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Transformation in Library Resources Processing from Traditional to Digital Handling: Akanu Ibiam Federal Polytechnic Unwana in Focus

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Abstract
The 21st century has been characterized by a significant shift from traditional methods of workflow processing to digital methods. Academic librariesare not left out in this paradigm shift. This work reports the migration from traditional to digital methods of processing of Library materials in the technical services department of the Library Division of Akanu Ibiam Federal Polytechnic, Unwana. The benefits of this migration such as reduction in processing time per a document, decline in paper work, cost reduction among others are discussed. Some challenges plaguing its smooth operations such as low digital skills of staff, erratic power supply and Internet access are highlighted. The paper posits that if these challenges are addressed, processing of library materials by technical services department of the library will no longer be a herculean task.

Keywords: *Digital, Academic Libraries, Internet, Technical Services Department, Digital skills.*

1.1 Introduction

Libraries and indeed librarians have felt the impact of the advent of Information and Communication Technologies (ICT). Twenty first century academic libraries now use various types of these new technologies in all aspect of library operations to aid the services they render. Khan (2016) and Patel (2020) agree that ICT has brought unprecedented changes and transformation to academic libraries and information services. Technical services department of libraries that take constant delivery from acquisition department of new titles and volumes are inundated with the task of cataloguing and classification of these new arrivals Sokari et al.,(2017). Hence the need to seek better ways of alleviating the bottlenecks experienced in the technical services department in Akanu Ibiam Federal Polytechnic Unwana Library became imperative.

2.1 Literature Review

Technical services in libraries became prominent when people began to give attention to the problems of cataloguing and classification, which occupied the attention of earlier library pioneers such as Charles Cutter, who went for a printed dictionary catalogue and Melvin Dewey who was inclined to classified and produced subject index for cataloguing and arranging the books and pamphlets of a library), observes that Lois Mai Chan in his work, Cataloguing and Classification: An Introduction, maintains, that classification, broadly defined, is the act of organizing the universe of knowledge into some systematic order. In striving to achieve this systematic order before the introduction

of ICT into library services, cataloguing and classification used to be a herculean task . This required that technical service librarians will manually, deploying a lot of physical effort in writing and passing bundles of papers for catalogue card and spine label production, carry out these routines.

The advent of information and communication technologies (ICT) greatly altered the landscape of information handling and management. observe the great effect of information and communication technologies (ICTs) have on the society. In contemporary society, there is hardly anything that can be done without the aid of ICTs . also agree that information and communication technologies are the most influencing factors of today's information society and have led to a revolution in the processes of information processing and communication. The library, according to Patel (2020), was not left behind in this revolution.

This work which is a transition from traditional to digital processing of library materials is designed to automate the cataloguing and classification processes in the technical services department of the library with the use of a custom designed Microsoft template that runs on the library's wireless local area network (WLAN) intranet architecture as designed and deployed in the library. In this work, an MS Word customized template was developed to replace the use of papers for descriptive and subject cataloguing with file sharing technique on the Library WLAN, the processed work is sent for classification then to catalogue card and spine label printing.

Problem of the Study

Understaffing, slow pace of manual processing of books, difficulties associated with manual cataloguing and classification, increased in the cost of papers and other materials required in technical services departments of the libraries as well as the time consuming nature of manual processing of books are some of the challenges librarians encountered in the technical services department in many academic libraries in Nigeria. Besides, the library of Akanu Ibiam Federal Polytechnic, Unwana, is neither fully nor partially computerized making it impossible for a computerized operation which would have reduced the challenges militating against accelerated processing of information resources in the library. The above concerns prompted this work.

Objective of the Study

The main objective of this work is to implement a system that optimizes the cataloguing and classification processes carried out in the technical services department of Akanu Ibiam Federal Polytechnic Unwana, Library. The study, however, pursues the following specific objectives;

- To design a customized MS Word pre-cataloguing slip, catalogue card and spine label template.
- To implement an offline file sharing system using the library's WLAN intranet architecture.
- To automate the processes of the technical services department of the library.

3.1 Material Requirements

This project consists of basically two main parts; the cataloguing and classification part and the offline file sharing part. The cataloguing and classification part was actualized using a customized MS Word template; while the offline file sharing part was implemented using offline file-sharing technique through the library's Wireless Local Area Network (WLAN) intranet architecture.
The materials used in the realization of this project are as follows;

- Application Software
- Wireless Router
- PoE Access Point
- Laptop PC's
- LaserJet Printer

3.2 Methodology

Cataloguing & Classification Design Algorithm. Once a book is brought from the acquisition unit, from the design algorithm depicted by the flowchart in Figure 1 below, a new catalogue slip template is taken for that title or volume.

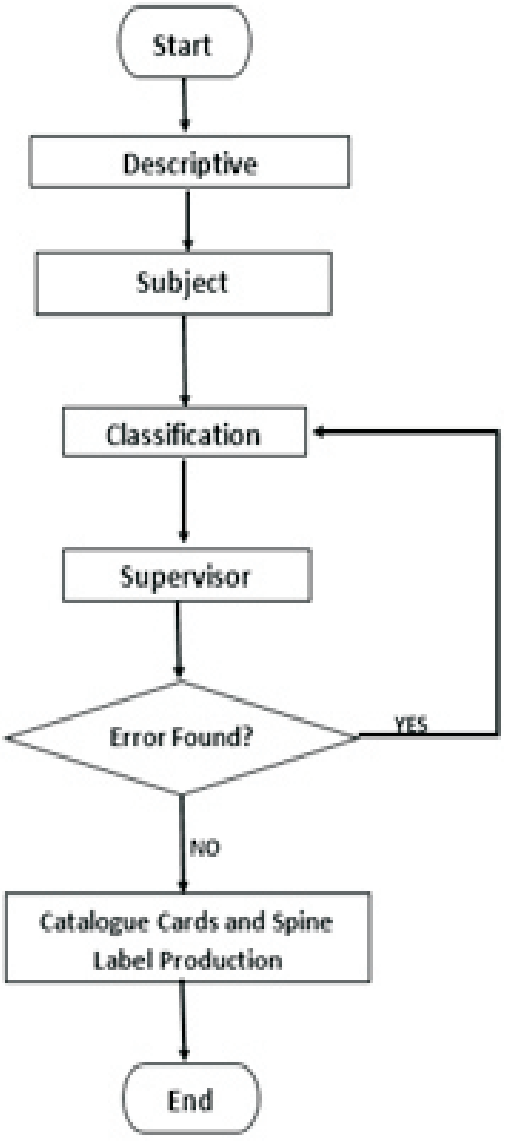

Figure 1. Flowchart for Technical Services Department Processes

First, descriptive cataloguing is done and the template taken for subject cataloguing then the template is taken for classification. The supervisor critically looks at what has been done. If there is an error is detected, the template is sent back to the classification PC for the correction to be effected after which it returns to the supervisor again for final checks before proceedings for catalogue cards and spine label production.

Systems Deployment

Figure 2 below presents a full schematic implementation of the technical services process using the library's WLAN intranet architecture

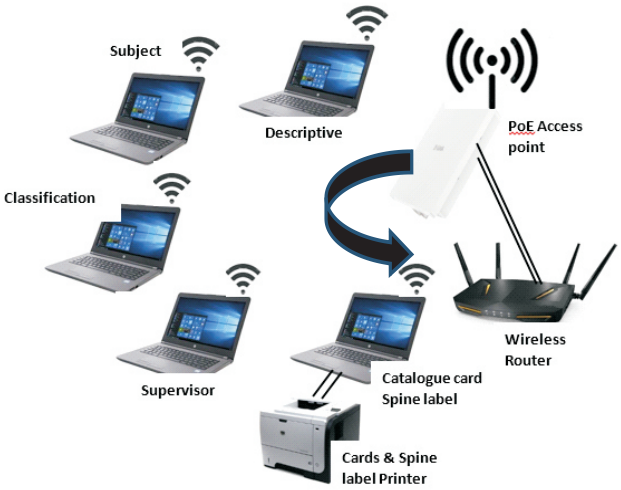

Figure 2. Systems Deployment Design

3.3 Design

The DAP-3662 PoE Access Point device used to creating the library hotspot is connected to the wireless router via cable technology that serve as the network and power supply to the access point. All laptops are connected together via the WLAN.

File sharing from a particular laptop to another is coordinated by the router. Once descriptive cataloguing is done on the Cataloguing slip template by the officer incharge, it is saved in the shared folder of the

Decriptive cataloguing laptop. The Subject cataloguing officer takes the template from the shared folder of the Decriptive cataloguing laptop and carries out his/her duty, saves the updated template in his/her own shared folder where it is accessed for classification. Once this is done the supervising officer vets the work done, and upon approval sends it for added entries and printing of the catalogue cards and spine labels using a laserJet printer connected via wire to the catalogue card laptop for cards and spine labels production.

4.1 Benefits of Digital Processing of Information Materials

- Enhancement of the performance of the technical department of the library in terms of cataloguing speed is one of the major benefits of the digital system to the library. Large number of books which had piled up for many years unprocessed started receiving urgent attention and within a short space of time they were moved to the shelves.

- Another important benefit inherent in the new system is the development of an MS Word cataloguing slip, catalogue card and spine label customized template which have replaced the large quantity of papers previously in use.

- The testing and deployment of a digital processing system has result in increased production speed and total output and better performance over the previous manual method of cataloguing and classification by the technical services department officers.

Finally, and following from the above, cost in terms of money and man hour spent in technical services department on cataloguing and classification of materials have reduced drastically.

4.2 Challenges Confronting Migration from Traditional to Digital Technical Services Operation

- One of the challenges plaguing the smooth transition from traditional to digital technical service operations of the library is low digital skill of the staff involved in cataloguing and classification operations in the technical services department.
- Another problem confronting the application of digital system on technical services in the library is lack of adequate number of computers for the staff to do their work. This leads to loss of man-hour as some staff remain idle and contributing nothing week in week out.

There is also the problem of epileptic electricity supply and inadequate provision of ICT facilities. The problem of inadequate power supply affects the smooth running of the unit, since power shortage interrupts the work output of the staff of the department. This further confirms the findings of the earlier study by , that …. poor electricity supply among others are the challenges affecting the application of ICTs in libraries as experienced in Akanu Ibiam Federal Polytechnic Unwana.

Recommendations

In line with the challenges identified above, the following recommendations have been put forward:

- Training and retraining of library staff in areas of ICTs that directly affects their work in order to impact the relevant digital skills provide effective and efficient services in the work environment.
- Regular and sufficient power supply is pivotal in the successful implementation

of any ICT based project without which the organization cannot perform efficiently. Dependence on generator for power supply in the academic libraries is not cost effective. Libraries should be equipped with solar energy facilities for constant and regular power supply. Solar energy is more reliable, sustainable, environmental friendly and cost-effective at the long-run.

- Adequate number of the necessary equipment needed for processing of information materials in the library such as computers and their accessories should be provided to avoid the waste of man hour as arising from lack of computers in the technical services department of the polytechnic library.
- The institution should engage a reliable Internet Services Provider (ISP)for strong and reliable internet services in the polytechnic. This will eliminate the down time often witnessed in the department as a result of poor internet services.
- Adequate funding is a necessity for the library as whole to continue provide efficient services to the community and for the technical services department, which is the heart beat of the library, to perform efficiently.

Conclusion

The aim of this work was to automate the information materials processing activities as being carried in technical services department at the Akanu Ibiam Federal Polytechnic Unwana, library in order to enhance the performance of this unit and the entire library through the elimination of some of the bottle necks associated with manual cataloguing and classification processes.One of the major outcome of the work is the production of an MS Word cataloguing slip, catalogue card and spine label customized templates which replaced the old and manual ones that have being in use in the library. Again offline file sharing among the computer systems deployed in the library was also achieved through the use of the library's WLAN intranet architecture. This was a huge leap hence the generation of large quantity of cataloguing papers and their movements from one table to another and among staff which is characterized by lots of flaws and challenges was eliminated. As a result, the library has enjoyed enhanced higher output and better performance in material processing, reduction both in man-hour utilization and in the cost incurred in the procurement of materials hitherto used in processing of information materials.

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