Asia-Pacific Conference on Library & Information Education & Practice, 2009

COVER PAGE

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PREPARING LIS PROFESSIONALS FOR GLOBAL KNOWLEDGE PROCESS OUTSOURCING

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Introduction. Globalization due to the growth of the Internet and global communication infrastructure has made it possible for many services to be provided from remote locations, independent of the location of service providers. A large number of organizations have started outsourcing high-end knowledge-intensive services to external agencies and professionals, in a practice called knowledge process outsourcing (KPO). There is a shortage of talent able to provide the breadth of KPO services, particularly professionals trained to find and process information efficiently. This paper explores the issues and challenges involved for LIS professionals to break into the KPO market, and the strategies that LIS associations and LIS schools can take to facilitate this.

Method. Two faculty members of an I-school, a special librarian at a private business school and a knowledge management specialist at a law firm in Singapore collaborated to deliberate on the extent and potential of the KPO market, the kind of services and skills that will be in demand for KPO, and the issues and barriers to address.

Conclusion. LIS professionals are expected to do well in KPO in areas involving searching for information, packaging information, combining information from multiple sources, carrying out data collection and analysis, preparing research reports, providing information-related services, carrying out information and knowledge audits, constructing taxonomies and metadata, designing digital libraries and institutional repositories, and providing training. Challenges expected to be faced include mindset of librarians, personal work issues, and librarian's lack of certain soft skills, domain/industry knowledge, experience of the corporate environment, and an understanding of ethical and information security issues. A collaborative effort between LIS schools across the region, LIS associations and industry partners seems to be a good strategy to address the issues and realize the potential of KPO.

Introduction

The knowledge-based economy where effective management of information and knowledge is crucial to the success and survival of an organization has pervaded all industry sectors. A major trend in the knowledge-based economy is globalization, the integration of economies and societies around the world (The World Bank Group, 2001). The Internet and global communication infrastructure has speeded up globalization by making it cost-effective to obtain and provide services from remote locations, independent of the location of service providers and the clients. The LIS profession and schools can take advantage of this trend to expand the market for LIS professionals. With appropriate exposure and training in different areas of LIS and knowledge management, LIS professionals can offer a variety of services in the knowledge-based economy.

An important trend that can be exploited is knowledge process outsourcing. Knowledge process outsourcing (KPO) refers to the outsourcing of high-end knowledge-intensive processes by organiza-

tions. Lacity, Willcocks and Rottman (2008) defined it as the outsourcing of business, market or industry research, which includes designing surveys, collecting new data, mining existing data, carrying out statistical analyses and writing reports. The recent trend in KPO follows the growth of IT outsourcing in the 1980s and the rise of business process outsourcing (BPO) in the mid 1990s (KPMG, 2007). Whereas BPO involves the outsourcing of low-end well-defined back office processes, KPO involves processes that "demand advanced information search, analytical, interpretation and technical skills as well as some judgement and decision making" (Bhattacharya, 2005).

A large number of organizations have started outsourcing knowledge-intensive services to outside agencies and professionals to focus on their core operations and services. The KPO market is currently estimated at USD 3 billion and is expected to reach USD 16 billion by 2010 (Evaluserve, 2007; KPMG, 2007; Tan, 2007). Currently, the main users of KPO are market research and consulting firms, investment banks, life-sciences and pharmaceutical companies, animation businesses, law firms and legal departments of large companies, and automotive companies (Raman, Budhwar & Balasubramaniam, 2007; Larkey 2006). The demand for KPO is likely to diffuse down to small and medium-sized businesses as the market matures.

There is a shortage of talent able to provide the breadth of KPO services, particularly professionals adequately trained to find and process information efficiently (Sivadas, 2006). Most KPO services require knowledge and familiarity with the domain, but several services can be provided with minimum domain knowledge. LIS professionals are expected to do well in KPO in areas involving searching for information, packaging information, combining information from multiple sources, carrying out data collection, preparing research reports, providing information-related services, carrying out information and knowledge audits, constructing taxonomies and metadata, designing digital libraries and institutional repositories, and providing training. This paper explores the issues and challenges involved for LIS professionals to break into the KPO market, and the strategies that the LIS associations and LIS schools can take to facilitate this.

Approach for Writing the Paper

This paper is a collaborative effort of four authors: two faculty members of an I-school, a special librarian at a private business school and a knowledge management specialist at a law firm in Singapore. As a team the authors are exposed to theoretical and practical aspects of library and information management as well as knowledge management. Their academic background as well as work experience was helpful in reflecting on different aspects of KPO for information and knowledge professionals, including opportunities and challenges, keeping in view the realities on the ground. While all were enthusiastic about the possibilities becoming available with KPO initiatives, the librarian and knowledge management specialist were cognizant of issues and constraints due to the experience, training and mindset of current LIS professionals, constraints in the work environment of LIS professionals, and the realities of working with business clients. On the other hand, the academics were aware of the resource constraints and the university environment in its ability to provide adequate training to students to take advantage of KPO. The discussions were helpful in taking a balanced view of the opportunities and challenges, and proposing a practical strategy or approach for the LIS profession and LIS schools to collaborate on this initiative.

We summarize our discussion in the rest of the paper in three sections: our collective views about the relevance of KPO to LIS, challenges that we expect will have to be faced to realize the potential, and strategies that we propose to take advantage of the opportunities in globalization and KPO.

Relevance of LIS to KPO

Table 1 lists the types of KPO services we identified that can be provided by LIS professionals. Related competencies are listed in Table 2. The competencies are mainly in the areas of reference and information searching, knowledge organization, knowledge management, information technology, research and writing, teaching and soft skills. Individually, LIS professionals may have competencies in one or two areas, but collectively the LIS profession certainly encompasses all these areas.

Librarians have particular strengths in reference and information services. Libraries are designed to deliver services to selected groups of users according to their information needs. Accordingly, LIS professionals are trained to leverage on different types of information sources to cull information relevant to the needs of their clients. In the general library environment, librarians traditionally focus on reference and information sources—they either direct the clients to relevant information sources or prepare listings of references relevant to the client's queries. Special libraries and corporate information centers focus more on the actual information rather than the information sources. Special librarians and information specialists frequently compile information from relevant sources and package these into reports for their clients. Competencies recommended by the various professional forums rightfully emphasize these areas (Abel & Skelton, 2004; Ebels, et al., 2003). KPO is a natural extension of this work. However, traditional LIS curricula do not adequately cover information selection, summarization, packaging and presentation skills.

In addition, LIS curricula need to be extended to include knowledge management and cutting-edge information technology to prepare LIS graduates better to handle work relevant to KPO. KM courses emphasize facilitating use and reuse of information and knowledge, in addition to access—the focus of traditional LIS courses. KM courses also prepare professionals in other relevant areas such as business intelligence, knowledge repositories, and application of knowledge organization to knowledge management, and generally expose students to the corporate and enterprise environment and its mindset. Since most KPO work is carried out using computers and delivered through web-based services, KM courses provide excellent preparation to LIS professionals to take advantage of the opportunities arising from KBE developments such as e-commerce, e-business and e-citizen services. Information and knowledge organization courses in LIS programs do provide useful basic knowledge, but need to be extended to metadata, taxonomies and information architecture.

While most of the skills and competencies of LIS professionals appear to be relevant to KPO, a change in mindset and acquisition of additional skills are necessary. There are certain aspects of information work that are peculiar to KPO. For example, privacy, confidentiality and data protection issues, organizational competitiveness issues, pro-active approach to service, cross-cultural issues, and the need to work in a collaborative environment. These are important success factors in KPO, and require soft skills in general, and social and entrepreneurial skills in particular. Therefore, in addition to expanding the curricula to include more courses on knowledge management and information technology, LIS programs will have to systematically impart soft skills to their graduates.

Table 1. Knowledge services that LIS professionals can provide

1. Online reference/information service
2. Information searching, gathering, analysis and report writing
   a. Research using published information sources
   b. Competitive/market intelligence
   c. Environment scanning and information packaging
3. Knowledge organization
   a. Construction and maintenance of taxonomy
   b. Metadata record creation, indexing, tagging
   c. Designing information architecture of web site or enterprise portal
4. Information/knowledge audit, knowledge management initiatives
5. Design of digital library and institutional repository, use of Web 2.0 technologies
6. Research, user studies, survey, market research, data mining
7. Training, continuing education

Table 2. Competencies needed by LIS professionals to take advantage of KPO

1. Information searching skills, reference skills
2. Information packaging, summarization, report writing, information presentation
3. Modern knowledge organization
4. Knowledge management
5. Design of digital libraries and institutional repositories, human computer interaction
6. Research, data collection, user studies, data analysis, data mining
7. Oral presentation, teaching, training
8. Information ethics, issues of privacy and confidentiality, information security and data protection
9. Marketing, entrepreneurship
10. Soft skills—communication, interpersonal skills, entrepreneural and proactive attitude, teamwork, networking, leadership

Challenges and Issues

There are several challenges that the LIS profession faces in attempting to seize the opportunities in KPO. They fall into the following areas:

1. Mindset of librarians, and lack of certain soft skills such as entrepreneurial skills and communication skills
2. Lack of experience of the corporate environment and corporate thinking, lack of current awareness knowledge of industry
3. Lack of experience and training in ethical issues and issues of information security
4. Need for continuing education to keep abreast of developments in information technology and knowledge management, as well as to acquire additional information competencies
5. Lack of awareness and appreciation in industry of the skills that librarians possess—there is a need to develop the KPO market
6. The wide range of knowledge services that outsourcing organizations will require, making it necessary to have access to a sizable pool of professionals with a range of skills to draw on
7. Personal work issues—free-lance librarians may lack access to information sources (e.g. subscription databases), whereas working librarians need the support of their employers and may face issues of conflict of interest.

To thrive in the KPO market, LIS professionals face the challenge of mindset change as library services are currently provided in response to requests by clients. In the KPO environment, proactive initiatives and competitive marketing strategies are needed to succeed. LIS professionals also need to be able to identify the value chain of the knowledge processes in the industries where KPO services are required. They should attempt to gain some domain knowledge and industry knowledge. In this way, they will be able to pitch for KPO services more confidently, as they will be "talking the talk" of the industry where the KPO services are rendered.

In addition to the challenges of mindset, lack of needed competencies and lack of corporate and industry experience, LIS professionals also face personal work issues and resource availability issues. The two authors who are practicing librarian and knowledge management specialist express concern about the possible response of their employers/parent organizations to initiatives for providing services to external clients. They were also concerned about potential conflict of interest if KPO initiatives were undertaken concurrently with their jobs with the present employers. They also felt that their professional colleagues had little experience with confidentiality and data protection issues, particularly in situations where KPO services are provided to competing organizations. They also felt that if such services were undertaken by information professionals as freelancers or information consultants, they would be constrained by the availability of resources needed for service delivery, for example, access to relevant subscription databases.

Strategies

To be a major player in the KPO market, the LIS profession needs to devise and implement a high-level strategy that includes:

1. strengthening LIS professional education to prepare graduates for the KPO market, and implementing continuing education programs to equip experienced LIS professionals with additional competencies
2. improving networking and cooperation among LIS professionals both locally, regionally and internationally.

Thus, LIS schools and LIS associations have major roles to play to promote and support this trend.

The global nature of KPO work requires a different outlook on the part of LIS professionals. An understanding of the concept of KPO and identification of niche areas more appropriate for the LIS sector will be the first step in capitalizing on KPO opportunities. KPO work requires a wide range of skills—not all areas of competencies should or could be handled by LIS programs. Gaps in expertise and competence need to be identified and filled through collaboration. It will be desirable for information agencies to forge partnerships and strategic alliances with academic and professional partners locally as well as internationally. KPO work can be taken up by an organizational entity or by an individual professional. LIS professionals can participate in KPO at different levels: as freelance professionals, as employees of a consultancy company, and as information specialists in corporate information services offering knowledge services to external clients.

It is also desirable for LIS schools to adopt a model of strategic collaboration at the local, regional and international level to address the education needs for KPO. This collaboration can take different forms and be carried out at different levels. One type of collaboration can be between an LIS program and other academic units at the same institution or at other institutions within the country. This will allow students to take advantage of relevant courses being offered in other schools (e.g., business, computing, etc.). Another kind of collaboration is between the LIS program and professional forums such as library and knowledge management associations, where new competency areas will be covered through continuing education courses. Developing relations and collaborations with industry partners is also important to provide internships for students to be immersed in corporate environments and opportunities for industry leaders to be involved in LIS education as adjunct lecturers or invited speakers.

The most useful type of collaboration will be among LIS programs in different countries. This can take different forms. International summer programs can, for example, be initiated by a forum such as A-LIEP to conduct courses in different Asian countries and with provisions for enrolling students/professionals from across the region. This will help students and professionals to learn to operate and work collaboratively in cross-cultural environments—an important competency for global KPO.

At an appropriate time, a regional center for KPO consultancy and training activities can be established. In addition to providing training programs for KPO work, it can function as a contractor for big KPO projects which can be divided into smaller pieces and subcontracted to individual professionals. It can also function as a clearinghouse or referral service to match available KPO jobs with professionals having relevant expertise.

Conclusion

With appropriate training and exposure in different areas of information and knowledge management, LIS professionals can offer a variety of remote information and knowledge services to organizations. LIS schools can adjust their programs to equip their graduates with appropriate competencies and experience to take advantage of such opportunities. Several challenges are expected to be faced by LIS professionals in entering the KPO market, including lack of enterpreneural skills and mindset, lack of experience in a corporate environment, and lack of domain and industry knowledge.

A collaborative effort between LIS schools across the region, LIS associations and industry partners seems to be a good strategy to address the issues and realize the potential of KPO. Once there is a group of LIS professionals who are established in the KPO market, there will be a multiplier effect opening up new opportunities for other LIS professionals. We believe it is important for the LIS profession to seize the opportunities afforded by the KPO trend. It will enlarge job opportunities, give rise to

new innovative information services, change the image of librarians, transform the LIS field, and ensure the long-term survival of the profession.

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