

COLLEGES OF EDUCATION LIBRARIANS IN NIGERIA

An investigation into the self-perception of ICT-related information literacy skills

Ebikabowei Emmanuel Baro
*Federal University Otuoke
Bayelsa State, Nigeria*

Monica Eberechukwu Eze
*Enugu State University of Science and
Technology*

The authors of this paper investigated the level of information communication technology-related (ICT) information literacy (IL) skills of librarians in Nigerian Colleges of Education (COE) in order to discover the challenges they face in acquiring these skills. A descriptive survey method was adopted using a questionnaire. Study participants included professionals and para-professional librarians in federal, state and private COE libraries in the South-South and South-East geo-political zones of Nigeria. Findings showed that librarians in the study zone rate their IL skills as average. A correlation of the overall assessment of the librarians' IL skills with variables such as institution, gender, years of experience, and qualifications revealed noteworthy differences among the groups of librarians. The study also revealed that the librarians acquired their IL skills in a wide variety of professional and informal ways, but only a few indicate that they acquired their skills in library school. Lack of training, irregular power supply, poor Internet connectivity, inadequate facilities (computers), and lack of time were identified as some of the challenges in acquiring professional IL skills.

Communications in
INFORMATION LITERACY

INTRODUCTION

The rapid adoption of information and communication technologies (ICTs) and their extensive use in universities has catalyzed information literacy (IL) in libraries. In the contemporary digital environment, librarians must possess a variety of professional skills that enable them to provide effective IL programming. Librarians in developing countries face particular challenges in providing IL skills to enable users to apply information in concrete situations.

According to Armstrong et al. (2005), IL is “knowing when and why you need information, where to find it, and how to evaluate, use and communicate it in an ethical manner” (p.1). Seenivasulu (2000) defines ICT skills as the overall competencies (knowledge, know-how, skills and attitudes) necessary to create, store, analyze, organize, retrieve and disseminate digital information (text, images, sounds) in digital libraries. In a 2007 study, Babu, Vinayagamorthy and Gopalakrishnan found that librarians in engineering educational institutions in Tamil Nadu, had basic skills in ICT, but they lacked knowledge about network-based and digital library services. IL is an umbrella concept which covers a range of literacies and skills and draws them together on the understanding that all literacies involve effective interaction with information in a variety of formats and within different contexts and settings. IL emphasizes the skills, attitudes and values required to locate, access, evaluate, manage, synthesize, and use information effectively. This requires a broader range of skills than ICT literacy although the impact of ICT, and

especially the Internet, has created a more urgent need for IL skills and new opportunities to develop them.

Patrons expect a timely response to their information needs from academic libraries; this requires modern library facilities, products, and services, as well as skilled and professionally trained librarians. Unfortunately, many librarians in Nigeria possess outdated skills that do not fit with twenty-first century library functions (Ilesanmi, 2013). As Farkas (2006) states: Librarians need to do so much online these days, way beyond basic catalog and database searching Librarians have to be able to use search engines and use them well. They need to be able to find quality online resources. They need to help patrons set up e-mail and teach basic Internet skills.... Reference librarians are often providing reference services online via e-mail and synchronous chat (p.2).

In Nigeria, professional librarians undergo four years training in library school to obtain bachelor degrees. These professionals often undergo an additional two years of schooling to attain their Master’s degree, and another three years to attain a Ph.D. There are also para-professional librarians who have two years training in library schools, either in a university or polytechnic; they attain either an Ordinary National Diploma or, with an additional two years training, a Higher National Diploma. The issue of new requirements for the twenty-first century librarian has been raised within all Nigerian library sectors. Understanding the skills needed by the next generation of library professionals is a key topic with which both employers and educators need to engage.

According to Guo et al. (2012), librarians' literacy refers to their comprehensive competencies, which not only determine the effectiveness of library services but impact the pattern of change of services. The authors added that, with the advent of ICT, library staff have to be proficiently skilled in order to provide effective and efficient electronic information services to their patrons. IL skills are core competencies that librarians need in order to enhance the provision of relevant programming in the modern networked information environment. The need for professionals in COE libraries in Nigeria to be information literate cannot be overemphasized. On this point, Onohwakpor (2012) conducted a survey of librarians in Delta State University Library, Abraka, Nigeria, revealing that only 35% of them can make effective use of databases. According to the researcher, the majority of the survey respondents lack confidence in their handling of ICT tasks.

Numerous studies have shown that Sub-Saharan African libraries are characterized by staff with inadequate or outdated skills who are inadequately prepared to function in the present electronic information environment (Rosenberg, 2005, 2006; Raseroka, 1999; Baro, 2010; Baro and Zuokemefa, 2011). There is a dire need for substantial investment in order to improve and update the knowledge and skills of library and information personnel in the region. Although several studies have been carried out on the IL skills of librarians in university libraries, no work has focused on librarians in COE libraries in Nigeria: hence, the need for the present study. Specifically, the following research questions are addressed in this paper:

Research Questions

- What is the level of IL skills among the COE librarians in Nigeria?
- What is the overall self-assessment of IL skills of the librarians?
- Through what means do the librarians acquire the IL skills?
- What are some of the strategies that enhanced the acquisition of IL skills?
- What are some of the challenges that can hinder the acquisition of IL skills?

LITERATURE REVIEW

People who are information literate can use digital resources effectively and have little technophobia (Farkas, 2006). IL skills facilitate the problem-solving, critical and creative thinking, decision-making, and cooperative learning that prepares an individual for the challenges in society (Farkas, 2006). According to Forster (2013), being information literate allows professionals to be aware of and able to locate, correctly interpret and apply research evidence, professional guidelines and other key sources in a full and complete manner, in a way that promises to achieve the best outcome for their patients or clients.

Information literacy skills among librarians in Africa

Alakpodia (2010) reported that librarians in Delta State University, Abraka, Nigeria are handicapped in regards to the new trends in the field; she found that 15 (50%) of the librarians in her study agreed that lack of computer training hindered them from acquiring professional IL skills. The use of

technology requires a significant investment in time, money, and training for both staff and users. Omosor's (2010) study at Delta State Polytechnics in Nigeria revealed low computer skills among that institution's librarians. A study by Adomi and Anie (2006) on the assessment of computer literacy skills of professionals in Nigerian university libraries also revealed that most of the respondents possess substandard levels of computer skills. Adoyoyin (2006) studied the level of ICT literacy among the librarians in university libraries in West Africa; the results showed that out of the 370 professional librarians surveyed, only 179 were ICT-literate, while the remaining 191 professional librarians were ICT non-literate. The study further showed that only the 40 Senegal University professional librarians had high level of ICT literacy.

Agyen-Gyasi (2008) studied librarians at the Kwame Nkrumah University of Science and Technology Library, Ghana. The researcher called for the need to train and retrain librarians in modern computer literacy so that they can use these skills in their day-to-day operations, as well as educate and train both faculty and students on the use of electronic resources. Baro and Zuokemefa (2011) examined IL programs in 36 Nigerian university libraries; the study revealed varying IL practices such as library tour/orientation sessions, sessions focusing on introductory information skills, database

searching skills, bibliographic training, and the general use of the library. The researchers called for academic libraries to organize other specialized information skill programs such as using different search engines, Internet searching skills, and training on citation styles. They added that all academic librarians in Nigeria need training and re-training in order to be able to use technology effectively to deliver online IL programming and to be able to teach relevant skills.

THERE IS A DIRE NEED FOR SUBSTANTIAL INVESTMENT IN ORDER TO IMPROVE AND UPDATE THE KNOWLEDGE AND SKILLS OF LIBRARY AND INFORMATION PERSONNEL IN THE REGION.

Mohmood (2003), writing on the requisite competencies of academic librarians, reported that seven out of their ten most essential competencies belong to the information technology category. Being able to use relevant developments in information technology

was rated number one in the list of 75 competencies (Mahmood, 2003). Baro (2011) conducted a study on IL education in library schools in Africa to ascertain whether librarianship is taking the leading role in the development of IL in African universities; this work revealed that only a few library schools have successfully integrated a stand-alone IL course in their curriculum.

Training needs of librarians in Africa

Baro, Eze, and Nkanu (2013) reported that librarians who participated in a workshop improved their skills with databases and search engines, social media, and the use of authoritative websites; these new skills

helped to offset some of the personnel shortages in their libraries. Emphasizing the need for librarians in Nigerian universities to provide IL programs for students, Idiiodi (2005) stated that training would impart skills and lead to the effective and efficient use of libraries and a better overall educational achievement. The researcher noted, however, that high levels of computer illiteracy among Nigerian librarians are a significant challenge; these professionals cannot teach what they do not know, and there is shortage of personnel for IT supported IL training. According to Mphidi (2004):

Librarians need to train their patrons in modern information retrieval strategies particularly in the use of the Internet, World Wide Web, electronic databases and many more. Libraries need to equip themselves with good online information

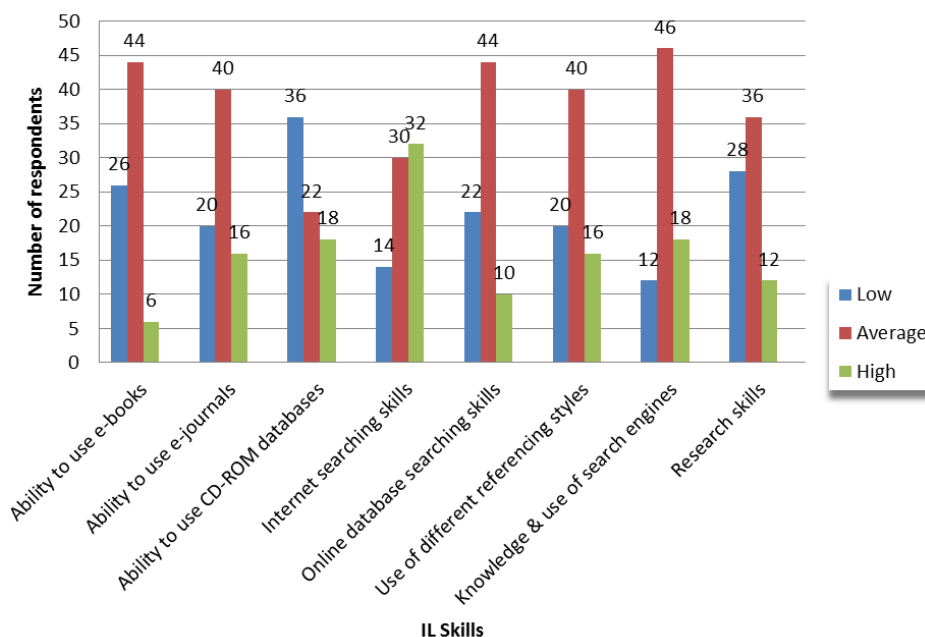
databases and other electronic resources (p.2).

Finally, Ilesanmi (2013) concluded in her study that information professionals are in a dynamic world as a result of information technology and the opportunities that it avails the profession. She added that the problems of obsolete skills should be given urgent and adequate attention.

METHODOLOGY

This study covered professional and para-professional librarians in COEs in the South-South and South-East geo-political zones of Nigeria; there are 21 such institutions (4 federal, 12 state, and 5 private) in this region (NCCE, 2007). Out of that number, the researchers randomly selected 9 COE libraries to participate in the survey. A questionnaire was used to collect data on the IL skills of the librarians at those

FIGURE 1—IL SKILLS OF NIGERIAN COE LIBRARIANS



institutions. The researchers personally visited the various libraries to administer the questionnaires from June through October 2013. Ninety-seven questionnaires were distributed to librarians in the COE libraries; a total of 76 (78%) were completed. The results are presented in the following section.

RESULTS AND DISCUSSIONS

The majority of the survey respondents hold positions such as Senior Library Superintendents, Chief Librarian, Librarian I and Librarian II. More than half of the respondents worked as a librarian between six and ten years, followed by those who have worked one to five years. Half of the respondents hold bachelor degrees in library science, followed by those who have additional Master’s degrees. More than half of the respondents were women (see [Supplementary File 2](#)).

Respondents were asked to rate their IL skills level as low, average, or high. The majority of the librarians who participated in the study rated their IL skills to be average. Internet searching skills was the only category rated as high, suggesting the

need for professional training and bolstering Ilesanmi’s (2013) argument that obsolete skills should be given urgent and adequate attention. This also gives credence to Sarrafzadeh’s (2005) assertion that untrained LIS professionals will become irrelevant to their organizations and will probably lose out in competition for employment to professionals of other fields like scientists, engineers and IT professionals.

The overall assessment of the respondents revealed that the majority (51%) rated their IL skills as average; 29% rated their skills as high, and 20% as low (Table 1).

Out of the 21 respondents who rated their overall IL skills to be high, the vast majority (71%) are librarians in federal COE; 29% are librarians from state owned institutions. The difference in the skill levels between the librarians in different types of COE libraries might be attributed to the availability of training opportunities for librarians in the federal COE; all federal COE in Nigeria are directly—and as a result, more consistently—funded by the federal government. State libraries are not given the same opportunities.

TABLE 1—ASSESSMENT OF IL SKILLS IN DIFFERENT TYPES OF LIBRARIES

Status of institution	Low		Average		High		Total
	N	%	N	%	N	%	
Federal	5	33	23	64	15	71	43
State	10	67	13	36	6	29	29
Total	15	100	36	100	21	100	72

TABLE 2—PROFESSIONAL QUALIFICATIONS AND ASSESSMENT OF IL SKILLS

Qualification	Low		Average		High		Total
	#	%	#	%	#	%	
Ordinary National Diploma	1	7	3	8	–	–	4
Higher National Diploma	2	13	3	8	1	5	6
Bachelor in Library Science	5	33	20	51	13	59	38
Masters in Library and Information Science	7	47	13	33	8	36	28
Total	15	100	39	100	22	100	76

Correlation of gender with overall assessment of IL skills revealed that out of the 22 respondents who rated their IL skills to be high, 64% (n=14) are men and 36% (n=8) are women. Out of the 39 respondents who rated their overall IL skills to be average, 51% (n=20) are men and 49% (n=19) are women. These results align with earlier findings by Anunobi, Ukwoma and Ukachi (2013), whose study participants indicated male librarians have better opportunities for digital skills acquisition and as a result excel more in ICT applications for library operations and services.

As shown in Table 2, the majority of librarians who rated their IL skills to be high or average are those with a bachelor degree. These results are similar to those in a study by Peart-Baillie (2005), who investigated the attitudes, knowledge, and skills that all levels of reference staff in New Zealand public libraries hold in relation to IL. The study shows that overall library staff members have a high level of knowledge and awareness of information literacy. The researcher also found that skill levels varied across levels within the library staff. Library assistants had lower levels of skills than the overall sample while holders of library qualifications reported higher skill levels.

TABLE 3—MEANS OF ACQUIRING IL SKILLS

S/N	Means of Acquisition	“Yes”	%	“No”	%
1	Through friends and colleagues	58	76	18	24
2	Through library school	16	21	60	79
3	Through self-practice	62	82	14	18
4	Through workshops, conferences and seminars	46	60	30	39
5	Through on the job training	42	55	34	45

Respondents were asked to indicate the means through which they acquired IL skills. The majority of the librarians acquired their skills through self-practice, friends and colleagues, workshops, conferences and seminars, and through on the job training. Only a few (21%) indicated that they acquired their IL skills through library schools. This finding aligns with the work of Safahief and Asemi (2008), who assessed the computer literacy skills of librarians in Isfahan University of Iran; the results of their research showed the majority of the librarians had acquired their computer skills through informal channels.

Research by Onohwakpor (2012) revealed that 50% of academic librarians, 31% of senior professional librarians, and 16% of assistant professional librarians acquired ICT skills through formal training; the same study showed 15% of academic professional librarians, 13% of senior professional librarians, and 26% of assistant professional librarians gained their ICT skills through informal training. This is noteworthy because practical skills, such as those assessed in this study, are not regularly taught in Nigerian library schools. For this reason Baro (2011) recommended the inclusion of a stand-alone IL course in Nigerian library school curricula. As noted

by Farkas (2006), “I just found that the skills that most were important to my job (and probably to the jobs of most public service librarians – as well as librarians in other areas) were not taught in library schools” (p.2). Farkas suggested that library schools could help by teaching students how to develop a strategy for continuing their ICT education once they have completed their degree. She also wrote that no library school student should be allowed to graduate without basic Internet searching skills.

Study participants were asked to indicate if they have a personal computer with Internet access in the office or at home; a majority responded that they do not have this equipment in their office or at home. This is consistent with earlier findings by Alakpodia (2010), who showed that only 37% of librarians at Delta State University in Nigeria use computers only in the workplace. She added that among the librarians that have a computer at work, only 7% are connected to the Internet. Clearly, this is a major impediment to acquiring modern IL skills among the regional librarians.

As shown in Figure 2, respondents are faced with numerous challenges to acquiring

TABLE 4—COMPUTER ACCESS OR OWNERSHIP

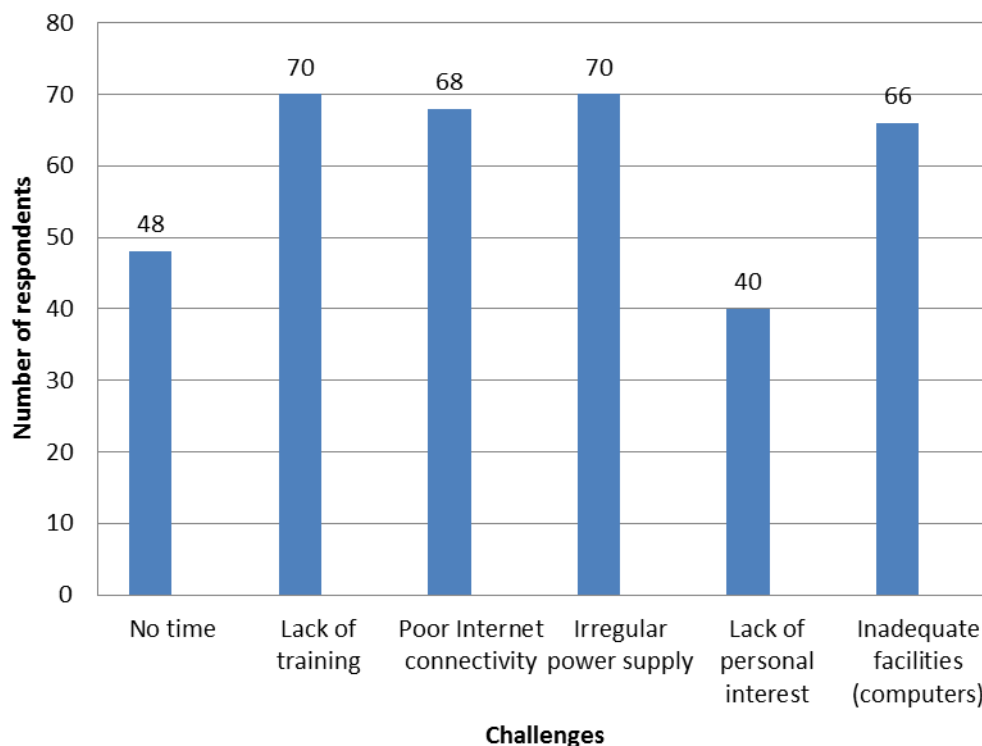
S/N	Access or Ownership	Yes	%	No	%
1	Ownership of office computer	24	32	52	68
2	Ownership of home personal computer	16	21	60	79
3	Access to Internet in office	26	34	50	66
4	Access to Internet at home	38	50	38	50

professional IL skills. This aligns with earlier findings by Alakpodia (2010), who demonstrated that librarians in Delta State University, Nigeria encountered IL acquisition challenges such as lack of in-service training, stable electricity, available time, and Internet connectivity. Similarly, a study by Anunobi, Ukwoma, and Ukachi (2013) showed 72% of women librarians in Nigeria experienced time constraints that prevent them from acquiring professional digital skills. Furthermore, according to Onohwakpor (2012), the use of ICT-based resources, services and tools by the librarians in Delta State University is low; this was attributed to non-availability of the resources in the library and lack of professional training.

CONCLUSION

The findings of this study revealed that the librarians in Nigerian COE libraries rate their professional IL skills to be average; only Internet searching skills are rated as high. A correlation of the overall assessment of the librarians’ IL skills with status of their institutions revealed that librarians in federal COE rated their IL skills higher than their state counterparts. This is likely the result of professional training in the federal COE, which is funded directly from the government. Further correlation of the overall assessment of the librarians’ IL skills with gender revealed that men rate their skills higher than their women counterparts. Additionally, librarians with bachelor’s degrees rated their IL skills

FIGURE 2—CHALLENGES THAT HINDER THE LIBRARIANS’ ACQUISITION OF IL SKILLS



higher than those with other professional qualifications.

The majority of the librarians in this study acquired their skills through self-practice, friends and colleagues, workshops, conferences and seminars, and on-the-job training. Only a few study participants indicated that they acquired their IL skills from their library school experience. This is unsurprising, as there is a general lack of IL courses in Nigerian library schools. A majority of the librarians in this study indicated that they do not have a personal computer with Internet access in the office or at home, which is another contributing factor in the region's low rate of professional IL skills. Overall deterrents to acquiring professional IL skills include lack of training, irregular power supply, poor Internet connectivity, inadequate facilities (computers), and lack of time.

The researchers are of the opinion that development of professional skills by librarians is the most essential requirement for the provision of effective IL programs in COE libraries in Nigeria. The adoption of the new technologies has brought new challenges; primary among them is the need for continuous staff training.

Recommendations for Nigerian COE Libraries

- Management should approve sponsorship to IL conferences, seminars, and workshops in order to keep librarians up-to-date with developments in the profession. Self-sponsorship should be encouraged among the librarians to remain relevant in the current digital environment.

- Management and administrators should provide modern computer equipment with stable Internet access to enable librarians to practice and develop skills on their own.
- Academic libraries must have stable power supplies in their libraries, including stand-by generators for general power failures.
- Library schools should re-design their curricula to incorporate IL courses to prepare future professionals to provide effective IL programming.

Suggestions for further study

The sample used in this study was not large enough to generalize. Further study is needed to assess the professional skills of librarians in all COE in the six geo-political zones of Nigeria. It is also imperative for other researchers to investigate the level of IL skills among librarians in other types of academic institutions, specifically universities and polytechnics.

REFERENCES

- Adomi, E.E, & Anie, S.O. (2006). An assessment of computer literacy skills of professionals in Nigeria university libraries. *Library Hi Tech News*, 25(2), 10–14.
- Adoyoyin, S.O. (2006). ICT literacy among the staff of West African university libraries: A comparative study of anglophone and francophone countries. *The Electronic Library*, 24 (5), 694–705.
- Agyen-Gyasi, K. (2008). User education at the Kwame Nkrumah University of Science

and Technology (KNUST) Library: Prospects and challenges. *Library Philosophy and Practice*. Retrieved from <http://www.webpages.uidaho.edu/~mbolin/agen-gyasi.pdf>

Alakpodia, O. N. (2010). Assessment of information literacy skills among librarians in Delta State University, Abraka. *The Information Technologist*, 7(1), 55–63.

Anunobi, C., Ukwoma, S. & Ukachi, N. B. (2012). Coping with the challenges of the digital world: The experience of Nigerian female academic library and information professionals (LIP). *New Review of Academic Librarianship*, 18(2), 127–139.

Armstrong, C., Abell, A., Boden, D., Town, S., Webber, S. & Woolley, M. (2005). CILIP defining information literacy for the UK. *Library and Information Update*. Retrieved from <http://www.cilip.org.uk/publications/updatemagazinearchive/arcchive2005/janfed/armstrong.htm>

Babu, B. R., Vinayagamoorthy, P. & Gopalakrishnan, S. (2007). ICT skills among librarians in engineering educational institutions in Tamil Nadu. *DESIDOC Bulletin of Information Technology*, 27(6), 55–64.

Baro, E. E. (2010). A survey of digital library education in library schools in Africa. *OCLC System & Services*, 26(3), 214–223.

Baro, E. E. (2011). A survey of information literacy education in library schools in Africa. *Library Review*, 60(3), 202–217.

Baro, E.E. & Zuokamefa, T. (2011).

Information literacy programmes in Nigeria: A Survey of 36 university libraries. *New Library World*, 112(11/12), 549–565.

Baro, E.E., Eze, M. E. & Nkanu, W.O. (2013). E-Library Services: Challenges and training needs of librarians in Nigeria. *OCLC System & Services*, 29(3), 101–116.

Farkas, M. (2006). Skills for the 21st century librarian. Retrieved from <http://meredith.wolfwater.com/wordpress/2006/07/17/skills-for-the-21st-century-librarian/>

Forster, M.(2013). Information literacy as a facilitator of ethical practice in the professions. *Journal of Information Literacy*, 7(1),18–29.

Guo, J. Chen, J. & Zheng, Q.Y. (2012). Design and implementation of subject librarian training program for university libraries in China. *Journal of Academic Libraries*, 4(3), 5–10.

Hanson, A. & Levin, L.B. (2003). *Building a virtual library*. Hershey PA: Idea Group Publishing Inc.

Idiodi, E. A. (2005). Approaches to information literacy acquisition in Nigeria. *Library Review*, 54(4), 223–230.

Ilesanmi, C.T.(2013). Roles of the librarian in a research library in the digital era: Challenges and the way forward. *New Review of Academic Librarianship*, 19(1), 5–14.

Mahmood, K. (2003). A Comparison between needed competencies of academic librarians and LIS curricula in Pakistan. *The*

Electronic Library, 21(2), 99–109.

Mphidi, H. (2004). Digital divide or digital exclusion? The role of librarians in bridging the digital divide. *Paper presented at LIASA 7th Annual conference, Pholokwane*. Retrieved from http://www.liasa.org.za/conferences/conference2004/papers/LIASA_conference_2004_mphidi.pdf

National Commission for Colleges of Education (2007). *Statistical digest on colleges of education in Nigeria*. Abuja: NCCE.

Omosor, U.A. (2012). Assessment of computer literacy skills of librarians in Delta State polytechnics. *Information Impact Journal of Information and Knowledge Management*, 1(3), pp.20–26.

Onohwakpor, J. E. (2012). A survey of information and communication technology (ICT) literacy skills level of professional librarians in Delta State University Library, Abraka, Nigeria. *Library and Information Practitioner (LIP)*, 5 (1&2), 459–474.

Peart-Baillie, K. H. (2005). An investigation into library staff attitudes, knowledge and skills relating to information literacy in New Zealand Public Libraries. *M.Sc. E-Theses: Orouariki School of Information Management, Victoria University of Wellington, Te Kura Tiaki, New Zealand*. Retrieved from <http://hdl.handle.net/10063/2960>

Raseroka, K. (1999). The role of university libraries. *Association of African Universities: Accra, Ghana*.

Rosenberg, D. (2005). Towards the digital

library: Findings of an investigation to establish the current status of university libraries in Africa. INASP: Oxford.

Rosenberg, D. (2006). Towards the digital library in Africa. *The Electronic Library*, 24 (3), 289–293.

Safahief, T. & Asemi, A. (2008). Computer literacy skill of librarians: A case study of Isfahan University Libraries, Iran. In: A. Abdullah (ed.) *Towards an information literate society: Proceedings of the International Conference on Libraries, Information and Society, ICoLIS 2008, Petaling Jaya, Malaysia, 18-19 November 2008* (pp. 51-58). Kuala Lumpur: Library and Information Science Unit.

Sarrafzadeh, M. (2005). The implications of knowledge management for the library and information professions. *Act KM Online Journal of Knowledge Management*, 2(1), 92–102. Retrieved from http://www.actkm.org/actkmjournal_vol2iss1.php

Screenivasulu, V. (2000). The role of a digital librarian in the management of digital information systems (DIS). *The Electronic Library*, 18(1), 12–20.