

Cross-Cultural Perspectives of International Doctoral Students: Two-Way Learning in Library and Information Science Education

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Abstract

This paper draws upon a case study of library and information science (LIS) international doctoral students in the United States and documents their perspectives to identify ways to further internationalization. Internationalization is defined as incorporating non-US issues and elements into LIS education. The study explores internationalization in the context of a “two-way” learning process in which international students gain from the discipline, but also LIS education gains from the cross-cultural experiences of the students. Documenting the perspectives of LIS international doctoral students provides a critical outlook by giving voice to an under-represented group. It also becomes a methodological strategy to represent global diversity and facilitate cross-cultural exchange.

Key words: internationalization, cross-cultural perspectives, international doctoral students, two-way learning

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Introduction

Political, economic, social, cultural, and technological changes in the new millennium are having a profound influence upon people around the world and how they participate in a closely-knit 'global village' (Bender, 1996; McLuhan, 1964). A global information revolution and the spread in networked information and communication technologies (ICTs) further tie geographically dispersed and culturally disparate constituents in a macro community. The dictates of a globally intertwined environment demand developing human and social capital¹ across the globe to build mutual trust and cross-cultural communication that, ultimately, may realize a shared dream of peaceful co-existence and reciprocal understanding. In their professional capacity to explicate and implement activities related to information creation, organization, and dissemination processes, LIS professionals have an obligation to further recognize global diversity and build multicultural collaborations towards this ideal. As curators of world knowledge, LIS professionals can contribute practical solutions that nurture positive intercultural and global interactions, thereby playing a more significant role in promoting world peace and international good will.

This paper proposes one such strategy by drawing upon a case study of LIS international doctoral students² in the United States that was performed by the first author, in order to document their perspectives and identify possible ways to further internationalization. Internationalization is defined as incorporating non-US issues and elements into LIS education. The study explores internationalization in the context of a "two-way" learning process in which international students gain from the discipline, but also LIS education gains from the cross-cultural experiences of the students.

Data collection methods in this research included in-depth interviews with structured, semi-structured and open-ended questions, and informal discussions with all 21 international doctoral students in a premier American LIS institution. Documenting the perspectives of international doctoral students provided a critical outlook by giving voice to an under-represented group. Critical theory recognizes perspectives of all stakeholders in a particular situation. This includes points of view of the under-represented in order to "do justice to a diversity of socially defined perspectives while providing a grounding for the evaluation of controversial problems" (Endres, 1996, ¶24). Critical thinking goes hand-in-hand with a reflective process to question traditional understandings and scrutinize existing values, practices, ideological frameworks, and processes (Froomkin, 2003; Habermas, 1993; Kellner, 1989). The application of critical theory in this research becomes a methodological strategy to represent global diversity and facilitate cross-cultural exchange.

Research on LIS International Doctoral Students

Recent augmentation in enrollment of international doctoral students in American LIS programs (Association of Library and Information Science, 2003) provides a potentially rich knowledge source for furthering internationalization in LIS education. According to the ALISE report (Saye & Wisser, 2003), of the 810 doctoral students seeking a Ph. D. degree from 28 schools that reported doctoral enrollment during fall 2002, 279 (34.4%) students were international students. Twenty-three international students received doctoral degrees (35.4%) out of a total of 65 doctoral degrees conferred in 2001-2002. In light of these increasing numbers, and based on predictions of similar trends in the years to come, the need to promote two-way learning in LIS is gaining importance. Strategies to build reciprocal knowledge should incorporate: 1) attempting to understand the perspectives of LIS international doctoral students; 2) providing opportunities to LIS international doctoral students to share their past cultural experiences and knowledge; and, 3) based on the experiences and perspectives of LIS international doctoral students, identifying possible interventions to encourage the growth of internationalization in the discipline. This research applies the above strategies via documentation of international doctoral students' perspectives about internationalization. It also opens up possibilities for the identification of novel and efficient

internationalizing strategies based on existing strengths of international constituents in LIS education.

There have been sporadic studies done on LIS international students and fewer still on LIS international doctoral students in the United States (Cveljo, 1996). The current research extends past historical studies on the subject (Mehra, 2005) in two directions of inquiry, namely: successes, problems, needs, and improvements in effectiveness of student learning (Robbins, 1978; Sarkodie-Mensah, 1988; Rochester, 1986); and the application of American LIS education to home countries of the students (Carnovsky, 1971). In the contemporary context of global interconnectedness and interdependence, a much broader philosophical route needs to be adopted. In the light of "civil society," we must recognize the importance of social equity and global equality in international participation and collaboration, and project a more eco-centric (instead of an egocentric) world view. Only when such an approach is taken will the dream of peaceful co-existence be realized, since it will be marked by a respect of the equality intrinsic to all human beings and the recognition of need for harmony between nations. Prior research initiatives on LIS international doctoral students present a deficit approach and imply a parochial outlook in which their past cultural experiences are considered irrelevant or inconsequential in the growth of the discipline in the United States. Such an outlook assumes an active role for LIS education that is expressed in terms of the unidirectional impact of its application to improve the lot of the knowledge-deficient and information-impooverished conditions in other parts of world. The activeness of LIS education and the passiveness of international students are also expressed in terms of the discipline making efforts to improve the conditions of the students who are viewed as passive and helpless. They cannot do anything to improve their own lot, nor contribute anything positive towards the growth of LIS. This research balances past efforts by focusing on the contributions international students can make to the discipline in the United States, and thereby taps into its existing global richness and diversity in a more concrete manner. A two-way learning strategy recognizes that American LIS education needs to utilize the cross-cultural experiences, knowledge, networking and cultural-specific skills of its international students to promote its growth and further internationalization.

Narrative interviews (employed as a standard phrase by various researchers to represent open-ended, qualitative interviews) used in this research extend prior conceptual and methodological strategies for gathering responses from LIS international doctoral students. Most previous research has provided primarily anecdotal (Tallman, 1990) and survey-based evidence (Marques de Oliveira, 1990) that yields limited understanding about the perspectives of LIS international students. Narrative interviews provide a more detailed and thorough understanding of their cross-cultural points of view. A case study facilitated research of individual context and identified internationalizing strategies throughout various areas in the discipline.

More than a decade back, at the first conference of and for international students (entitled "*Translating an International Education to a National Environment*" hosted by the University of Pittsburgh's School of Library and Information Science during September 23-25, 1988), Josey (1990, p. 4) called for the recognition of wide-ranging cultural perspectives and universal applicability in LIS education that he conceptualized as the "product of a careful, planned, varied, and sustained set of learning experiences, commencing the day the student enters the library and information science school until graduation. The program should be international in its intent." Since the Pittsburgh conference there have been substantial developments in networked ICTs. These have resulted in the growth of globally dispersed, yet mutually interacting, knowledge communities that have drawn attention to issues surrounding global diversity and multicultural experiences worldwide (Broidy, 1999). Such changes are having significant impact upon the internationalization of the educational system in the United States. In this context, the need to educate US LIS students about international developments in the discipline is all the more important. International knowledge and sophistication are prerequisites if American libraries and librarians are to collaborate successfully and participate in international data flows and exchanges (Josey, 1990). New efforts need to be made to strengthen existing internationalizing strategies in

response to the latest globally distributed social and technological developments. Such initiatives will also have tremendous influence upon national information policies and library network development; there is much to learn from policies developed and implemented in different countries around the world (Haddock, 1990; Zhang, 1990). This is relevant, too, in the area of human information and management systems since there are problems in “applying Western management expertise, practices, and technology appropriate to the practice of management in general, and libraries in particular” (Ojiambo, 1990, p. 73). Documenting perspectives of LIS international doctoral students about internationalization is one method to achieve this goal.

Research Setting and Case-Participants

The research setting of the LIS graduate school and its doctoral program chosen for this study embodies a fitting real-life example of a learning community quite typical of LIS education in the United States; it also includes international students who come from various parts of the world. The doctoral program focuses on research and provides interdisciplinary connections to various units and departments across the semi-urban campus, allowing students to pursue multidisciplinary careers in academic, public and/or corporate settings. It claims to provide a supportive learning community where there is much room for potential growth for teaching, research, and service-oriented activities based on individual students’ interests, goals, and skills.

There were a total of 48 doctoral students in the doctoral program under study, of which 15 female and 6 male international doctoral students participated in this research. Research participants were from China (10), Korea (3), India (2), Azerbaijan (1), Canada (1), France (1), Georgia (1), Russia (1) and the United Kingdom (1). The duration of participants in the program (until the time of interview) ranged from less than a year (more than a semester) to 7 years. Their ages fell between the ranges 20-29 and 40-49 years, with the largest number of students in the 30-39 years range. Participants reported completing their masters program from their country of origin, resident country, or in the United States, in disciplines as diverse as engineering, computer applications, business, cognitive science, management of agricultural information, history of science, and LIS.

Data-Collection Methods and Data Analysis

The following section describes the methodological execution of the narrative interview process in this case study to explain how findings were generated in data analysis. Data-collection methods of narrative interviews and informal discussions were facilitated during formal, structured interactions that were initially applied in a pilot study with five participants. Subsequently, refined procedures were used to gather responses from the entire international doctoral student body, during which a first set of interview questions provided demographic characteristics about the case-participants. These were followed by specific questions on internationalization that included: the importance of internationalization; how American LIS education can become more international; and the nature of internationalizing activities in which participants were involved. All interviews were transcribed.

Narrative interviews provided an apt hermeneutic method in this research since they were applied without any preconceived theoretical framework beyond trying to broadly understand the cross-cultural perspectives of case-participants and explore possible internationalization strategies in the discipline. During the narrative interviews, participants’ willingness to tell “little stories” about remarkably different behavior in their cross-cultural learning processes provided a rich source for developing scenarios. Scenarios were pieces of personal narratives, threaded together, and used as a mode of data presentation and analysis.

Generating patterns and themes following grounded theory in data analysis (Glaser & Strauss, 1967) helped produce socially relevant and substantive theory emerging from an understanding of the occurring social phenomena (Schwandt, 1994). Derived from movements of American pragmatism and symbolic interactionism, “grounded theory inquiry is portrayed as a problem-solving endeavor concerned with understanding action from the perspective of the human agent” (Haig, 1995, p. 56). Grounded theory, thus, provides a humanist attempt to connect social science data/phenomena to the concerns and beliefs of participants in order to address the problems of practice of daily life (Layder, 1990). The process of coding interview data in this research involved socially grounded elements: seeking multiple perspectives as a part of the research inquiry; adopting triangulation strategies that verified specific information from multiple sources; following systematic and rigorous procedures for understanding social processes and phenomena that case-participants spoke about; and employing techniques of induction, deduction, and verification to develop theory based on constant comparative analysis (Strauss & Corbin, 1994). Coding practices encompassed *open* coding (that accounted for named activities, processes, events, moments of awareness); *axial* coding (relating categories and subcategories to each other); and *selective* coding (that helped integrate concepts with both interview questions and the broader cross-cultural perspectives of case-participants).

The following narrative example (defined as a scenario) of one case-participant demonstrates the coding procedures that were adopted and how such “stories” shared by case-participants became tools for presenting and pulling together, piece by piece, various elements related to case-participants’ perspectives on internationalization. It represents a typical process that was adopted during data analysis in this research.

“Because US literature is so US-centric [q6³] that you are not citing other people outside the US. So it is hard to even find what is going on in the rest of the world. This includes international literature that comes from other parts of the world in what students are supposed to read including different views on subjects that international students have knowledge about [4.q8.1.p17]...I am pretty sure in the US they teach only the US methods [q6] so I would say include other international takes on things in the US curriculum like say this is how the rest of the world is looking at the problem that would make sense and it would otherwise mean opening up publication arena and profs would have to get input from international panels and things which they can get from international students and their earlier experiences” [4.q8.2.p17].

The above scenario is composed from two pieces of narratives that were separated by additional sentences that have not been presented for purposes of their irrelevance or brevity; this is indicated by the presence of “...” In different instances, the underlying thread connecting two or more disjointed narrative pieces is that either they are in response to the same question or refer to issues that are tied together. Each scenario is composed of the spoken statements of only one person. This procedure was adopted in order to maintain simplicity, and obtain clarity in identifying the main issues that each person expressed or addressed.

Additionally, certain words in the interview transcriptions were underlined to indicate key response points to consider within each question. Identifying other question numbers that indicated how that point was related to another question sometimes followed these underlined words. For example, in the above scenario, the words “literature is so US-centric” and “teach only the US methods” are underlined to indicate that these were concerns identified by the case-participant and that they were also related to the question “Why is internationalization of American LIS education important?” as indicated by the tag “q6.” Connecting the details of what case-participants said to their demographic characteristics, progress in the program, and temporal and structural stage (as indicated by the interview number, as in “4” in the context of the above scenario) allowed the researchers to connect each case-participant’s perspective to where they were in terms of general progress in the program. As the research

progressed, comparing and tracking overlaps, intersections, and variations from other interviews helped refine and make clearer the various perspectives of case-participants involved in this research. ⁴

Why is Internationalizing LIS Education Important?

Participants shared various reasons why they thought internationalization and non-US experiences were important in LIS education. The reasons can be related to: urgent contemporary needs; reflection of basic philosophical underpinnings of the discipline; fulfillment of specific LIS goals, objectives, and functions; and provision of intangible results and concrete gains.

Table 1 summarizes participants' responses about the importance of internationalization of LIS education owing to contemporary issues in globalization and global technological developments. For example, several participants recognized the importance in an interdependent world to collaboratively build library collections (both digital and print) and recognize LIS progress in different parts of the world. As one participant noted:

"If you do a world-wide DL project, for example the paintings of artists around the world, and in that case you will have to work with librarians and information scientists from different countries and cultures. You have to know about each other, how they do work in their own cultures, you have to be aware of the differences, then you can work smoothly, otherwise there are lots of misunderstandings [1.q6.1.p9]."

Additionally, some participants brought up the relevance of internationalization in the context of world-wide developments in the spread of ICTs and the Internet. As the following participant stated:

"Internationalization is important because the Internet is already a global library network and information system and we need to study it and find a way to influence the evolution of this global information system keeping in mind how it is used in different places and how we can make a positive influence on its usage and to make it better representative of the world" [9.q6.4.p10].

Table 2 summarizes participants' responses on the importance of internationalization of LIS education in the context of the discipline's broad philosophy, vision, and mission. The following statement by one student captures views that several participants shared:

"I think internationalization is important since the foundation of LIS is organization of information to promote access, depending upon different contexts, depending upon the needs, and the objectives of the organization or the objectives of the community. Different contexts could be across digital divides, be it across borders or across languages. We have to consider how local issues will play themselves out in different situations and I think international is one dimension of the kind of situations" [3.q6.4.p7].

Also, most participants considered internationalization essential for the practice and education of LIS since the two were closely tied. Diverse perspectives were reported to be important for progress and growth in world knowledge, and for LIS developmental research and applications that would be effective in different parts of the world.

"Ranganathan Colon Classification came along though it never went ahead as it could have. And maybe that is one example to show why people can learn from other countries and how libraries are managed there. Dewey decimal system is good but had they adopted some concepts that Ranganathan proposed things would have been different. Faceted hierarchies are now being

developed for management of the web and are extending Ranganathan's ideas but had they been developed in the beginning there would have been more progress" [6.q6.3.p13].

Table 3 summarizes participants' responses about the importance of internationalization of LIS education to fulfill specific LIS goals, objectives, and functions as a discipline. For example, some participants related internationalization to the role of LIS to provide varied services to different people. Participants thus considered it essential to have diverse groups of people represented in the discipline. They also attributed internationalization to the growth in research via development of new ideas and world knowledge.

Table 4 summarizes participants' responses about the importance of internationalization of LIS education for providing intangible benefits and tangible outcomes. Some participants suggested that for the United States to maintain a leading position in science and technology, it was necessary for people here to know the diversity of the field across the world in order that diverse applications and representation could be incorporated, especially in the context of globalization. Another tangible benefit from incorporating non-US experiences in LIS education was seen in its usefulness in collaborative research, where participants saw a positive value of having perspectives of people with diverse experiences working on globally-implemented projects. One participant spoke about building from the networks of international students expressly to facilitate international research projects. Tangible benefits related to economic gains from the development and application of technological systems for global markets was also mentioned.

The "How To" for Internationalizing LIS Education

This section highlights specific recommendations that participants made for promoting internationalization in various areas in LIS education. Table 5 summarizes participants' responses to how LIS education can further internationalize its philosophy, vision, and functions. For example, several participants called for aggressive presentation of LIS as a field to study interactions among people, society, and technology in terms of "how technology is implemented and how it shapes people's lives differently in different societies and countries" [1.q8.3.p7]. One student called for learning from micro-level practices of people and relating those to cultural interpretations and locally-applicable conventions in LIS:

"At micro-level, communities are different and so are people's practices. They have different networks; how differently people use libraries and what they use libraries for is different. Not determined so much by race or nationalities or ethnicities but is determined more by social-economic factors like how much money people have what can they afford" [1.q8.2.p7].

Table 6 presents participant feedback about how LIS education can further the internationalization of world knowledge. Several participants believed that one important effort towards this goal was to develop cooperation and networks to insure metadata quality and quality problems in cataloging via inclusion of correct and complete bibliographic data for international publications in American indexing and abstracting sources. As one participant said,

"It can become more international in terms of pulling up more case studies of what good is happening in other countries. Specifically, for example, some of the publications that take place there never reach here. Most of the publications are US based or European based publications but especially from Asia I don't see publications that I have come across. If you want to make your education more interesting, diversified and international then you should have publications from there and know what kind of research those people are doing and that will help in developing good ideas here" [6.q7.5.p13].

Table 7 presents ideas from students about how LIS education can incorporate international knowledge domains and frameworks of practice. Several participants mentioned learning from other disciplines such as computer science, about increasing recruitment of international faculty in LIS education. Other participants pointed out that hiring of international faculty was not enough; support and promotion for researchers who did work with international dimensions is also needed:

“It is important to promote leadership of people who support international research to make sure that once the vision is there, the resources will be there to follow through and the interest is going to be developed and sustained. If it is something that faculty will be rewarded for, then it will be something worthwhile to pursue [3.8.11.p7].

Table 8 outlines various participant suggestions as to how LIS education can extend an international agenda in the development of its curriculum, specific areas of research, and class instruction practices. Several participants mentioned the need for teaching and research to promote models and interpretations based on comparison and contrast among different cultures of practice in LIS education:

“Like there is a reading about classification systems and it mentions in Japan they have the lowest heart disease rate but that is because they don’t count the stroke as heart disease; they count it as brain disease so it is a cultural thing but it does affect the classification. If you want to do global collaboration in shared classification for an info system or repository, then you must consider cultural interpretation but I don’t think they do it now. They just look at only the American side” [2.q7.3.p13].

Table 9 presents students’ feedback about how LIS education can develop global socio-technical infrastructures to further internationalization. For example, several participants reported building community platforms based on country of origin and discipline that would connect sub-communities within and outside the discipline:

“Technical means can develop a platform, say in LIS settings, for all the LIS doctoral students from China. You can establish this for discipline and country and others can join if they want and share their experiences. It will lead to interaction not only in US schools but in other areas and universities [6.q19.1.p14].

Two-Way Learning from International Doctoral Students

Case-participants provided detailed examples of situations where they applied internationalizing strategies in various activities they were expected to perform as LIS doctoral students. In these situations, they tapped into their past non-US cultural-educational experiences to further the cross-cultural learning process for themselves and others. These scenarios identify two-way strategies for LIS programs to utilize international doctoral students as gatekeepers or bridges to other cultures and countries.

In their role as teaching assistants/instructors of LIS classes, participants reported using specific non-US cases and making direct and detailed references to experiences and examples from their countries of origin. As the following participant reported:

“As a TA there are several occasions where I bring LIS examples of how things are done in my country or about my culture in the classroom. Students seem pretty interested and they say “oh, yeah.” I talk about library and information setting. And we use different kinds of classification schemes because Library of Congress or Dewey Decimal classification does not really work for a particular country” [15.q9.3.p8].

Participants reported two-way learning that was reflected in their students' appreciation of such discussions since they provided an international flavor to LIS issues and concerns; expanded understanding of how specific services, systems, and standards worked in different countries; and allowed for comparison and contrast with how things worked in the United States.

Several participants also mentioned knowledge sharing, information exchange, and networking with international visiting scholars who participated in their class activities, as significant to student learning in LIS:

"An example is a scholar from India. She is visiting here. She is sitting in my ____ [name of class] class and she shares her experiences of community networks and digital libraries and information technology from her country [18.q9.4.p18]."

International visiting scholars provided two-way learning opportunities in US classrooms because they offered direct and first-hand experience of different issues from around the world. Experiences of case-participants reflect a general trend in their use of non-US references and resources in the teaching environment, efforts that can be more systematically and ardently supported by LIS schools across the country.

In their activities as research assistants on different projects, several participants mentioned working with people from different backgrounds and cultures as a significant international experience in their LIS education. As one participant reported,

"The project has many students, many group members and people from different places, and they know many different things. Some people know about biology and some people know about psychology and some are programmers. But they all bring in their experiences from the different countries they belong to and people have different normal standards in different places and it helps understand aspects about people and culture in LIS" [20.q9.3.p6]."

Several participants (especially those from China) spoke about the importance of the country of origin-discipline dyad that shaped their research skills and technological abilities:

"I think the fact is not that I am only a Chinese student. But it is my educational background skills that combined with the fact that they took place in China and I have a technical background from there that helped me find RA work here" [11.q9.3.p7]."

In such experiences, two-way learning took place owing to a complex, yet rich, interaction between the international origins of participating students and their interdisciplinary backgrounds. People practiced LIS-related functions and activities under different disciplines in various countries. Hence, they brought to the interaction cultural experiences related to their country of origin. Additionally, diverse experiences, standards, constructs and modes of conceptualization based on their LIS-related disciplines (as practiced across the world) provided a diverse set of factors impacting (and emerging) in the social interaction.

The country of origin-discipline dyad was also expressed in different classroom activities where people from different ethnic backgrounds, countries, and disciplines worked together towards a common goal. Two-way learning in such group activities took place for most international and American students, who noted that their past interactions in classrooms had lacked diversity of people from a range of cultural and disciplinary backgrounds. Participants also gave examples of class activities where there were conflicts and variation in points of view, owing to cultural differences. Several case-participants recognized the importance of these conflicts since they helped participants understand deeper issues

about human nature, privacy, intellectual property, task assignment negotiations, and group dynamics. Recognition of the impact of personal and cultural factors in the working of cross-cultural learning communities in LIS education is necessary for effective exchanges in such communities.

Another issue that participants mentioned was the range of missed opportunities for two-way learning. One participant noted,

“In classes there are some international students. Sometimes we share what is going on in China what is going on in their country. Those are interesting but not given much value. I can think of one professor when we talk about information policy or intellectual property policy the professor asks oh, what about in China. Then we talk about something else and the professor seems very interested in the European countries and they say oh what is happening in that country we must look at the information policy there. It seems they have some preference in their reactions there is a very very very subtle discrimination maybe” [17.q20.3.p13].

The above scenario suggests that tensions around interventions aimed at internationalization are complex and important to LIS education. Such examples identify the need to pursue discussion and activities that provide fair representation of LIS-related developments in different parts of the world. The same participant suggested that even if faculty members do not have personal experiences in certain parts of the world, there should be encouragement for a rich and fruitful exchange. Actions, support, and a positive mindset that helps to minimize misperceptions based on cultural factors should be encouraged.

Several participants provided examples of drawing attention to inaccurate, US-centric information that led to changes in the information presented in class materials. For example, one participant stated:

“When I was a student and it was in the ___ [name of class] class and they talked about the “Gutenberg Library” and the whole history of printing. And it happened in ___ [name of country] before and it wasn’t mentioned and I raised my hand and like I said that actually happened in ___ [name of country] beforehand. Class slide said that United States was the “first” which was not correct. And so ___ [name of teacher] went ahead and corrected it and changed the slide” [16.q20.1.p9].

The above example identifies two points of consideration that are significant to two-way learning. First, that the person in charge recognized the inaccuracy and US-centricity of the class material provided and changed that information once more accurate information was provided. Second, the international doctoral student shared some LIS-related cultural knowledge that s/he had and drew attention to the concern that s/he had about issues presented in class. Such an experience shows a positive mode of interaction in terms of reciprocal learning.

During their participation in conferences, several participants (especially those from China) mentioned the importance of their strong networks with other people from their country. Participants reported two-way learning in future efforts via tapping into such networks to promote growth in LIS education. Participants also mentioned support for more collaborative teams with international student members to co-author papers where cross-cultural experiences could be represented. International networks could be tapped to build future online databases in LIS education that helped promote international partnerships and collaborative ventures. Participants also reported developing tasks related to enhancement of specialized skills in LIS that emerged from specific ethnic or cultural experiences. Translation of works in major languages of the world was one kind of skill that international doctoral students in LIS could provide that would contribute mutual learning and growth in world knowledge and cultural exchange.

Conclusion

Two-way learning from international students in various LIS programs across the country can further internationalization of the discipline at local, regional, and national levels. International students have access to specific cross-cultural knowledge, international experiences, global social networks, and cultural-specific skills that have often been ignored or underutilized in the past. Contemporary globalization and globally networked ICTs present an urgent need to tap into this existing knowledge base within the discipline. Encouraging knowledge sharing with international doctoral students is relatively low-cost, reliable and efficient, and provides rich, authentic, and trust-worthy insights.

In this research, two-way learning from case-participants yielded valid perspectives in terms of providing voice to an under-represented population that was directly being impacted by US-centric educational conditions. Moreover, and ironically, who better to provide feedback about internationalizing LIS education than those constituents in the discipline who have international backgrounds and experiences? Yet they have often been barred from providing any feedback in related LIS educational processes! Additionally, two-way learning with international doctoral students can facilitate implementing the internationalizing practices that participants recommended that would otherwise only be possible via extensive foreign travel and international social networks developed over a lengthy period of time.

Two-way learning strategies that were adopted in this research can be applied in other LIS schools, programs, and levels of study, as well as in other disciplines across college and university settings. Both LIS and non-LIS audiences (including educators, administrators, and practitioners) in various academic, corporate, organizational, and public sectors may benefit from mutual learning to further internationalize their work environments. Study findings may also be useful to people who are studying and finding ways to facilitate cross-cultural collaborations in the development of globally distributed knowledge communities.

One limitation in the application of study results is generalizability of the findings. The limitation of the research to a single case with only 21 participants will be addressed in future research that will document two-way learning from international students in other schools, programs, disciplines, and levels of study.

The goal of this research, however, was not to identify all-encompassing statements about the perspectives of all LIS international doctoral students, nor was it to present a comprehensive look at internationalization issues in LIS. The goal instead is to provide an in-depth look at the perspectives of one case in LIS education. Since such an effort has not been conducted in prior studies, this research becomes exploratory, descriptive, and interpretive in its nature.

This research has specific philosophical, conceptual, and methodological implications for future work on “two-way” learning in any environment, be it academic, commercial, organizational, national, international, or other. On a philosophical note, considering the need for global interdependence and international understanding, the strategy to adopt “two-way” learning where American and international constituents may learn from each other about diverse experiences, knowledge, information practices and use, is a worthy direction to pursue. Such interactions can take place only when there is a mutual respect and recognition of diverse knowledge bases and multicultural experiences emerging from different parts of the world. Applying this mode of thinking to various other contexts of study, within and beyond the academy, in order to promote global collaborations and build shared knowledge and practice is sorely needed now.

Prior work in international student research usually focuses on how to improve the conditions for individuals belonging to such groups. There is minimal research that recognizes their cross-cultural experiences as worthy of contribution towards academic growth in the United States. This is also pertinent to LIS education in the United States where a two-way learning approach in recognizing the value and cross-cultural contributions of LIS international students will provide mechanisms for adaptation, survival, and global applicability of the discipline. Focus on a two-way learning will also help LIS schools to improve international collaborations and partnerships, build upon international alumni networks, enhance international student enrolment and recruitment, and help explain the success or failure of future knowledge sharing in international contexts.

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Tables

Table 1: Why is Internationalization of LIS Education Important?

Broad Reason	Specific Dimensions	Impact of Reason/Dimensions
Reflects contemporary political, economic, social, cultural, and technological changes	Results of external globalization on a world society	Intensifies social relations and creates new forms of interaction/interdependence
	Development of global networked ICTs and the Internet	Connects diverse people to interact with each other in processes of information creation-organization-dissemination
	Pressures from internal changing demographics and cultures in the United States	Calls for LIS professionals to develop sensitivity to diversity and understanding of different cultures

Table 2: Why is Internationalization of LIS Education Important?

Broad Reason	Specific Dimensions	Impact of Reason/Dimensions
Strengthens the basic philosophy, vision, and mission of LIS as a discipline	To recognize diversity in perspectives, experiences, and knowledge bases	That may lead to a valuing of people from different geographic areas and disciplines
	To affirm connections between global practice and education in LIS	That may contribute to a growth in world knowledge, information research, and technology design and implementation
	To acknowledge various globally represented (dominant and alternative) knowledge domains	That may further development of new ideas to solve world problems

Table 3: Why is Internationalization of LIS Education Important?

Broad Reason	Specific Dimensions	Impact of Reason/Dimensions
Fulfills specific goals, objectives, and functions in a global context	To provide access to diverse perspectives and multiple view points	Will expand services to fulfill needs of varied communities and individuals
	To identify critical LIS foundational issues such as user information needs, networked information technologies, and organization/management of information resources/services	Will provide representation of multiple contexts across varied digital divides, inter-cultural and cross border issues, and diversity of languages
	To map influence of socio-cultural, socio-economic, and socio-political factors in shaping information creation-organization-dissemination processes	Will develop understanding of experiences at local levels and how they play themselves out in globally dispersed situations

Table 4: Why is Internationalization of LIS Education Important?

Broad Reason	Specific Dimensions
Provides intangible benefits and tangible outcomes	Facilitate cross-cultural communication and knowledge network development
	Maintain a leadership role of the United States in IT-related fields
	Develop global partnerships and collaborations
	Provide people with diverse perspectives to work in global collaborations
	Increase economic gains from technological systems for global markets
	Improve varied services for different people
	Develop cross-fertilization/exchange in new ideas, best practices, benchmarks, and world knowledge

Table 5: How Can LIS Education Further Internationalize its Philosophy and Functions?

Participant Recommendations
Promote international marketing of LIS as a discipline to study interactions between people, society, and technology in terms of their global intersections and cultural expressions
Project a global image of the discipline to study how information technology is implemented and impacts people's life in different societies and countries
Learn about social, cultural, and political experiences of people in different countries and how those determine their usage, networks, conventions, and micro-level practices
Represent greater non-US research projects and experiences in LIS education and thereby re-evaluate the question "Are we pursuing an American LIS degree or just an LIS degree?"
Adopt a hybrid model to recognize the influence of individual-culture-language factors as they determine contributions of international student constituents towards LIS growth
Promote models and interpretations based on the comparison-contrast approach that identifies similarities and differences between different cultures of practice in LIS that may reveal a broader range of individual-society-culture-technology interactions
Incorporate international dimensions in LIS programs' vision/mission statements
Represent international issues and cultural differences in the information creation-organization-dissemination processes
Identify international research directions, cross-cultural research projects, international collaborations, global educational partnerships, and cross-cultural perspectives as important avenues to develop in LIS

Table 6: How Can LIS Education Further Internationalize World Knowledge?

Participant Recommendations
Expand the knowledge base and contributions from different countries in the processes of information creation-organization-dissemination
Build databases and collections about LIS-related research, from, and of other countries to include publications from other countries, global contributions related to development of user studies literature, and associated online country-wise databases where people from around the world can contribute information (user-studies data) from their countries
Establish cooperation and networks to insure metadata quality and quality problems in cataloging since there is a lack of knowledge about the international subjects and languages from other countries (online systems to develop shared cataloging)
Represent international field examples and case studies that capture latest trends, best practices, and current conditions of application across the world

Table 7: How Can LIS Education Incorporate International Knowledge Domains and Frameworks of Practice?

Participant Recommendations
Study global manifestations and variations in knowledge areas, information-related practices, cultural values, resources and networks, and frameworks of solutions to address different problems
Support faculty who practice internationalizing efforts that may establish credibility, authority, and acknowledgement of international theory, concepts, applications, and practices in LIS

Table 8: How Can LIS Education Extend an International Teaching/Research Agenda?

Participant Recommendations
Teach students to look for sources outside the United States and build research and teaching networks inclusive of people outside the United States
Incorporate internationalizing references throughout the course work, structure and program and develop specialized courses on internationalization
Include international perspectives/dimensions in all topic areas via incorporating global field studies to study needs assessment, software design and development, evaluation and usability issues, and technology planning and implementation
Have more non-US experiences and global examples in areas such as digital library and cataloging that may cover greater content from different countries around the world
Cross-post courses on cultural differences from different departments across the campus and develop courses based on sharing experiences in international travel
Recognize clashes between universal applications and local variations in creation of standards, international librarianship, and library curriculum development
Incorporate internationalization elements in LIS courses such as history of LIS across the world, global classification and cataloging, user-centered studies, cultural issues in LIS, children's literature, intellectual property, and indexing and abstracting, amongst others
Provide opportunities in the classroom for sharing of cross-cultural experiences and perspectives of international students in teaching and research missions
Recognize different modes of behavior, practice, and interaction, especially for students from different cultural backgrounds
Support stronger professional faculty-student relationships to create openness and cross-cultural communication because of differences owing to cultural and individual factors

Table 9: How Can LIS Education Develop Global Socio-Technical Infrastructures?

Participant Recommendations
Support global exchanges across institutions, public and private stakeholders, NGOs, communities, and individuals
Build collaborative databases, shared technological platforms, and online repositories for expanding information content, communication and information exchanges, and reification efforts that establish a global community and identity amongst international participants in LIS education
Create community platforms based on country of origin and discipline intersections that nurture sub-communities within and outside the discipline

Notes

^[1] In this research, the need to develop both human capital (identified in terms of psychologies, skills, learning development, and other capacities and capabilities of the individual), as well as social capital (in terms of potential and developed factors related to interaction of people with others in groups or communities) is considered essential to further cross-cultural communication and understanding between globally dispersed people.

^[2] For the category “international students,” the research follows the definition of the United States Department of Labor as all students who are not citizens, permanent residents, or landed immigrants in the United States. Professional literature refers to “international students” by names that include overseas student, foreign student, student from abroad, international student, and study abroad student. A discussion of these terms, each of which acquired currency of use and meanings based on specific socio-historical, political, and cultural assumptions emerging during different temporal and place-bound contexts is beyond the scope of this paper. Here, the term international student is used to reflect current usage in contemporary American universities.

^[3] In coding the data, interviews were numbered in sequence; this appears at the start of each tag (i.e., bracketed set of codes). For example, in the example scenario all the tags begin with “4,” which indicates that the scenario is taken from the fourth interview as sequenced by the researcher. Since there was much variation during the

interviews owing to situational dynamics of interaction, the sequencing only broadly reflects the interview process enactment. This is indicated by portions of the tag such as “q8.1” and “q8.2”. These indicate that the scenario is a response to question eight as sequenced by the author (“q8” is the question: “Provide examples of how your non-US experiences have been helpful in the performance of activities expected of you as a doctoral student?”). The numbers (1 and 2 as in “q8.1”...) following the decimal in the tags indicate that there were two main points in that response of the case-participant to the question. These included reference to international literature that international students know about (“q8.1”) and the exposure to research methods applied internationally that international students may have used in their work before coming to the United States (“q8.2”). The last part in each tag indicates the page number on the transcribed copy of the interview where the particular narrative piece occurs (“p17”).

⁴ A point to note is that the first author was the only person working on the coding process. Lack of validity resulting from use of one coder was compensated by sharing details of the process and results with a research committee after removing any personally identifying information from the data, as well as giving opportunities to case-participants to review a draft of research findings.