ICT Skills among LIS Professionals in Assam: A Pilot Study

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Abstract

The ICT (Information and communication Technology) has changed the scenario of library and library science. The acceptance of ICT in libraries has also created few challenges for library and information science professionals. The innovation of new technologies and their application in libraries has brought the professionals to acquire the relevant technologies for fulfilling their library services. The role of library professionals demands quality information services to different types of information seekers having different kinds of complex information needs. Hence, the library and information science professionals must possess adequate ICT skills to manage their libraries. The quality of library services have been depends on the proficiency of the LIS professionals. The study ICT skills among LIS professionals in Assam has determine the proficiency of ICT skills including the awareness of ICT based application, awareness of library automation software, awareness of digital library software, skills for managing electronics resources, skills for managing ICT based library services and the constraints in acquiring ICT skills.

Keywords: ICT Skills, LIS Professionals, Assam

1. Introduction

As per United Nations Development Programme (UNDP) , "ICTs are basically information handling tools, they include the 'old' ICTs of radio, television and telephone, and the 'new' ICTs of computers, satellite and wireless technology and the internet".

ICT defined as a diverse set of technological tools and resources used to communicate and to create, disseminate, store and manage information. The use of information and communication technology (ICT) has enabled the libraries not only to offer their clientele the appropriate information available within their libraries but also provide access to information of other libraries, both local and outstations. It can be used in libraries for the development of new information services and computerization of library services. It is useful for improving productivity and efficiency of library services effectively, provision of quality information, saving the space using the electronic storage, improving of cooperation in sharing of resources.

In the present scenario of library services, the library and information professionals must possess adequate ICT skills to manage their libraries. The main ICT skills required to manage libraries include handing of operating systems, use of application software packages, knowledge of databases and programming, acquaintance in webpage design, library automation software, technical skills and managerial skills. This work is an attempt to identify the present scenario of the ICT skills among the LIS professionals of Assam. The pilot study has been conducted among 36 LIS professionals in Assam.

2. Literature Review

There have been number of research studies on Information and Communication Technology (ICT) skills among LIS Professionals. So selective studies on ICT skills has studied before conducting the study.

Arokyamary and Ramasesh (2015) conducted an analytical study on "ICT skills among the Library professionals of engineering colleges in Karnataka". The main objectives of the study was to know the existing IT infrastructure in the engineering college libraries, existing level of ICT knowledge, skills and competencies among the LIS professionals and the constraints faced by the LIS professionals while rendering ICT based library services.

Nkamnebe and others (2015) conducted study on "extent of information and communication technology skills possessed by librarians in university libraries in Anambra State, Nigeria." Findings of the study showed that librarians of the universities in Anambra state are weakly skilled in ICTs. The librarians are highly skilled in basic computing, word processing and file management and moderately skilled in information search and retrieval, internet and World Wide Web.

Mahanta (2014) conducted a study on "information and communication technology literacy among the LIS professionals of Medical College libraries in Assam". The findings of the study revealed that majority of the professionals' possessed DCA course, and all the professionals have knowledge in computer fundamentals and internet skills. The main constraint in acquiring ICT skills by library professionals was the tight working schedule.

Seena and Pillai (2014) in their study entitled as "A study on ICT skills among library professionals in

the Kerala university library system" investigate the awareness, skills and attitude towards information and communication technology among library professionals in the Kerala library. The study revealed that library professionals in the Kerala university library system have relatively average level skills in various ICT related tasks in library.

Kumar (2013) conducted a survey on "Knowledge on ICT skills among LIS professionals of engineering institutions of Andhra Pradesh State". The survey revealed that the LIS professionals serving in various engineering educational institutions of the Rayalaseema Region of Andhra Pradesh are mostly computer literate and have significant basic ICT skills to handle the library.

Ejedafiru and Oghenetega (2013) in their study "attitude of professional librarians towards the use of information and communication technology (ICT) in Delta State University library" showed that the attitude of professional librarians towards ICT was positive for library services and personal development.

Satpathy and Maharana (2011) in their study entitled as "ICT skills of LIS professionals in engineering institutions of Orissa, India: a case study" defined the types of ICT skills possessed by the LIS professionals, participation of various ICT related activities, application of ICT skills for modernizing their library and also the constraints for acquiring ICT skills. The study revealed that LIS professionals working in different Engineering institute of Orissa are mostly computer literate and they have acquired considerable basic ICT skills to manage the library.

Babu, Vinayagamoorthy and Gopalakrishnan (2007) conducted a study on "ICT skills among librarians in engineering educational institutions in

Tamilnadu". The study identified the background information about the institution and librarian, identify the types of ICT skills possessed by the librarians, access the level/extend of different types ICT Skills possessed by the Librarians, study the means and methods of acquiring ICT skills and also identify the constraints in acquiring ICT Skills.

3. Aim and Objectives

The main aim of the research problem is to ascertain the ICT skills among LIS professionals in Assam. Following are the objectives of the present study. :

a. To identify the computer course undertaken by the LIS professionals in Assam;

b. To know the awareness of ICT based application, library automation software, digital library software and cloud libraries;

c. To identify the skills for managing electronics resources and ICT based library services; and

d. To find out constrains in acquiring ICT Skills among the LIS professionals in Assam.

4. Scope and Limitation of the Study

The study covers the LIS professionals in state of Assam only. The LIS teachers working in Assam are not included in this study.

5. Research Methodology

This study has carried out by using questionnaire method to collect primary data from the LIS professionals. The pilot study has covered only the 36 LIS professionals in Assam.

6. Interpretation and Analysis of Data

In this study simple statistical method and techniques has applied to analyze the collected data.

A. Computer Course Undertaken

The Computer course has been classified into four group- diploma, PGDCA, bachelor and master degree and the responses found from the professionals have been summarized in the Table 1.

Table 1: Computer course undertaken

S. No	Courses	Response	% of Response(n=36)
1	Diploma	18	50.00
2	PGDCA	18	50.00
3	Bachelor	00	00
4	Master	00	00

Table 1 shows that 50.00% of LIS professionals having Diploma course and another 50.00% having PGDCA. There is not a single professional with bachelor or masters degree in Computer Science.

B. Awareness of ICT based Application

Table 2: Awareness of ICT based Application

S. No	ICT based application	Response	% of Response (n=36)
1	Windows Operating System	35	97.20
2	Linux Operating System	24	66.70
3	MS Office	35	97.20
4	Photoshop	25	69.40
5	Web Page Design	18	50
6	Installation and customization of Software	28	77.80
7	Database Management System	24	66.70
8	RFID Technology	10	27.80
9	Barcode Technology	29	80.60

Table 2 shows that the highest 97.20% of professionals have the awareness of Windows operating systems and MS Office;

C. Awareness of Library Automation Software

Table 3: Awareness of Library Automation Software

S. No	Automation Software	Response	% of Response(n=36)
1	LIBSYS	17	47.20
2	SOUL	36	100
3	WINSIS	7	19.40
4	KOHA	29	80.60
5	NEWGENLIB	7	19.40
6	EVERGREEN	3	8.30

Table 3 shows that all the professionals (100%) have the awareness on SOUL library automation software.

D. Awareness of Digital Library Software

Table 4: Awareness of Digital Library Software

S. No.	Digital Library Software	Response	% of Response(n=36)
1	DSpace	33	91.67
2	Greenstone	20	55.56
3	E-print	8	22.22
4	Fedora	4	11.11

Table 4 shows that the maximum 91.67% professionals have awareness on DSpace digital library software. The 55.56% professionals have awareness on Greenstone, 22.22% on E-print and the least 11.11% professionals on Fedora.

E. Awareness of Cloud Libraries

Table 5: Awareness of Cloud Libraries

S. No	Cloud Libraries	Response	% of Response(n=36)
1	OCLC	30	83.33
2	Library of Congress (LC)	27	75.00
3	Exlibris	1	2.78
4	Polaris	6	16.67
5	Scribd	6	16.67
6	Discovery Service	14	38.89
7	Google Docs /	30	83.33
8	Worldcat	25	69.44
9	Encore	0	00

Table 5 shows that the highest 83.33% professionals have equally awareness on OCLC and Google Docs. These are followed by Library of congress of 75.00%, Worldcat of 69.44% and so on.

F. Skills for Managing Electronic Resources

Table 6: Skills for Managing Electronic Resources

S. No	Electronic Resources	Response	% of Response (n=36)
1	Use of OPAC and Web OPAC	35	97.20
2	Library Website	27	75.00
3	E-books	31	86.11
4	Online Journals	34	94.44
5	Online Database	27	75.00
6	Electronic Thesis and Dissertation(ETD)	18	50.00
7	Digital Archives/Subject Gateway	22	61.11
8	Open Access Journals	31	86.11
9	Library Networks	25	69.44
10	Library Consortium	23	63.89

Table 6 shows that the 97.20% professionals have skills on 'Use of OPAC and Web OPAC' and this is followed by 94.44% of online journals, 86.11% of open access journals, 86.11% of e-book and so on. The least 50.00% professionals have skills on Electronic Thesis and Dissertation (ETD).

G Skills for Managing ICT based Library Services

Table 7: Skills for Managing ICT based Library Services

S. Services	ICT based Library Services	Response Response (n=36)	% of No Response
1	Information retrieval (accessing, searching and use of e-documents)	36	100
2	Electronic document delivery system	24	66.67
3	Online indexing and abstracting services	24	66.67
4	Digital reference service	24	66.67
5	Inter library loan through networking	24	66.67
6	Online bibliographic services	24	66.67
7	Development of institutional repositories	30	83.33
8	SDI	18	50.00
9	Circulation of new addition list	24	66.67

Table 7 shows that all the professionals (100%) have skills on information retrieval (accessing, searching and use of e-documents) of ICT based library services and this is followed by 83.33% professionals on development of institutional repositories.

H. Constrain in Acquiring ICT Skills

Table 8: Constrains in Acquiring ICT Skills

S. No	Constrains	Response Response (n=36)	% of
1	Inadequate training in ICT applications	22	61.11
2	Lack of infrastructure and network facility	20	55.36
3	Lack of support from authorities	15	41.67
4	Lack of budget for ICT	19	52.76
5	Lack of Co-ordination among Library Staff	11	30.56
6	Non availability of consultation services	14	38.89
7	Lack of upgrading ICT strategy	5	13.89
8	Lack of interest for learning ICT application	4	11.11
9	Overload of working hours	12	33.33

Table 8 shows that more than half (61.11%) of the professionals responded that they faced problem due to inadequate training in ICT applications and this followed by 55.36% professionals due to lack of infrastructure and network facility and 52.76% professionals due to lack of budget for ICT. Less than half (41.67%) of the professionals responded that they feel lack of support from authorities and this followed by 38.89% professionals due to non availability of consultation services, 33.33% professionals due to overload of working hours and 30.56% professionals due to lack of Co-ordination among Library Staff. A very few number 13.89% professionals responded that they faced problem due to lack of upgrading ICT strategy. The least

11.11% professionals faced problem due to lack of interest for learning ICT application.

7. Conclusion

From the interpretation and analysis of the study has found that the LIS professionals of Assam are not full-fledged skilled on ICT based resources and services. The level of the awareness of ICT based applications, skills for managing electronic resources and ICT based library services is satisfactory level but lacks awareness of library automation software, digital library software and cloud libraries. Inadequate training in ICT applications is the main constraint in the LIS professionals of Assam. Majority of institutions in Assam are located in remote areas where internet connectivity is very poor as well as some other places are suffering from power cut problem. Lack of support from authorities has also created problem to achieve good ICT infrastructure with network facilities. The professionals should be trained on ICT and its applications by conducting some training, seminar and conferences. The library and information science departments in Assam may conduct training program for all working professionals at adequate intervals so that the professionals can cope the latest ICT based applications.

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