LIS Profession: changing role of librarian in an information technology rich environment

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Abstract:

The rapid and continuing evolution of technology has invaded library functions and the ways in which the role of the Library and Information Science professionals has changed, and there will be more challenges and competencies to face by the profession in the future. IT has produced a large stock of electronic resources in libraries and created pressure for both library professionals and users to continue learning in order to provide effective services and make adequate use of new information materials. This paper discusses the many roles that the modern librarians play in developed countries today and how Sri Lankan librarians should be ready to improve the knowledge, skills and competencies to acquire that knowledge and training to meet the challenges and to support sers by introducing new services to them in this changing environment, to improve the reading habits among Sri Lankans, to emphasize the value of information, to teach correct ways to access correct information easily, within the limited facilities available to LIS professionals.

Key words: Information technology, LIS profession, and Changing professional role, Sri Lanka

1. Introduction:

1.1. LIS profession:

A profession can be defined as "that is based on technical or systematic knowledge of a specific field which is acquired by its members through a prescribed course of raining" (Sharma,2001).

Librarianship was declared as a profession by H.R. Tedder at the 1880 Annual Library Association Conference (USA). Melvil Dewey has said "To my knowledge, a great librarian must have a clear head, a strong hand, and above all, a great heart"(Adhikari, 2004). Adhikari comments on Melvil Dewey's statement and mentions in this way "this has said hundreds years ago but now the environment has changed and librarian needs strong legs to go extra miles and sixth sense to perceive how to

survive and thrive the IT age"(Adhikari, 2004). It also revealed by many literature searches that there are so many challenges, competencies that they have to face today as well as in the future in this information rich environment. But at the same time a professional should not forget that there are so many equal opportunities to improve their skills and competencies and to seek out new clients, improve existing services and system.

In early days it was very difficult to distinguish clearly the boundary between professional and non-professional duties as only one member of the staff was employed to perform all the duties in the library. But at present professional status is determined by the way the position is created and the nature of the duties assigned to the post. Professional organizations and professional bodies like the American Library Association (ALA) have taken many steps to demarcate the difference between professional and non-professional duties. ALA has also tried further to emphasize the importance of continuing professional development and professional competencies in the modern era by its code of conduct given below.

> "Library Association, states in its 1983 Code of Professional Conduct:
> i. to keep abreast of developments in librarianship in those branches of professional practice in which qualifications and experience entitle them to engage;
> ii. in respect of those members of the Association responsible for supervising the training or duties of another librarian, to endure that those whose them supervise are trained to carry out their duties is a competent manner".

This code of conduct emphasizes the importance of CPD development of library professionals to keep their professional status along with other professionals.

1.2. Impact of development in Information Technology:

The Macmillan Dictionary of Information Technology defines information technology as "acquisition, processing, storage and dissemination of vocal, verbal, pictorial, textual and numerical information by microelectronic-based combination of computer and telecommunications" (Ali, 2006).

Information Technology (IT) has changed the pattern of each and every aspect in the modern society. It has mainly affected the communication system of modern society, and was able to change the way of communication in the world. As a result, almost all the activities in the fields of business, teaching, learning, management, administration, and culture, etc. have been drastically changed during the last two decades.

With the advent of computers and networking systems the main communication methods were changed to electronic and online methods such as e-mail, virtual classroom, online chatting etc. Today there are facilities to contact anyone living thousands of miles away, with the live picture of the person on the screen.

Therefore, technological changes have made our lives easy and connected as it affects all aspects of teaching and learning activities as well as library activities. According to Panigrahi there are three major shifts. The first shift is the transition from paper to electronic media as the dominant form of information storage and retrieval. The second shift relates to the increasing demand for accountability, including a focus on customers, performance measurement, bench marking and continuous improvement. The third shift comes from new forms of work organization such as end-user computing, work teams, management de-layering, job sharing, telework, outsourcing, downsizing and re-engineering. He further mentions that these shifts are related to a combination of factors such as global competition, new computing and communication technology and the perceived need to measure the productivity of knowledge and service workers. (Panigrahi, 2003). Lester comments on these changes in this way "the introduction of technology would provide the professional with opportunities to serve users in a more active way" (Lester, 1994).

As we move towards the next millennium, it is seen that the role of library and information professionals is also changing due to the shifts, such as, the transition from print to electronic media, from passive users to active users, from non accountable services to a demand for accountability, networked environment and focus on the change from individuality to team work. The concept of the global village and the information society, with its far-reaching developments in information storage and retrieval, is radically affecting all aspects of the profession, and particularly education and training of LIS professionals to meet the information challenges of the 21st century. Today communication has also reached the level of transferring information at low cost due to networking facilities. Due to this situation, LIS professional functions and the way of supplying services to their clients are being changed continuously. Therefore, modern professionals have to update their knowledge and skills to supply and share information by using new tools and techniques.

2. Changing role of the librarian:

Librarianship can be also described as "the profession devoted to applying theory and technology to the creation, selection, organization, management, preservation, dissemination, and utilization of collections of information in all formats" (Ali, 2006). As

librarians we have been providing information for others since the origin of the profession. The people who obtain services from us have been changing the society utilizing that information. In the early days of the past, the librarian's main role was restricted to storage of books. In 19th century with the growth of the complexity of their functions, the librarian's role was changed not only for storage but also to select, acquire, organize and disseminate information for those who come for information. The concept of the great Librarian, S.R. Ranganathan, 'books are for use' came into existence. Then organization and indexing methods were introduced to interconnect information supplier and information receivers.

How ever it became evident that traditional role played by the librarian is not sufficient at all for the modern library, because the libraries and their role in the society are changing rapidly due to the development of the IT.

The following are just a few examples that have been proved by a literature search on current developments that may influence the role of librarians:

* "Increasing pervasiveness of the Internet and the rapid development of digital libraries.
* New information sectors and information users (e.g. e-commerce, competitive intelligence, health and government information).
* Changes in the reasons for information seeking and how information is used
* Increase in access to document delivery and customer service.
* Move towards collaborative work and collaborative learning.
* Increased demand for teaching by librarians (e.g. information literacy, information research skills, and media literacy)
* Need for services for remote users and distance students
* Move towards problem-based and resource-based learning". (Fourie, 1999)

All of these will require librarians to rethink their actions and the contributions they would like to make. A more important issue, however, is to think of the shifts that are still to come.

Unlike in the past, today the tasks, which are assigned to librarians, are different as they deal with information in many formats such as both printed and electronic. Thus the pattern of information storage and dissemination is changing daily; hence the librarian has to play many roles to achieve their tasks using Information Communication Technology (ICT) knowledge in addition to the traditional expertise.

Further, librarians have to secure a future in cyberspace, among cybrarians, web masters, knowledge managers and knowledge officers. They have to deal with a growing number of contexts for information

(e.g. e-commerce and competitive intelligence), as well as a growth in the information needs of ordinary citizens (e.g. health, consumer, legal and financial information). At the same time librarians are expected to deal with the needs of the digital divide, the information poor and the illiterate. Between the rich and the poor, the haves and the have-nots, demanding business-related needs and survival needs, wireless access and Internet connections and a lack of basic electricity supplies, the librarians must secure their future role and position. On the one hand librarians require the dynamic, ruthless pursuit of new roles if they wish to survive. On the other hand they require empathy, tireless dedication to a cause, commitment, and a service-for-free orientation – if not for the survival of librarians - then at least for the benefit of society at large. This has been predicted by many writers and reveals that 'New roles, changing roles, education and training, and the future of librarians have been debated on for many decades – in fact for each new technological development (e.g. automation and the paperless society, CD-ROMs and the end user threat, and the Internet and disintermediation)' (Fourie, 1999)

Sakthi also comments on the changing role of librarian in this way . 'In this age of information explosion, the role of LIS professionals is evolving to be information specialists. Hence, LIS professionals should give most importance to the above traits in order to handle the information communications technology (Sakthi, 2005).

In such an environment, present librarians should become successful knowledge managers and for that librarians should play a variety of organizational roles or in other words professionals have to be multifaceted and should be capable of performing many roles like being a business professional, a technology manager, a content organizer, a communicator, a change agent and a team player in addition to the other traditional roles. It means that the basics and fundamentals of librarian's skills to provide right information to the right user at the right time are not going to be changed in the digital library environment.

2.1. Librarian as an information agent:

Librarians act as the one who connects information sources, services and people in an organization. They work as independent information brokers or as contact persons and cannot save the day, by retreating to old practices and old methods of reference work. Although, information is inundated and freely available online, users cannot retrieve all the required information that are available on online efficiently. It is difficult and time consuming for users to filter the required information from huge stream of information available in the web. Hence, to be an efficient professional, the librarian has to evaluate and organize all the information to see whether it is relevant, enough, correct, authorized, reliable and comprehensive.

For these evaluations, librarian should have subject knowledge as well as a good command of information communication skills to handle the electronic and printed information sources. Documentation work such as compilation of bibliographies and indexes are professional activities done by many librarians. The role has changed on the way the bibliography is presented in modern society and the present librarians have to prepare subject gateways and webliographies in addition to compilation of bibliographies and indexes for the physically available resources.

In addition to that the librarian has to know the different metadata search engines such as www.vivisimo.com etc. that gives authenticated information and different searching techniques to find and supply metadata effectively.

The modern librarian should have some skills to evaluate the hardware, software that is used for library activities at present. With the introduction of e-services, new professional skills come into play. Building e-collections, management of repositories and sharing information through web pages are main functions that e-managers have to do today. The e-managers have to assess the staff abilities, the range of skills the staff possess and the range of skills they require. In this context information professionals are doing an excellent but undervalued work such as: evaluating services, certifying the quality of websites providing support and training for people using networked e-services.

2.2. Librarian as a knowledge manager:

To day, unlike the earlier days, many scholars, researchers etc. constantly discover new knowledge resulting a day by day increase in information. As a result of that, people say that there is an information explosion in the world. Therefore, librarian's duty is to collect organize and manage them in a proper way to use them effectively.

Librarians have to manage knowledge that is available in the premises or out side, using knowledge management techniques. That means management of knowledge of subject experts who work in the premises or those who are about to retire from the premises.
Further, librarians have been acting as knowledge mangers by introducing reference and referral services to the users, since they are trained in knowledge management.

Initially knowledge management strategies should be developed and then it should be improved according to the needs of the library users using the new technology to get the maximum benefit from the process. The first step in any knowledge management program is to identify where knowledge is being created, where it already exists and where it is needed to support decisions and actions.

For that, the LIS professionals should be confident to handle and manage software and to take up the challenges and competencies. Frank comments on the librarian's ability on knowledge management in this way, "Librarians have all the knowledge, skills and tools to design, develop and maintain effective knowledge management systems". (Frank 1998).

Therefore, another challenge that has to be faced by LIS profession today is tacit knowledge and is never articulated until the need to re-use it occurs. Knowledge management is combined with information audit as it helps success in management and ensures that we manage knowledge according to our organizational needs.

2.3. Librarian as a marketing manager:

Libraries face challenges from variety of technologies, including the most obvious one, the Internet and the www. Today students, academics and other consumers are more likely to try the Internet first for information than checking with a librarian. There are many other places that provide information such as cybercafés and Internet vendors that any one can use at any time without consulting a library. This competition necessitates that librarian has to become a marketing manager who must learn how to advertise and market their services and approach readership. Therefore, a library manager needs to understand this new competition if they want librarians to remain in their positions as key information providers. As information broker or marketing manager, librarian must make the patrons aware that librarians are capable of providing well-organized information, which exactly matches the specific information needs to them. For that librarians have to become marketing managers who must learn how to advertise and market their services. Managers need to develop a variety of competencies beyond technical expertise to succeed in their profession with these new roles and responsibilities. Salmon opinions the present managerial level necessities in this manner, "the soft skills of human resource management, team building, and leadership are the foundation of successful management at all levels of an organization" (Salmon 1999). Salmon further mentions that interpersonal communication skills, problem solving skills and education, customer services skills, talent, promoting learning are also necessary skills and suggests to practice these skills daily to improve managerial skills.

2.4. Librarian as a policy planner:

Today librarians have to go beyond traditional thinking to understand the relative education, strengths and weaknesses of different technologies, and what needs to be done to use technologies effectively. Good decision making is particularly important given the rapid developments in

technology, especially in communication technologies. It is most important to consider here the shrinking budget for libraries and information management. More powerful and more functional technologies are arriving every day and therefore it is important to understand its strengths in terms of its actual applications. It is also important to understand the managerial, administrative and operational requirements for the successful use of technology in implementing new services to users.

2.5. Librarian as a communicator:

The librarian communicates with staff, users, publishers and vendors etc. in many occasions in formal, informal and scholarly ways. Making effective access points to the collection, having discussions, doing number of awareness programmes to new comers, updating card catalogue, online catalogues and developing web pages, etc are some of the ways that librarian communicates with users. Librarian communicates with staff by holding meetings, training sessions and through memos and circulars etc. Further, scholarly communication is done by the librarian with colleagues by writing articles to refereed journals, presenting papers at the national and international conferences, delivering presentations at professional meetings, conferences, seminars and workshops etc. The ways and means of communication by the librarians have been changing rapidly due to technological development and many of them prefer to use electronic format today as it is cheap, quick and easy.

At present librarians communicate by email, fax, telephone, radio paging, cellular phone & telex systems, chatting etc. with others. With the introduction and development of IT based communication systems, electronic libraries can now be developed by any type of a library in order to make the information systems and services more efficient in terms of speed, space and utility. This development in IT has expanded the scope of traditional libraries. The electronic resources, which include CD-ROMs, electronic/digital material, electronic books, journals, databases and the Internet, need to be installed in libraries to attract, and to benefit their users on a larger scale. A user can receive or send the required information over the phone, e-mail and the Internet and the users need not even visit a library physically regularly. As a result of this development, libraries are not for a selected group of readers, but for actively engaged in resource sharing online. Audiovisual aids and multimedia have given the opportunity to librarians to serve a large section of people exhaustively and quickly, by quick communication of ideas. Thus, these developments have provided a large scale of global communication environment to LIS professionals today.

3. Changing role of Sri Lankan Librarian:

There are different types of libraries with different objectives in our country. As the objectives, visions and missions are different, activities are also different to each other. But all are struggling to create an effective relationship between resources and users to enable to give an effective service to the users.
After the introduction of computers to libraries in Sri Lanka, library materials were automated and simultaneously, card catalogue were converted to digital format. Then, most of the work done by the librarians were made easier as there was no repetition of work and work became minimal with facilities of cutting, copying and data transferring, given in the networking system.

Due to network facilities some university and research libraries are preparing to make available their information and resources online and because of that the concept of 'the library is for those who visit the library' has been changed to 'libraries are for all.' The limitation of accessing information from 9am to5 pm (9/5) was expanded to 24 hours per 7 days (24/7).

Few academic and research libraries were able to support their users with 24/7 online services at present and others were not able to go for it yet due to financial and infrastructure barriers. Therefore, it is one of our challenges to provide 24/7 services to all.
The challenge faced by modern professionals is that they have to be ready to give resources and services to users as and when they request and for that, the librarian should have knowledge and skills of producing and implementing these kinds of e-services which are open to access 24/7 hours. Librarians should be ready with knowledge, skills and competencies to work and also to guide the followers. Due to the technological changes, significant number of libraries in Sri Lanka has automated their collections and many of the academic libraries are on the way towards virtual libraries.

When we consider the application of technology in all fields and development activities in Sri Lanka, it is seen that IT has affected each and every person whether educated, uneducated or poor or rich. There has been a revolution in the field of communication in Sri Lanka as the media of communication was changed from radio to television and the method of communication also changed from printed to digital format, after the introduction of computers and mobile phones. The most popular communication methods in Sri Lanka today is small message services using mobile phones and e-mails using computers. Mesthene describes the result of technological change in this way - "Technological change always results in expanding the frontiers of knowledge enabling something new to be done, setting higher goals". Mesthene (1970)

The government of Sri Lanka has taken initiative to take technology to the villages through the e- Sri Lanka Project using 'Nanasala Knowledge Centres' which was started with 1000 centres in remote areas, while the Ministry of Higher Education and the NIE, National Institute of Education, are attempting to reach the government school teachers through different IT projects. At the same time many Sri Lankan universities have taken several steps to start online academic activities and also to share information among others through e-journal consortiums with the help of UGC. Consortia are a new concept for us as a developing country and it offers a number of strategies and operational advantages to introduce e-services and it reduce the duplication of the purchasing process.

Due to the technological changes, attitudes, necessities and skills of the Sri Lankan changing, they are compelled to use the Internet as an everyday tool to find answers to reference questions. This offers an opportunity for the information profession; to provide Internet and reference services to remote users both within and outside the organization providing links to high quality search services. Therefore modern Sri Lankan LIS professionals should be ready with the necessary tools and information to supply information for them as it is a 'must' for them today. Under this environment, it has become evident that traditional role played by the librarians in Sri Lanka is not sufficient at all in the modern society as the IT has turned the world into a global village.

There will always be changes in the library environment in Sri Lanka, and these changes will affect librarians: their role, job opportunities, self-image, motivation and even survival. Librarians therefore need to find a solution in timely repositioning and role claiming. Like librarians who are in developed countries, Sri Lankan librarians, should also be well aware of what should be done, but seem not to be able to prepare in time. How will we change as this is a problem for us. Many papers and articles have been written on the future and training of librarians, and there are also numerous publications on curriculum development and instructional design. Therefore, we have to consider the above matter and steps taken early by the Sri Lankan professional organization to meet the needs of the modern professionals.

There is a continuing pressure for the Sri Lankan LIS professionals to gain comprehensive, balanced and creative perceptions of computer communication technology and to keep their skills and knowledge constantly updated in order to meet the requirements of information seekers in our country. Application of IT in libraries and information centres raises the efficiency of collection, storage, organization, retrieval and dissemination of information. There is an urgent need that the skills of traditional library personal need total transformation in the changed circumstances and should create an environment to meet the increasing demand for information. But it is true that there is a low usage of information in Sri Lanka and as librarians, we must persuade readers or

information seekers by showing the correct path of accessing information, emphasizing the importance of the current information and improving the usage of information.

Therefore, we should have some knowledge and training on the above said new activities that librarians are discharging today as we know that not everybody can be an IT expert ; nor does everybody has the lobbying skills to argue the case of the information poor. But we should be able to assess their own strengths and weaknesses and position themselves on such a continuum. This will call for metacognitive skills. While considering the IT skills and metacognitive skills librarians should be able to understand their roles and user needs to find a balance between the highly IT-related roles and the more traditional roles to support users effectively. Although the above-mentioned are all valid efforts, which probably made a difference, they have not solved the problem because most Sri Lankan librarians are still poorly prepared to take on the new roles. Even though we have problems of training and getting knowledge on currents trends in the field we must try to introduce some new services and must go beyond our regular work as we are competing with other professions to take the place of a major player in the knowledge economy.

4. Conclusion:

Many changes have taken place in library activities during the past years and much more is still in process. The professional librarian has to ascertain the impact of information technology on the library and will have to acquire skills to cope intelligently and objectively for effective and efficient functioning of a library. Due to the exponential growth of knowledge, the advent of IT, e-publications and also because of the tough competitive environment, traditional libraries and librarians have become almost nearly obsolete.

LIS subject literature is marked by many speculations on future roles for librarians and how to prepare for these. This article is focused on past experiences and predictions, a selection of new roles, and argues that there should be more attention paid to methods such as information assessing, , management, marketing, and current awareness service.

Today, the LIS profession has attained the status of a full-fledged discipline in Sri Lanka but I feel that it still has a low recognition. The librarian has to recognize the expanding nature of challenges and competencies in his/her role to meet the changing information needs of the user community. As professionals, librarians have to prepare themselves to meet this changing scenario. In view of the ever-changing library scene, the librarian should take a positive approach in providing better services and should continue to prove their usefulness before non-professionals take over their role. Such an approach will enable

create an environment, which would raise their social recognition among other professionals. Therefore, as professionals, there is a lot more to be done, national bodies like the Sri Lanka Library Association, National Institute of Library and Information Science, National Library Services Board, Universities which are conducting LIS courses should give serious thought to find solutions to the existing problems.

The need for LIS organizations to set an example for librarians and students and practitioners in using information to take decisions on future roles and for claiming new ones should be stressed. They should get formally involved in environmental scanning, research projects on curriculum development and action research on the effect of their teaching approach and assessment methods. It is important to look at the curriculum of LIS professionals and it should be revised and expanded as alternation is required for relevant curricula, including high quality IT trained facilities and reasonable infrastructure in every education institutions in Sri Lanka. In addition, survival skills, and metacognitive skills should be stressed in LIS training programmes. All of these will require librarians to rethink their actions and the contributions they would like to make. A more important issue, however, is to think of the shifts that are still to come. This will help to improve quality products and create skillful librarians in Sri Lanka.

Most of us, librarians in Sri Lanka, do not have infrastructure facilities even though they are to some extent familiar with IT knowledge. Therefore, today the librarians, and information professionals have to be self reliant, well-prepared, and conversant with new technologies in order to guide the users according to their needs and their constantly changing demands and better job opportunities and to raise the social position of the LIS profession.

Further it should be tailored to meet the needs of Sri Lankans, to give a better service to them, to share information among others, to domain their services and to compete with other parallel professions.

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