

An Assessment of the Changing Needs of Information Professionals in Zimbabwe

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Abstract

The study was an assessment of changing needs of information professionals in Zimbabwe. Results from this study were aimed at informing library and information science curricula of professional development initiatives of information professionals. The data for the study was collected using semi-structured interviews. During data analysis, participants were grouped according to qualifications, as well as experience. This was done to map the influence of work experience and qualifications on the needs of information professionals. Results from the study showed that the needs of information professionals are changing and that the current curricula in Zimbabwe are failing to cope with the changes.

Keywords

Information Professional, Zimbabwe, Librarians, Information Needs, Training Needs

Introduction

The use of ICT has transformed a modern library into an electronic library providing access to

information from local and remote databases. New technologies have heralded not only new ways of handling information but have also introduced new formats. These changes have transformed the library education and obligated the professionals to prepare themselves for the coming era (Rahman et al., 2011). This change in the information landscape has brought about changes in the job descriptions and job specifications of the librarians, who are now required to deal with born digital information sources, as well as digital natives (users). According to Bearman (1984), a "... major change area is the challenge of learning to use many new tools to improve job performance" and this is attributed to the changes in technology that characterise the information landscape in an information/digital era.

As a result of these digital developments and changes, the information transfer chain has been evolving, thus ushering new means and ways of information generation, packaging, storage, management and dissemination. Consequently, there has been a change in the way librarians execute their duties but in the Zimbabwean context, a little has been done to contextualise these changes and their effects on the job descriptions and job specifications of librarians. Furthermore, a little has been done to assess the extent of these changes on their skills, knowledge and attitude sets. As a result, there is no proper framework that puts into context the changes that librarians and information scientists in Zimbabwe are experiencing.

There has also been a growing awareness of the importance of information in today's world. Moreover, the information profession is being seen as a profession similar to law and medicine. The business press is filled with articles about the need for skilled information workers and the growth of the industry (Bearman, 1984). This study sought to assess the extent to which information professionals are adapting to and adopting changes that are happening at a global level.

The use of ICTs has changed the information

landscape; consequently, the needs of information professionals are also changing (Tam & Robertson, 2002:369; and Spacey, Goulding & Murray, 2003:61). From the concept of custodian, LIS professionals are now engaged in different sectors of the economy as content developers, knowledge managers, cybrarians and so on. To cope with the situation, it has become imperative for LIS professionals to get continuous exposure to new technologies, regular professional updating and greater control over the information resources (Halder, 2009:2).

This research project sought to explore the changing needs of information professionals in Zimbabwe. The aim of the research was to determine the approaches to the changing needs of information professionals in the country. This was achieved through interviewing information professionals from different institutions. The information professionals targeted were selected from academic libraries and special libraries in the country. Interviews were used to collect data for the research. A stratified sampling approach was used in selecting respondents given the clear cut job classes that exist within the information profession in Zimbabwe.

Objectives

The objectives the study sought to address were to:

- identify changing needs of information professionals in Zimbabwe
- determine the perceptions of information professionals of LIS curricula
- inform curriculum development in Library Schools based on the results
- determine the strategies that information professionals are using to adapt to their changing needs

Overview of the Literature

With the advent of Web 2.0 and social media technologies, the expectations of library users are changing (Stephens and Collins, 2007). Users are seeking a variety of social, collaborative spaces and quiet workspaces. Gibbons (2007) notes that the new generation of library users is flexible and demands the same from libraries and librarians. To this effect, Halder (2009) is of the view that it is up to the

information professionals to seize the opportunity and engage with such users through writing *blogs*, *tweeting*, and having a *Facebook* presence. This is in line with Danchak's (2012:4) advice that libraries and librarians need to be where the users spend most of their time. Such a shift in the characteristic and type of library clientele calls for the need to identify new professional skills and competences which librarians need in order to effectively function in this digital age.

In the world of academics in which the library serves, latest and right information is the key for personal and professional development (Ifijeh, 2010: 6). In one of her studies, Gutsche (2010:30) observed that an increasing number of positions in libraries is moving closer to the technical end of the scale and that consequently technology competencies are starting to comprise an "ever growing piece of the performance pie, impacting every job in the library". She contends that new competencies must be defined and that "everyone who works in a library must stay abreast with dynamic changes in the information environment and be ready to receive new knowledge and skills" (Gutsche, 2010: 31). Kavulya (2006) also indicates that LIS training in Kenya must address job requirements. Noh, Ahn & Choi (2012) highlight the need for change in library and information science curricula in response to changes in library and information centres. They state that studies advocating for curriculum change start from the logic that curricula should be changed constantly to produce future librarians who can adapt to changes in the external environment due to information technology development. It is from this school of thought that this study is based. The study therefore scanned changes in the information environment in a bid to inform curriculum development in library schools.

Ocholla and Bothma (2007), report that some LIS departments in South Africa have realigned and that new names have emerged from the 1980s onwards. They also point out that some LIS curricula have expanded to include courses such as computer troubleshooting skills, multimedia, media and publishing as well as information and communication technology

Nonthacumjane (2011) studied the essential competencies of an information professional working in a digital library environment, from the perspectives

of Norwegian and Thai LIS educators. The comparative study used online questionnaires, face-to-face interviews, online interviews and email interviews as data collection methods. The findings of this study revealed that the knowledge and skills that underpinned the work of information professionals in both countries encompassed analytical, creative and technical competencies. It was found that the principal areas of discipline knowledge required included an understanding of metadata, database development, database management systems and user needs. Communication, critical thinking, information literacy and teamwork were found to be the generic skills needed by information professionals in a digital library environment.

Orme (2008) also conducted a content analysis of 180 job advertisements collected between June 2006 and May 2007 from the library sectors in the United Kingdom. She categorised skills into generic, personal and professional. The findings indicated that generic skills are the most normally required. Professional skills and personal skills are the second and the third place respectively. The following categorisation of skills is provided: Generic: 'interpersonal/communication, general computing, team work'. Professional: 'professional related experience, customer service, chartered librarian, cataloguing, classification and Metadata'. Personal: 'enthusiasm, flexibility, self-motivation'. It is against such a background of findings that this study is vital as it will expose the expected skills and performance standards for the digital information professional.

Choi & Rasmussen (2009) studied the essential qualifications and skills of digital library positions involved in academic libraries. The study was a content analysis of job advertisements collected from the digital library positions posted in *College and Research Libraries News* from 1999 to 2007. The study findings indicated that knowledge and experience with metadata and the creation and management of digital information were highly required in the advertisements. Technological knowledge and management were most frequently mentioned as required qualifications. The most required area of technical knowledge related to contextual and trend analysis in the digital library environment includes current trends, practices, standards, technology in digital library practice.

HTML coding, general computer skills and computer literacy, knowledge and an understanding of information technology, and mark-up languages such as SGML, XML, and Web development and design were mentioned as the frequently required knowledge and skills.

Chu (2006) concluded that technology alone does not represent all the changes that take place in the arena of LIS education. Other factors also contribute to the transformation of the LIS curriculum. For example, a user-centred approach to information systems design and services receives growing attention in the LIS curriculum. Roegge (2009) also concurs that LIS programs have traditionally been user-focused and also recognises that library schools need to be focused on information technology and that students should learn about software applications, online searching, web design and other tasks related to an online environment.

Research Methodology

In an endeavour to assess the changing needs of information professionals in Zimbabwe, the research involved university libraries in Zimbabwe which employ the bulk of information professionals. Only libraries that responded to the requests for interviews were used in the survey therefore the sample was self-selecting. Special libraries also formed part of the research sample.

A qualitative research methodology was adopted in this study. Qualitative research was chosen because it is said to be exploratory, which is the collection, analysis and interpretation of data by observing human behaviour (Roshan & Deeptee 2009). The focus of this research was on changing needs of information professionals which were seen as they involved an exploration of skills, knowledge and attitudes. A number of data collection methods were available to the qualitative researcher; among them are focus groups and interviews, questionnaires and case studies (Cassell & Symon 2004). For the purpose of this study, semi-structured interviews were used in the data collection process.

Purposive judgmental sampling was used in the selection of respondents in this research. The information professionals that were included are those that have attained at least a Bachelor's degree in Library and Information Studies/ Higher National

Diploma in Library and Information Science. This sampling method was used because it allowed the researchers to identify respondents who were in a position to give meaningful information for assessing the changing needs of information professionals in Zimbabwe. A total of 33 information professionals (14 with BSc. in Library and Information Science; 16 with MSc in Library and Information Science; and 3 with Higher National Diploma in Library and Information Science) from 10 institutions in Zimbabwe participated in the research.

The method of analysis used in this study was thematic content analysis (Burnard et al., 2008). The process involved analysing all the interview transcripts, identifying themes and categories that emerge from the data, and gathering together examples of those themes from the text. The data were collected from 11 March 2013 to 22 March 2013.

Results and Discussions

Background Information of Respondents

The background information of the respondents shows that the respondents had worked for between one and fifteen years. These were grouped into three categories, namely 0-5 years, 6-10 years, and 11-15 years. Of the 33 respondents that were interviewed, 13 have worked for 0-5 years as professional librarians; 17 have worked from 6 to 10 years as professional librarians and 3 have worked for between 11 and 15 years as professional librarians

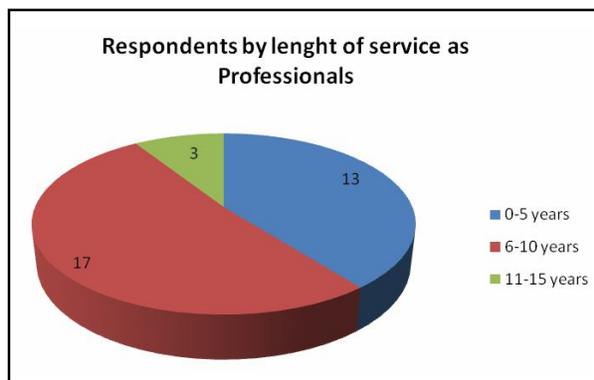


Figure 1: Respondents by Length of Service as Professionals

(See Figure 1).

The data analysis of the respondents follows the structure of the interview schedule that was used to collect data from the institutions that were selected for the research. The respondents that were interviewed were referred to as Group A (BSc in Library and Information Science), Group B (MSc in Library and Information Science), and Group C (Diploma in Library and Information Science plus working experience). The analysis was done in the order in which the questions were asked during the interviews. Results are reported using the following categorisations:

- Changing needs
- Causes for the changes
- Training and training needs
- Curriculum perceptions
- Adaptation to change

Changing Needs

All the groups under study recorded changing needs in terms of roles and responsibilities. These changes were mainly lateral (changing from one position to the other at the same level, for example from Assistant Librarian responsible for Circulation Services to Assistant Librarian responsible for Special Collections) for Group A and C and vertical (for example, from Assistant Librarian to Sub Librarian) for Group B. The difference in changes can be attributed to different characteristics that typify each group. It was observed from the respondents' attributes that Group A and C were mainly made up of tactical managers (middle level managers) whilst Group B was made up of Strategic managers (top level managers). In these regards, the lateral changes were mainly due to a change in position whilst the vertical changes were due to changes in posts and organisations. But it has to be noted that some of the changes were similar across all the groups.

The nature of the changes involved in Group A respondents were mainly influenced by introduction of new products and services, library automation, information literacy skills training, as well as changes in procedures. In Group B, the changes were mainly influenced by policy changes, increased span of

control, as well as the transition from being tactical managers to being strategic managers. Group C respondents' roles and responsibilities were both lateral and vertical, being influenced by changes in processes and procedures.

Information professionals who fall in the category of 0-5 years stated that their roles and responsibilities changed and the changes were not documented. The nature of the changes that were recorded for this group were mainly ICT driven, as well as being influenced by changes in information formats where for most institution there has been transition from manual-based information platforms to automated electronic-based platforms.

Those who have worked for between 6 and 10 years as professionals expressed that their roles and responsibilities had changed as a result of institutional transition from the use of manual-based information platforms to electronic-based platforms. Roles and responsibilities for this group also included the assumption of managerial and administrative duties.

Respondents who had worked for between 11 and 15 years reported that a number of changes have taken place in the roles and responsibilities. The respondents pointed out that library processes and procedures have changed, meaning that they are now required to manage automated library management systems, manage electronic resources and teaching information literacy. All the respondents in this category reported that the changes that were taking place in their roles and responsibilities were not documented in their job description.

This is evidenced by the responses of most of the respondents in the research who pointed out that their roles and responsibilities were changing. The changing expectations of users and the ICT landscape have been cited as the major drivers for the changing needs of librarians. What is interesting, however, is that most of the changes that are happening to the roles and responsibilities of most information professionals who were interviewed are not documented in job descriptions. It seems employers are not keeping pace with the changes in the working environments of information professionals since they are doing little to ensure that the changes that are taking place are reflected in job descriptions. The results also show that most information professionals in Zimbabwe are flexible

and are willing to go the 'extra mile' to satisfy their user needs even without the employers imposing the changes on them.

In terms of documentation of the changing roles of the information professionals, most of the respondents pointed out that most of the changes that are taking place are not documented in their job descriptions. Only a few interviewees in Group A pointed out that no changes had taken place in the past two years.

Causes for the Changes

All the groups reported that technological developments, new user needs and expectations, electronic publishing and library automation were the major drivers behind the changes. Groups A and B recorded staff shortages and a need for quality control and quality assurance as part of the causes to the changes that are happening in the information profession. Information explosion and overload, pursuit of global trends and best practices were noted as some of the contributors of change in Group A. Group B highlighted that change in institutional policy, vision and mission; adoption of new concepts introduced at workshops had caused some of the changes that were taking place in the information profession. The proliferation of other information resource centres, as well as information sources, has led to competition, which in turn leads to a change in operations, procedures and processes.

The 0-5 years group attributed the changes to differences in user expectations, automation, digitisation, staff shortage, changes in information dissemination platforms, competition from other information service providers, changes in curricula, increased electronic resources uptake, institutional growth, as well as the introduction of quality assurance and quality control on the Zimbabwe academic field.

In the 6-10 years category the respondents mentioned introduction of new mode of teaching such as distance learning and open based learning had resulted in changes in roles and responsibilities. Respondents in this group concurred that the growth of the institutions served by their libraries in terms of introduction of new academic programmes consequently led to a shift in the information products and services, thus shaping new roles and

responsibilities for respondents.

Respondents who have worked as professional librarians for between 11 and 15 years reported that institutional growth, changing user needs, emerging technologies, electronic resources and staff shortage are the reasons behind the changes in the roles and responsibilities that have been taking place in their various work places.

The changes that have been identified have been attributed to institutional growth, changing user needs, emerging technologies, electronic resources and staff shortage among other things.

Training Needs

All the three groups concurred that training was needed in order to keep up with the ever changing environment. As such, ICTs, web computing and database management were essential areas for training for all the groups. Group A and B noted the following as important areas for training; IL pedagogy, social media, digital libraries, marketing, and e-resources administration and management. Software engineering, public relations, intellectual property, technical services and computer networking were the areas that were identified as peculiar to Group A.

Indigenous knowledge systems, knowledge management, basic programming, open librarianship, library advocacy, monitoring and evaluation, library management systems, e-resources training, reference management, subject expertise, research writing skills, Open Access, cloud computing, embedded librarianship and metadata indexing were the training needs common with Group B with higher level qualifications. Group C suggested that they required refresher courses in areas such as automated cataloguing in order to keep up with developments in the field.

The training needs for information professionals who have been in practice for 0-5 years included:

- Computer skills
- Database administration and management
- Systems and web applications
- Digital libraries
- Library management
- Information Literacy pedagogy
- Research skills

- Intellectual property e.g. copyright
- Strategic management
- Funding research proposal writing
- Virtual research skills.

The training needs for information professionals who have practiced for 6-10 years are almost similar to the 0-5 years' group. However, there is a clear inclination towards management and administration training needs. Respondents expressed need for further training in administrative functions that have to do with human resource management and financial administration. Skills in scholarly communication are needed by this group, particularly writing, publishing and presentation skills.

Those who have worked as professional librarians for between 11 and 15 years reported that training was needed in the following areas:

- Administration of libraries
- Information Literacy pedagogy
- Web 2.0 services
- Databases
- Network technologies
- Writing and publishing research papers
- Cloud computing
- Digitisation.

Curriculum Perceptions and New Courses

All the groups revealed that the curriculum was inadequate, though relevant to some extent. The major reason for the inadequacy was the gap between taught courses and industrial practice. It was also noted that the courses were more theoretical than practical thereby making them irreconcilable with practice. To this effect, the respondents pointed out that "teaching approaches and course content did not match the requirements of industry." Only respondents from Group B were satisfied to a greater extent by the courses taught at MSc Library Science level though they felt that there was a need to reconcile curriculum and practice.

The respondents were given a chance to suggest new courses that they deemed to be relevant in response to the changes and changing needs. Public relations course was suggested by all groups as a new course that should be added to the library

and information science curriculum. This was cited because librarianship is a profession that deals with diverse populations and clientele bases. Information literacy skills was suggested by Groups A and B. This is mainly due to the demand for the skill by users, as well as in response to global trends and IL workshops. Group B and C suggested that 'project management' be introduced in the library and information science curricula as a new course. This course was suggested because the respondents felt that libraries are now involved in managing projects of various magnitudes.

Respondents in Group A suggested purchasing and supply, serials management', virtual research environments, Open Access, programming, inforpreneurship and knowledge management' as new courses that needed to be introduced in the library and information science curriculum. Group B suggested advanced human resources management, subject librarianship, reference management, resource description and access, virtual/digital libraries and Semantic Web. Group C suggested metadata indexing, software development and special needs librarianship as new courses that need to be introduced to LIS curricula in Zimbabwe. The suggestions were mainly based on the gaps that the professionals identified between curriculum and practice.

The 0-5 group felt that the library and information science curriculum was relevant but inadequate in addressing the requirements of the information industry. They made suggestions to some courses they strongly felt to be handy in bridging the gap between curriculum and practice. The courses they suggested included:

- Library budgeting and financing
- Strategic management
- Open Access
- Programming
- Virtual research environments
- Semantic web/web 2.0
- Java CSS
- Digital libraries
- Networking technologies
- Intellectual property
- Serials management

- Metadata indexing and metadata harvesting.

The suggestion behind these courses was mainly attributed to the digital environment, changing global trends, and changing user expectations. In these regards, the interviewees felt that there was a need for curriculum review that focused on the changes in industry as well as one that took a practical approach.

Like the 0-5 years group, the general view in the 6-10 years group on the library and information science curriculum and its ability to meet actual job demands is that there exists a gap between what is being taught and what the industry demands. The group noted that there was the need to have more depth in all information technology based courses. The curricula should prepare and produce a student who has an unquestionable competence in basic library procedures and operations. While the group appreciates the value of information technology, respondents stated the need for much depth in the teaching of courses to do with public relations, organisational communication and marketing of information products and services.

With regards to the perceptions of librarians towards LIS curriculum, those who had worked for between 11 and 15 years felt that while the curriculum that they were familiar with was relevant, they still felt that the curriculum was inadequate in addressing some of the emerging roles and responsibilities for information professionals due to changing user expectations and the changing ICT environment. This group of users therefore suggested the following courses to be introduced in LIS curricula:

- Project management
- Web applications
- Research skills
- Network technologies.

It has emerged that while the LIS curricula are believed to give information professionals a sound basis to be able to work; many of them believe that the curricula are inadequate for them to be able to fulfil their roles and responsibilities as expected. As a result, many courses have been suggested to be added to the LIS curricula by the information professionals who were interviewed.

What is interesting to note is that programming and software development which are disciplines that fall under Computer Science were also suggested

as courses that need to be introduced in LIS curricula. Most of the respondents who suggested that these courses be included expressed frustration at their IT departments. They were of the opinion that information professionals should have skills in programming and software development to avoid too much dependence on IT personnel who often have other priorities.

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.

Adaptation to Change

All groups of respondents reported that they had managed to adapt to the changes taking place because they had been able to research about developments in their fields to keep up to date with current practices. Groups A and B reported that workshops, online courses/short courses, and networking and collaboration with other institutions had helped them to adapt to changes that were taking place. Both Group B and C respondents pointed out that life-long learning skills imparted through information literacy training helped them to update their knowledge bases in line with new developments. Only Group A respondents pointed out that they adapted to change through upgrading their qualifications, embracing new technologies and being flexible. Group B respondents singled out experiential learning as one of the ways that they had been able to adapt to their changing needs in their roles.

Those with 0-5 years experience highlighted that they were adapting to change through self-upgrading, participation in professional bodies, networking, research, self-motivation, reviewing research and workshops.

Adaptation to change in the 6-10 years group is a matter of self-inspired initiatives where respondents merely study changing trends within their external environments and use networks, workshops and private research to gain deeper understanding into new phenomena in the library field. Some in

this group have sought higher qualifications so as to adapt to the changes within their work environments, of note is the Master of Science degree in Library and Information Science.

Those who had worked as professionals for between 11 and 15 years highlighted that they had been able to adapt to the changes because they had taken short courses, attended workshops, and were involved in research on current trends.

Training workshops have been cited by many of the information professionals interviewed in this research as a major help in their adaptation to the changes that are taking place. A significant number of respondents also pointed out that research has also helped them. It is therefore necessary that LIS professionals continue to engage in research so as to keep abreast with current developments in their work environments. While many information professionals who participated in this research pointed out that they have been able to adapt to the changes, it is important that LIS schools in Zimbabwe consider including some of the courses that have been suggested in this research and continue to refresh their curricula on a yearly basis so as to remain relevant to the needs of LIS professionals.

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What is important to note is that it takes a lot of efforts from the individual to adapt to change. This is evidenced by the many respondents who reported that they have been doing a lot of research on their own in order to remain relevant in their roles and responsibilities.

Conclusion and Recommendations

In conclusion, it was noted from the interviewees' perceptions that change is inevitable over time. Therefore, there is a need to continuously upgrade and update one's knowledge base through training at various levels and platforms. In this regard, it was noted that workshops, mainly made possible through sponsorship from International Network for the Availability of Scientific Publications (INASP), were an eye-opener and have been a major help to most information professionals in Zimbabwe in upgrading their knowledge and skills.

It is noteworthy that library and information science curricula should continue to evolve over time so as to bridge some gaps through the introduction of new courses as suggested by the interviewees. 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. As a result, they felt that there was a need to bring about a balance, as well as reconcile curricula and practice.

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 going to bridge the knowledge and skills

gap. Most of the suggested courses centred on information and communication technologies and their application in the information industry. 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. This goes to show that the respondents highly value and regard these skills in the execution of their duties. The responses drawn from the interviews shows that it is apparent that they need skills and courses that are in tandem with the digital era we are living in. These knowledge and skills gaps were also reviewed in the light of the workshops and trainings they (interviewees) had been exposed to prior to the interview. It emerged that most of them had attended workshops conducted by INASP on information literacy, monitoring and evaluation of electronic usage, project management, and digital libraries. The suggestion of the introduction of courses such as programming, virtual research environments and software development is a testament to the influence that ICT has had on information professionals in Zimbabwe.

Change is inevitable as noted by the study: therefore, there is a need for continuous knowledge and skills upgrading for information professionals in Zimbabwe for them to remain relevant in the digital era, as well as to keep up with global trends. This can be done through workshops or a constant revamp of the curricula to incorporate new/suggested skills 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.

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