Chapter 1
Overview of Theory and Practice in Library and Information Science Research in Asia–Oceania

Jia Tina Du
University of South Australia, Australia

Qinghua Zhu
Nanjing University, China

Andy Koronios
University of South Australia, Australia

ABSTRACT

This chapter provides a concise overview dealing with the theory and practice in Library and Information Science (LIS) research development in Asia-Oceania. It also provides the reader with an introduction to the sections and the individual chapters of the book. The field of LIS has experienced significant growth, both in the number of LIS schools and research outputs, in recent years in the region. As a professional field, both theory and practice are viewed as equally important for the development of the LIS discipline. In this book, both theoretical as well as practical work in LIS research in Asia-Oceania region is presented.

THEORY AND PRACTICE IN LIS RESEARCH IN ASIA-OCEANIA

The field of Library and Information Science (LIS) in the Asia-Oceania region is experiencing prominent growth in recent years in terms of the number of schools and expansion of programs as well as a growth in research outputs. LIS schools generally evolved from professional librarian training programs to university institutions during the second half of the twentieth century. According to *the Directory of Library & Information Science Programs in Asia* (data accessed in October 2013), India (85) and China (67) have the most LIS programs in Asia. The numbers of universities offering LIS programs in Thailand, Taiwan, Indonesia, Japan, South Korea, and Singapore

are 17, 12, 11, 8, 5, and 1, respectively. Australia and New Zealand have been relatively stable in LIS education growth. Some 27 of 39 universities in Australia have produced LIS-related PhD graduates (Macauley, Evans, & Pearson, 2010).

Accompanying the growth of the Asia-Oceania universities, LIS programs, and information industries, LIS research being published in the Asia-Oceania region is increasing rapidly. Park's (2008) study of bibliometric characteristics of authorship in the top twenty LIS journals ranked by ISI (Institute for Scientific Information) Journal Citation Reports impact factor suggested that, from year 1967 to year 2005, the most productive countries and districts in the region were, in order (having research article numbers from the highest to the lowest), Australia, China, South Korea, Taiwan, Singapore, Japan, New Zealand, Malaysia, Thailand, and Philippines. Among them, Australia and China were found to contribute most to the research work in LIS during the study period. In addition, the strongest collaborations were also identified to take place between Australia and China, China and Singapore, and Australia and New Zealand. Up to 2012, according to the literature records in the database *Web of Science*, there have been around 380,752 records of LIS literature, and approximately 14,458 of them were written by Asia-Oceania region authors. A simple analysis of these literature records found that the countries and districts in the region which have actively contributed to the LIS research include (but may not be limited to) Australia, New Zealand, China, India, Japan, South Korea, Indonesia, Singapore, Vietnam, Thailand, Taiwan, Malaysia, Hong Kong, Pakistan, and Maldives. This book brings together research work from various countries. We have made endeavours to collect the research outputs from as many countries as possible to represent the LIS in the region.

LIS scholars have studied a variety of research topics in the field; also the researchers from different countries have worked together (Foo, Khoo, Chaudhry, & Majid, 2006). At the same time, they tend to investigate and analyse their own countries' research development and performance in this discipline. For instance, Jeong and Kim (2005) analysed the knowledge structure of LIS in South Korea based on the theories presented in scholarly research articles. Laksmi (2006) studied the development of LIS through books published in Indonesia from 1952 to 2005. Lin (2012) initiated a bibliometric study to demonstrate the change of LIS research in Taiwan. In mainland China, Hu, Hu, Deng, and Liu (2013) used co-word analysis to reveal the intellectual structure of LIS during 2008–2012. According to the automatic analysis results from the database *Web of Science*, some leading LIS journals in which Asia-Oceania authors have most articles get published include *Scientometrics, Electronic Library, Journal of The American Society for Information Science and Technology, Online Information Review, Information Processing & Management, Australian Library Journal, Journal of Information Science, Australian Academic Research Libraries*, and *Malaysian Journal of Library and Information Science*.

There is a continuing demand calling for more research in the field of LIS (Macauley, Evans, & Pearson, 2010; Powell, Baker, & Mika, 2002). In addition to fundamental theory construction, it is also important for LIS researchers to keep attention to its practical aim which was defined by Belkin (1977, p. 22), "Facilitating the effective communication of desired information between human generator and human user." The practical library and information work may include information retrieval, classification and indexing, management and provision of information services, and teaching or training information professionals, etc. (Hjørland, 2000). On the other hand, more and more LIS practitioners have performed or been involved in research recently, which is somehow related to their jobs or to the LIS profession (Powell, Baker, & Mika, 2002). Relevance to practice is deemed as an important consideration for practitioners'

research and publication in the professional field of LIS (Klobas & Clyde, 2010).

In this book, we present both theory and practice in LIS research in Asia-Oceania. As a discipline, LIS seeks to create and structure a body of scientific knowledge related to the transfer and communication of information. It has both theoretical components which inquire into the subject without regard to application and practical components which develop services and products (Hjørland, 2000). This book shows the development of LIS discipline in Asia-Oceania from a research perspective, namely, showing researchable problems and questions identified in the field, demonstrating findings from research projects, and exhibiting how to build the profession and professionals on a scientific basis. We hope that research should contribute to the development of theory and inform practice. For another, practice should follow good theoretical work and benefit from research findings and raise more researchable questions (Haddow & Klobas, 2004; Hjørland, 2000).

HOW THIS BOOK IS ORGANISED

This book comprises three sections and 16 chapters. Section 1 includes Chapter 1 as an introductory chapter which sets the scene for the remaining chapters. It presents a brief overview of theory and practice in LIS research in the region of Asia-Oceania, and also introduces the reader to the book structure, organisation, and content. The rest of the book is divided into two sections including 15 chapters that present the development and trends on LIS research in the region, both theoretically and practically, in the ever changing sociological and information environments nowadays. Section 2 comprises nine chapters (i.e. Chapters 2 to 10) which are devoted to various research topics in the field, such as information experiences, information organising behaviours, information architecture, information literacy, Web search and

user behaviour, scholarly communication, and a new research agenda on mass communication, social informatics and children's literature. Section 3 contains six chapters (i.e. Chapters 11 to 16) which report LIS research trends and educational programs as well as library practices in diverse countries in the region.

Chapters 2 to 10 deal with a variety of significant and universal topic areas in the field, including leading edge theories/construct and models, evolving and emerging research methodologies, human information behaviour, Web search, LIS community, its research and publication, information literacy, information architecture, and bibliometrics.

Chapter 2 reports on a study in an emerging area of enquiry that has explored 'information experience' as a research object, which sits alongside other information research objects such as information practice, information literacy, information seeking and information sharing. The chapter presents preliminary findings of ordinary people's information experiences during the 2012 Queensland State election in Australia. The findings have laid a foundation to develop the theoretical understanding of information experience – an important and emerging construct. Compared to information experience, information behaviour describes the way in which humans seek, make sense, manage, organise, use, and share information in diverse contexts to meet their information needs (Du, in press; Pettigrew, Fidel, & Bruce, 2001; Wilson, 2000). Nevertheless, most of existing information behaviour research focuses on information needs and information seeking behaviour. There are a limited number of human information behaviour studies investigating information organising behaviour. Chapter 3 discusses people's information-organisation related behaviours in everyday life, based on a diary study where study participants were asked to maintain an information journal. It addresses research questions such as what information behaviours do people exhibit when they organise

and retrieve information, and what problems do they face? And what are the implications for information organisation? There has been a great boom of research on information behaviour, especially Web search behaviour, in recent years in China. Chapter 4 provides an in-depth review of research on users' information behaviour during Web search in Mainland China. The review also shows lots of collaborations between researchers in China and abroad.

Chapter 5 critically reviews the definition, origins and evolution of information architecture theories as well as information architecture in practice in North America, Europe and Asia especially in China. It also highlights future directions of research and practice in information architecture for researchers in the Asia-Oceania region. Information literacy is an issue of growing global concern. Chapters 6, 7, and 8 are all discussing information literacy but with different foci. Chapter 6 evaluates the relational approach to information literacy, and its evolution and application in contemporary research, and discusses new directions emerging from the relational understanding of information literacy. Chapter 7 applies the relational approach to investigate information literacy in a specific context, namely, the health information literacy experience of 65-79 year old Australians. Chapter 8 examines information literacy in the workplace which has been underemphasized in the field. The study reported in the chapter explores workplace experiences of information literacy through environmental scanning process adopted by the travel industry in Singapore. Information literacy skills were found to have significant influence on the quality of information for decision making at workplace.

Bibliometrics has been playing an important role in LIS and scholarship policy evaluation and recommendations for years. Chapter 9 observes scholarly communication in Southeast Asia from a bibliometric perspective and discusses the challenges and knowledge gaps in evaluation studies of scholarly collaboration in the region

in order to identify potential research topics and approaches for future studies. The rapid development of online environments presents challenges to researchers and scholars in various disciplines; an inter-disciplinary collaboration is needed to understand complex and related societal phenomena in the digital age. Chapter 10 reports an inter-disciplinary study which established a research framework consisting of mass communication, social informatics and children's literature regarding children and their racial perceptions. This interdisciplinary research approach encourages scholars from all research fields who are interested in the information-rich society to collaborate with each other. Despite the work reported in the chapter being carried out in America, this methodology would be of value to those researchers examining a specific phenomenon in mass media produced in non-Western countries. The authors argued implications for Asia-Oceania scholars who may develop localised research methods and areas as well as identify new research topics to enrich this emerging research area.

Chapters 11 to 16 report various studies on LIS research status, trends, and educational programs, as well as library services in certain countries and districts in the region. Chapters 11, 12, and 13 present scholarly work on LIS research trends and educational programs in Pakistan, Vietnam, and New Zealand, respectively. Written by the Chairperson and her colleague at the LIS Department in a university in Pakistan, Chapter 11 provides an overview of the development of formal LIS education and research programs in the country. The contemporary research outputs and trends since 2007 were investigated by analysing the literature published in national and international journals by Pakistan authors. The challenges in LIS education and research in the country are also discussed. E-learning is still relatively uncommon in developing countries, but there is growing interest. Chapter 12 examines the factors influencing readiness to launch e-learning of a LIS program in Vietnam, with a focus on understanding attitudes toward

e-learning and the viability of transitioning to an online delivery model. Several recommendations have been made to address these challenges and to prepare for successful e-learning readiness. Exploring the concept of e-learning in relation to the library's role in implementing an organisation-wide e-learning strategy is an important research topic and issue facing researchers, educators, and library practitioners in recent years (Ritchie, 2011). Chapter 13 offers a critical review of LIS undergraduate education in New Zealand over the past thirty years, and identifies issues and research needs facing LIS educators in a rapidly changing information environment in this digital age. Additional research into the best way to deliver undergraduate education and continuing professional development in New Zealand is needed in the light of more recent changes in the information landscape and the pressures on libraries, and public libraries in particular.

Chapter 14 provides a comprehensive review of the national-scale technology initiatives in Taiwan - national digital archives program - over the past fifteen years by investigating the goals and strategies of the program, research and development, important achievements, values, lessons, and challenges. The program has produced more than five million digital collections with topics covering the arts and humanities, history, social sciences, and life sciences, and has continuing impacts on open data, digital humanities, and sustainable digital archives in Taiwan. With a rapidly aging world population, how to respond to this demographic change and to develop appropriate services for the elderly is an important and imperative issue for public libraries worldwide. Chapter 15 presents Japan's situation as a model for investigating how public libraries can build new services for its aging population. A fundamental framework for an aging society that focuses on lifelong learning service provision is proposed and the role of Japan public libraries in enhancing the lives of elderly citizens is discussed. Finally, Chapter 16 explores a possible role to be played by institutional, corporate and foundational partnerships in providing additional facilities, resources and activities within an academic library in Indonesia. It seeks new ways of collaborations between businesses and academic libraries in the forms of philanthropy, partnerships, and corporate social responsibility.

All chapters provide suggestions for future research in the area as a useful guide for readers interested in LIS research. Most chapters list further additional readings on the chapter topics. A subject indexing with key terms and their definitions from all of the chapters conclude the book to provide readers with a convenient resource for understanding the fundamental terms used in this book.

REFERENCES

Belkin, N. (1977). *A concept of information for information science*. (Unpublished doctoral dissertation). University of London, London, UK.

Du, J. T. (in press). Information journey of marketing professionals: Incorporating work task-driven information seeking, information judgments, information use, and information sharing. *Journal of the American Society for Information Science and Technology*.

Foo, S., Khoo, C. S., Chaudhry, A. S., & Majid, S. (2006). Working together in developing library and information science education in the Asia Pacific. In S. Sugimoto, J. Hunter, A. Rauber, & A. Morishima (Eds.), *Digital libraries: Achievements, challenges and opportunities* (pp. 4–11). Berlin, Germany: Springer. doi:10.1007/11931584_3

Haddow, G., & Klobas, J. E. (2004). Communication of research to practice in library and information science: Closing the gap. *Library & Information Science Research*, 26(1), 29–43. doi:10.1016/j.lisr.2003.11.010

Hjørland, B. (2000). Library and information science: Practice, theory, and philosophical basis. *Information Processing & Management, 36*(3), 501–531. doi:10.1016/S0306-4573(99)00038-2

Hu, C. P., Hu, J. M., Deng, S. L., & Liu, Y. (2013). A co-word analysis of library and information science in China. *Scientometrics, 97*(2), 369–382. doi:10.1007/s11192-013-1076-7

Jeong, D. Y., & Kim, S. J. (2005). Knowledge structure of library and information science in South Korea. *Library & Information Science Research, 27*(1), 51–72. doi:10.1016/j.lisr.2004.09.004

Klobas, J. E., & Clyde, L. A. (2010). Beliefs, attitudes and perceptions about research and practice in a professional field. *Library & Information Science Research, 32*(4), 237–245. doi:10.1016/j.lisr.2010.07.004

Laksmi. (2006). The development of library and information science through books published in Indonesia, 1952-2005. In C. Khoo, D. Singh, & A. S. Chaudhry (Eds.), *Proceedings of the Asia-Pacific Conference on Library & Information Education & Practice (A-LIEP)* (pp.574-580). Nanyang Technological University.

Lin, W.-Y. C. (2012). Research status and characteristics of library and information science in Taiwan: A bibliometric analysis. *Scientometrics, 92*(1), 7–21. doi:10.1007/s11192-012-0725-6

Macauley, P., Evans, T., & Pearson, M. (2010). Australian PhDs by LIS educators, researchers and practitioners: Depicting diversity and demise. *Library & Information Science Research, 32*(4), 237–245. doi:10.1016/j.lisr.2010.07.007

Park, T. K. (2008). Asian and Pacific region authorship characteristics in leading library and information science journals. *Serials Review, 34*(4), 243–251. doi:10.1016/j.serrev.2008.08.004

Pettigrew, K. E., Fidel, R., & Bruce, H. (2001). Conceptual frameworks in information behavior. *Annual Review of Information Science & Technology, 35*, 43–78.

Powell, R. R., Baker, L. M., & Mika, J. J. (2002). Library and information science practitioners and research. *Library & Information Science Research, 24*(1), 49–72. doi:10.1016/S0740-8188(01)00104-9

Ritchie, A. (2011). The library's role and challenges in implementing an e-learning strategy: A case study from northern Australia. *Health Information and Libraries Journal, 28*(1), 41–49. doi:10.1111/j.1471-1842.2010.00923.x PMID:21314893

Wilson, T. D. (2000). Human information behavior. *Informing Science, 3*(2), 49–55.