

LIS education in Botswana: A case of DLIS at the University of Botswana

Priti Jain

Department of Library & Information Studies
University of Botswana
Gaborone, Botswana
E-mail: jainp@mopipi.ub.bw

&

B.N. Jorosi

Department of Library & Information Studies
University of Botswana
Gaborone, Botswana
E-mail: jorosibn@mopipi.ub.bw



Copyright © 2015 by Priti Jain & B.N. Jorosi. This work is made available under the terms of the Creative Commons Attribution 3.0 Unported License: <http://creativecommons.org/licenses/by/3.0/>

Abstract:

Library and Information Science Education (LIS) education in Africa is confronted with numerous challenges in order to keep stride with the changing trends in the profession. LIS education in Botswana started in 1979 with the establishment of Department of Library & Information Studies (DLIS). DLIS has made a significant contribution to the education and training of library and information personnel in Botswana and the Southern, Central, West and East African regions. DLIS offers two non-graduate diploma programmes in Library and Information Studies and Archives and Records Management, a Bachelor's degree in Library Studies and a Bachelor of Information Systems. It also offers Master's Degree programmes in Library and Information Studies and Archives and Records Management and M.Phil and Ph.D programmes in Library and Information Studies. To equip future information professionals with the right skills and competencies for the current job market and to prepare them for the emerging global society, DLIS keeps reviewing its teaching curricula to ensure that it addresses current trends in the profession. The purpose of this paper is to share and exchange views on the major changes, opportunities and challenges at the DLIS. Some of the development includes winter programme as a way of expanding access to education to the wider society. Arrangements are currently in place for the introduction of a harmonized degree programme "Bachelor of Information and Knowledge Management" (BIKM) program at DLIS based on the latest market analysis. The paper also discusses the recently concluded programme review and deliberates on the challenges faced by DLIS. The paper is based on in-depth and latest literature review and the authors' experience as LIS practitioners and educators at DLIS.

Keywords: LIS education, LIS Challenges, Africa, Botswana, Curriculum review and development.

1. Introduction

In Africa, the first LIS education programs started in South Africa in 1938 as the Department of Librarianship at the University of Pretoria and bachelor's and master's degrees were started in 1951. Today LIS education in Africa is considered a sophisticated programme like any other academic programs in all African countries. Initially, LIS education started with the training in librarianship. Now the profession has gone through a real paradigm shift. As the economy grows, the demand for information will propel the demand for LIS professionals because of the need to manage different kinds of documents (Okello-Obura and Kigongo-Bukenya, 2011). Library schools have had to review their programs to include new programs such as, Archives and Records Management, Information Technology (IT), publishing, knowledge management, etc. to keep abreast of changes taking place in information world. Hence, the importance of the profession cannot be under-mined. However, the profession is confronted with several challenges world-wide particularly in Africa. In the above background, this paper intends to highlight the major changes, opportunities and challenges at the Department of Library & Information Studies (DLIS) at the University of Botswana since its inception in 1979.

2. Department of Library & Information Studies (DLIS)

The Department of Library and Information Studies (DLIS) was set up in 1979 initially to train paraprofessional staff and bring them up to diploma level. Since its inception, the Department has made outstanding contribution to the education and training of library and information personnel in Botswana and the Southern, Central, West and East African regions. It is an internationally recognized centre of excellence within Africa for library and information education and training. It has made a unique contribution through research, publication and service to the development of the discipline throughout the continent. A suite of professional library and information studies programs reflecting the various needs and demands of Africa's library and information market has been developed. The Department recognized and continues to perceive information as a key resource in development.

DLIS Vision & Mission: The vision of DLIS is to “become a leading centre of academic excellence in Africa in the education and training of information and knowledge management professionals”. The mission of the department is to “provide quality education and training that is driven by state-of-the-art information and communications technology, research and publications”. To accomplish this, the Department is dedicated to:

- The enhancement of its already set high standards in teaching, learning, research, publishing, service and scholarship in information management and training and to achieve high level of excellence in the general disciplines of information management systems and business.
- The provision of its expertise towards the current and future development needs of Botswana while at the same time recognizing its regional setting, reputation and the constituency, it has developed and the need to extend this constituency throughout the rest of the continent.

- Providing an innovative response to the needs and demands of the information community and business that it serves by providing a practical and appropriate answer to the challenges that are being posed by globalization and the increasingly sophisticated requirements of an environment largely impacted by information and the technology supporting it.
- The pursuit of truth, in particular, defending and promoting the ideal of access to information as a basic human right (DLIS Handbook, 2012).

3. Literature review

A Brief Historical Background of the LIS Education: Initially library education began as technical education acquired on the job. Waseem (2014) categorized the historical background of LIS education into three periods: i. Alexandrian Period focused on compilation of bibliography and the making of library catalogues and encouraged scholars to use the library and to draw books out of it; ii. Medieval and Early Modern Period; this period paid attention to training of librarians; such as, cataloguing; repairing; binding and loaning; and, iii. The Early 19th Century; according to Mary Plummer, the Director of Pratt Institute Library School in Germany stated three methods of learning library Science in 1901:1. Evolving a system of his own from his inner consciousness; 2. Two or three weeks' training and observation to some large city library; and 3. Learning of certain parts of the work (e.g. cataloguing) of library by tuition. After long struggle of Dewey, the formal library education was started in 1887 in America in as a subject and gradually it started in USA, Europe, Asia, East Asia, Africa and Australia. Systematic library training in the United States was started by Melvil Dewey in 1883, who became chief librarian at Columbia College and he received approval from ALA for a formal training program. In 1887, the "school of library economy" was established as a 3-month course with 2-years actual experience (compulsory) in various kinds of library work and again 3-months course taken in review.

In 1886, LIS education began in Europe with the University of Gottingen, Germany the first university in the world that started library science course at the university level followed by Italy and Sweden and established library schools around the time Dewey started his school at Columbia. In 1919, the London University started the first full time diploma course in Librarianship and Archives. British models were exported to Australia and New Zealand at the beginning of 20th century. LIS programs are accredited by Chartered Association of Library and Information Professionals (CILIP) and "Certificate" qualification is also introduced. In India the first formal university course was initiated in 1995 by Asa Don Dickinson (American librarian) at Punjab University, Lahore. This was the first formal program in Asia and the second in the world after Columbia University. The first department of library science was established at the University of Delhi in 1946, which offered a postgraduate diploma in 1947 and a MLS in 1951.

Librarianship in Africa owes its origin to colonialism, when reading and writing were introduced among the indigenous people (Otike, 2012). LIS education in Africa started in 1938 in South Africa with the establishment of the Department of Librarianship at the University of Pretoria. Unesco played a leading role in the establishment of LIS education programmes in Africa and in particular, Anglophone Sub-Saharan Africa. When the pressure emanated from public libraries, UNESCO was convinced that illiteracy in sub-Saharan Africa could only be eradicated with support of libraries (Otike, 2012). After 1960, LIS formal education in Africa began to grow fast with the opening of several library schools as

indicated hereafter. The East African School of Librarianship at Makerere has been there since the 1963, University of Ghana since 1962, and University of Ibadan since 1960. Today many African countries offer formal LIS programmes. At this juncture it would be interesting to note some global trends in LIS education around the world.

Current Global trends in LIS education: Today there is a complete paradigm shift in information profession. The major impetuses behind change are: rapid advancement in IT, evolution in education system, ever changing user needs and diversity of users. The ever-changing information technologies are the fundamental drive to all these changes. Due to globalization of education and integration of ICTs, LIS education is changing world-wide. According to Smith (2012) from the iSchool at Illinois University, 21st century LIS education is striving to increase diversity of students and faculty and prepare students for new roles and new institutional contexts. The major trends in contemporary LIS education are:

- Education focus to the demands of the job market (Waseem, 2014).
- Application of core curriculum to all library schools with minor variations with the application of new information technologies to produce a librarian (Waseem, 2014).
- Substantial evolution in 20th century LIS programme due to ICT.
- More courses on computers & ICTS: ICT has become major part of LIS programmes. Libraries are demanding for graduates, who are IT compliant in line with the concept of libraries without walls (Abubakar & Hassan, 2010; Otike, 2012; Kumar, 2014; Waseem, 2014).
- Traditional names of library schools have been changed (Waseem, 2014).
- Profession shifting from multi-disciplinary to inter-disciplinary (Virkus, 2012).
- Introduction of new and revised courses: New topics within existing courses are being introduced, for example, virtual reference in reference, Resource Description and Access (RDA) in cataloguing, e-resources in collection development; data curation specialization, digital preservation, museum informatics, special collections certificate, community informatics, community engagement, community informatics certificate, media literacy and youth, youth services certificate (Smith, 2012; Virkus, 2012).
- Use of computer cataloguing, database and information technology in syllabus: With the use of computers and technology new courses such as cataloguing and classification are thought in new ways (Kumar, 2014).
- Increased introduction of formal research in LIS education (Kumar, 2014).
- Change in Management Science studies with library security: Recent trends in management studies include the use of laws and knowledge regarding the storage of information and its application. Hence, librarians are taught new techniques of library information security such as, magnetic security systems, Closed-circuit television (CCTV) and Radio frequency identification (RDF) (Kumar, 2014).
- Increased trend of distance education to provide training and education opportunities to more librarians (Otike, 2012; Kumar, 2014). Online education no longer limits degree seekers to site-based programs (Smith, 2012).
- Continuous education, seminars and conferences to make librarians acquainted with new trends in the profession, library associations and universities organize conferences and seminars for LIS professionals (Kumar, 2014).
- Increased emphasis on multi-media: The print media is no longer a centre of attraction (Otike, 2012).
- Knowledge management: Knowledge management has become the core course in most LIS schools (Otike, 2012).
- Increased accreditation of LIS programs and iSchools: (Smith, 2012, iSchools, 2014).

- New methods of teaching and learning: Use of Learning Management Systems like Blackboard/Moodle allow instructors to plan asynchronous activities such as, discussion forums even in face-to-face courses. There is increased use of collaborative teaching; for example, Student group projects; Service learning; Research projects; student exchange; Web-based Information Science Education consortium (WISE) (Smith, 2012).
- New roles of LIS professionals in LIS education: Today LIS professionals assume new roles as students' mentors, supervisors (for research projects, practicum and internship), guest lecture, teaching a course, contribute to the LIS literature through research and publications, and collaborates on research with colleagues and students (Smith, 2012).

Technological Impact on LIS Curriculum: Due to developments in ICTs, information professionals whose fundamental mission is to collect, organize, store, retrieve and disseminate information have faced new challenges, because of the change in the nature of information (Abubakar & Hassan, 2010). Information Technology (IT) has conspicuously influenced and changed LIS curriculum. The impacts of IT on LIS education reflect on revising and establishment of new curricula, introduction of new LIS courses in new ways to organize the LIS education, for example, iSchools vs. L-Schools (Hu, 2013). New information technology competencies and skills required for LIS professionals have critical impact on LIS education system and hence, increase in technological programs, such as database design, web design, digital libraries, database development, system analysis, computer programming, and networking and server management.

According to Hu's (2013) study carried out in 14 United States' LIS schools, seven of fourteen (50%) LIS schools offer IT related degrees from LIS school programs, or have merged together with Computer Science Programs or Information Technology Programs. The author further elaborated that the School of Library and Information Science, Indiana University has merged with their Computer Science and Informatics program and the School of Information, University of Michigan at Ann Arbor has changed to offer Master of Science in Information instead of the traditional Master of Library and Information Science. The University of Illinois at Urbana-Champaign has offered multiple IT based degree programs such as, specialization in Data Curation, Socio-technical Data Analytics, Certificate of Advanced Study in Digital Libraries and so on. Half of these top 14 LIS schools are members of WISE (Web-Based Information Science Education) and cooperate and collaborate through this distance learning model, which increases the quality, access, and diversity of online education opportunities in Library and Information Science (WISE, 2004-2015). WISE provides a number of Web-based Information Science courses. The IT related courses through WISE could be shared and supplemented the faculty in different areas of skills and knowledge for IT and Information Science, in addition to meeting special needs from the LIS students. Modern LIS education requires infrastructure such as, media labs, IT labs, and information products experimental labs. It can no more be run by chalk and talk method. In smart class rooms having interactive board and connectivity with the intranet, faculty can select electronic content to help the students in just-in-time learning (Singh & Malhan, 2012). Hu's (2013) study also revealed that many of the non-IT courses also have IT-related content. For instance, traditional librarianship courses such as library management, cataloguing, reference services also have content areas that require IT skills and knowledge and thus IT-related courses rate is high. This brings another challenge of balancing between traditional and contemporary LIS education as new changes take time to integrate in the system. Nevertheless, the on-going advances in ICTs and emergence of new state-of-the-art

knowledge management tools pose challenges not only to library and information professionals and LIS educators, but also to the LIS profession as a whole (Singh & Malhan, 2012). Thus, it is now a common practice to find LIS Schools struggling to infuse ICT related courses in their curriculum which is expected to give them new lease of life in the training of their students in the 21st century (Abubakar & Hassan, 2010).

Challenges for LIS education world-wide: Mainly due to the advancement of technologies, paradigm shift in the library and information world and changing education systems, contemporary LIS education world-wide is confronted with numerous challenges. LIS educators and information professionals have to persistently learn and incessantly upgrade their competencies and skills to quickly step into new roles created by the service gaps in the growing knowledge intensive society (Singh & Malhan, 2012). Literature reveals the major challenges as below:

- Relationship between theory and practice (Virkus, 2012; Waseem, 2014).
- Lack of professional accreditation body (Virkus, 2012; Waseem, 2014).
- Match to the labour market and societal needs (Virkus, 2012).
- Rapid advancement of ICTs (Virkus, 2012; Waseem, 2014).
- New types collaboration and partnerships between various academic institutions (Virkus, 2012).
- Lack of financial independence and permission to develop or modify curriculums: Some library schools are confronted with financial constraints and have no freedom to modify their curriculums (Edegbo, 2011; Alimohammadi & Jamali, 2011; Amunga & Khayesi, 2012; Waseem, 2014).
- Lack of accreditation system: Accreditation is important, which is a mechanism for quality control. A qualified department is more likely to absorb (talented) students. However, currently, LIS education often puts more emphasis on education and not able to conduct proper research (Okello-Obura and Kigongo-Bukenya, 2011; Waseem, 2014) (Alimohammadi & Jamali, 2011).
- Lack of appreciation of continued LIS education, hence some library schools are located in Faculties of Fine Arts and Humanities (Alimohammadi & Jamali, 2011; Waseem, 2014).
- Inadequate number of faculty members (Okello-Obura and Kigongo-Bukenya, 2011, Amunga & Khayesi, 2012; Waseem, 2014).
- Lack of diversity in LIS programs and degrees and not keeping abreast with the rapidly changing digital environment (Alimohammadi & Jamali, 2011; Burnett, 2013; Waseem, 2014).
- Outdated Syllabi and curricula and not taking advantage of advanced technologies (Abubakar & Hassan, 2010; Alimohammadi & Jamali, 2011; Waseem, 2014).
- Inadequate information resources for learning; for example, lack of text books in national languages (Edegbo, 2011; Alimohammadi & Jamali, 2011; Waseem, 2014).
- Lack of appreciation of the role libraries in country development by policy makers/Government (Abubakar & Hassan, 2010; Okello-Obura and Kigongo-Bukenya, 2011).
- Inadequate infrastructure and facilities: poor human, financial, building and technological infrastructure (Abubakar & Hassan, 2010; Okello-Obura and Kigongo-Bukenya, 2011; Edegbo, 2011; Alimohammadi & Jamali, 2011; Amunga & Khayesi, 2012; Waseem, 2014).
- Lack of standardization of LIS programmes (Okello-Obura and Kigongo-Bukenya, 2011).

- Over-Enrolment and large classes: Often library schools in Africa are over populated with students that available facilities are stretched, which also creates the problems of classroom control (Edegbo, 2011).
- Poor Governmental support to LIS schools: LIS programmes are poorly funded by the Government resulting in the backwardness of the training(s) provided in Nigerian Library and Information Schools (Abubakar & Hassan, 2010).
- Inadequate staff and expertise: Some library schools do not have the full complement of teaching staff, while others lack expertise among teaching staff. There is a serious need for technical support staff with high level expertise in the maintenance aspects of ICTs. Because of poor maintenance and insufficient skills to diagnose system problems, there are many out of order machines which could easily be re-activated and used (Abubakar & Hassan, 2010; Edegbo, 2011; Alimohammadi & Jamali, 2011; Singh & Malhan, 2012).
- Unreliable Power Supply: The strength of local infrastructure such as power supply has implication for library and information science education. Most LIS courses are ICT oriented and ICTs are electricity driven. Irregular public power supply means that ICT facilities cannot be used for instruction whenever there is power failure (Edegbo, 2011).
- Non-challant attitude of the Library Associations: For example, the Nigerian Library Association (NLA) and the National Association of Library and Information Science Educators (NALISE) have not shown enough commitment to LIS education in the country (Abubakar & Hassan, 2010).

Thus, the challenge for the LIS schools is “to revamp their facilities and course curricula to transform into institutions that educate and train professionals who are competent enough to create a stir in the market, a demand for their skills, societal hunt for their talents, and who can substantially contribute to management of knowledge resources, dissemination of information and create a often sought after brand name for their service and niche for themselves” (Malhan, 2009: 57). However, the curriculum is the best barometer to reflect the changes and challenges we face today (Virkus, 2012). With the above literature review, this paper now highlights the major DLIS changes, curriculum review and introduction of new programmes.

4. Major changes and new programmes at DLIS

DLIS introduced a bachelor’s degree, as well as a postgraduate diploma in library and information studies in 1986. During 1991-1997 (NPD7) the Department set to diversify its programmes in response to emerging opportunities and new markets. This diversification embraced information technology, and management information systems as driving forces in all its training programmes. New programmes such as School Library Studies and Archives and Records Management were introduced representing niche growth areas for the Department at the time. With the launching of training programmes in school librarianship, teachers from Botswana colleges of education were trained as teacher librarians graduating with certificate and diploma qualifications respectively.

In 1994 a master’s degree in library and information studies was introduced to replace the postgraduate diploma. The introduction of the master’s programme was brought about by the need to produce information professionals who could fit in the labour market that was increasingly becoming technology driven. In 1995, the department introduced certificate

programme in Archives and Records Management and a two year diploma in the same area was launched in 1997. At the same time a certificate in school librarianship was also introduced, but this was discontinued in 2004. A PhD program was introduced in 1999 followed by a bachelor's degree programme information systems degree in 2002 as well as a master's degree in archives and records management which was launched in 2004. Currently DLIS offers the following programmes:

- Diploma in Archives/ Records Management
- Bachelor's Degree in Library and Information Studies (Single major)
- Bachelor's Degree in Library and Information Studies (Double major)
- BA (Library & Information Studies- double major)
- Bachelor of Information Systems (Information Management –single major).
- Masters in Library and Information Studies
- Masters in Archives and Records Management
- A PhD. in Library and Information Studies
- A Ph.D. in Archives and Records Management

Thus, DLIS as the main provider of LIS education in Botswana has undergone major changes. Between 1979 and 1985, DLIS offered only three programmes: Certificate in Library Studies, Diploma in Library Studies and Post-graduate Diploma in Library Studies. However, since the 1990s, a total of ten programmes have been offered. To illustrate these changes, three programmes are described below and the section concludes with a discussion of the programme review process undertaken for quality assurance.

The BIS 210 Programme: DLIS began offering the Bachelors of Information Systems (Information Management) degree in 2002. This degree is part of the University's Bachelors of Information Systems (BIS) degree which is offered conjointly with two other departments – the Department of Computer Science (BIS – Computer Information Systems) and the Department of Accounting and Finance (BIS - Business Information Systems). At its outset, the (BIS) was seen as a business major, focusing on producing graduates who are able to harness information technology to create systems that address challenges and opportunities in the internal and external business environment. The role of an information system in an organization is to collect data, process data, and disseminate information to various stakeholders within and outside the organization in order to allow a seamless flow of information through all the firm's functional areas such as, finance, accounting, marketing, production and operations, and human resource management. Because most companies use business information systems in some aspect of their business, and need to continually update their technologies and systems to keep pace with the fast developments and advancements in the information technology (IT) sector periodic reviews of the programme are necessary. To this end, in 2009, a 9-member BIS Technical Task Team was convened by the three faculties of Science, Business and Humanities on the advice of Academic Policy Review and Planning Committee (APRPC) to harmonize the BIS programmes to ensure that any duplicate content is eliminated (Proposal for the BIS Degree, 2002). The Committee produced a report documenting critical concerns regarding the BIS programme in the University of Botswana's (henceforth, the university) context and a recommended common core outlining mandatory courses that all BIS students need to take. As a result of curricula revision, the Department of Computer Science revised its stream and presented the revised curriculum at the APRPC meeting held on January 12, 2010. Likewise, the Department of Accounting and Finance followed suit and its Programme was approved in 2014, while the BIS (Information Management) for DLIS is still waiting for the final approval from APRPC.

The Winter Programme: The Winter Programme is the Certificate in Library and Information Studies (CLIS) and the Certificate in Archives and Records Management (CARM) was introduced in 2010 in response to a request by the Botswana National Library Services (BNLS) to offer a 1-year Certificate Split Programme in Library & Information Studies (CLIS) to its staff who hold a Cambridge Overseas School Certificate (COSC) qualification with several years of working experience. The approval for the programme was swift because it is a programme which has been offered in the past. The programme structure is based on the CLIS curriculum that was shelved four years ago. The programme runs for two semesters (24 weeks) during two winter breaks from May-August. On the successful completion of the programme, the candidates are awarded a certificate in library and information or Certificate in Archives and Records Management studies according to the University of Botswana regulations (University of Botswana, 2010).

The objective of the CLIS is to build capacity in managing library and information services especially in special, branch, and school libraries; and village reading rooms while that of CARM is to confer upon graduates the essential skills to effectively manage records centres/registries. Although the Winter Programme started as a response to stake-holder demand, the programme now forms part of the Department's strategy to address the University of Botswana's Strategic Plan Priority Area 1: whose objective is to increase participation rates; i.e. availing more access opportunities for LIS Education (University of Botswana, 2013).

The BIKM Programme: This is a proposed 4-year bachelor's degree in information & knowledge management (BIKM) that is supposed to be offered as: a single major (BIKM professional), combined major (BA, IKM) and major-minor (BA, IKM) from August 2015. The BIKM degree single major will be offered in three streams namely: BIKM (Knowledge Management) BIKM (Archives & Records Management) BIKM (Library & Information Studies). The BIKM single major will have a common core during the first and second years of study. However, candidates will be required to specialize in any one of the streams in the third and fourth years (University of Botswana, 2012).

The proposed BIKM degree is motivated by a number of factors including: labour market needs in Botswana, international trends in the education and training of information professionals, the shrinking job opportunities for the traditional library and information professionals, government of Botswana national priorities (i.e. HRDC Strategy for developing critical skills for the economy including information and knowledge managers needed in transforming Botswana into an information society espoused in vision 2016), the University of Botswana strategic priorities and declining enrolments in the current LIS programmes (University of Botswana, 2008).

Several tracer studies since late 1990s and external review of LIS programmes have revealed demonstrable need to revamp and harmonise the academic programmes to take advantage of the expanding information and knowledge management job opportunities in all sectors of the Botswana economy. Besides, consultation with stakeholders in the Botswana labour market, the DLIS advisory boards and cognate departments in UB have shown clear need for the BIKM programme. The design of BIKM programme has benefited from the input of international experts from leading universities in the region and internationally (University of Botswana, 2012).

Moreover, international trends in LIS education and training show deliberate move by library schools in universities the world over to offer information and knowledge management curricula as opposed to traditional library programmes. Best practices in this regard are drawn from the SADC region, West Africa, Europe, North America, Asia and Latin America. The World Bank emphasizes leveraging knowledge resources to take advantage of the evolving knowledge-based economy.

Programme Review at DLIS: Library schools world-wide are continuously challenged to institute periodic programme reviews. As it has already been mentioned earlier, this is due to: (1) rapid technological changes, and (2) crises in higher education (e.g. diminishing budgets, rapidly escalating student populations, changes in pedagogy, etc). A programme review can be defined as a periodic evaluation of a programme to: determine the continuity, validity and relevance of programmes and its intended.

Guided by the above logic, an external review of DLIS was undertaken by two prolific professors from University of Northumbria (United Kingdom) and University of Kwazulu Natal (South Africa) between 18-22 August, 2014. The reviewers were asked to review the DLIS programmes with respect to seven quality standards: quality of programme and course, quality of academic staff, quality of teaching and learning experience, quality of student assessment, quality in support services, quality in resources and equipment and, quality of research) and to include comments on strengths, weaknesses and deficiencies, and to make recommendations for improvement. The reviewers' major recommendations were:

- Expedite the approval of BIKM programme and its content to be reviewed to ensure its currency and relevance;
- Staff need to have teaching qualification or receive staff development in the area;
- Staff skills in relation to research need to be developed through mentoring by senior staff members;
- The quality of students needs to be improved by reviewing entry requirement/ continuing with certificate and diploma courses;
- Revise the MPhil/PhD process to speed up student progress;
- Develop clear guidelines for Masters and PhD supervision;
- Improve Master students' retention and throughput rate by ensuring completion of dissertations in a timely manner;
- Establish a forum for Master students to assist and provide support during the research process;
- Provide space and seminar programme for PhD students;
- Review staff availability for students to protect time for research, teaching and learning;
- Provision of necessary computing facilities for technical courses and avail technical staff; and,
- Improve mentoring of students in research skills (External Review of Programmes, 2014).

As the follow-up to some of the above recommendations, DLIS is putting its all efforts to expedite the introduction of BIKM programme.

5. Opportunities for DLIS

DLIS as a department has several opportunities to equip future information professionals with the right skills and competencies for the current job market and to prepare them for the emerging global society and contribute to knowledge economy and national development. The major opportunities comprise of:

- Good technology platforms (Blackboard, Moodle, ASAS, etc.) and a well-resourced library facilities;
- Facility to attend conferences thereby forging national and international networking;
- Implementation of the BIKM programme may attract more students to DLIS;
- Consultancy services as a way of sharing knowledge with the community; and,
- Opportunities to launch tailor-made short courses for the industry needs.

6. Challenges for DLIS

In spite of a number of opportunities listed above, DLIS also face various challenges, which thwart DLIS efforts from fully realizing its goals and mandates. DLIS major challenges are:

- Changing tertiary education funding patterns;
- Competition from new market entrants and existing institutions offering similar programmes;
- Major challenges with immigration issues impacting negatively on attracting foreign scholars and retaining the existing staff members;
- Lack of incentives to retain highly qualified staff;
- Competition for students from regional universities especially from South Africa;
- Heavy teaching loads and as a results staff-student ratio is too high;
- Inadequate facilities, such as lack of specialist teaching resources (e.g. software for archives); inadequate supply of consumables;
- Poor maintenance of teaching space (classrooms and/or examination rooms);
- Slow approval of programmes, for example the forthcoming BIKM programme is yet to be approved by Senate and Council.
- Unattractive name of the department (not aligned to the programmes offered);
- Slow and tedious admission process by the University of Botswana;
- Resistance of staff to fully apply technology in teaching and learning;
- Lack of benchmarking or accreditation with international programmes ;
- DLIS programmes are not accredited by national library association because the association is itself weak and exists as a part-time body; and,
- Non appreciation of the importance of LIS programme by government and other employer resulting in jobless graduates or small domestic market for LIS.

Thus, DLIS is confronted with similar challenges as other LIS education schools around the world particularly in Africa. Regardless of several challenges, DLIS has to constantly strive to fit into the new global LIS curriculum and address the job market needs in Botswana.

7. Conclusion

Despite several challenges listed above, library education in Botswana has made a significant progress. It started with a certificate/diploma courses and reached to PhD level. DLIS curriculum evolved to meet new challenges and expectations. DLIS is one of the best known departments in its field in Africa and well-known outside the continent. It offers a range of full-time and part-time programmes in the field of Information Studies from certificate level

to MPhil/PhD, which is complemented by the research, publishing and community service activities of its staff. However, DLIS has still a long way to go to fit into new global LIS education system/environment, such as i-School and Web-Based Information Science Education. Here, it is worthwhile to re-emphasize that the environment in which DLIS inhabits, is full of challenges. Nevertheless, the Department needs to build on its existing reputation to take it forward by enhancing quality teaching and ensuring its continued relevance. To this end, DLIS should urgently consider the recommendations made in the external review report with a view to fast-track the introduction of the planned BIKM programme and strengthen extant curricula to address the requirements for digital society.

References

- Abubakar, B.M. & Hassan, B.B. (2010). Incorporating Information Technology in Library and Information Science Curriculum in Nigeria: A Strategy for Survival in the 21st Century. *Library Philosophy and Practice*, [Online]. Available at: <http://www.webpages.uidaho.edu/~mbolin/abubakar-hassan.pdf>, Accessed on 16 May 2015.
- Alimohammadi, D. & Jamali, H. R. (2011). Common Problems of Library and Information Science Education in Asian Developing Countries: A Review Article. *International Journal of Information Science and Management*, (9) 2: 79-92.
- Amunga, H. & Khayesi, M.K. (2012). Library and information science education in Kenya: an overview of potential and challenges. Paper presented at SCECSAL XX Conference, Nairobi.
- Burnett, P. (2013). Challenges and problems of Library and Information Science Education in Selected African countries. [Online]. Available at: <http://creativecommons.org/licenses/by/3.0/>, Accessed on 23 May 2015.
- DLIS Handbook (2012). Department of Library & Information Studies Handbook 2012/2013. Faculty of Humanities. University of Botswana,
- Edegbo, W.I. (2011). Curriculum Development in Library and Information Science Education in Nigerian Universities: Issues and Prospects. [Online]. Available at: <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1591&context=libphilprac>, Accessed on 16 May 2015.
- External Review of Programmes (2014). Department of Library and Information Studies, University of Botswana, 18-22, August 2014.
- Hu, S. (2014). Technology Impacts on Curriculum of Library and Information Science (LIS) –a United States (US) Perspective. [Online]. Available at: http://libres-ejournal.info/wp-content/uploads/2014/06/NTU-Sharon-Hu-Paper-for-LIBRES_-Final.pdf, Accessed on 24 May 2015.
- iSchools (2014). [Online]. Available at: <http://www.ischools.org>, Accessed on 16 May 2015.
- Kumar, N. (2014). Recent trends in LIS research in India. [Online]. http://www.academia.edu/6655112/RECENT_CURRENT_TRENDS_IN_LIS_RESEARCH_IN_INDIA, Accessed on 24 May 2015.
- Malhan, I. V. (2009). Exploring the opportunities in the emerging information environment for transformation of LIS education. pp. 57-65. In Singh, J. & Malhan, I.V. (2012). Trends and Issues in LIS Education in India.
- Otike, J. (2012). Library and Information Science Education in Africa: Past, Present and Future. [Online]. <https://www.mu.ac.ke/informationsscience/images/Publications/otike%20lis%20education%20in%20africa.pdf>, Accessed on 23 May 2015.

Okello-Obura, C. & Kigongo-Bukenya, I.M.N. (2011). Library and Information Science Education and Training in Uganda: Trends, Challenges, and the Way Forward. [Online]. <http://www.hindawi.com/journals/edri/2011/705372/>, Accessed on 23 May 2015.

Singh, J. & Malhan, I.V. (2012). Trends and Issues in LIS Education in India. [Online]. <http://www.google.co.bw/url?sa=t&rct=j&q=&esrc=s&source=web&cd=13&ved=0CC0QFjACOAo&url=http%3A%2F%2Fconf.euclid-lis.eu%2Findex.php%2FIFLA2010%2FIFLA2010%2Fpaper%2Fdownload%2F15%2F15&ei=MJBjVbuzOeer7AauzIOgDQ&usg=AFQjCNEofMaeJOxx0j5LGtJy32my4hwvrA&sig2=UDo39jkrdrEVWfD8GtZKA&bvm=bv.93990622,d.ZGU>, Accessed on 24 May 2015.

Smith, L.C. (2012). 21st Century Library and Information Science Education: Trends, Challenges, and Opportunities. [Online]. http://www.midwest.cala-web.org/annual_program/postannual_program2012/linda_smith_presentation.pdf, Accessed on 24 May 2015.

University of Botswana (2013). DLIS Annual Report, 2013. Gaborone: University of Botswana

University of Botswana (2010). DLIS Annual Report, 2010. Gaborone: University of Botswana.

University of Botswana (2012). Proposal for the introduction of the Bachelor of Knowledge and Information Management Degree. Gaborone: University of Botswana.

University of Botswana (2008). Learning and Teaching Policy, Gaborone: University of Botswana.

University of Botswana (2002). Proposal for the introduction of the Bachelor of Information Systems BIS Degree. Gaborone: University Of Botswana.

Virkus, S. (2012). Challenges of Library and Information Science (LIS) Education. [Online]. Available at: http://www.unica-network.eu/sites/default/files/Sirje%20Virkus_0.pdf, Accessed on 16 May 2015.

Waseem, H. (2014). LIS Education: Theoretical foundations of Library Science. [Online]. Available at: <http://www.slideshare.net/Libcorpio/lis-education-world-wide-perspective27apr14>, Accessed on 23 May 2015.

WISE (2004-2015). Membership of WISE (Web-Based Information Science Education). [Online]. <http://www.wiseeducation.org/>, Accessed on 23 May 2015.