Abstract. This paper highlights major trends and issues of LIS education in Asian countries, based on content analysis of a series of international workshops held in Tokyo as a part of the LIPER (Library and Information Professions and Education Renewal) Project. We invited speakers from China, Korea, Singapore, Taiwan, and Thailand, in order to improve our understanding of recent trends in LIS education in neighboring countries, anticipating that such understanding would be beneficial not only for the possible reform of Japanese LIS education, but also for future collaboration in LIS education among Asian countries. Each invited speaker reported on his/her country in terms of the current situation in LIS education, qualification systems for librarianship, recent changes in curricula and job markets for certified librarians, and credit exchanges with nearby countries. Through content analysis of the presentations and discussion sessions, we identified the following common trends of LIS education in Asia: (1) elimination of the word “library” from the names of LIS programs in order to attract students, (2) shift in the educational level from undergraduate to graduate, (3) changes in core subject areas from an emphasis on manual-based collection development to ICT-based information/knowledge management, (4) depreciation of LIS education for school librarians (except in Thailand), (5) decreasing opportunities for new employment in library markets due to over production of LIS graduates and economic recession, (6) low interest among well-educated graduates in seeking employment opportunities in the public library market, which is characterized as offering relatively low social status and wage levels compared to national and academic libraries, (7) lack of understanding among employers to accept LIS graduates as capable knowledge workers, and (8) increase in the number of faculty with doctoral degrees, who prefer to teach cutting-edge courses rather than traditional library oriented courses.

Introduction

The purpose of this paper is to share with LIS educators and information professionals in Asian countries our findings on recent trends and issues of LIS education in this region. These trends were identified through content analysis of five presentations, each followed by a discussion session, delivered in Tokyo in 2003 and 2004 by invited speakers from China, Korea, Singapore, Taiwan, and Thailand, as part of the LIPER project.

Background

LIPER Project

The Library and Information Professions and Education Renewal (LIPER) project studies the history, current situations, and future prospects of LIS education systems and curricula in Japan with the goal of possible reform of Japanese LIS education in mind (Ueda et al., 2005). The project aims to investigate the emergent issue of the restructure of the Japanese library and information professional education and training system by concentrating the efforts of representative researchers in relevant domains, consisting mainly of members of the Japan Society of Library and Information Science. The goal of the project is two fold:
(1) Assess the performance of educational and training systems and curricula based on the past and present circumstances of information professionals working in libraries and related organizations such as information industries, information centers, museums, and archives;
(2) Clarify the scope of professional skills and knowledge required for those working in libraries and related organizations, consider the roles and functions of educational and training institutions, and develop guidelines for future education and training systems, including a common examination, accreditation procedure, and evaluation method.

The LIPER project has been characterized as an effort to:
(1) Develop an up-to-date LIS teaching/training program. This area has long been influenced by the growth of information and communication technology (ICT). The progress of digital information technology in the 1990s and its impact upon the whole of society is of particular importance. With
this in mind, the LIPER project considered a new curriculum that took into account not only the types of information technology relevant to library activities (bibliographic control, information retrieval, and database development) and services (provision of digital libraries, online journals, and digital reference services), but also relevant laws and regulations such as copyright and legal deposit, as well as collaboration through networking. Distance education and e-learning in networked environments will also be explored.

(2) Contribute to solving a variety of problems inherent in the current education and training system of library and information professionals. Only two categories of library professionals have been taken into account by the formal education and training system: one includes the librarians and assistant librarians in public libraries, under the provision of the Library Law (enacted in 1950); the other is the teacher-librarian in school libraries, under the provision of the School Library Law (enacted in 1953 and revised in 1997). The structure of the former category has never been changed even though its curriculum has been revised several times by the ordinance of MEXT. Hence, the current education and training system does not meet the contemporary needs of public library operations. On the other hand, the revision of the School Library Law in 1997 required the placement of teacher-librarians in every school. However, the position of education in the formal education system, the specialization of duties, and the content of the curriculum for teacher-librarians are still problematic. Thus, the LIPER project wrestled with issues in the overall education and training of librarians in general, without regard to specific varieties of libraries.

(3) Restructure LIS to be the basis for the education and training of new information professionals. We recognize the contemporary paradigm shift in the organizational structure of Japan, including reformation of the higher education system. Based on this recognition, the LIPER project considered librarianship and its education and training in relation to the entire professional system, including an assessment of the possibility of establishing LIS professional schools at the graduate level, the analysis of professional systems in the areas of education, culture, psychology, and social welfare, and an examination of the education and training systems of archivists, curators, and information processing specialists as relevant to librarians.

In Japan, cross-sectional study of the education and training of information professionals had not been conducted prior to the LIPER project, though surveys of each area of the library profession have been conducted by designated professional associations. Meanwhile, a great deal of effort has been expended to modernize LIS education and training all over the world. The International Federation of Library Associations (IFLA) published the Guidelines for Professional Library/Information Educational Programs in 2000 to propose basic issues for consideration in restructuring LIS education systems by each country. In England, the Library Association (LA) and the Institute of Information Scientists (IIS) were consolidated to form the Chartered Institute of Library and Information Professionals (CILIP), and defined a broad framework of areas of knowledge and practice in order to characterize the nature of library and information work. In North America, a three-year research project KALIPER (Kellog-ALISE Information Professionals and Educational Reform) was conducted to determine the nature and extent of major curricular changes in LIS education across the region (Pettigrew & Durranee, 2001). The findings are expected to have a major impact on the future curriculum as well as the system of LIS education.

The LIPER project aims to study the education and training systems of LIS in response to these overseas movements and to reflect them in the Japanese context. The KALIPER project is said to be the 21st Century version of the Williamson Report (1923), which had a major impact on the education of professional librarians in North America. The LIPER project seeks a comparable outcome in Japan.

1. Quality Assurance Issue of Higher Education

Quality assurance has become a global issue for higher education, particularly due to prosperity and the resulting cross-border accessibility of e-learning.

North America

In North America, the LIS curriculum had been standardized following the Williamson Report, and the accreditation system for the Master of Library Science (MLS) degree has been shared between the US and Canada since the mid 20th Century. A recent KALIPER project revealed six major trends in LIS
education in North America: (1) LIS curricula are addressing broad-based information environments and information problems; (2) A distinct core of LIS has taken shape that is predominantly user-centered; (3) LIS schools and programs are increasing the investment and infusion of information technology into their curricula; (4) LIS schools and programs are experimenting with the structure of specialization within the curricula; (5) LIS schools and programs are offering instruction in different formats, including e-learning, to provide students with more flexibility; and (6) LIS schools and programs are expanding their curricula by offering related degrees at the undergraduate, master, and doctoral levels (Pettigrew & Durrance, 2001). These trends reflect market and student needs as well as requirements for quality assurance.

Europe

In May 1998, the Ministers of Education of Italy, England, France, and Germany agreed to promote European co-operation toward the learning society and signed the Joint Declaration on Harmonization of the Architecture of the European Higher Education System (Sorbonne Declaration). The Sorbonne Declaration carries the banner of knowledge in Europe and promotes mobility and employability of European citizens in order to develop a united European Higher Education Area (EHEA). In 1999, Ministers of Education from all across Europe gathered in Bologna, Italy, and issued the Bologna Declaration, which announced the development of EHEA by 2010 and the establishment of a globally acceptable system for higher education. Thirty-one ministers from 29 European nations signed the declaration, which refers to: (1) the adoption of a system of easily readable and comparable degrees; (2) the adoption of a system essentially based on two main cycles (undergraduate and graduate); (3) the establishment of a system of credits (ECTS system); (4) the promotion of mobility for students and teachers; (5) the promotion of European co-operation in quality assurance; and (6) the promotion of the necessary European dimensions in higher education. The ministers of the Bologna Process signatory states gathered with stakeholders from all across Europe in September 2003 to develop an agreed set of standards, procedures and guidelines on quality assurance and to explore ways of ensuring an adequate peer review system for quality assurance and/or accreditation agencies or bodies. As a result, almost all countries have made provision for a quality assurance system based on the criteria set out in the Berlin Communiqué with a high degree of cooperation and networking. Thus, each member country commits to introducing the proposed model for peer review of quality assurance agencies on a national basis, while respecting the commonly accepted guidelines and criteria. We can expect that European LIS education institutions will follow the standards, procedures and guidelines for quality assurance to develop and operate new educational systems with somewhat standardized curricula.

2. Importance of Mutual Understanding and Collaboration

In Asia, even though LIS education has more than 50 years of history and the importance of higher education has been emphasized, we have no system of regional collaboration for quality assurance, accreditation, or curriculum development. Meanwhile, Asian countries are targeted by American and European higher education institutions as offshore markets. Japan is no exception. Rather than worrying about an invasion from overseas, we should develop our own quality assurance system for higher education including LIS.

Japan followed the American LIS education system for a long time, neglecting developments in other Asian countries. Recently, we realized that some Asian countries had gone through a dramatic reform of their LIS education in response to the shift in information environments due to ICT. This realization motivated us to study trends and issues in LIS education in neighboring countries. The results of the study have been incorporated into the bases for developing proposals for future reform of LIS education in Japan. In the hope that our findings may be useful to other Asian countries in terms of future collaboration and potential reform of LIS education, we share our findings at the A-LIEP conference.

Method

Within the framework of the LIPER project, we invited recognized LIS educators from China, Korea, Singapore, Taiwan, and Thailand to talk about LIS education in their country. These five countries were chosen based on our knowledge of their long history and/or recent reforms in LIS education. Speakers were selected through word-of-mouth recommendations by LIPER researchers. We re-
quested each speaker to come to Japan to give a presentation on trends and issues in LIS education in his/her country, including (1) the current state of LIS education, (2) qualification systems for librarianship, (3) recent changes in curricula and job markets for certified librarians, and (4) collaboration and credit exchanges with other higher-education institutions in nearby countries. All five speakers agreed to participate in the study, sent a paper in advance, came to Japan and gave a presentation, which was followed by a discussion session. We translated the three English papers into Japanese and distributed them, together with the two in Japanese, to LIPER researchers in advance of each presentation (Khoo, 2004; Kwon, 2003; Li, 2004; Lin, 2004; Premsmit, 2004).

3. **Data Collection and Analysis**

The invited speakers reported on the assigned topic in English or in Japanese, responded to questions posed by LIPER researchers, and actively participated in discussion sessions that followed. We tape-recorded and transcribed the entire proceedings: presentation, question-and-answer time, and discussion.

Using bottom-up content-analysis techniques, we analyzed each presentation and corresponding transcribed discussion session, employing constant-comparative techniques with the aid of ATLAS.ti, a software package for qualitative analysis.

4. **Limitations**

We tried to invite representative speakers from a variety of Asian countries. However, we could not invite representatives from all Asian nations due to limitations in time and funds. Thus, our findings are based on only the five countries we studied. Though we invited well-known speakers in LIS education, each speaker’s view on the trends and issues of LIS education was based on his/her working environment and experiences. Consequently, the findings may be limited to the context and situation of the speakers. During each session, we made every effort to elicit information on all aspects of LIS education. Our findings are, however, limited to only a few topics due to time constraints on presentations and discussion sessions.

**Findings**

5. **Historical Evolution**

Except for Singapore, where the initial LIS program was started by the Library Association of Singapore (LAS) in 1982, all the other four countries have a history of LIS education going back 50 years or more. Teacher’s college in China introduced library science education in the 1920s; Chulalongkorn University in Thailand started an undergraduate library program under the auspices of the American Library Association in 1951; National Taiwan Normal University initiated a librarian training program in 1955; and Yonsei University in Korea began graduate and undergraduate library science programs in 1957.

Over the years, LIS education has been shifting from two-year/four-year colleges to graduate professional programs without thesis requirements. The exception is Singapore, which launched LIS education as a graduate program for information professionals, and only recently added undergraduate programs in informatics.

Programs in these five countries experienced name changes from “library science” to “library and information science” in the 1980s and 90s, reflecting market demand for ICT information handling skills. Recently, some colleges/universities in these countries amended the names of their programs by getting rid of the word “library” while shifting the core of these programs from traditional print-oriented library and information science to ICT and knowledge-oriented informatics.

6. **Characteristics of Curriculum**

Though the curricula of all five countries emphasize the ICT aspects of library and information skills, the polarization of content into library skills and ICT skills seems to be evolving. This trend is also reflected in their missions for LIS education, as shown in Table 1.

<table>
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<tr>
<th>Polarization</th>
<th>Country</th>
<th>Mission</th>
<th>Curricular emphasis</th>
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**Table 1: Mission and Curricular Emphasis**
Countries emphasizing library skills are Thailand, Korea, and Taiwan. They typically focus the LIS curriculum on traditional library and information science courses, and add ICT aspects such as multimedia, information systems, knowledge organization, information communication technology, digital libraries, information policy, web design, digital archiving, electronic publishing, and user information behavior. On the other hand, China and Singapore are emphasizing ICT skills. Trying to respond to national and market demands, they have developed new curricula which focus on ICT skills, including records management, digital archiving, information/knowledge management, digital libraries, information security, entrepreneurship, digital/computer information processing, copyright, media, publishing, and communication, following the example of I-schools in USA and IFLA guidelines (IFLA, 2002).

7. **Accreditation System**

All five countries have developed or are developing a unique accreditation or certification system for librarians. Korea and China employ a five-level library professional system. Both of them integrate college majors and practical experience as the basis of career development for professional librarians. However, the system in China may be revised in response to changes in the Library Law, which is under discussion.

In Taiwan, professional certification of librarians is mainly determined by the civil service examination because most library jobs, including those at college and university libraries, are in the public sector. Every year, approximately 120 new graduates of library schools pass the examination and enter the profession.

In Thailand, the Thai Library Association (TLA) assumes some responsibilities along with LIS schools in the accreditation of LIS schools, and is responsible for the professional development and continuing education of information professionals.

In Singapore, the Library Association of Singapore (LAS) has set up a Standards and Professional Committee to study accreditation and competency standards and procedures.

8. **Job Market**

**Libraries**

The job market for professional librarians appears to be shrinking in China and Singapore. In China, the demand for professional librarians was high from 1986 to 1988, but has shrunk recently because of an oversupply of new graduates, with professional degrees offered by an increasing number of LIS education institutions. Most new graduates from undergraduate LIS programs go on to graduate programs, while new graduates with master degrees find employment opportunities in companies, government, and national university libraries. In Singapore, there are approximately 550 professional librarians, but employment opportunities for new graduates have been frozen due to the economic recession. Even though there is some demand for professional librarians in public libraries in Korea, Taiwan, and China, new LIS graduates with a high level of career development tend to avoid public library positions, because of low social status and low salaries. In Thailand, professional librarians are in high demand, and most graduates with a Bachelor of LIS go into library markets in the public sector.

9. **Businesses**

Graduates with ICT skills seem to have better job opportunities in the private sector than in libraries. In Taiwan, a large portion of graduates from undergraduate LIS programs seek employment opportuni-
ties in the business sector due to higher salaries and better conditions compared to library markets. In Thailand, graduates from information management programs are in high demand in the business sector and have good entrepreneurial opportunities. In Singapore, where ICT-oriented information professional education has been recently established, the business sector has not yet recognized that graduates from information management programs possess the skills required for information and knowledge management jobs.

10. **Trends among Students**

Students in LIS programs are ambivalent toward career development as information professionals because of rapid changes in information environments and the continual reform of LIS education programs. The speakers from China, Thailand and Taiwan indicated that dropping the word “library” from the names of LIS programs not only resulted in an increase in the number of applicants but also attracted students of a different type, perhaps because “librarian” is no longer an attractive job for students who have acquired ICT skills.

Students in LIS programs are increasingly interested in getting higher degrees. In China, a large number of graduates from undergraduate LIS programs continue to the master’s level, and most want to go on to doctoral programs. In Thailand, a large proportion of students in graduate LIS programs enter doctoral programs to seek research opportunities rather than professional master’s programs, whose graduates are expected to become librarians.

11. **Trends among Educators**

The number of faculty members with a doctoral degree is increasing in all five nations we studied. Many of them obtained doctoral degrees from the USA, Europe and Australia. As a result, more faculty members want to teach newly developed areas in informatics such as knowledge management as well as the theoretical aspects of classification, ontology, and taxonomy, rather than traditional topics in librarianship. This has led to some LIS programs inviting professional librarians to teach traditional topics as adjunct faculty.

12. **Issues Faced by LIS Education**

A wide variety of issues in LIS education were brought up by the invited speakers. They were diverse, reflecting the unique situation faced by each country and speaker.

**In China**

In China, the number of undergraduate and graduate LIS programs increased dramatically in the 1980s and 90s, which made it difficult for the growing number of students to find employment in the library market. Meanwhile, universities under competition closed departments and programs which produced graduates without job opportunities. To avoid closure and to increase their students’ job opportunities, many LIS programs have broadened their areas of study by adding new topics such as consulting, publishing, editing, and communications to traditional library and information science. As a result, the traditional characteristics of Chinese library and information science in LIS programs have weakened. At the same time, many LIS programs in China have been consolidated into schools of management, economics and/or commerce.

**In Korea**

In Korea, a department system has been brought about as a result of reform in higher education and the comprehensive evaluation of college and universities with the aim of increasing their compatibility. As a result, they expanded fields of interests for new applicants and limited the numbers of credits to be certified.

Another issue is the serious breach between research and practice in LIS. Recognizing this, Korean LIS faculty members appreciate the necessity to redefine the identity of academic knowledge in LIS. They attribute this breach to their tendency to follow the American model, which separates professional practice and research interests. Lamenting the indifference to traditional librarianship, they intend to develop new research areas which are theoretically and methodologically relevant to the professional practices and reality of library operations in the Korean context.
In Singapore

In Singapore, attracting students to traditional LIS programs has been very difficult, and curricula and education systems take into account the needs of the information industry as a whole. However, one recently established LIS program has been criticized as over-emphasizing ICT, even though library and information management jobs require it.

In Taiwan

After a series of changes, universities in Taiwan are facing difficulties in connecting undergraduate LIS programs to graduate ones. This is particularly true for those students who majored in LIS as undergraduates. Taiwan is also facing a breach between LIS education and professional practice. LIS programs are expected to strengthen aspects of communication and ICT skills within the area of LIS.

A problem unique to Taiwan is that graduates without LIS education can become librarians if they pass the civil service examination for library professionals. Further, there is a gap between the knowledge and skills of experienced professional librarians with limited education and new graduates with a high level of education.

Students with ICT skills in LIS tend to have limited backgrounds in art and literature, and tend to emphasize tools rather than theoretical knowledge.

In Thailand

Compared to the other four countries, Thai LIS programs seem to have retained the traditional aspects of library and information science, and graduates of these programs are well-prepared for highly regarded positions as professional librarians in the library market or as information professionals in business sectors. Thus, it appears that there are no big issues or problems faced by LIS education in Thailand.

Implications

The study’s findings captured the diversity and dynamics of LIS education in five Asian countries. These implications may be useful in developing new policies and designing new curricula in LIS programs in this region. Thus, we will discuss (1) the need for new job markets for LIS graduates, (2) the need to connect research and practice, (3) the need to redefine the identity of LIS, (4) the need to enhance information professionals’ social standing, and (5) the need to match qualification systems with employment procedures.

Need for New Job Markets for LIS Graduates

Because of the rapid shift toward an information- and knowledge-oriented society, librarians and information professionals need to develop the required knowledge and skills to take advantage of ICT. These needs have driven the shift of LIS education from traditional librarianship toward ICT-oriented informatics. Many colleges and universities have modified their curricula to emphasize ICT and have changed the names of their LIS programs from library science to information science. These days, some countries avoid the word “library” in the names of these programs. This is because it is difficult to interest students in traditional LIS programs and the name change helps to attract more applicants. However, many employers do not yet recognize that graduates from ICT-oriented LIS programs are capable of taking on information and knowledge management jobs. Such research findings suggest that we need to cultivate new employment opportunities for these graduates when we restructure LIS programs into ICT-oriented ones.

Need to Redefine the Identity of LIS

Because of the dramatic changes in LIS curricula and content, we seem to have lost a sense of identity with regard to the academic knowledge and skills of our field. Without such an identity and without theoretical and practical knowledge of what skills are necessary for new graduates, we will have to continue to change curricula and content as the market demands.
Need to Connect Research and Practice

There was also the problem of a serious breach between research and practice among librarians and information professionals. This separation seems to be a result of the influence of American models on LIS curriculum development. We need to establish our own approach to curriculum development and conduct research relevant to our own cultural context. In order to attain this goal, we need to establish new theories, methodologies and/or agendas for research in LIS.

Need to Enhance Information Professionals’ Social Standing

Librarians in several countries face low social recognition and poor conditions, particularly in public libraries. This trend may have been caused by the poor professional orientation in our society and culture as well as a lack of professionalism on the part of librarians. This will lead students to seek information related jobs in business rather than in professional librarianship. We need to establish a strong professional basis for information professionals, including librarians, so as to make our libraries more supportive of our information/knowledge oriented society.

Need to Match Qualification Systems with Employment Procedures

Even if well-organized curricula for LIS education are available, it will not help graduates if employment procedures do not match the qualification system for librarians and information professionals. If the employment procedure does not require candidates to take LIS courses but selects employees by some other means, such as in the case of Taiwan’s civil service examinations, the quality assurance system of higher education for librarians will be ineffective. Thus, we need to match the qualification system for training information professionals with employment procedures.

We plan to develop new policies and design new curricula for LIS reflecting the above five implications. To develop a strong professional orientation for LIS, we need to establish some quality assurance processes for LIS education and the accreditation of LIS professionals. Americans and Europeans are trying hard to establish quality assurance accreditation systems by collaboration, targeting Asia and other regions as new markets for their higher education institutions. We should establish our own quality assurance systems to strengthen our LIS curricula, pedagogy, and content. Toward this end, we need to develop mutual understanding through collaboration in Asia.

Conclusion

We invited speakers from five Asian countries (China, Korea, Singapore, Taiwan and Thailand) to give presentations on current trends and issues of LIS education in their countries. Through an analysis of these presentations and the following discussion sessions, we identified the following common trends of LIS education in Asia: (1) elimination of the word “library” from the names of LIS programs in order to attract students, (2) shift in the educational level from undergraduate to graduate, (3) changes in core subject areas from an emphasis on manual-based collection development to ICT-based information/knowledge management, (4) depreciation of LIS education for school librarians (except in Thailand), (5) decreasing opportunities for new employment in library markets because of overproduction of LIS graduates and economic recession, (6) low interest among well-educated graduates in the public library market, which is characterized as offering relatively low social status and wage levels compared to national and academic libraries, (7) lack of understanding among employers to accept LIS graduates as capable knowledge workers, and (8) increase in the number of faculty with doctoral degrees, who prefer to teach cutting-edge courses rather than traditional library oriented courses.

Though each program tries hard to balance LIS education with an IT emphasis in response to market demands, many of them are facing problems in expanding LIS education to meet the requirements for information professionals in an IT-based society. At the same time, it becomes more and more difficult to attract new students into traditional library oriented programs, as graduates tend to have difficulty securing employment. This situation calls for a radical reform of the curricula and systems of LIS education, by taking into consideration the market needs of the entire information service industry.

Findings of the study provided us with some implications for the future reform of LIS education in Asia, including: (1) the need for new job markets for LIS graduates, (2) the need to connect research
and practice, (3) the need to redefine the identity of LIS, (4) the need to enhance information professionals’ social standing, and (5) the need to match qualification systems with employment procedures.

We are grateful to all the invited speakers who prepared full papers, offered their precious time to visit Tokyo, and provided us with up-to-date information on dynamic changes occurring in LIS education in Asian countries. We hope this report will be accepted as an expression of our sincere gratitude to all the invited speakers.

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