Challenges and problems of Library and Information Science Education in Selected African countries

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Abstract:
It is widely acknowledged that LIS schools in many developing countries are not keeping abreast of the rapidly changing digital environment and are facing new knowledge and skills demands from employers. In the period 2008-2012 INASP supported 12 curriculum review workshops in Ethiopia, Ghana, Malawi, Tanzania, Uganda, Vietnam, Zanzibar and Zimbabwe. Also, in November 2012 INASP commissioned 4 research reviews to gather more up-to-date information: (1) Assessment of LIS education in Ethiopia; (2) Investigation into the current state of LIS education in the East Africa region; (3) Tracer study of LIS education in Tanzania; (4) Empowering Library Association leaders in quality assessment for LIS education; (5) Assessment of the changing needs of information professionals in Zimbabwe. This paper summarises the main findings. Curriculum development and support is an activity which INASP intends to intensify. These reviews will inform our future work. Not only will we continue to offer support for curriculum revision but also training in curriculum delivery with a view to improving pedagogical skills, identifying where LIS staff need new knowledge, and offering appropriate training opportunities. We also hope to encourage the formation of a network-consortium of LIS schools across partner countries to work collaboratively in areas such as teaching, research, staff and student exchanges, workshops, curriculum development and distance teaching

Keywords: Library education; Curriculum development; Developing countries

Introduction
In April 2013 INASP (www.inasp.info), the International Network for the Availability of Scientific Publications, launched a new flagship programme, Strengthening Research and Knowledge Systems (SRKS). This five-year programme will work closely with 22 partner countries and will provide online scholarly literature to a further 44 in Africa, Asia and Latin America. SRKS builds directly on the achievements of the Programme for the Enhancement of Research Information (PERI) that ran from 2002 to 2012.
The SRKS programme encompasses:

- Working with publishers to ensure researchers have affordable access to the latest scholarly literature in their discipline
- Supporting library consortia to negotiate successfully with publishers for the purchase of journals and books
- Working with library consortia and library and information science schools to train librarians in the management and effective use of digital resources
- Building the academic literacy and writing skills of researchers
- Helping developing country journals improve their publishing processes and get their content online and visible to the global scholarly community
- Promoting the widest possible availability of local research through Open Access
- Ensuring ICT staff can develop and manage university networks that allow easy access to digital resources

This paper considers the background leading to our decision to work more concertedly with Schools and Departments of Library and Information Science, and to support their endeavour to produce a cadre of technically competent graduate librarians able to respond to change and work in the rapidly evolving digital environment.

**Role of higher education**

“Higher education institutions have responsibility for equipping individuals with the knowledge and skills required for key positions in government, business, industry and professions. They produce new knowledge through research and can transfer, adapt and disseminate knowledge as well as being important institutions of civil society.” ¹

The development of tertiary education is generally a core component objective in many of the national strategic plans or visions developed by the governments of our developing country partners. Zambia’s Vision 2030 plan ² emphasises the importance of investing in people through education and training to ensure job creation and socioeconomic transformation.

The goals advanced in Namibia Vision 2030 ³ include provision of full and appropriate education at all levels in order to leverage knowledge and technology for the benefit of the people. Similarly Rwanda Vision 2020 ⁴ recognises that in order to transform from a subsistence agriculture economy to a knowledge-based society, the secondary and tertiary education sectors need to expand in order to produce an efficient and productive workforce.

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¹ Universities UK, *Universities and development: global cooperation*  
http://www.universitiesuk.ac.uk/Publications/Documents/UniversitiesAndDevelopment20101011.pdf  
³ http://www.vision2030.go.ke/index.php/vision  
Even in those Vision plans where education is not specifically mentioned there is an unstated assumption that the achievement of wider socio-economic and political goals is dependent on the ability of the citizens to access and use information.

**The Growth of Higher Education**

In the decade immediately following independence many of the former colonies enjoyed considerable success in the higher education sector. Unfortunately the 1980s and 1990s witnessed a slow decline partly due to the focus on primary education, but also insufficient funding and general under-investment. It is only since the beginning of this new century that the role of universities in building the knowledge economy has been recognised and universities are now slowly being rebuilt and institutions receiving more investment and support from both government and external funding agencies. At the same time the demand for access to higher education is growing rapidly.

In Kenya, for example, over the past five years, Kenyatta University has seen student numbers triple from 15,000 to around 45,000. Not surprisingly therefore the Kenyan government increased funding for higher education by 30% from July 2013. Having recently upgraded 15 former constituent colleges of universities into fully fledged universities, the extra funds are to be directed to these institutions allowing them to admit more students and offer degree programmes on their own. The hope is that these new universities will help admit an additional 10,000 students thereby easing the country’s admissions crisis.⁵

In Ghana a new university is to be built in order to meet growing demand for higher education, bringing the number of public universities to 10. Also, 10 polytechnics are to be upgraded into technical universities.⁶

In Zambia the government unveiled plans in 2012 to construct seven new universities, to improve currently low levels of access to higher education.⁷ Additionally Zambia’s government is set to build a university in its Western province to be named King Lewanika University. Further, Copperbelt Secondary Teachers College has been turned into a university and is now called Mukuba University. In Chinsali in Muchinga province, Robert Makasa University is under construction, while Paul Mushindo University will be established at Lubwa in the same region.⁸

In Malawi the University of Malawi’s strategic plan for 2012-2017 envisages increasing undergraduate student numbers from some 8,400 to 15,000, Masters enrolments from around 300 to 2,000 and PhD student numbers from 46 currently to 500 by 2017. Its capacity-building targets include constructing, within five years, four new auditoriums, 16 lecture theatres, seven laboratory complexes, four engineering

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⁵ World news, Africa ed. (16 March 2013)  
⁶ University World news, Africa ed. (16 March 2013)  
⁷ University World news, Africa ed. (30 September 2012)  
⁸ University World news, Africa ed. (23 February 2013)  
labs, seven office and classroom complexes and four library extensions as well as new student accommodation, through public-private partnerships.\(^9\)

In Ethiopia the number of public universities in the country has grown from two to 34 over the past 12 years, and there are now seven private universities and 52 polytechnic colleges. Around 320,000 undergraduate students currently attend public universities, and this number is targeted to reach 467,445 by 2015 under Ethiopia's five-year Growth and Transformation Plan for 2011-15. There are now 15,445 postgraduate students at public universities, and this number is expected to double every year for at least the next three years.\(^10\)

Given the large number of new and planned institutions, the growth of private universities in several of the countries, and the general massification of higher education, there is an imperative to constantly develop and improve the teaching and learning support offered through the library. Indeed, in the light of the rapid changes in communication technology and scholarly communication, the shift towards learner-centred teaching, technology-assisted learning, new demands and growing expectations of scholars and students to access information, the role of the library is assuming ever-greater importance. Librarians are expected to undertake new roles (digitisation, copyright), add value to existing services (manage electronic collections), integrate and develop new and transformative technologies (IR, LMS, ERM), be more proactive (user oriented). In this rapidly evolving environment a heavy responsibility lies with those institutions charged with producing the next generation of suitably qualified professionals.

**LIS Education in selected countries**

Numerous studies have been conducted on different aspects of LIS education in East African countries.

Mammo\(^11\) identified many skills that seem to be lacking (or not practised) by LIS professionals in Ethiopia: leadership, human resources management, evaluating and reporting skills, communication skills, professional ethics, marketing of library services, teaching skills. These are in addition to the more obvious IT related skills such as gateway and portal development, web authoring, database development.

In his assessment of the training of LIS professionals in Kenya Kavulya\(^12\) noted that “current LIS programmes in the country do not address current job market requirements due to: inadequate teaching resources at LIS training; lack of adequate ICT content in the courses; inadequate length of courses; courses that are outright irrelevant to the job market, and inadequate industrial attachment for LIS students”.

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\(^9\) University World news, Africa ed. (11 Nov. 2012)  

\(^10\) University World news, Africa ed. (16 Dec. 2012)  


He concluded that there is a need for LIS institutions “to review and redesign their courses in line with market requirements” and also that there is a need “for a system of accrediting LIS courses at the national level for purposes of quality assurance”.

Okello-Obura and Kigongo-Bukenya\textsuperscript{13} identified many challenges facing Ugandan LIS education, including:

- Most LIS schools are still inadequate in terms of standard and quality to meet the high intake due to the high demand for higher education
- Lack of adequate LIS educators. There are inadequate educators especially at postgraduate level and especially in the fields of records and archive studies, publishing studies, and IT related courses.
- Lack of appreciation by policy makers of the role libraries play in the development of the country
- Lack of standardisation of LIS programmes. This role is mandated in the constitution of the Uganda Library and Information Association (ULIA) but it is not happening.
- Poor technology infrastructure at LIS schools
- Continuing education for LIS school lecturers is problematic. They need to keep up-to-date but training courses are not always readily available and those that are available tend to be expensive.

Ocholla\textsuperscript{14} discussed the history of collaboration between LIS schools. This has been largely been unsuccessful due to lack of commitment and leadership. Nevertheless opportunities for collaboration do exist but require new initiatives, commitment and leadership. Challenges facing LIS education include: knowledge of LIS job markets; development of technology infrastructures; allowing efficient access to and the continued development of education through short courses that provide new knowledge, skills and attitudes to LIS workers. He concluded by noting that there is a need to improve LIS websites as a means to increase visibility and easy access to information which would, in turn, be useful for collaborative activities.

Ocholla and Bothma\textsuperscript{15} noted that LIS schools tend to receive much lower funding when compared to other disciplines in the applied and natural sciences, even though changes in the information environment necessitate resource support for their growth and sustainability. As in the article by Ocholla (above) the authors additionally proposed greater collaboration and partnerships between LIS schools in areas such as teaching, research, student and staff exchange, conferences and workshops, curriculum development, publications, research supervision and examination, and distance teaching/research. They also identified the need for the development of partnerships with industry/employers in curriculum development, research, publication and experiential learning. Insofar as curriculum development is concerned, the authors stated: “\textit{Redesigned curricula obviously have very serious...}"


\textsuperscript{14} Ocholla, D.N. The current status and challenges of collaboration in library and information studies (LIS) education and training in Africa. \textit{New Library World}, 109(9/10), 2008, 466-479

\textsuperscript{15} Ocholla, D.N. & Bothma, T. Trends, challenges and opportunities for LIS education and training in Eastern and Southern Africa. \textit{New Library World}, 108(1/2), 2007, 55-78
implications for faculty members in LIS department. Faculty members have to move away from their traditional comfort zones and ensure that they keep up-to-date with developments, thus enabling quality in teaching and research”. They continue: “faculty members tend to take their own training very seriously, but this is unfortunately not necessarily always the case. Change management is, therefore, a serious issue and quality control is extremely important”.

Among the challenges in Kenya considered more recently by Amunga and Khayesi were: a shortage of teaching staff in LIS schools and the resulting problems of hiring part-time staff from other institutions – travel of staff from main campus to Nairobi campus. Also lack of practical library experience and/or pedagogy by some lecturers; lack of computer labs in some institutions, no software applications for specific LIS practicals as labs are often shared; low funding. The authors recommended more frequent reviews of curricula to align it with changing needs and proposed a regional approach - “an annual convention on LIS education and training in the East African Community Region”

In personal email correspondence, Harry Akussah, [then] Head of Department of Information Studies, University of Ghana, Legon wrote: “The major problem we are facing is capacity - enough lecturers on the ground to handle all the causes, particularly the IT related ones. This has left us with no choice but to rely on part-time lecturers. Unfortunately, ours is the only LIS institution in Ghana so we have very little to draw on in terms of collaboration of schools”.

Another colleague from Ghana, Nina Chachu, Head Librarian, Ashesi University College noted: “I am concerned when students come on attachment … that they seem to have been taught in quite traditional ways [chalk and talk] and they have had little or no experience in using electronic resources. They have heard of social media but only in connection with Facebook, and its relevance seems to be purely personal, not professional”.

Also from Ghana, Helena Asamoah-Hassan wrote: “A lot of the teachers were trained in the old traditional library skills - they manage to teach the theories in digital library skills because with their library professional experience they can read and impact modern developments in the field and pass it on to students in only theory. To impact practical lessons they need to go beyond just reading -they need to be convinced to actively participate in practical hands-on workshops that can help them to better train the generation of professionally qualified librarians that we require in our libraries”.

And according to Mathews Phiri (2010): “Malawi is experiencing a severe shortage of well-trained human resource beyond the graduate level to support learning and research including the management of libraries and documentation centres, and helping to build information capabilities. For instance, currently, there are only

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17 H. Akussah. Personal email correspondence 2nd February 2012
18 N. Chachu. Personal email correspondence 15th February 2012
19 H.Asamoah-Hassan Personal email correspondence 14th February 2012
Seventeen (17) qualified postgraduate librarians, archivists, and documentalists all (combined) in Malawi”.

INASP curriculum development workshops

The above review of the literature and discussions with librarians from our African partner countries confirmed that LIS curricula were not keeping up-to-date with the developments in the area of ICT and digital technology. Between 2008 and 2012 INASP had facilitated several workshops as a small component within its larger Library Development programme. It was partly as a result of the outcomes of these workshops that the decision was taken to expand the activity into a separate, discrete programme of activity within SRKS with its own budget and programme outputs.

Some of the issues encountered during the workshops included:

- The need to depend on materials already existing in the library, so that all students had access, and sadly, the library’s collection in this area were sparse and outdated (Tanzania).
- Problems of updating staff skills and knowledge? (Tanzania)
- Capacity building; “I have only one area of concern, but it is a fairly major one, relating to the capacity of the staff at EASLIS in the field of records management…. I feel that some key issues of capacity building remain and will need to be addressed if the new programme is to succeed”. (Uganda)
- The urgent need to launch a professional journal as a medium for academics to communicate their research findings for the increase of information and knowledge dissemination for teaching, learning and research processes of the profession (Ethiopia)
- The need for a nationwide study on the various types of libraries and information centres so as to ascertain the training needs of the country to serve in the various constituent types of libraries, which include archives, records management and museum. (Ethiopia)
- Many of the trained personnel are pegged at undergraduate training and currently very few proceed for postgraduate training. This is so, because there is no institution of higher learning in the country that offers postgraduate education and training in LIS. (Malawi)
- Records have collapsed. The former Chief Secretary to the government, Mr. Bright Msaka, in his letter dated 7th may 2012 addressed to all chief Executive officers of parastatal and subvented organisations as well as to the Registrar of the Supreme and High courts of Malawi bemoaned the state of poor records management in those institutions. This could be attributed to a lack of highly trained LIS and Records Managers in most of the institutions referred to; who can manage records and advise the government on policy issues in relation to records management. (Malawi)

Another recurrent theme that was mentioned both in discussion and in the workshops was the issue of pedagogical skills and the general failure to produce information literate critical thinkers and independent learners.

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20 M. Phiri Personal email correspondence 19th January 2010
21 See also: Hepworth, M. & Duvigneau, S. Building research capacity: enabling critical thinking through information literacy in higher education in Africa. Institute of Development Studies, 2012
Commission of reports

In November 2012 INASP commissioned four pieces of research on the current state of LIS education in selected African countries, the goal of which was both to get an up-to-date picture of the state of LIS education and also to inform INASP’s future work in this area. The four studies were:

(1) Assessment of Library & Information Science (LIS) education in Ethiopia
(2) Investigation into the current state of LIS education in the East Africa region
(3) Tracer study of LIS education in Tanzania
(4) Assessment of the changing needs of information professionals in Zimbabwe.

Ethiopia 22

This report was authored by staff from Addis Ababa University, Mekelle University and Alpha University College. The main objective was to explore existing market needs in LIS, examine existing LIS programmes in the country, ascertain how far these curricula meet identified needs, and propose a way forward.

The report identified a strong market need for LIS graduates as evidenced *inter alia* by: (a) plans to launch LIS programmes at several new institutions; (b) the number of advertised vacancies that are not filled; (c) current government initiatives (e.g. the Growth and Transformation Plan) which will generate a strong market demand for information professionals.

At the present time five Master’s programmes are offered at three universities. The School of Information Science at AAU runs a MSc. in Information Science (MScIS) and recently launched an MSc. in Information Science with major in Library Science (MScISLS). The department of Information Science at Jimma University runs an MSc. in Electronic and Digital Resource Management (MScEDRM) and an MSc. in Information and Knowledge Management (MScIKM) in parallel. The department of Information Science of the Haramaya University recently opened an MSc. program in Information Science (MScIS).

Insofar as undergraduate education is concerned the Ministry of Education (MOE) designed in 2012 a National Modular Curriculum for undergraduate LIS education in Ethiopia as part of harmonization efforts. All LIS schools have been instructed to use the new curriculum and the MOE expects all schools to fully adopt this. So far the curriculum has been adopted by Haramaya and Gondar Universities. At the present time Mekelle and Jimma Universities still use their own curriculum. However all of the LIS schools had curriculum review plans in hand and all of the respondents agreed on the need for undergraduate harmonization.

Unfortunately the departments at both Jimma and Haramaya universities have a chronic staff shortage for their Master’s programmes. Unless they work hard on their

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22 Teferra, S. *et al.* Assessment of library and information science education in Ethiopia: harmonization and shaping the curricula to changing needs. Unpublished report to INASP, March 2013)
staff development at the PhD level their Master’s programmes will have a sustainability problem.

Although the report concluded that the curricula address the majority of the needs expressed, it also identified unmet needs, including:

- Strategic planning and leadership skills
- Customer interfacing relations
- Information literacy skills
- Communication and outreach skills
- Library 2.0 technologies
- Networking and outreach
- Copyright issues
- Licensing of E-resources and access management
- Project management
- Library space design
- Indigenous knowledge management
- Marketing of library and information resources and services
- Fund raising
- Content development and management
- Pedagogical skills
- Forging partnership and collaboration

Other non-curricula problems identified included:

- Poor image of librarians and of the profession
- Absence of well qualified professionals in the market
- Migration of professionals to better paid jobs with higher prestige
- Closure and termination of LIS programs, re-instatement and changing names of programs
- New roles transcending the traditional job market
- Absence of well qualified teachers to teach in the already established LIS schools
- Absence of a professional association that advocates for the profession and professionals

The report recommended:

1. There should be an exhaustive national need assessment for LIS education and the use of tracer studies as part of the curriculum review process should also be considered.
2. Existing curricula must be reviewed and updated following the national need assessment in order to respond to the identified market needs.
3. Even though harmonization of curricula is important, it must not be to the extent to make all LIS curricula uniform across Ethiopia. Rather, institutions of higher learning that are engaged in LIS education must be encouraged to inculcate some sort of specialisation in their curricula.
4. A LIS collaborative network at national and possibly at regional level must be established and strengthened in the light of addressing scarcity of human as well as other resources relevant for the commencement and sustainability of LIS programmes in Ethiopia.
In respect of this final recommendation the LIS schools in the country subsequently signed a Memorandum of Understanding to create CELISS (Consortium of Ethiopian Library and Information Science Schools), with the membership including Jimma, Addis Ababa, Mekelle, Haramaya and Gondar Universities together with St Mary’s University College. It is envisaged that this collaborative network will help LIS schools to create opportunities that will support continuous professional development for teaching staff and will enable LIS Schools and communities to share experiences nationally and from LIS regional networks in Africa and beyond. INASP will be exploring ways in which this new development might be further nurtured.

KENYA/UGANDA

The study examined the nature of the LIS programmes offered in Kenya and Uganda, the market for information professionals and whether the programmes offered match with the demands of the industry.

The main question was whether the curriculum and delivery methods are in tandem with market needs and whether LIS graduates are adequately equipped to handle automated systems, and interrogate e-resources and electronic databases in addition to training users in their use.

Twelve LIS schools were covered in the study (six in Kenya and six in Uganda). Programmes offered by the schools varied, ranging between certificate and doctorate degree levels. Only one institution, Kenya Technical Teachers College (KTTC), exclusively offered a Diploma programme. Uganda Christian University (UCU) on the other hand offered a Bachelors programme only.

Unlike Ethiopia, great dissimilarity was observed regarding courses offered by different LIS schools. The Diploma awarding institutions in Kenya for example follow a curriculum developed by the Kenya Institute of Curriculum Development formerly the Kenya Institute of Education. This course is examinable by Kenya National Examination Council. The current curriculum was developed in 1997; a revised version is being developed which will offer courses that are more relevant to the market.

Institutions offering degree courses on the other hand had the flexibility to create and regularly revise their curriculum and are therefore in a better position, at least theoretically, to respond to market needs.

After discussing the changing information needs and how libraries are meeting these needs, and the changes in technical operations, the report described the level of satisfaction with LIS graduates (see Table 1 below). A rather mixed set of responses were received from employers, though “it is worth noting that none of the respondents described their level of satisfaction as very high”.

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Table 1: Satisfaction of Employers with LIS Graduates

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<th>Levels</th>
<th>Explanation</th>
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| High         | • There is emphasis on ICT, leadership and management, records management and communication, marketing  
• In the way they (graduates) practice skills and how they advance in their careers  
• The graduate schools are doing well but more practical exposure may be required  
• Most young staff are efficient in use of technology  
• They are well trained in all aspects of information management  
• They are knowledgeable and competent in what they do  |
| Fairly high  | • They should have better management skills through more industrial attachments  
• Most graduates lack skills in IT, information literacy, copyright of electronic resources  
• Some high, some low it depends on institution  
• Most graduates have elementary computer knowledge, little search knowledge - some only want to work in cataloguing and classification and not in circulation and shelving |
| Low          | • Lacking in job motivation, keenness in quality service delivery and willingness to learn new skills  
• Some are more interested in ICT related work and what equipment the employer can offer than in traditional practices and ‘hands on’ jobs such as shelving  
• There is low enthusiasm in service delivery and poor attitude towards work  
• While a few LIS schools produce high quality graduates with contemporary skills required for a present day librarian, quite a number of schools produce graduates who come to the field with traditional librarianship training, expecting to sit in a library and wait to circulate books |

Remarks by the graduates resonated in some respects with those of the employers. Most respondents for example felt they had acquired some skills that they were suited the current market situation. Some, however, noted that the curriculum had incorporated many repetitive courses; others noted that some courses had no relevance to the situation on the ground. Skills cited by the graduates as of key importance included customer care, public relations and selective dissemination of information. They also commented that the individual library environment dictated skill relevance.

From the LIS school perspective the greatest challenge was the provision of student attachment opportunities -- due to both student numbers and their unwillingness to undertake “hands on” activities such as shelving. In Uganda students were unable to undertake attachments far from Kampala due to logistical issues and the non-availability of professional supervision.
Strategies for bridging the gap between LIS education and market needs, as suggested by the employers (through questionnaires, focus groups and at two consultative meetings following release of the preliminary findings, included:

- Stakeholders in the profession should be involved in developing the curriculum e.g. KNLS is mandated by law to advice government on library education and training needs in addition to carrying out research. (Laws of Kenya, Cap 225)
- The curriculum should be geared towards meeting local information needs for development and enhancing literacy.
- There is need to review the LIS curriculum at all levels and align it to the expectations of the job market and to produce graduates who can multitask
- The schools need to carry out market surveys to get an overview of what is needed; LIS schools need to compare notes with other international LIS schools to keep abreast of global trends
- Delivery methods should be more participatory, learner centred and practical with less use of the lecture method and rote learning
- As most LIS graduates work as subject librarians, LIS schools should consider producing graduates who would work as subject librarians. This would require the development of a Master’s degree for holders of a Bachelor degree in other subject areas
- LIS schools should have partnerships and collaboration to facilitate resource sharing and student visits
- There is a need for thorough vetting of the competence and resources of institutions providing LIS training to avoid producing ill-equipped graduates
- Some courses should be conducted by practising librarians, while the lecturers should undertake practical attachment in libraries in order to update their skills and keep abreast with market trends.
- LIS schools find it a challenge to respond to the myriad market requests such as public relations, customer care, psychology, soft skills etc. and they struggle to find a balance between core courses and non-core courses
- Teacher centred pedagogy was a serious problem in Uganda owing to privatization of education. The many private universities and self-sponsored programs in public universities lead to high teacher student ratio and declining teaching standards. This negatively affect the quality and employability of graduates
- LIS graduates suffer from low esteem and tend to feel demeaned by other professionals; there is need for the library association to look for ways of raising the profile of the profession.

The overall conclusions of the report are unsurprisingly negative:

- There is little interaction between producer and consumer of LIS graduates
- In some cases, no connection between what is taught in class and what is done in practice
- Lack of job placement programmes and/or tracer studies implies that LIS schools are out of touch with the market
- Training required by employers includes computer studies, IT related skills, database searching and training, customer care and public relation
Although the schools claim to revise their curricula, from the employers and graduates, point of view the changes have not been comprehensive enough and at times have not involved the clients.

The library and information science market is very dynamic and the schools are not keeping up with the changes taking place.

The recommendations are very clear:

- LIS schools should carry out tracer studies
- LIS schools, professional associations and employers in the region should work more closely
- Regular curriculum revision should be conducted by the schools as per the accreditation bodies’ guidelines
- Commission for Higher Education (Kenya) and the National Commission for Higher Education (Uganda) should ensure the schools incorporate practitioners in curriculum development and reviews
- The professional associations should have a mandate in regulating LIS education and licensing of practitioners
- LIS lecturers and practitioners should be mandated to undertake continuous professional education

**TANZANIA**

The authors (from Ardhi University, University of Dar es Salaam and Sokoine National Agricultural University) assert that despite the efforts being made, the quality of library and information services provided in Tanzania is still poor and moreover, the performance of most LIS graduates employed in Tanzania is still questionable. This is the rationale for investigating how LIS education is provided in Tanzania.

This study aimed at assessing the relevance of LIS curricula to the job market; determining ways in which LIS curricula addressed the advancements in ICTs; investigating ways in which LIS training was conducted; assessing the efficiency of LIS graduates in the job market; and determining the library users' satisfaction. In addition, the study attempted to ascertain the strength and weakness of current LIS education in Tanzania and to make recommendations for improving the contribution of libraries to building an information society.

The need for LIS graduates in Tanzania is high and is expected to increase. To meet this challenge, several training institutions have introduced LIS programme to produce graduates in the job market. Among the training institutions with Certificate and/or Diploma LIS programmes are the School of Library, Archives and Documentation Studies (SLADS) Bagamoyo; the Moshi College of Cooperatives and Business Studies; the Jordan University College; the Ruaha University College; the Eckenford University of Tanga; the Tanzania Public Service College; Mzumbe University (recently introduced); and Sokoine University of Agriculture.

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Tumaini University Dar es Salaam College offers LIS and an Information Management programme at undergraduate level. Other Universities including Mzumbe University (MU) and the Open University of Tanzania (OUT) are about to introduce programmes at undergraduate level too. The University of Dar es Salaam through the College of Arts and Social Sciences offers LIS programmes at Master’s and PhD levels.

The study involved a total of 180 respondents: 60 LIS students (both current and past), 60 lecturers (12 from each LIS training institution involved in the study) and 60 LIS employers from academic, government, NGOs and parastatal organisations.

The report offered numerous tables on age, gender, qualification level of educators, length of work experience of graduates, levels of specific graduate competencies, relevance of specific aspects of LIS education in job market, based on views of educators, employers and graduates.

We concentrate here essentially on the recommendations for the improvement of LIS education. Respondents were asked to recommend on areas of improvements for LIS teaching methodology. Results indicate that 34.2% of LIS graduates indicated that teaching methodologies for LIS education should be improved by 25% (to some degree); 23.6% proposed a 50% improvement (a large degree); 21.1% of respondents recommended a 75% (a very great degree) improvement and 2.6% indicated that there was a need for 100% (total overhaul) improvement on LIS education teaching methodology. On the other hand 18.4% of respondents indicated that there was no need for improvements on LIS education teaching methodology.

Moreover, results show that 42.1% of LIS graduates recommended a 25% improvement on LIS education course content; 26.3% respondents proposed a 50% improvement; 13.2% of respondents proposed a 75% improvement of LIS education course contents. However 18.4% of respondents indicated that there was no need for improvement of LIS education course contents.

Interesting findings included:

- Many LIS educators have been in post for less than 5 years and had relatively little experience
- It takes more than one year for most of the graduates to find employment - despite the lack of qualified personnel
- There were mixed views from employers, educators and graduates regarding the quality of LIS education, the strengths and weakness of LIS curricula and the way LIS education was provided but the overall view of LIS educators and graduates was that LIS education prepared graduates adequately in the job market. The quality of faculty members, teaching and research supervision was identified by both LIS educators and graduates as some of the major strengths of their LIS programmes
- However, LIS educators identified areas that needed improvements, including emphasis on different IT related components, research methodology, customer care, information ethics and workplace practical training. LIS graduates noted that areas that needed improvement in the provision LIS education included teaching
and learning environment, course content, field work, classroom practical works and teaching methodologies. One of the implications of these findings is that existing curriculum of Library and Information Science offered by various LIS institutions in the country has to be reoriented to reflect the changes that are experienced in the profession.

• The survey also attempted to assess the competence of LIS graduates in the job market from the employers’ perspective. Generally LIS graduates demonstrated a high level of competence in management skills, technical knowledge, communication skills, working in a changing environment and in a team work. But the findings also identified areas that required improvement in terms of competencies, including individual creativity at work, ability to work under pressure and IT skills. LIS graduates also identified inadequate training opportunities and heavy workload as some of the challenges experienced in the work environment.

Based on the findings of the study this study has the following recommendations:

• **Review of existing curriculum.** It is recommended that there is a need to reorient Library and information Science Education to reflect global changes and evolving market demands.

• **Establishing links and collaborations between LIS schools and industry.** There is a need to introduce and maintain interaction and collaboration between LIS employers and LIS professionals particularly the educators to create dialogue among stakeholders

• **Introduction and strengthening of students field work and internship.** Fieldwork training to be introduced for LIS students so as to impart practical experience and give them opportunity to practise what they learn in classes.

**ZIMBABWE**

This study sought to answer the following question: What are the changing needs of information professionals that may inform curriculum development in Library Schools in Zimbabwe?

The study also sought to answer the following sub-questions:

• What are the perceptions of information professionals of LIS curricula?
• What strategies are information professionals using to adapt to their changing needs?

The research focussed on practising information professionals rather than library educators. All the respondents, regardless of length of service, reported changes in roles and responsibilities, driven mainly by the changing expectations of users, the new ICT landscape, electronic resources and staff shortages. These changed roles were not necessarily reflected in formal job descriptions.

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Although respondents believed that the LIS curricula give information professionals a sound basis to be able to work, many of them considered the curricula inadequate for them to fulfil their roles and responsibilities as expected. The most glaring gap that was prevalent in almost every response was that of inconsistencies and imbalances that existed between theory and practice. Most interviewees pointed to the fact that the curricula were mostly theoretical with limited application in industry.

The general perception of the curricula was that they were outdated, having too many gaps and not applicable in industry. To this end the respondents suggested a number of courses that they felt were needed to bridge the knowledge and skills gap:

- Project management
- Information literacy
- Public relations
- Serials management / Purchasing and supply
- Digital libraries / Virtual research environments
- Open Access
- Programming / software development
- Metadata indexing / Resource Description and Access
- Special needs librarianship
- Advanced Human Resources Management
- Subject librarianship
- Reference management
- Semantic Web

The suggestion of courses such as project management, public relations and purchasing and supply show the multi-disciplinary nature of Library and Information Science. It implies that those who are involved in the development of LIS curricula should look beyond the conventional and seek ways of integrating aspects from other disciplines in order for them to produce professionals who are adequately prepared to deliver in their work environments.

Most of the suggested courses centred on ICTs and their application. These gaps were mainly attributed to automation, changes in user needs and expectations, increasing use of electronic resources as well as use digital applications in the creation, storage and dissemination of information.

The proliferation of the use of ICTs in libraries has led to a demand in the associated skills. These skill sets were highlighted in both the training needs and the new courses suggested for LIS curricula. From the responses drawn from the interviews, it is apparent that they need skills and courses that are in tandem with the digital era we are living in.

The suggestion of the introduction of courses such as programming, virtual research environments and software development is a testament to the influence that ICTs have had on information professionals in Zimbabwe.

Change is inevitable as noted by the study, therefore there is a need for continuous knowledge and skill upgrading for information professionals in Zimbabwe for them remain relevant in the digital era as well as keep up with global trends. This can be
done through workshops or a constant revamp of the curricula to incorporate new/suggested skill and knowledge sets. LIS curricula in Zimbabwe should be critically reviewed on a yearly basis so as to keep pace with the changing needs of information professionals in Zimbabwe.

**Conclusion**

Using the findings of the above studies INASP has already started developing its Curriculum Development Programme and has conducted its first activity at Mzuzu University in Malawi. The review process will be integrated with associated activities such as pedagogical skills training, the development of CPD plans, tracer studies and longer-term curriculum review and evaluation.