

CHANGING ROLES OF LIBRARIANS IN A DIGITAL AGE: SUB-SAHARAN EXPERIENCE

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Abstract

This paper is a survey of how technology has affected the library profession in Sub-Saharan Africa. The study sought to find answers for four questions: What roles of librarians have changed as a result of the digital age? Why have these roles changed? How have Librarians responded to these changes? What are national Library Associations doing about the changing roles of Librarians? The survey found that there has been an increased involvement of Librarians in knowledge generation, preservation, access and promotion of information use. Free and open source software and social media are becoming heavily used in library service provision in areas such as information services, library management systems, digital collections management and communication. Authors recommend that national Library Associations should promote and co-ordinate the training and development of Librarians to remain competent service providers in the digital age.

Keywords: 21st Century librarianship; Sub-Sahara; Digital librarianship; Library Associations

1. Introduction and background to the study

In today's world information has become a valued commodity and this has seen the roles of librarians changing. Traditionally Librarians used to be custodians of books, providers of recreational facilities and disseminators of information among other functions. However, electronic networks such as the World Wide Web (www) and other Internet facilities are rapidly altering this landscape (Adigun, Kotso and Kolajo, 2013).

The main purpose of this paper is to present a Sub-Saharan Africa experience in trying to deal with changing roles of Librarians in the digital age. A number of these changes have been brought by various components in user needs, research, learning and other developments in managing information. Sub-Saharan Africa is regarded as the region with lack of equitable access to information in the emerging global information economy (Gebremichael and Jackson, 2006). Some of the studies that have been carried out concerning the status of Sub-Saharan Africa libraries have shown that information technology and library infrastructure in South Africa is far ahead of the rest of other countries in the region. Chisenga (2000) points out that the application of information technology in Sub-Saharan Africa, with the exception of South Africa, is not well documented.

2. Literature Review

The digital age is a period or an era in which information is processed, disseminated, stored and used electronically. Selwyn (n.d.) in Kebede (2004) believes that information and communication technologies (ICTs) are regarded as the 'umbrella' term for a range of technological applications. These include computer hardware and software, digital broadcast technologies, telecommunication technologies such as mobile phones as well as electronic information resources such as the World-Wide Web and CD-ROMs.

The use of such digital tools in libraries has a great impact on library activities, as Librarians play central roles in information management. Although there are few researches concerning libraries in Sub-Saharan Africa, Tam and Robertson (2002) observe that the evolution of the digital age has prompted profound changes in the library and information services environment. In their research, Mullings, Ferguson and Houghton (2000) as cited in Tam and Robertson (2002) reveal that the following were a result of the need to embrace the digital age.

- Changed perception of the importance of the role of information;
- The growth in the amount of information available and variety of formats;
- The size and continued growth of the information sector in modern economies; and,
- The rate of technological change and the impact of technology.

As a result of the above, Librarians need to devise strategies on how best to remain viable in their workplaces, since 'today we live in what is now generally known as the information age' (Moahi, 2003). Thus Librarians as people on the fore-front of information are expected to provide resources and services which are up-to-date.

2.1 Why have the roles changed?

There are a number of contributing factors why the Librarians' roles changed. Tam and Robertson (2002) in their research identify four issues that have a bearing factor towards changing roles of Librarians. These are:

- Development in information technology;
- Changing economy;
- Changing educational and learning environment; and
- Changes in scholarly communication.

Raju (2014) also believes that these changes have impacted significantly on the knowledge and skills requirements for library and information science professionals practicing in such environments. However, Mutula (2005) is of the opinion that in Sub-Saharan Africa, technology is evolving without successfully integrating with its local cultural practices. He further admitted that ICT deployment has not considered the continent's poor power infrastructure, inefficient electricity supply and software applications that are based on western models. According to Raju (2014) if these issues were taken into consideration, there would have been little or no changes to the roles of Librarians. This is why Gray, Brower, Munger, Start, & White (2008) highlight that the means by which Librarians meet users' needs has changed due to advances in technology and changes in culture.

2.2 Roles of Librarians that have changed as a result of digital age

The use of the ICTs has completely changed the roles of Librarians. Librarians are becoming more and more technologically literate and getting involved in the organisation of information on electronic networks (Chisenga, 2000). Chisenga further reiterates that this has led to a shift from traditional roles of Librarians such as information keepers to consultants, instructors and advisors on how to use information on electronic networks. As result of this scenario, Librarians as Information Specialists need to embrace the application of digital components in the execution of duties.

Some of the roles that have changed due to a paradigm shift from traditional roles to digital ones are reference, cataloguing, collection development and management (especially acquisition), and circulation. On acquisition, sellers are now resorting to the use of Internet to market and sell their products. They can also make use of online catalogues. Chisenga (2000) says that libraries that have access to the internet facilities provided by booksellers for electronic communication and ordering of materials, will speed up the process of collection development.

Apart from using physical dictionaries, encyclopaedias and telephone, social media such as Facebook and Skype have been adopted as reference tools by librarians. These are used to communicate vital information between Librarians and library users. Cardina and Wicks (2004) reveal that the roles of reference Librarians, especially in academic libraries have reflected this change. These authors describe automation of information systems as the major driving force behind transformation both in the library environment and in the reference services.

2.3 How have Librarians responded to the digital age?

In response to the rapid explosion of information technology, Librarians have re-positioned themselves as a way of contenting the challenges. Lynch and Smith (2001) observe that the important question is not only about how computer technology is changing jobs and how the new technologies may be influencing change, but attention should be also given to the profession itself.

Changes in the jobs of Librarians and the requirements of such jobs are also regarded as strong factors, which in turn affect organisational structures. The use of information technology and access to electronic information networks is slowly transforming libraries from book-centred to information-centred institutions (Chisenga, 2000).

3. Objectives of the study

This research sought to find answers to the following questions:

- What roles of Librarians have changed as a result of the digital age?
- Why have these roles changed?
- How have Librarians responded to these changes?
- What are the National Library Associations doing about the changing roles of Librarians?

4. Methodology

This research was a survey and literature review, online questionnaires and web content analysis were used to gather data. The research had targeted English-speaking countries in Sub-Saharan Africa. However, four countries in Southern Africa responded to online questionnaire. Websites and social media platforms of National Library Associations in Sub-Saharan Africa were reviewed as part of the web content analysis.

5. Findings

The following paragraphs present findings on various issues relating to the changing roles of Librarians in selected Sub-Saharan Africa. The findings are thematically presented.

5.1 Roles of a Librarian that have been affected by the digital age

Respondents indicated that a number of their roles and responsibilities had been affected by the digital age. Table 1 below sums up the responses. As the findings below show, virtually all duties and responsibilities of Librarians had been affected by digital transformation. These duties and responsibilities were derived from the management functions and the libraries' three sections namely administration, technical and reader services.

Roles	Responses
Planning	4
Communication	4
Recruitment, Selection & Placement	4
Training & Development	4
Cataloguing and Classification	4
Library stock taking	4
Library registration	4
Library Circulation	4
Information literacy training	4
Organising	3
Human Resources	3
Supervision	3
Acquisition of new library materials	3
Preparation of library materials, i.e. labelling, binding, repairing, conservation.	3
Reference Services	3
Interlibrary loans facility	3
Performance Appraisal	2
Controlling	2
Library Orientation	2
Promotions & Transfer	2
Motivation	2
Weeding	1
Printing & Reprography	1
Leadership	1

Table 1: Roles of a Librarian that have been affected by the digital age

5.2 Factors leading to changing roles of Librarians

Researchers sought to find out why the Librarians roles have changed; was it necessarily technological advancement or there were other factors that made it desirable or mandatory for the roles to change as a result of the transformation?

As shown in Table 2 below, technology motivated Librarian to embrace changing roles because it made their duties and responsibilities easier to carry out, operations became more efficient, knowledge generation and sharing were enhanced, resource sharing was made much easier, access to information was made easier and faster. However, Librarians realised that they had no choice but move with the time upon realising that library patrons were increasingly demanding information in digital format and whose nature and extent varied. Migrating to newer technologies also enabled Librarians to cut on operational costs.

Factors	Responses
Technology makes Librarian’s duties and responsibilities easier	4
Technology makes library operations more efficient	4
Technology allows resource sharing	4
Some information is available in digital format	4
Technology enhances speed of information access	4
Library patrons now seek information using technology	4
Library services for open distance learning depends on technology	4
Technology promotes knowledge generation and sharing	4
Technology offers the ability to promote, expand and improve library services	3
Technology can be specifically tailored to suit individual requirements including patrons with special needs	3
Technology enhances knowledge and information preservation	3
Adopting technology cuts operational costs in library service provision	2

Table 2: Factors leading to changing roles of Librarians

5.3 Challenges faced by Librarians as a result of the digital transformation

As shown in Table 3, digital transformation had its own challenges which affected Librarians and library services in Sub-Saharan Africa. As indicated by the respondents, in some cases, costs of providing library services went higher, the myriad of information sources available electronically posed more challenges on Librarians as they tried to evaluate them, privacy and confidentiality of both Librarians and patrons became compromised whilst policies to govern information generation, access and use were difficult to craft and enforce. Information became more of a commodity than a right thereby limiting those of low income from accessing it. There has also risen a need to be adequately trained and skilled to handle information in a digital age without which information overload may be faced by both Librarians and patrons. The latter consequently endure the worst bruises of the battle.

Challenges	Responses
Costs of providing library services have gone higher	3
Evaluating information sources	3
Privacy and confidentiality are compromised	3
Decreased use of the library's physical space	3
Policy issues relating to information access have become problematic	3
Charging subscriptions	2
Access to information has become problematic	1
Inadequate training in needed skills	1
Information overload	1

Table 3: Challenges of the digital transformation

5.4 Librarians reactions as a result of technological change

Survey responses from the selected National Library Associations' representative's show that Librarians have prepared themselves to effectively undertake their duties and responsibilities in the wake of technological transformation. Table 4 below indicates that Librarians have embarked on a number initiatives and activities in response to technological change. Librarians are participating in staff training and development, staff exchange programmes, open access movement, adopting free and open source software. Budgets are being reviewed, job titles are changing, new jobs are being introduced, staff are being re-organised or re-assigned to cater for the changes.

Reactions	Responses
Staff training and development	4
Acquisition of new products & services	4
Changing duties and responsibilities	4
Partnership with fellow Librarians	4
Promotion of Open Access	4
Changing budgets	3
Staff reorganization / reassignment	3
Introduction of new jobs	3
Provision of new products and services	3
Adoption of Free and Open Source Software	3
Changing job titles	1
Retrenchment	0

Table 4: Librarians reactions as a result of technological change

There was evidence on some websites and social media platforms of National Library Associations that support data obtained from questionnaire responses that staff training and development were being carried out following the changing roles in a digital age.

5.5 National Library Associations' responses

National Library Associations in Sub-Saharan Africa have also responded to the technological developments taking place across the globe. Among other varying efforts, national associations have engaged their membership in training and development and lobbied stakeholders such as government in a bid to ensure that library services effectively contribute to society in this digital era. Table 5 below sums up the findings.

National Library Associations' actions	Responses
Staff training and development	4
Lobbying stakeholders	3
Reviewing policies	3
Research and development e.g. on software development	2
Exchange visits with other libraries to show case advances in technology	1
Marketing technological development	1
Fund libraries and Librarians	0

Table 5: National Library Associations' responses

Findings from the questionnaire responses concur with what was obtained from some websites and social media platforms of National Library Associations in Sub-Saharan Africa that reported that they were partnering with governments and other stakeholders to fund and support efforts to integrate ICTs in libraries and other sectors for national development. The websites and social media platforms also acknowledged the need for Librarians to be dynamic, techno-savvy, inclined to social media with the new skills to manage digital information.

5.6 Librarians' use of social media in the digital age

Findings reveal that social media has been playing a major role in library and information services vis-à-vis the technological revolution. National associations that participated in the survey reported that libraries were taking advantage of social media to advance their services. Libraries now had social media accounts on Facebook, Twitter, etc. These were largely used to market library products and services. The social media were being used to communicate various library issues with patrons. An online verification was done and it was found that ten (10) National Library Associations in Sub-Saharan Africa had active websites whilst nine (9) had social media accounts such as Facebook, LinkedIn, Twitter, and Flickr.

National Library Associations also noted that Librarians had been using social media platforms to share information about developments in the profession, events and conferences worldwide. Social Media were also a good platform for getting useful feedback from stakeholders and clients.

It was also noted that the uptake of social media in the academic sector was higher and social media were used by academic libraries extensively. The public library sector's uptake was slower even though a few of these libraries were now using social media.

6. Conclusions and recommendations

The findings show that all duties and responsibilities of Librarians had been affected by the digital transformation and Librarians therefore need to continually up their standards to match the progress being achieved globally. Like any other revolution, the digital transformation has its own challenges. Librarians have taken it up to themselves to prepare themselves to effectively undertake their roles in light of the on-going technological transformation. Free and open source software and social media are becoming heavily used in library service provision in areas such as information services, library management systems, digital collections management and communication.

Authors recommend that National Library Associations should promote and co-ordinate the training and development of Librarians to remain competent service providers in the digital age. National Library Associations also need to engage practicing Librarians and library schools for a coordinated approach to dealing with the changing librarianship landscape as a result of technological advancements. National Library Associations' workshops, seminars and conferences and on the job training and development programmes must be used to address the challenges associated with digital transformation.

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