Agents of change: Regional cooperation and LIS education and training

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Abstract:

This paper is a case study, an evaluation of a Regional (Western) Balkan project, which developed and delivered LIS program for the region. Potential students were recognized as already practitioner librarians working mostly in STEM types of libraries. Thus, it evaluates the results through analyses of the opinions of academic librarians and particularly librarians with subject background about proper skills and competences that are crucial in contemporary information environment. Regional cooperation was considered an important step to promote collaboration and exchange experiences between education programs in region, in order to improve the quality of education in LIS programs.
The data are derived from extended questionnaire survey conducted among librarians that have followed Master' level study program in Librarianship at the University of Ljubljana (Slovenia). Other data were gathered with extended interviews with STEM librarians in Albania, mostly in engineering academic library and other academic settings. The respondents were asked on LIS curriculum and its relevance to present academic environment, aspect of internationalization and regional cooperation, information technology knowledge and skills, teaching methods, balancing of theoretical and practical knowledge regarding subject-specific subject etc.
This study helps us to get a picture of the qualifications needed and key components in the education of specific subject librarians in Albania, beyond traditional librarianship, which correspond to similar studies elsewhere. We also hope to add something to the development of regional cooperation as a key factor for establishing political stability in this part of Europe, which is in the best interests not only of these countries, but also Europe as a whole.

Introduction

Libraries have been challenged to transform their specific functions by utilizing effectively innovative information technologies to enhance and integrate their specific information resources and services. Librarians - information professionals in libraries need to update their knowledge, competencies and skills as key success factor in enabling the library to perform its role. The shift from a traditional library environment to a digital one, has forced LIS education to change their programs and curriculum to provide adequate content and practice that will enable the librarians in immediate response to user needs according to new settings. Although all aspects of librarianship and types of libraries have been touched, none of them have been affected as much as Science, Technology, Engineering, Medicine (STEM) librarian.

The role of STEM librarians today required them to serve as a professional information consultants to the users and to become a continuous learner of subject-specific skills. Increasing concern has been also expressed regarding the core competencies for this type of librarianship and how Library and Information science (LIS) education programs, system and training are coping with new demands and up-to-date competencies for STEM librarians.

Library and Information science (LIS) curricula have to take into account the diversity of information work in the 21st century. However, these curricula cannot always offer the wide range of educational experiences necessary to prepare students for careers in Science, Technology, Engineering, Medicine (STEM) librarianship.
The Education of STEM librarian includes two distinct categories:
➢ Subject-specific
➢ Library/ information related
STEM librarians must meet a set of professional demands related to competences and skills that are not required in other library settings. STEM, which is basically oriented toward scientific research, is also the most internationalized and globalized part of social processes and activities. The development of new professional forms that contribute to successful outcomes within globalized scientific research is also changing library profession.

Literature Review

There are a number of studies regarding the evaluation of LIS curricula from different stakeholders groups. On other hands, we can say that there are so many specific studies about competences required by STEM librarians in 21st century. The STEM librarians must also meet a set of professional knowledge and skills that are not required in other library settings. This knowledge is basically derived from LIS programs that have brought constant changes to LIS education all over the world. Among all the changes in LIS education, the ones that are most visible and observable can be found in the LIS curricula. "A curriculum for LIS education usually reflects what is being offered to train librarians and information professionals' knowledge and

skills in order to become qualified personnel in the field, but also meet challenges the ever changing information society brings. (Chu, 2006).

Hallam (2007) identified the range of issues that confront LIS education in Australia and emphasized that "LIS education continues to face immense challenges "and concludes by reinforcing the idea that" the future of effective and relevant LIS education is a matter for all people involved in the profession to work together to ensure that the profession does have a real future". Chow et al. (2011) utilize a combination of interviews, surveys and focus group among four stakeholders group represents the real gaps in LIS program in the southeastern United States and "the current curriculum needs updating and alignment". Furthermore, findings of this study emphasizes that "all stakeholders seem to agree on the desirability of traditional library studies framework combined with a more technology-based focus". The greater emphasis of LIS programs is on information and communication technology (ICT) contents. According to Wilson (2011) "A good number of posts of LIS professionals are already in the catch hold of technological experts… ICT application is a key factor to relevance in the scheme of things in the 21st century". About 150 colleagues in the field of LIS education from all parts of Europe have been contributing to the preparation of the book, which reflects these changes and strife for new LIS curriculum (Kajberg, Lorring, 2005).

Librarians and especially STEM librarians are the ones that can evaluate and emphasize competencies needed to work in this field. As specialist education will be applied as practical knowledge only several years after it is completed, emphasis lies on its future applicability according to evaluations of its practicality and analysis of demands from those already in the field. (Noh et al, 2012; Beck & Callison, 2006) survey with science librarians found out that "the lack of science background may present "and will be discussed to ongoing training and professional development. The same conclusion provides the study of Varalakshmi (2006) among LIS professionals in engineering libraries and other academic settings in India. Scherrer (2004) study among medical librarians in USA revealed research method as essential and important part of LIS program. Robati and Singh (2013) by interviewing managers of special libraries in Iran also found that research competencies are expected from special librarians (beside   information technology competencies). Some others (Nicholson, 2005) think that library courses should provide librarians with the core knowledge in subject-specific techniques and resources, as well   experiences needed to help them become expert searchers.

Other authors add an important issue and addition to formal LIS programs, an internship program. The internship program can provide current knowledge and skills to educate and support a university research library" and a potential science librarian (Varalakshmi, 2006; Chow et al. 2011; Juznic& Pymm, 2011; Anderson et al. 2012).

Beside formal education, continuing education is also an important issue for STEM librarians. Surveys about continuing education interest of science and technology librarians by the Science and technology section (STS) of the Association of College and Research Librarians (ACRL) suggested strong interest in many issues confronting the profession by LIS professionals. The topic "collaboration between faculty and librarians" attracted the interest of STEM librarians, but "evaluating existing services/developing new service" was a topic of emerging interest. The results were interesting because only one of the 24 pre-selected topics received a Likert ranking lower than 2.5. Fifteen of the pre-selected topics were ranked above 3.0 (Calzonetti & Crook, 2009). Generally STEM librarians see all professional topics as important.

Library education in Albania and West Balkan

In contrast to other more traditional academic fields in Albania, it is likely that the history of Librarianship Education is a history that shares certain features in regional countries that are otherwise very diverse. LIS education is integrated into the Department of Study and Training as part of the National Library of Albania (NLA). Since 1969, the 2-years on the job training course is attended by people with higher education and hired to work in a library. The program of the course includes different disciplines related to technical and user services, standards, library management and information technology. The librarians of the Research and Training Department of the NLA and other experienced librarians of the NLA are the teachers of this course. In addition, in 1999 a training center was established.

The Library courses in NLA in Albania provide specific library contents, but could not provide special knowledge and skills for academic librarians and furthermore could not get updated subject-specific knowledge and skills for STEM librarian.

There is no Library School in Albania and presently no LIS program is provided on university level. This was one of the reasons that a group of Albanian librarians (15 librarians) participated in Co-operative Online Bibliographic System & Services (COBISS) (http://www.cobiss.net /). "COBISS.Net, a regional network, is a joint project in West Balkan, "which have taken on the responsibility for developing national library information systems and current research information systems. Linking between the systems is crucial for managing researchers' bibliographies and evaluating research results." The system is coordinated by the Institute of Information Science (IZUM) which has a status as UNESCO regional centre for library information systems and research information systems.

LIS education program started in 2009 and followed Master' level study program of LIS at the University of Ljubljana (Slovenia), and 35 already practicing librarians from Western Balkan Countries (Albania, Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro and Serbia) enrolled.

So, this project and regional cooperation helped us to evaluate and compare two LIS education program. The aim of this study was to evaluate LIS Regional Master' programs in the region. The goal was to improve regional cooperation and develop the LIS programs in the region.

This objective can be achieved by addressing two research questions:
➢ What competencies should provide LIS education for librarians?
➢ What are key issues for further education and training for STEM librarians in the region?

Methodology

Our study used a combination of two methods. The survey was conducted with a Web-questionnaire among 35 students that followed the Master' level study program of LIS at the University of Ljubljana (Slovenia), from Western Balkan Countries (Albania, Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro and Serbia. These students were the permanently employed professional library staff in different libraries in their country. An interview with seven STEM Albanian librarians, seeking their opinion on the existing content of LS curriculum in Albania and their expectations regarding education and training for STEM librarians in Albania.

The web-questionnaire was available online to URL: http://www.1ka.si/a/25565 from 9. April (when the e-mail was sent).The questions were mainly designed on a rating scale model and were related to opinions of librarians toward quality of MLSc course content, knowledge and skills, teaching methods etc. (see Appendix). The respondents of web-questionnaires were working in different institutions in the above mentioned countries.

In addition, the interview was conducted among Albanian STEM librarians who were working in engineering academic libraries. The respondents were asked on the curriculum of Library School in Albania and its relevance to present academic environment, aspect of obsolescence, information technology knowledge and skills, teaching methods, balancing of theoretical and practical knowledge regarding subject-specific subjects etc. The results of survey also give us an opinion about the librarian's competencies in the new environment, content of LIS curricula, and preferences towards lifelong learning.

Results

Web-questionnaire

The questionnaires were answered by 28 respondents who hold different positions. 40% of respondents worked in academic library. The majority of respondents (54%) had already received their master's degree, 32% of them are going to defend thesis this year and 14% were not sure when they will finish it. They were asked about MLSc curriculum that they had studied. The results were ranked on a five point scale.

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The course content is coherently structured	0 (0%)	1 (4%)	1 (4%)	17 (61%)	9 (32%)
Emphasizes required professional skills for professional librarian	1 (4%)	1 (4%)	2 (7%)	13 (46%)	11 (39%)
Developed qualities for new task in libraries	1 (4%)	0 (0%)	1 (4%)	13 (46%)	13 (46%)

The great majority of respondents don't suggest revision of existing curriculum, as they agree that the course content was coherently structured for professional skills and developed qualities for new task in libraries. The survey listed pre-selected 13 knowledge and skills. Results show that respondents did not strongly converge on a single knowledge or skills.

So, by analysis, the results were ranked from the highest rate (4.6) for "familiarity with the fundamentals and methods of research", to lowest score (3.9) for "familiarity with different methods and processes of selection, ordering and acquisition of resources (through traditional and electronic ways)". In addition, the research competences were highly valued (on the average 4.33) from respondents, by comparison with other competences. (The detailed results about pre-selected knowledge and skills are at the end of article as Appendix).

Clearly, the majority of respondents (68%) have judged that theoretical knowledge was (50-80%) helpful in solving professional problems. In addition, the survey requested responders to submit their opinion about teaching methods and which were more effective to them. Response to this question was robust,"as satisfactory and suitable", but was important shift toward more practical aspects. While, a review of the respondents' suggested for the improvement of MLSc course content, indicated that respondents preferred more tutorial and subject-specific knowledge. This has to do with logistic problems, as on-site teaching was done on six different towns in the region and supported by e-classroom. E-classroom has been used successfully, as all but one respondent found that assignments were helpful.

Some of the students also missed more practical aspects. In the future this should be included. Only for one of the students there was a possibility to stay for one year with an Institute for information science in Maribor (IZUM), which added a practical aspect to the study.

Interviews

As part of a curriculum review process, seven members of the academic library were interviewed to determine what constituent expectations were for STEM librarians from the LIS education and training in Albania. They also had a good knowledge of the teaching activities of library course given by NLA.

The respondents agreed that due to very rapid changes in the library technology there was a gap between the library practice and the contents of library training in the country. The growth of information and communication technology has revolutionized the whole concept of libraries, storage and retrieval and ways of accessing information, while training course could not respond to it very quickly. In this new environment, STEM librarians are expected to be more active to fulfill the needs of their users toward research techniques, database development, quality and choice of professional database. As a result five respondents suggested re-evaluation of training course content. Two respondents suggested different training programs, which can be in the form of workshops, seminars for STEM librarians. Competencies required from a STEM librarian can be divided into three categories: ICT knowledge, research and knowledge management. All three areas should be given a balanced importance. The analysis revealed that all respondents validated the importance of the ICT skills, the communication skills in English language (all except one) for STEM librarians. In finally, the suggestion of respondents can serve as guidelines for revised curricula of library education in Albania.

Their suggestions can be summarized as follows:
- Library school program should provide librarians with more technology – based skills instead of traditional library ones
- STEM Librarians should have good ICT and management skills.
- STEM Librarians should have good proficiency in English language.
- Library school program should be a blend of theory and practice. Both should be given equal importance.
- Research skills should also be given more importance.
- Different specializations should be offered for librarians working in different types of libraries.
- These findings are generally congruent with the review literature where a number of studies have emphasized the importance of ITC and research knowledge in LIS education curricula.

Discussion and recommendations

Although many authors stress that a library career in Eastern Europe is unattractive and lacking prestige, this is not true for STEM librarians as in society you are perceived as a member of your wider organization rather than as a librarian. (Hollender 2007) and universities still hold a high prestige. It is important to establish and keep the high level of professionalism, professional competencies and skills.

The study of LIS education in EU new member states and applicants showed that there were no barriers for adjusting to new professional and political standards. The LIS schools in these countries have generally changed their curricula towards those of mainstream institutions in the field and schools have also embraced the principles and guidelines of the Bologna Declaration (Juznic, Badovinac, 2005). They have also been included in the project to bring European LIS educators together so as to enable them to participate in discussions centering on twelve themes identified as essential in the context of LIS school curricula (Kajberg, 2007).

The aim of this study was to listen and to discuss with STEM librarians key issues in STEM librarian education. "LIS education is a critical issue for the professional association, but beyond this it is also a critical issue for the profession in its entirety. It requires concern, cooperation and collaboration – today, tomorrow and into the future" (Hallam, 2007). It is important in small countries to ensure that the LIS education they are providing is internationally relevant, while taking into account the values and attitudes of their own environment (Oliver, 2006) and that they are well aware of the many potential benefits of collaboration, and the types of barriers that must be overcome to achieve it (Al-Suqri et al, 2012).

The study is a mirror of regional cooperation and collaboration between MLSc librarians for improving their professional performance as "agents of change". The result suggests that Library Study Department in Albania should re-evaluate and improve the curriculum of librarian education in order to ensure more information technology and research competences. In addition, the results are important because they have presented the way for improving the existing library education and training programs toward STEM librarian needs. Traditional library courses are in most countries not regarded as a supplement to LIS formal university programs and education, although they can form a backbone for continuing education - seminars, courses that may increase the library professionals' knowledge about subject specific contents.

We consider regional cooperation as an important step to promote collaboration and exchange experiences between education programs in region, in order to improve the quality of education in LIS practice in the region. The presented study was already organized in the cooperation between two institutions from the region, University of Ljubljana (Slovenia) and University of Zadar (Croatia). Regional cooperation has many advantages, which can have an important influence on the quality of the program and study.

The results of this paper can help in learning how specific subject librarians could support students' research during their study and what skills and competencies they need. We also hope to add something to the development of regional cooperation as a key factor for establishing political stability in this part of the Europe, which is in the best interests not only of these countries.

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Appendix

1 - MLSc student survey (URL is https://www.1ka.si/a/25565)

1 --GENERAL INFORMATION
Present Position

[ ]

Have you already defended your MLs thesis?

○ Yes

○ No, I will do it this year

○ No, I am not sure when I will finish it.

Please give your opinion on MLSc curriculum that you have studied:

Top of Form

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
The course content is coherently structured	○	○	○	○	○
Emphasizes required professional skills for professional librarian	○	○	○	○	○
Developed qualities for new task in libraries	○	○	○	○	○

Do you suggest any revision to existing curriculum?

○ Yes   ○ No

If Yes, which one

[ ]

Do you think any topics in the curriculum are obsolete?

○ Yes

○ No

If yes, write them

2 --KNOWLEDGE and SKILLS

Do you think the curriculum of Master's level program –Library science is suitable to discharge these knowledge and skills for librarians.

Collection management

	Strongly disagree	Disagree	Undecided	Agree	StronglyAgree
Understanding users, their characteristics and interests, and their information needs	○	○	○	○	○
Familiarity with different methods and processes of selection, ordering and acquisition of resources (through traditional and electronic ways)	○	○	○	○	○

Information organization

	Strongly disagree	Disagree	Undecided	Agree	StronglyAgree
Familiarity with principles and rules of cataloging and classification of collections	○	○	○	○	○
Ability to analyze subjects according to needs of the library and users	○	○	○	○	○
Ability to perform indexing and abstracting	○	○	○		

Information technology

	Strongly disagree	Disagree	Undecided	Agree	StronglyAgree
Knowledge of information technology	○	○	○	○	○
Familiarity with Internet and search	○	○	○	○	○

Research competencies

	Strongly disagree	Disagree	Undecided	Agree	StronglyAgree
Familiarity with the fundamentals and methods of research	○	○	○	○	○
Familiarity with statistics and data analysis tools/techniques	○	○	○	○	○
Ability to write reports	○	○	○	○	○

Communication and interpersonal skills

	Strongly disagree	Disagree	Undecided	Agree	StronglyAgree
Ability to communicate effectively with patrons and colleagues	○	○	○	○	○
Ability in the English language	○	○	○	○	○
Ability to self- evaluate	○	○	○	○	○

How far the theoretical knowledge are helpful in analyzing and solving professional activity?

○ < 50%   ○ 50-80%

○ >80%

3- TEACHING METHODS

3.1 -Please give your opinion on teaching methods followed

	Strongly disagree	Disagree	Undecided	Agree	StronglyAgree
Teaching method suitable for learning/ comprehension	○	○	○	○	○
Lecture method is satisfactory (material available for all topics)	○	○	○	○	○
Assignments are helpful	○	○	○	○	○

3.2   Any other teaching methods you feel more effective? If yes, give other teaching methods below

┌─────────┐
│   │
└─────────┘

3.3   Please give your constructive comments for the improvement of MLSc course content

Thank you!

Interview

Present Position _____

Place and Year of MLSc degree _____

1-- What is the nature of subject background (subject-first degree)?

2 – Do you think that LIS curriculum is relevance to the current academic environment?

3---Do you suggest which are the required competencies for STEM (special) librarians with Masters Degree qualification?

4– Please give your opinion about balancing of theoretical and practical knowledge relative to subject-specific courses.

5 --What makes STEM (Science, Technology, Engineering, and Medicine) librarians different? Did rating the pre-selected topics of interest to you: (please give in order of priority)

6-- What changes the STEM librarians are expecting from the MLSc curriculum?

7 --How would you prefer to receive continuing education?

8- Please give your suggestions for improvement of the MLSc curricula content regarding competencies of STEM librarians.
_____

Thank you