The Landscape of LIS Research and Teaching Area: iSchools versus non-iSchools in North America

Fei Shu[1], Jamshid Beheshti[1]
[1]McGill University

Abstract

The purpose of this study is to investigate the differences and similarities in terms of research area and teaching area between the iSchools faculty members and non-iSchools faculty members within the traditional LIS schools offering a master's programs accredited by the American Library Association (ALA) in the United States and Canada. The results indicate that iSchool faculty members have more interests on information system and retrieval while non-iSchool colleagues focus more on services on user populations, in both research area and teaching area.

Keywords: iSchools, Library Science, Information Science, research area, teaching area

Contact: fei.shu@mail.mcgill.ca

1   Introduction

The iSchool movement emerged as a result of the Library and Information Science (LIS) program closures in the 1980's (Wiggins & Sawyer, 2010). The iSchools organization was formally founded in 2005 to promote an interdisciplinary approach to advance the information field (Bruce, 2011; King, 2006). During the following ten years, the iSchool movement grew around the world to 65 members: 30 in North America and 35 in the rest of world. Although iSchools emphasize their distinction from traditional LIS schools (Bruce, 2011; Brynko, 2012; Carbo, 2012; Dillon, 2012; King, 2006; Olson & Grudin, 2009), the iSchool movement originates from and is deeply rooted in LIS. 73.7% of the original iSchool members (14/19) offer a master's program accredited by the American Library Association (ALA). Currently, 76.7% of iSchools located in North America (23/30) offer the ALA accreditation program. As a result, 59 LIS schools hosting ALA accredited program are divided into two groups: iSchools (23) and non-iSchools (46).

Previous studies attempted to find the difference between iSchools and non-iSchools within LIS programs. They report that iSchools still contain many dominant research topics from LIS (Holmberg, Tsou, & Sugimoto, 2013; Wu, He, Jiang, Dong, & Vo, 2012), and there is no significant difference when comparing the master's program between iSchools and non-iSchools (Chu, 2012; Wedgeworth, 2013). Although some research indicates the diversity of iSchools faculty members in terms of education background (Luo, 2013; Wiggins & Sawyer, 2012) and research interests (Holmberg et al., 2013; Wu et al., 2012), no study compares the research area and teaching area between iSchool and non-iSchool faculty members to examine any differences between the two groups.

The purpose of this study is to investigate the differences between the iSchools and non-iSchools faculty members in terms of current research and teaching areas offering the ALA accreditation programs in North America.

2   Related Works

A unique iSchool curriculum has been called for a long time (Seadle & Greifeneder, 2007) but it is still lacking. Both iSchools and non-iSchools offer similar courses for their ALA accreditation programs (Chu, 2012). After comparing 3686 course titles and their descriptions from 55 ALA accreditation programs, Beheshti and Tang (2011) find slight differences: iSchools offer more courses on information technology and fewer courses on school libraries and information organization compared to non-iSchools. The result is confirmed by Chu (2012) when comparing five iSchools and five non-iSchools in terms of program requirements, core courses, concentrations/specializations and other related parameters based on the program information retrieved from their websites. In his doctoral dissertation Wedgeworth (2013) also finds that the distinctive difference between iSchools and non-iSchools is not curriculum, enrolment or research interests but the size (i.e. number of faculties, total income and external funding) when analyzing corresponding data from their websites and ALISE Statistics.

After retrieving and analyzing the iSchool faculty profiles, Wiggins and Sawyer (2012) indicate that almost half iSchool faculty members have a computing background. Luo (2013) finds that iSchool faculty members have diverse backgrounds and are actively engaged in various interdisciplinary activities. In order to investigate iSchool faculty members' research interests, Wu et al. (2012) collect their

publication data from the Web of Science and find a relationship between information, technology and users as the core research focuses of iSchools. Through a co-word analysis of iSchool faculty members' research interest statements, Holmberg et al. (2013) reveal that traditional LIS research topics such as LIS education, library and organization management, information retrieval, information organization, information behavior and digital libraries are still the major research areas of iSchool faculty members. However, no study has investigated whether iSchool faculty members have different research interests compared to their colleagues in non-iSchools.

3   Research Questions

In this study we focus on the faculty members' research and teaching areas in both iSchools and non-iSchools and attempt to answer the following three research questions:

- Are there any significant differences in the research area between iSchool faculty members and non-iSchool faculty members?
- Are there any significant differences in the teaching area between iSchool faculty members and non-iSchool faculty members?
- Are there any significant differences in the teaching area between full-time faculties and adjunct faculties in iSchools and non-iSchools?

4   Method

The population for this study is the faculty members of the LIS schools offering an ALA accredited master's program. The *ALISE Directory of LIS Programs and Faculty in the United States and Canada – 2013* (hereinafter referred to as the ALISE Directory), which lists all LIS faculty members and their research areas and teaching areas, is used as the data source. The 2013 edition is the most recent edition that includes faculty members appointed in Fall 2013.

Non-iSchools		iSchools
Alabama	Pratt	Drexel
Albany, SUNY	Puerto Rico	Florida State
Alberta	Queens	Indiana
Arizona	Rhode Island	McGill
Buffalo, SUNY	St. Catherine	Rutgers
Catholic	St. John's	Simmons
Clarion	San Jose State	Syracuse
Dalhousie	South Carolina	British Columbia
Denver	South Florida	UCLA
Dominican	Southern Mississippi	Illinois
East Carolina	Texas Woman's	Kentucky
Emporia State	Valdosta State	Maryland
Hawaii	Wayne State	Missouri
Iowa	Western	North Carolina
Kent State		North Texas
Long Island		Pittsburgh
Louisiana State		Tennessee
Montreal		Texas, Austin
North Carolina, Greensboro		Toronto
North Carolina Central		Washington
Oklahoma		Wisconsin, Madison
Ottawa		Wisconsin, Milwaukee

Table 1. List of LIS Schools with ALA Accreditation

Previous studies used university websites to retrieve faculty members' profiles. As reported by Luo (2013), it is difficult to interpret some faculty members' research and teaching areas due to the significant inconsistencies between the online profiles. Also, some profiles or contents are not available

online when collecting the data. The ALISE Directory applies the LIS Research Areas Classification Scheme (ALISE) to identify each LIS faculty members' research and teaching areas. The LIS Research Areas Classification Scheme codes the LIS research topics into 104 areas under 10 categories: Development/Principles of LIS, Organization of Information, LIS Education, Information Systems and Retrieval, Collection Development, Types of Libraries and Information Providers, Services to User Populations, Management/Administration, Informatics and School Libraries. It can help us classify the LIS research topic and reduce the misinterpretation. Although we understand this work is limited by using the LIS Research Areas Classification Scheme that is somewhat subjective in representing faculty members' perception on their research and teaching area compared to the objective measures (i.e. publications), the ALISE Directory is a valid and reliable data source as ALISE declares:

> The Directory of Library and Information Sciences Programs and Faculty provides a complete listing of the faculty of ALISE Institutional Member schools of library and information science, along with the teaching and research areas of each faculty member in accordance with ALISE's LIS Research Areas Classification Scheme. This scheme should prove useful for identifying research and teaching specialties across the LIS community (ALISE).

The ALISE Directory lists 58 out of 59 LIS schools (excluding University of Michigan) offering an ALA accredited program and 3 LIS schools that do not offer accredited programs. All information regarding research and teaching area of LIS faculty members from the 58 LIS schools offering ALA accredited programs was extracted and stored in an ACCESS database for analysis. The information about 1,705 LIS faculty members including 830 full-time members (e.g. assistant, associate, and full professors) and 875 adjunct faculty members was retrieved. The adjunct faculty members' records would be only considered when comparing the teaching area because they are mainly responsible for the teaching other than the research. As shown in Table 1, 58 LIS schools were divided into two groups: 22 iSchools and 36 non-Schools.

However, ALISE data has its own limitations. Data set is not complete because one school is not included in the Directory; the research area and teaching area are self-reported so that the validity of some data may be suspect; and the LIS Research Areas Classification Scheme may be slightly skewed towards traditional library science. Nevertheless, the standardized and systematic data retrieved from ALISE Directory using the LIS Research Areas Classification Scheme is more reliable compared with web data that is unstructured and inconsistent.

5   Results

A total number of 5,000 records in research area and 7,012 records in teaching area were retrieved from the data on 1,705 LIS faculty members. The 830 full-time faculty members contribute 88.7% of records (4433/5000) in research area and 63.8% of records (4472/7012) in teaching area. There are 442 full-time faculty members in 22 iSchools while 388 in 36 non-iSchools. The number of research areas for individuals varies from 0 to 32 while the number of teaching areas varies from 0 to 34.

The Table 2 indicates the top 10 research areas representing the current research interests among iSchool faculty members. 24.7 % of faculties claim that their research area includes "Information Systems and Technologies", which is the most popular research area within iSchools, followed by "Users and Uses of Information Systems" (17.9%) and "Human-Computer Interaction" (17.6%). 4 out of top 5, and 5 out of top 10 research areas are about information system and retrieval.

Rank	Research Area	Ratio of the Faculties	Rank in Non-iSchools
1	Information Systems and Technologies	24.7%	4
2	Users and Uses of Information Systems	17.9%	1
3	Human-Computer Interaction	17.6%	4
4	Information and Society/Culture	14.9%	6
5	Information Retrieval Theory and Practice	14.3%	8
6	Digital/Virtual Libraries	14.0%	12
7	Social/Community Informatics	12.2%	28
8	Organization of Information	10.9%	13
8	Database and Other Retrieval Systems	10.9%	22
10	Information Needs and Behaviors/Practices	10.2%	3

Table 2. Top 10 Research Area of iSchool Full-time Faculty Members

Rank	Research Area	Ratio of the Faculties	Rank in iSchools
1	Users and Uses of Information Systems	20.6%	2
2	Information Needs and Behaviors of Specific Groups	18.0%	13
3	Information Needs and Behaviors/Practices	17.5%	10
4	Human-Computer Interaction	14.7%	3
4	Information Systems and Technologies	14.7%	1
6	Information and Society/Culture	14.2%	4
7	LIS Education and Programs	13.1%	26
8	Information Retrieval Theory and Practice	12.4%	5
9	Information Literacy and Instruction	12.1%	41
9	Libraries and Society/Culture	12.1%	30

Table 3. Top 10 Research Area of Non-iSchool Full-time Faculty Members

The most popular research area within non-iSchools is "Users and Uses of Information Systems" (20.6%), followed by "Information Needs and Behaviors of Specific Groups" (18.0%) and "Information Needs and Behaviors/Practices" (17.5%) as shown in Table 3. Faculty members in non-iSchools focus on not only the information system and retrieval but also the services to user populations.

In terms of the teaching area, "Information Systems and Technologies" is also the hottest area for 17.9% of iSchool faculty members, followed by "Users and Uses of Information Systems" (10.2%) and "Administration and Management" (9.9%) as shown in Table 4. Within non-iSchools, most of faculty members teach "Reference and Information Services" (14.7%), followed by "Administration and Management" (13.8%) and "Research Methods" (12.6%) as Table 5 indicates.

Rank	Teaching Area	Ratio of the Faculties	Rank in Non-iSchools
1	Information Systems and Technologies	17.9%	4
2	Users and Uses of Information Systems	10.2%	1
3	Administration and Management	9.9%	2
4	Research Methods	9.7%	3
5	Organization of Information	9.6%	5
6	Computer/Information Networks	9.0%	41
7	Information and Society/Culture	8.9%	14
8	Information Technology Management	8.8%	33
8	Reference and Information Services	8.8%	1
10	Database and Other Retrieval Systems	8.1%	10

Table 4. Top 10 Teaching Area of iSchool Faculty Members

Rank	Teaching Area	Ratio of the Faculties	Rank in iSchools
1	Reference and Information Services	14.7%	9
2	Administration and Management	13.8%	3
3	Research Methods	12.6%	4
4	Information Systems and Technologies	12.2%	1
5	Organization of Information	11.8%	5
6	Information Literacy and Instruction	10.2%	30
7	LIS as a Profession	10.0%	27
8	School Media Centers/Libraries	9.6%	20
9	Collections Development	9.5%	32
9	Database and Other Retrieval Systems	9.5%	10

Table 5. Top 10 Teaching Area of non-iSchool Faculty Members

We did not find any major difference in the research areas between iSchools and non-iSchools. Six out of Top 10 research areas in both iSchools and non-iSchools are similar. As shown in Figure 1, iSchools faculty members pay more attention to the "information system and retrieval" while non-iSchool faculty members focus more on "service to user populations". Although the adjunct faculty members' data was taken into account when measuring the teaching area, we found almost the same story as Figure 2 indicates. Seven out of top 10 teaching areas in both iSchools and non-iSchools are the same; the slight difference is that more iSchools faculty members teach "information system and retrieval" and fewer teach "service to user populations" compared to non-iSchool faculty members.
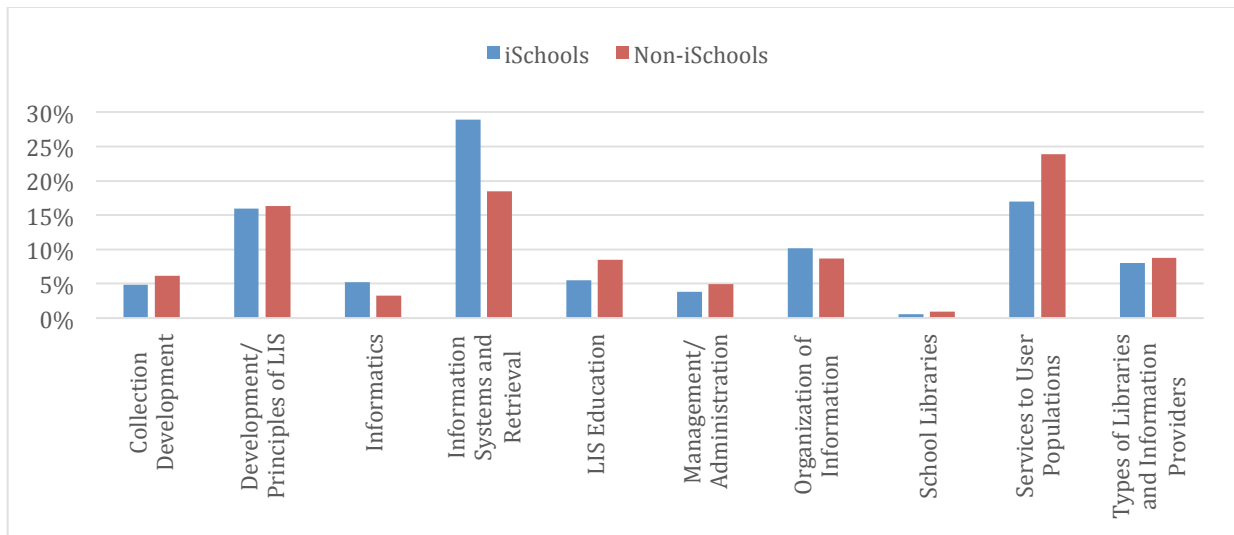
Figure 1. Comparison of Research Areas between iSchools and non-iSchools
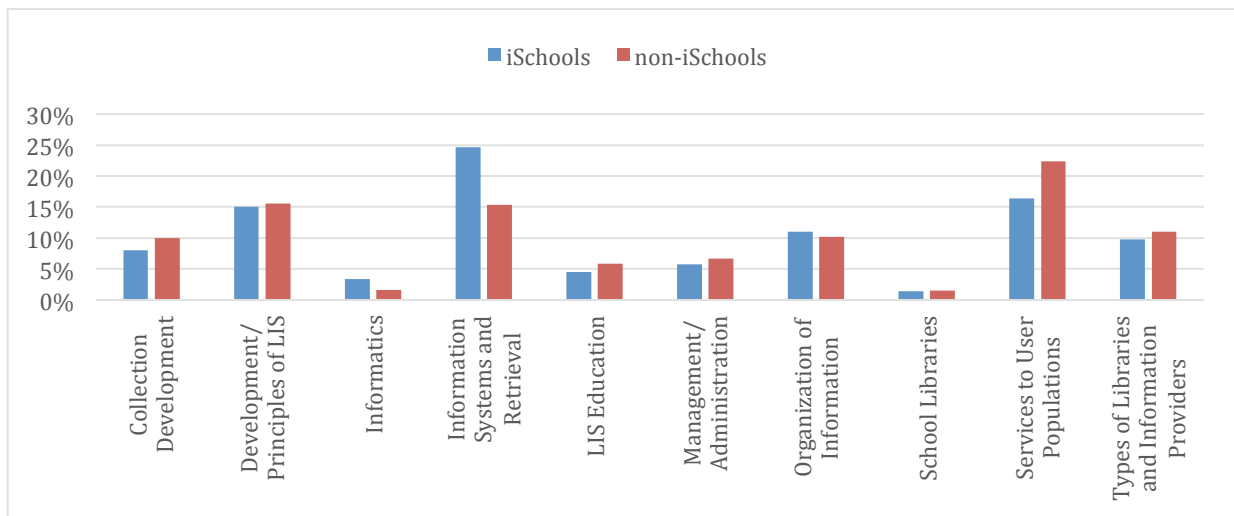

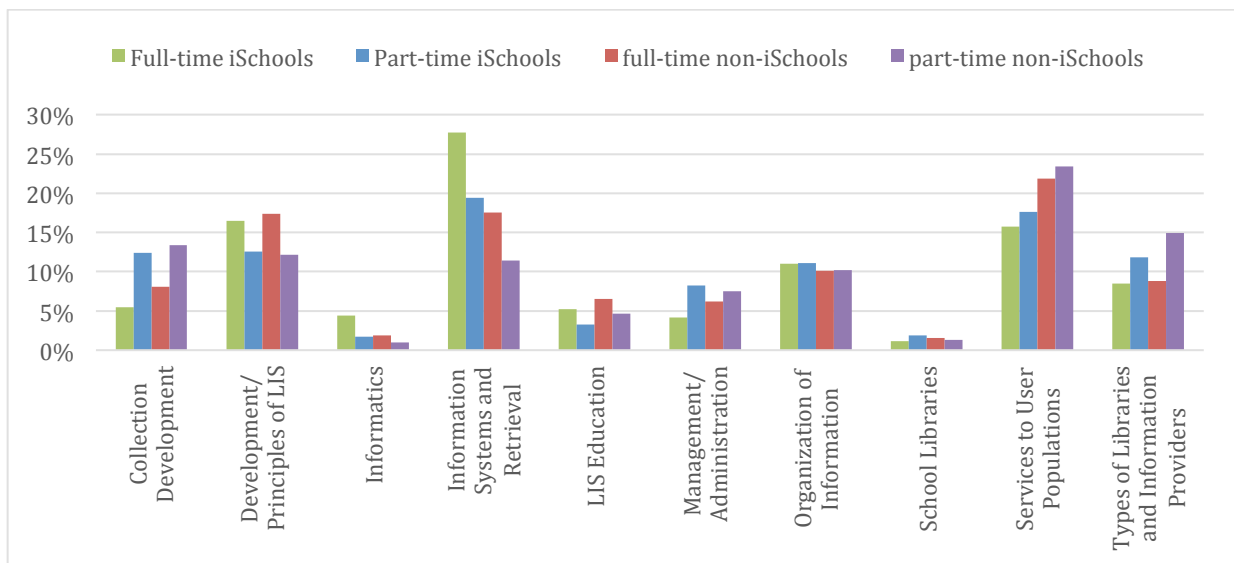Figure 2. Comparison of Teaching Areas between iSchools and non-iSchools

Figure 3. Comparison of Teaching Areas between full-time faculties and adjunct faculties

As Figure 3 indicates, both iSchools and non-iSchools would like to hire adjunct faculties to teach traditional library courses under "collection development", "services to user populations" and "types of libraries and information providers" while more full-time faculty members are responsible for teaching technique courses under "information systems and retrieval".

6   Conclusion

In this study, after analyzing 1,705 LIS faculty members' research areas and teaching areas through the predefined LIS research classification scheme proposed by ALISE, we determined the differences on both research and teaching interests of faculty members between iSchools and non-iSchools. The results of our study show a slight difference between iSchool faculty members and non-iSchool faculty members in terms of the research area and teaching area:

- In both areas, iSchool faculty members focus more on "information system and retrieval" than non-iSchool faculty members, which corroborates previous studies reporting similar results on courses offered by iSchool faculties (Beheshti & Tang, 2011) and their research interests (Wu et al., 2012).
- In both areas, non-iSchool faculty members have more interests in "services to user populations" than iSchool faculty members that shows some differences from earlier research (Beheshti & Tang, 2011; Chu, 2012), possibly due to the use of a different data set in this study.
- Adjunct faculties in both iSchools and non-iSchools are hired to teach traditional library courses such as "collection development", while full-time faculty members are responsible for teaching technique courses under "information systems and retrieval", which is a new finding that is not reported by previous research.

In order to investigate more detailed significant difference between iSchools and non-iSchools, different data sets such as publications, citations, collaboration networks and research grants may be used for further analysis.

7   References

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