is nonetheless considered a serious and relevant KM concept by Guy St. Clair and others. Organizational learning, on the other hand, is highlighted by multiple authors as a process for generating and acquiring new knowledge. These notions hint at a kind of paradigm shift away from KM tools and methods (knowledge bases, expert systems, information repositories, etc.) and towards more overarching strategic KM frameworks and cultures, a change that St. Clair explores and advocates for in his 2017 book "Knowledge Services."

"Codification" refers to organizing knowledge and utilizing classification and indexing methods to convert it into forms that make it accessible to those who may need it. The objective of the codification process is to manufacture a knowledge "product" or "asset" that can be more easily shared, stored, combined, used and transformed throughout an organization. This allows for both the externalization of knowledge outwards from the individual to the system and the internalization of knowledge by the individual from the KM system. Librarians are of course particularly well-suited to codifying and organizing unprocessed knowledge because of their experience with classification and cataloging schemes, taxonomy and metadata, and databases and related tools. In most cases special librarians will be responsible for codification work for all "incoming" knowledge and information, though other knowledge workers / producers may participate in this process if they have the tools needed to classify or encode their own creations before submitting it for "ingest" into the KM system (sometimes called a "push strategy"). This is echoed in Nonaka's theory of a "spiral of knowledge" (2007) in which articulation (i.e. – generation and capture) is converting tacit into explicit knowledge, and internalization is using the explicit knowledge to extend the individual's tacit knowledge base. While this paper doesn't delve into this manual form of KM, there are organizations which provide their employees with access to experts specializing in particular subjects for ad hoc knowledge requests ("pull strategy"). It's also worth noting that KM tools and practices need to recognize and accommodate the differences between "new knowledge" (i.e., innovation) and the transfer or exploitation of "established knowledge" ("Knowledge management," n.d.). A classification schema may be sufficient to make this demarcation, but it's conceivable that a harder (virtual) partition between the two categories – perhaps in the

form of different portals – may be helpful. In some cases the established knowledge may be in the public domain, available in a trade or scholarly journal. This possibility could actually offer a number of advantages over internal knowledge, like citation searching, references that act as pointers to source materials.

Merely warehousing data and information isn't enough; these raw materials must be classified or otherwise "marked up" with metadata so that relationships between subjects and other keyword fields are made explicit. Indexing knowledge so that it is searchable is equally pivotal. Reformatting faceted data so that it can be viewed in several different configurations can also make it more useful to clients. The user interface which this data is surfaced in whether a website or an application – is a strong determinate of the data's usefulness and likelihood of being reused, and thus deserves careful consideration based on user feedback and continuous iterative improvements. As for which classification and indexing processes to use, Semertzaki advises information professionals to adopt "codification structure(s) [that are] flexible, allowing for changes and development" (2011). The codification process results in classified and indexed knowledge being preserved in databases or the KM repository, but that may not fulfill all the requirements of making the knowledge available to employees in ways that they prefer, such as through an intranet website / portal. In order to achieve one of the core goals of any KM framework – distribution to the right person at the right time – it's critical to understand how your patrons want to engage with and access the knowledge stored for their eventual extraction and re-use. Though the days when Guy Marion's exhortation to "[bring] the proper parties together" might have meant walking down a hallway or making a phone call are long gone, making sure your stakeholders are aware of exactly what steps they

should take to find the information they need without delay at least partially answers his admonition. Informational or digital literacy instruction may be difficult for solo or otherwise understaffed libraries to provide for a large group of patrons in a short span of time. It is an critical organizational priority that higher ups need to understand and support in terms of funding, staffing, etc.

Influential KM guru Guy St. Clair aims to describe and analyze the culture or "strategic framework" of knowledge management writ large and to advise its practitioners. His book "Knowledge Services" places a strong emphasis on management theory, organizational structures, strategic learning and business objectives in larger enterprises as opposed to the narrower definitions found in other authors' (Semertzaki et.al.) work on KM as specifically practiced within an academic library or special library context. Special libraries in for-profit organizations are deeply enmeshed in the missions, management cultures and complexly coordinated business roles, practices and processes of their hosts. This integration extends well beyond providing timely, on-demand reference resources or search services. As Semertzaki notes, "information professionals (librarians) as knowledge workers become partners with the management of the organization to utilize knowledge services in providing service delivery" (2011). As partners of both management and other business areas in the parent organization, special librarians work with human resources and training and teaching communities to expand and preserve institutional knowledge. St. Clair also continually underscores the importance of integration under the banner of knowledge services in the KM-centered organization: "knowledge services is an approach to the management of intellectual capital that converges information management, KM, and strategic learning into a single enterprise-wide discipline for the benefit of the business or organization in which it is practiced." An example of the kind of cultural qualities that St. Clair would endorse is trust, specifically the trust that knowledge workers must have in their managers in order to collaborate with the company to create intellectual capital. Asllani and Luthans describe another cultural value which must propagate from the top: "allowing employees a greater degree of freedom for the possibility of a breakthrough to come forward with both their tacit and explicit knowledge" (2003).

A question that I've considered throughout my research of KM within special libraries, one which has led me to consider costs and benefits and the burdens of different sets of responsibilities, is whether I would advocate for creating a knowledge management system (assuming, of course, that my employer had yet to make such a decision or commitment). Descriptions of the benefits of KM offer impressive testimonials affirming KM's versatile potential. Nigel Oxbrow and Angela Abell offer one concise argument in favor that I've haven't addressed yet: "A good KM system enables an institution to avoid excess costs, duplication of effort, mistakes and their repetition, wasted time and missed opportunities" (1998). Other reasons that I haven't explicitly alluded to include reducing the length of development cycles, leveraging experience and know-how across departments, fostering connectivity between people inside and external to the organization, prompting the discovery of relevant insight and ideas, breaking down and solving difficult problems with the power of multiple, knowledge-rich perspectives. There are simply too many compelling reasons why KM holds so much promise, not least of which, from a special librarian's point of view, is getting the opportunity to be situated in such a vital, challenging and people-centered environment, facilitating the creative pulse of the organization.

One source of frustration I've felt while researching and writing this paper is not having access to a working and multifaceted KM strategic framework. One can view case studies and even demo KM software, but that's a far cry from interacting with and learning from folks who know their way around a complex enterprise KM system in production. I've frequently wondered what specific software ingredients would go into both the UI for patrons, the administrative back end for librarians and IT staff, and the database containing the knowledge assets. One helpful way to approach this dilemma is suggested by Semertzaki: start collecting the content for the KM system by borrowing from the special library's own resources (2011). It's worth noting as a quick but important sidebar that I've not given any consideration to knowledge or intellectual assets (here referred to as "content") other than that which has been created by past or present employees. This corporate intellectual property acts as bedrock within a KM system. However, Semertzaki enumerates several possibilities for including content from the special library which can also be encompassed within the KM system:

"... the library's online public access catalogue (OPAC), the back files of frequently asked questions, the archive of Ask a Librarian service, the selective dissemination of information (SDI) or current awareness services catalogues, listings of favored expert resources, the online resources that can be integrated in the knowledge management system within the organization, the electronic journals and the Library 2.0 tools established in the library" (2011).

She suggests that content and context of the KM can potentially be augmented even further by seeking permission to add organization-wide resources like human resource management documents and files, records management files, and departmental and disciplinary documents

(I must say I'm rather surprised she added this last item!). Of course, all of this content, valuable as it may well be, is not going to organize itself into an attractive, robust interface on its own volition. Wormell spells out the scope of the challenge of wrangling order out of this content and making it available to those who stand to benefit from being able to access it: "the management of content refers to labelling, indexing and structuring information, interface design, display and ways of accessing information" (2002).

Naturally the difficulties of establishing a KM system don't begin or end with Wormell's formulation. A literature review performed by Husain and Nazim compiles the most frequently mentioned obstacles to successful implementation of KM. While some of these problems may be more pronounced in an academic library context, all of them can be found in special libraries or knowledge centers in for-profit enterprises as well. These hurdles include the lack of sufficient competencies and skills, the resistance of library professionals to necessary changes to their daily routines and responsibilities, misunderstanding of KM concepts, cultures that don't prize knowledge sharing, lack of incentives for innovation, weak commitment to the KM strategy and framework by top management, low levels of collaboration and lack of resources, whether financial, technological or human (2013). Special libraries may find themselves positioned in a busy nexus where they are tasked with developing and guiding KM efforts for their host organization while simultaneously applying KM principles and practices to improve their own internal processes and external services. This is the gauntlet that faces the special librarian who is intricately involved in their parent organization's KM system, and in the provision of their own library's KM services. It is surely a formidable and hopefully invigorating challenge, one that information professionals cacn't expect to rise to without manifesting

leadership qualities of their own, with or without the support of management or an adequately resourced IT department. KM demands an energetic blend of people skills, technical knowledge and "classic" librarianship in all its multifaceted dimensions.

## REFERENCES

Abel, A. and Oxbrow, N. (1998). The Role of Information Management in Knowledge Management. *American Society for Information Science*, Oct 25 1998.

Ajiferuke, I. (2003). Role of Information Professionals in Knowledge Management Programs:

Empirical Evidence from Canada. *Informing Science*, *6*, 247-257.

Asllani, Arben, & Luthans, Fred. (2003). What knowledge managers really do: An empirical and comparative analysis. *Journal of Knowledge Management*, 7(3), 53-66.

Bishop, K. (2001). Information Service Professionals in Knowledge Based organizations in Australia: What will we manage? Sydney: University of Technology, 65.

Dixon, N.M. (2001). What is true? Looking at the validity of shared knowledge. *Information Outlook*. 5(5):32–34.

Kim, Y. and Abbas, J. (2010). Adoption of Library 2.0 Functionalities by Academic Libraries and

Users: A Knowledge Management Perspective. *The Journal of Academic Librarianship, 36*(3), 211-218.

Knowledge management. (n.d.) In *Wikipedia*. Retrieved August 3, 2020 from <a href="https://en.wikipedia.org/wiki/Knowledge">https://en.wikipedia.org/wiki/Knowledge</a> management

Nonaka, I. The knowledge-creating company. Harvard Business Review. 2007; 85(7/8):162–171

Semertzaki, E. (2011). *Special libraries as knowledge management centres* (Chandos information professional series). Oxford: Chandos Publishing.

St. Clair, G. (2017). Knowledge Services. De Gruyter Saur.

Wormell, I. (2004). SKILLS AND COMPETENCIES REQUIRED TO WORK WITH KNOWLEDGE

MANAGEMENT. In *Knowledge Management* (Originally published 2004 ed., Vol. 108, pp. 107-114). Berlin, New York: DE GRUYTER SAUR.