MANAGEMENT OF LIBRARY SOFTWARE: PROBLEMS AND PROSPECTS

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ABSTRACT

Competitive and survive in the rapidly changing environment. As information practitioners and as organizations involved in the acquisition, processing, packaging, storing and dissemination of information, the libraries and librarians should not be left behind in this race.

The two keywords in the topic are management and library software which shall be explained herewith. 'Management' is a generic term and it is subject to many interpretations. For our purpose in this paper, management can be regarded as activities taking place within a structured organizational setting and with prescribed roles directed towards the attainment of aims and objectives. This paper highlights some issues to be taken into consideration by librarians and information managers in the management of library software. It also identifies what is needed to manage application packages in Library for successful operations.

INTRODUCTION

The world is in the information age and all forms of growth and development revolve around the information economy. It has thus become pertinent for organizations, such as libraries, to embark on process innovation through re-thinking and re-engineering of its systems in order to remain through the efforts of other people; and using systems and procedures. The overall responsibility in management can be seen as the attainment of the given objectives of the organization. 'Library software' is made up of several programming instructions for management of library operations and activities. Library software is used to take care of the specific needs of libraries just as accounting software takes care of specific needs of accountants and users of accounting information. Library software needs a network of computers to meet operational demands in a library setting. In a library system, the acquisition staff cannot work completely independent of the cataloguers and cataloguers cannot work in isolation of readers' services unit of the library. All units, sections and departments in the library are inter-dependent.

PURPOSE OF LIBRARY SOFTWARE

It is important to ask ourselves the question, why library software? One reason for embarking on library software is to increase efficiency. Otherwise, there is no point spending huge money to automate. Any system adopted should relate to our specific needs. The consciousness of the peculiarity of our information system and needs will guide our decisions and ensure a systematic and successful implementation of our library system. Management of library software is a complex and multidimensional activity. It requires dynamic professionals and experts from diverse disciplines to work together as a team. Maintenance of library software is not a task for the head of the department alone. Every one in the chain is important in the successful implementation and sustainability of the project. We are bound to face some challenges in the planning, implementation and sustainability of library software. Let us consider the following issues, which are pivotal to library software management.

HARDWARE

Choosing important equipment such as the workstation for library project is not an assignment for the amateur. We need professional advice from the computer experts. From experience the use of external consultants should be considered. However, to select good and reliable computer system we should:
- Make use of known manufacturers
- Ensure that maintenance and backup services are available.
- Ensure that the computer specifications support the selected software.

In all, the best computer for the system will depend on what applications are being considered, whether standalone or networked, ancillary devices that will be used, etc. For example, in a networked environment, we need to consider the type of modem for the system. This together with communications software will make possible searching online, networked services, and sending and receiving fax messages.

SOFTWARE

It is worth noting that we must be absolutely clear in our mind what we want to do in order to make a good choice of software. Whatever software we pick, we must consider these points:
- Can it work in network environment?
- Is the software intended for larger or smaller collections?
- Does it have full maintenance supported system?
- How many users can access the software at the same time?
- Is the software too expensive?
- Is it too cheap?
- Is training provision made for the staff who will operate the system?

- What is the term of receiving the upgrades?
- How many organizations are using the software?

The software application can be acquired either on the shelf or off the shelf. It is advisable to request for demonstration in an operational environment. It is desirable (where available) to discuss with people already using the system on the capability of the software.

PHYSICAL LAYOUT

The physical layout of the Library has to be put into consideration. The importance of this can be seen clearly in the networked system where the ports to be used for linkages have to be strategically located to facilitate interaction between the computers and avoid interruption in data communication. A good physical layout will also create a conducive environment for the performance of the Library software. We should put in mind that most of these information technology gadgets require cool conditions to properly function, therefore there is need to consider ahead at the planning stage the installation of adequate cooling systems such as A/C as a precaution to guide against the crashing of the computers in which the library software is resident. Other gadgets such as hubs that enhance the transmission of data in the network also require cooling systems; it is therefore necessary to have a good Library layout to manage library software packages effectively.

MANAGEMENT AND TEAM SUPPORT

The technical management is concerned with ensuring that the actual working of the project is effective, ready on time, and that any problem with regards to hardware, software and programming, etc are addressed. The head of library needs the support of appropriate professionals, such as, librarians, computer experts, etc. to carry out the technical assignment effectively and efficiently. For effective monitoring of all stakeholders, periodical project review meetings must be held to appraise the activities and consider suggestions to move the project forward. Support of the management of the establishment is pivotal to the success of the project as fund will be required at every stage of the implementation. In tackling these problems, the librarian has to do his/her homework thoroughly be equipped with enough information to convince and gain the confidence of the management while defending the project proposals and budgets.

TRAINING IN NEW PROCEDURES

Introduction of an automated system will inevitably mean some changes in how the daily work and services are tackled. Staff should be given full training in how the new system will work, and what this implies for their own jobs. All staff concerned

needed to be adequately trained on the job. If any members of staff are new, some form of computer awareness training covering general computer terminology and practices should be included. It is important that, as part of the training programme all staff is aware of the action to be taken in the event of any kind of system failure. It is always much safer to give staff instructions about positive actions to be taken in such situations. It is a fact that hardware and software packages will always come with users' manuals. Nevertheless, we cannot be totally dependent on them as they are not usually sufficient knowledge imparting source for the staff to perform their work effectively and efficiently. The supplier should provide training on the use of the system either on-site or off-site. On-site training is preferred to off-site as it will provide opportunity for all categories of staff to be trained; junior, intermediate and senior staff. Instructional manuals and hands-on session using real life records of the library should be part of training sessions.

BACKUP SYSTEM

It is a reality that some part of the system will develop problems at one time or the other in the course of the project implementation. It can be the hardware, software or power problems. The issue of virus attack should be taken into consideration. During any of these failures, library data is likely to be affected, especially the opened files. A good system for backing-up must therefore be put in place for the preservation of the information/data of the establishment.

BACKUP FREQUENCY

To prevent system failure, a rigorous backup procedure is required. The backup period will depend on how often the system is used. The backup can be carried out daily, weekly and monthly depending on how often the system is used. For a library management system, this is likely to be at the end of day's work i.e. from when work starts for the day until the machine is closed down at night. In a busy service with a large volume of transactions, more frequent backups are desirable. The precise frequency is a matter for the judgment of the system manager and the librarian. Generally, it will depend on the volume of transactions and the perceived reliability of the system. Whatever frequency is decided upon, it is absolutely critical that the habit of regular backups is ingrained in all operators of the system as failure to regularly backup can result in the total loss of some data.

BACKUP PROCEDURE

Backing-up is administrative and this duty must be assigned to a reliable officer. Someone should be held for any failure. This method will stimulate the process of sustainability as it puts sense of responsibility on the officer performing the backup. Backup can be done with tapes, disks, CD-ROM etc. It can also be in other systems

in a network environment. In Nigeria where supply of power is erratic and unreliable, a good and reliable UPS is a must. A centralized UPS may be considered in a network environment. An adequate supply of tapes or disks for backup purposes must be kept, and clearly labelled so that it is obvious at a glance, which set, is which. Backups in one week is to be put on separate tapes i.e. a Monday set, a Tuesday set, etc.

BACKUP OF PROGRAMMES FILES

While planning backup strategy, we should note that it is not necessary to backup all files every time. For example, there is no need to backup programme files, as these should not change. You need only to have backup copies made at the time of installation. As a matter of policy, occasionally, a restore from backup should be carried out to ensure that the procedure is operating properly. It could be somewhat embarrassing to find out you have been cheerfully backing up your data onto faulty tapes for the past several weeks. In all cases, backup media should be replaced periodically to ensure continued reliability

WHERE TO KEEP BACKUP TAPES
The safe keeping of backup tapes is as important as the backing up process. It is preferable to keep the backup tapes in another building separate from the library. One of the purposes of backing-up is to provide a duplicate copy of records in event of disaster occurrence. If all the backups are kept in the same room as the computer and stock, then you can have a total disaster.

SECURITY OF LIBRARY DATABASE

It is not advisable to keep the doors of our apartment opened for anybody to come in at free will. There is the need to limit the level of access of strangers to our system. Passwords protection is used to control access to the system. Passwords are meaningless string of characters. We should be careful and manage well the issuing of passwords. We should be aware of the activities of hackers that can break into our system despite the passwords. It is advisable to memorize our passwords rather than writing them down as these can fall into wrong hands.

Editing and Proof Reading

As part of the whole training and development process, staff must be made aware of expected standards of performance. These standards should cover both quantity and quality. Accuracy is a critical factor in computerized retrieval systems, staff

should check on data entered in all fields. A method for checking error rates and monitoring trends should be established to ensure standards are maintained. It is advisable that senior officers are engaged in the proof reading and editing exercise. This exercise should be carried out almost immediately after the data entry. On-line editing in a network environment will make the job faster and easier.

SUSTAINABILITY OF THE SYSTEM

Sustainability is the ability for a service to be supported over a long period of time. Computerization of library may require extra effort and fund at the commencement. In view of the dwindling economy, it must be maintained with minimal overheads. The system must be designed in such a way to scale it up; that is from simple service to complex one. For example, library software designed to run on windows 3.1 should be able to run on windows 2000 or NT. It should provide solutions across a whole service sector. For example, software meant for school libraries should be able to work with research libraries or academic or public libraries. Also in view of lack of adequate funds, the acquisition of peripheral support gadgets may not come at once. It is possible to acquire a PC without a printer. We have to start from humble beginning. As time goes on, other peripheral items such as black/white printer, colour printer, digital camera, scanner, bark coder, etc. can be added.

CONCLUSION

Library software is a project. The basic purpose for initiating a project is to accomplish some goals. The purpose of library software is to increased efficiency. If the project doest not increase the efficiency of the service, we should never embark on it. Manager is expected to coordinate and integrate all activities needed to reach the projects goals. The management of this project is important in order to sustain it for generations to come. The world of computers and information technology is not standing still; the pace of change is accelerating. No matter how good the system you have now the chances are that it will be out of date within a comparatively short time. In order to anticipate this, we should monitor the performance of the system to see if it is up to your expectations. We should constantly evaluate the performance and look for ways in which it could be improved. We need to keep abreast of what is happening in the developing computer world to see what new developments might be introduced to further enhance the existing system.

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