The Role and Importance of Information and Communication Technologies (ICTs) and Social Media to Library Operations and Services: A Brief Overview

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Abstract
This study adopted a theoretical approach utilising data generated through the content analysis of secondary data such as journals, textbooks and internet resources. The study highlighted the importance of ICTs and Social Media to library routine activities. Library operations and services such as cataloguing and classification, circulation services, reference services, digital content services, institutional repositories, library cooperation and resources sharing, administrative services and online user education with the aid of ICT were all pinpointed. The study further discussed the adoption of social media to library services. Social networking tools such as Facebook, Whatsapp, Google+ and MySpace were discussed. Others include: Twitter and Tumbler, YouTube, Flicker, Instagram, Library Thing, Stumble Upon, Pinterest, Goodreads, Delicious and Diigo were all discussed. Moreover, the study also looked at areas to be considered by libraries while planning to adopt social media in their services, challenges faced in using ICTs in library operations and services such as paucity of funds, rampant power outage, unfavourable working conditions etc. Finally, recommendations were made to address such anomalies which include adequate allocation of funds to library, provision of alternative power sources, conducive working environment among others.

Keywords: *ICTs Importance, Library Operations, Library Services, Social Media roles*

1.1 Introduction

Libraries play vital roles in meeting the teaching, learning, research and information needs of library clients. This is because libraries have for long played the roles as an agent to individuals and institutions in their bids to lifelong learning. These roles range from selection of suitable library resources to processing and dissemination of information. This is done with the sole aim of ensuring that the current and relevant information resources are acquired into the library to reflect the objectives of the institutions and the community that the library serves. Over the years, and in a path to ensure proper

documentation and easy access to library resources, librarians do process library resources and render services in the traditional methods.

The emergence of information and communication technology has virtually affected every facet of human endeavor. The library is not left out in this regard. As noted by Garg (2013) This paradigm change has fully transformed the image of libraries as libraries are no longer considered building used for conserving the books but libraries have become information centres accessible anywhere at any time. ICT has empowered the libraries to implement the 'Laws of Library Science' in true sense. The migration from print to electronic media has changed the whole scenario of library operations and services which has spurred the librarians to acquire all the skills necessary for them to meet up with the ever changing and increasing demands of their clients.

The use of information and communication technology has undoubtedly uplifted the image of libraries and information centres. Technological innovations brings about new ways of information acquisition, processing, packaging and dissemination thereby making real contribution to self-development of librarians as well as learning outcomes on the part of library users. Information and communication technology (ICT) have changed the information seeking behavior of the users and services being provided by the librarians (Kaur and Sharda, 2010).

On meeting the demands of their clients, librarians must adapt to changes brought by ICT and act as the medium of interactivity between information sources and information users. In an online environment, the role of librarian is to manage and mediate access to information that may exist only in electronic form (Nimai, 2009).

1.2 Objective of the Study
i. To highlight the importance of ICTs and Social Media to Library routine activities
ii. To identify and discuss the roles of ICT in Routine Library Operations and Services including Online user education
iii. To discuss to adoption of Social Media and Social Networking tools to library and information services
iv. To identify challenges faced in using ICTs in library operations and services
v. To proffer solutions through recommendations on the way forward.

2.1 Review of Related Literature
Conceptual Clarification of Key Terms
The key terms that would be clarified here include ICT, library operations and services, social networking/social media services and challenges of ICT adoption in libraries.

2.2 ICTs in Library Operations and Services
i. Technical Processing: ICTs has really made significant and tremendous contributions to library operations and services and assisted librarians in the discharge of their responsibilities. Library operations such as technical processing of materials (cataloguing and classification) are now carried out with suitable library automation software. There are quite a number of library automation software on the internet today. They are however, classified as 'Open source' and 'Proprietary' that can be used to perform many library routine activities including circulation functions and serials management. Some of the available automation software used by different libraries in the world before and today includes: Koha software (developed by Katipo communications in New Zealand), Win ISIS (formerly CDS/ISIS) is a windows version of CDS/ISIS (Computerized information service/Integrated Scientific Information System) developed by UNESCO,

Evergreen Software (ES-ILS), Graphical Library Automation System (GLAS), ALICE for Windows, X-Lib, SLAM, NewGenLib (is an Integrated Library Management Software – ILMS whose first version was released in 2005) etc. these software are being deployed by different libraries due to differences in some of their operations and services. For instance Koha software is widely used by academic libraries due to the fact that it is a user friendly and covers all aspects of academic library operations and services but, the same software may not be suitable for some operations and services of a public library and so on and so forth.

ii. ***Circulations Functions and Services***: In this ICT era, the charging and discharging of books to library users, library membership registration, book reservation, sending overdue notices, interlibrary loans etc. are only achievable with the application of suitable library management software to library routine activities. The benefit of this is to save time and project the good image of the library. This is however, being constrained by lack of fund to sustain access to these (open source and proprietary based) software by the libraries.

iii. ***Reference and Information Services***: This includes selective dissemination of information (SDI), current awareness services (CAS) on new arrivals, electronic document delivery by e-mail (EDL) replacing the old day postal services (as with the case in the interlibrary lending), answers to online reference questions or queries, online public access catalogue (OPAC) which is computerized version of the library catalogue listing the holdings of a library or library collection and can be accessed via the internet. OPAC is an online information retrieval system containing the bibliographic lists of books, journals, audio and video materials in the holdings of a library. OPAC is also an online database of materials held by a library or group of libraries. With OPAC, library users get to know what and what are available in a particular library.

*iv. **Digital/Electronic Content Services***: With this, library users can have access to electronic resources of the library. E.g. e-books, e-journals, electronic databases (both subscription based and free/open access databases as the case may be), e-newspapers, e-magazines etc. which can only be accessed in a networked environment. Thus, librarians play mediatory roles by ensuring that users are allowed access tips or password to the databases of their interest.

v. *Institutional Repositories Services*: In a standard library, especially academic libraries institutional repositories are incorporated into the library websites. This is to enable users have access to digital versions of publications that emanate locally from within the academic community such as theses/dissertations, reports/communique, conference and seminar papers. With this, it can be asserted that ICT has made it possible not only to provide better access to these embodiments of knowledge but also to ensure the preservation of the resources.

vi. *Library Cooperation and Resource Sharing*: Through the creation of a central union catalogue of the libraries forming the consortium, cooperation and sharing of information resources among the libraries is highly enabled with ICT. A participating library can freely access information resources of other libraries in the consortia. Some of the benefits of a library consortium are less budgetary allocation to the library, timely delivery and sharing of information resources which hitherto would have been difficult, access to current and relevant resources, space management, social interaction between librarians of the participating libraries etc.

vii. *Administrative Operations/Services*: Accounting (incomes and expenditure) of the library word processing, database management of staff or employees of the library and in-house communication (internal memo) through e-mail can also be achieved in the library through ICT applications.

***viii. Online User Education/Orientation Services*:** Libraries can make use of the internet to educate their users or conduct information literacy programmes. This is to expose the users to operations and services of the library and also to teach them how to make maximum use of the resources available in the library to achieve their academic goals and information needs from the library. Moreover, Garg (2013) outlined certain ICT based library services. The author asserted further that ICT has enabled the libraries to provide so many innovative services that have become integral part of any library system, such as to:

Provide tailor made information to the users.
Round the clock access to the information.
Information Repackaging.
CAS and SDI
Web-based OPAC.
Electronic Document Delivery.
Automated Circulation through Barcodes.
Automatic Circulation through Radio-frequency identification (RFID).
Social Networking Services.
Multimedia.
Hypermedia and Hyper cards.
Institutional Repositories
Reprographic services.
Online instructions and readers advisory service
On line Reference Services or Virtual Help Desk.
Data Base Services.
Library Networks and Consortia.
Automated indexing and Abstracting.
Bibliographic Listing.
Managerial Reports and statistics.

Library Accountings and Budgeting.

2.4 Libraries and Social Networking/Social Media Services
Social networking is a range of web-based software programs through which people interacts and collaborates with other people. It is a networked environment where a user can surf, create personal profiles, invites and connect with other people called social friends. In social media, users interacts, share views, comments, form discussion groups and sub-groups, share audio and video files, text messages, graphics and performs a range of other mutual interaction on the Internet. Social Media provides a myriad collection of internet based tools and platforms that boost and improve the sharing of information. They make the transfer of information in different forms, namely, text, photos, audio, video and their combinations much more simple and rapid among internet users. Thus they find an important place in all fields, including education, health, business, administration, journalism etc (Dhanyasree, 2013).

Social media has become part and parcel of life of social friends. Maria (2014) asserted that Social media has become a part of many people's everyday lives. In the library field the adoption of social media has been widespread and discussions of the development of "Library 2.0" began at an early stage. Social networking has quickly become a very popular activity on the internet, in particularly with sites such as Facebook, Twitter, Myspace, LinkedIn etc. (Arumugam and Rathinasabapathy, 2013).

The following are the social networking tools or media on the internet which are also applied by libraries to enhance the visibility of their services by their clients. The media are being listed on the basis of their functionality:

➢ *Social Networking Sites:* These sites include Facebook, Whatsapp,

Google+, and My Space. Facebook is an interactive and most widely media that are being adopted by libraries to share current news and information and also enable chatting and messaging communications between the librarian and library users in a path to meet up with information needs of users and researchers."Myspace: In Academic institutions libraries have taken advantage of this site to post, calendar, custom catalogue search tool, and blog features to improve their presence". (Sarasvathy, Manjunath and Harisha, 2015).

➢ *Micro Blogging Platforms:* These include Twitter and Tumbler. This media can be used to update library users on the current happenings in the library on minutes or hourly basis. Twitter takes the lead in terms of sharing current information and news between the twitter account holders.

➢ *Image and Video Sites:* These include YouTube, Flickr and Instagram. YouTube can be used to present highlights of academic and public lectures, seminars, inaugural lectures, conferences and workshops can be disseminated etc. Flicker is a social media tool that can be used to share and distribute new images of library collections especially the new arrivals. It is a very useful tool to busy libraries such as academic, special, and public libraries.

➢ *Awareness Sites:* These include stumble Upon, Pinterest, Goodreads and Reedit. The application of this to library services could be to use it to provide current awareness (CAS) services to library users. Vis-a-vis to inform them on the arrival of new

information materials in the library.

➢ *Question and Answer Site:* Such as Yahoo. This can be used particularly to answer reference questions.

➢ *Social Bookmarking/Tagging Site:* These include Delicious, Diigo. On these sites, the creation of profiles account involves two parties of users who can share information relating to a particular topic of interest. Diigo is specially design to suit students and lecturer/teacher relationship. Through this medium, a teacher can teach the students by way of providing links and access to online resources that best explains the topics discussed in a class. In library services, Diigo can be used to provide Selective Dissemination of Information (SDI) service to a particular user who must also possess a Diego account.

➢ *Library Thing:* This is a tool that enriches the library OPAC. Once an account is created, a list of books with ISBNs is sent to library thing which sends back a piece code which is pasted into the footer of the library OPAC. Librarians can utilize this to send a list of current publications to users.

2.5 Considerations in Adoption of Social Media by Libraries

Just like considering some factors in the application of ICT to basic routine activities of the library, certain factors must also be put into consideration when adopting social media in opening library services to the world of clients. Such factors includes the platforms of visibility of the library, the target clients, risk management etc. while carrying out social media services. However, Tyler (2011), asserted that if a library thinks of having a social media presence, the major

factors to consider are:

> The aim of your presence (be it a blog, a social networking site like Facebook, photo sharing site etc.)
> How the site/tool will enable you to achieve your aims
> The audience you target
> How you will evaluate the presence
> Resource implications (although low-cost there is a time and skill required)
> Managing potential risks
> How it fits into your library service and marketing plans**.**

2.6 Challenges Faced in Adopting ICTs to Library Operations and Services

Despites the achievements recorded due to the use of information and communication technologies in the daily activities of libraries and information centres certain constraints also hinders the progress of the libraries. Such hindrances are listed below:

> *Paucity of fund***:** the inadequacy of fund or budgetary allocation to library is a very serious challenge and hindrance to the progress of the library. Acquiring and maintaining ICT gadget, subscribing for e-resources as well as keeping a strong and reliable computer network are all tasks that requires enough expenses.
> *Rampant power outage:* In developing countries especially Nigeria, using ICT in carrying out library operations and services becomes a great challenge since ICT gadgets are inoperable without electricity.
> *Lackadaisical attitude:* The lackadaisical attitude of library staff towards acquisition of ICT skills is also a great hindrance to effective library services provision in this ICT era.
> *Lack of/inadequacy of training funds:* Related to the above is allocation of little or no funds to library to enable the staff

acquire all necessary skills required to carry out an ICT-driven library services.

Unfavourable working conditions: In any library where there are unfavorable working conditions even the ICT-compliant librarians tends to put little or no effort for the progress of the library. This is also a great bottleneck to the imagery of the library.

Out-dated LIS curriculum: This is also one of the greatest challenge to this profession generally. If the curriculum in both diploma awarding and the degree awarding institutions are not updated according to happenings and current trends in the library services, the incoming generation of librarians will have little or no knowledge about ICT applications in library operations and services. "Successful libraries will determine what platforms most effectively reach their target audience and build sustainable presence there" (Bizzle, 2017).

3.1 Research Methodology

This study adopted a theoretical approach utilising data generated through the content analysis of secondary data such as journals, textbooks and internet resources. The paper also presents evidence from literature of other related studies on the role and importance of Information and Communication Technologies (ICTs) and social media to library operations and services.

Conclusion

The adoption of ICT to library operations and services and especially social media has no doubt created a robust and better image for the field of librarianship. This is because libraries make use of these ICT resources to make their impacts felt by their

parent institutions as well as their host community. It becomes a necessity for libraries and librarians to adapt to the changing needs of its clients through ICT since it enhance the visibility of the library in order for them to succeed in the provision of services. For any library to succeed, the determining factor must be to enhance its visibility to the target audience.

Recommendations

For effective and efficient library service provision in this ICT era, the following practical recommendations are proffered:

- Adequate budgetary provision should be made for libraries in order to overcome the challenges faced while using ICTs in carrying out their services.
    - Libraries should be made independent in their power source(s). Provision of good and suitable standby generators, high voltage solar power systems and other alternative power sources are also recommended.
    - Library staff should be made to understand that library is a service-oriented organization and that meeting users' needs is the main target of the library. Therefore, must change their attitude towards acquisition of ICT skills necessary to meet the needs of the users.
    - Adequate provision of training funds should be made by the library or parent institutions as this is the only way to maintain an ICT-compliant personnel in any organization.
    - The working conditions of the library staff should be favorable. Motivations such as annual awards for the best performing staff, special rewards for the staff participating in a particular workshop, seminar, conferences, fair treatments in terms of annual assessment and promotion, delegation

of power and responsibilities etc. should be a tradition of every library. This is because libraries cannot operate without humans. Librarians are the image makers of the library and should be treated as such.

- The LIS curriculum should be updated according to the changing needs in the provision of library service in the current century and adequate preparation of curriculum for the centuries yet to come. A considerable portion of the curriculum should be ICT based courses.

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