

DEVELOPMENT OF LIBRARIES AND INFORMATION CENTRES IN THE ELECTRONIC AGE: A DEVELOPING COUNTRY PERSPECTIVE

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Many libraries and information centres in the developing countries are still far behind the libraries in developed countries in the transition from traditional to electronic libraries. They are expected to continue acquiring print material, while simultaneously seeking out electronic sources. However, few developing countries such as India, Kenya and Thailand are competing with those in the developed world in the transition from traditional to electronic libraries. The libraries in these countries are seriously addressing the issue of electronic information resources acquisition keeping in view the meager economic resources. The paper discusses the challenges posed by the accelerating pace of change in the world of information especially in developing countries and stresses the importance of managing the change by focusing on collection development (inclusive of electronic resources), training and development skills of the information professionals and also library users. It also examines and provides general views on how libraries and information centres should approach the situation in order to accomplish and acquire at least simple electronic resources while taking into consideration the library and information policy.

INTRODUCTION

Advances in Information Technology (IT), particularly the World Wide Web have seen the evolution of the electronic libraries and digital libraries. These kinds of libraries are becoming increasingly popular as a result of moving from the traditional print based environment to the electronic environment. Dissemination of information at low cost and high speed that cannot be obtained through paper has been achieved through electronic means. The role played by publishers, distributors and library and information professionals in the electronic environment has completely changed the means of disseminating information.

The emergence and proliferation of the electronic and communication technologies in the industrialized countries in recent years have both fascinated and bewildered observers from developing countries. Fundamentally, growth in the electronic and communication technologies has transformed the world into a global village. Lanfranco in his study, "Information and Communication Technology, Social Process and Organization Change" identified the strength that revolves within the circles of electronic communications based on two factors[1]:

- the ability of information technology to store and process numerical, textual, audio, and video information in digital form at speeds, in quantities and at cost previously unimaginable, and
- the ability of communication technology to transmit digital objects across time and space quickly and at relatively nominal costs.

Additionally, the aforesaid factors can lead to the electronic age with the enjoining of the advanced factors, viz:

- the ability of the information workforce to possess the skills and competence to marry traditional and ICT based services, and
- the ability of the library and information customers to cope with the new information resources, retrieval tools, etc.

In a nutshell, the above factors can become a reality, only if the best education and training is given to both the information providers and their patrons and above all the most effective management structures to support them that includes a electronic collection policy along side the print resources.

ELECTRONIC LIBRARY CONCEPT

The electronic library may be termed as a library that holds a collection of resources in electronic format that is made accessible to clientele through the electronic systems and networks. However, two other relevant reflections among the many definitions about the electronic library have been provided.

Oppenheim defines the e-library as an organized and managed collection of information in variety of media (text, still image, moving image, sound, or combinations thereof), but in digital form [2], and Rowley's enhanced view on the electronic library is that of "managed environment of multimedia materials in digital form, designed for the benefit of its user population, structured to facilitate access to its contents and equipped with aids to navigation of the global network"[3].

These observations as advanced by the definitions drive many information professionals to agree that the electronic library is not about library automation, the Internet nor datasets of secondary data but components. Thus, the features of the electronic library must be one that consists material primarily in electronic form. In such situation, it will need to provide internally generated and externally acquired academic and scholarly information, the primary aim being to support the learning, teaching and research institutions.

Almost everyone in technology, education, business, agriculture, etc., talk of the changing information environment but one of the questions for which an answer should be sought is: what does the future hold for the development of library and information workforce in the current electronic age?

Cogswell observed that the electronic revolution affects the traditional role of the libraries and those particularly cited are the academic and research libraries as institutions that collect and store information and make it available to its users is both obvious and indisputable[4]. In the context of this study there is need for policy makers to assist the system to provide the prerequisites. This will facilitate the libraries to be in pace with what is anticipated to be proffered and preferred in electronic age.

What entails comprehensively and may lead to success in development of library and information work force of electronic age falls in the following four categories viz; automation of library systems, collection development, training of staff and training of users.

AUTOMATION OF LIBRARY SYSTEMS

Computer-based automation has been incorporated into library operations such as circulation, cataloguing, acquisitions, interlibrary loan and serials management. Other developments that need to be incorporated include the optical disc technology (CD-ROMs), networking and other Net based functionalities. These have not been issues in the developed countries where many libraries and information centres provide a web interface that allow searching and accessing the library resources through the Internet. Such web interface includes links to electronic journals and internet sources which are very useful.

The introduction of indexes and abstracts on CD-ROMs and their availability via a network has in the recent past popularized their acceptance and approval by many libraries. These have the capacity to transform their print counterparts by making them faster and easier to use. In this context, libraries in the electronic information age are required to offer and expand their services beyond the basic reference service and traditional print based collections. This may include services such as reference assistance via electronic mail, networked CD-ROM full text databases, citation and document delivery services, Internet access and web pages with links to various online documents.

With automation in place, introduction of newer electronic resources are likely to shift services and functions of the librarian to those geared towards the end user. The proliferation of the electronic resources and the increase in end user products will not bring about the ruin of libraries or purge the complete need to call on libraries. Therefore, it is envisaged that any library be it public, research or academic, should contain the provision of automation. The essence being to provide information to patrons bearing in policy that the means to do so and personnel involved has to shift as resources and needs change.

The slowdown of economic policies that has seen the infrastructure of many countries being affected, also indirectly affects the libraries. Further, the profound decrease in the annual budgets of library and information centres also makes it difficult to computerize libraries.

COLLECTION DEVELOPMENT

The information environment is changing rapidly and many information professionals fear that end user access to the Internet and other electronic media may affect their jobs. Bell notes that the World Wide Web has identified new demands for professionals to show their competence and professional aptitude by adapting to new technological demands and what it has to offer [5]. For instance, any change in information technology gives the information professionals great opportunities while at the same time fundamentally changing their roles. Applications of skills through continuous learning will prevail and this alone will enable information professionals to facilitate information delivery in the 21st century.

Observations by the authors of this paper indicate that although there is wide spread availability of electronic resources, particularly those on the Internet, still this will not diminish or eliminate the need for collection development be it in libraries in developed or developing countries. But instead, collection development is to incorporate the new challenges in the acquisition process, such as site licensing, copyright issues, and how access will be

provided to various electronic resources. About half a decade ago, recommendations on basic criteria for selection and purchase of the electronic era had been outlined as; content, relevance, usefulness, cost, and accessibility [6].

In many developing countries including the Third World Countries, research libraries have accepted the fact that no institution can sustain a self-sufficient collection. Due to this fact, academic libraries when planning for any acquisition of electronic resources, have to choose materials based on what is appropriate for the curriculum, the type of degrees conferred by the institution, and the type of research conducted by its faculty. Other factors likely to influence this situation include; time span covered, frequency of updation, existence of comparable print resource, compatibility with equipment owned by the library, and searching capabilities of a particular resource.

Unlike print resources, decisions regarding acquisition of electronic resources are directly tied to the availability of, or willingness to purchase suitable technology to use the resources. The selection process of electronic resources may also take into consideration the amount of user instruction required and potential demands made upon the library's other services and resources. The ongoing costs likely to be incurred such as of subscriptions and maintenance must be examined. As exemplified in developed countries, accessibility of publications in electronic format in developing countries will lead libraries to re-examine and redesign other collection development practices. With continuous growth of various full-text databases, libraries may eventually consider acquiring materials on need based rather than proactively trying to anticipate user needs. Despite the pros and cons in institutions/ organizations, it is surprising that policies that can effectively address electronic collection have not been developed. Instead the concerned have taken "a wait and see" attitude towards electronic resources.

It is envisaged that once in place, the e-resources will augment resource sharing. For

instance, the developing countries can even start with the CD-ROM products that are simply networked and shared on a Local Area Network (LAN).

The interesting aspect of collection development presently is that the cost of technology is going down but unfortunately the cost of information continues to ascend. This implies that libraries can only become more involved in any communication including scholarly, through the support of governments, parent organizations/institutions/societies/communities and co-operative efforts (Networking).

Towards this infrastructural aspect, the authors forecast that it is the timely electronic document delivery that can enable and encourage librarians and the management to re-think their approach to collection development. In the near future, libraries in developing countries are anticipated to join those in developed countries, once they set their priorities right, that will devote more of their budgets, traditionally used for collection development, to document delivery.

TRAINING OF STAFF

It is important to guarantee that staff structures in libraries are in place and in readiness to meet the new challenges of the electronic age, especially the delivery of the services by libraries. Hence, before any commitment is outlined by the libraries, analysis and justification of the prevailing library functions should be tackled. This will facilitate the management to take only implementational decisions for the success of the project that entails both the library staff and the users. However, some schools of thought view that the present nature of the library will change and alternative roles are to be found in areas viz; cataloguing, technical processing, etc. For instance, trials have been in place on cataloguing internet resources, though the question remains if it will be done cooperatively [7].

The variety of electronic resources and the new services increases the importance of and need

for education of end-users to enable them to take full advantage of the new opportunities available to them. This has made many libraries accept the reality that the library staff themselves need to be re-skilled to impart user education. The librarians should be geared up to play the roles of knowledge managers, web managers and be alert to accommodate technology as it comes. In the library policy, staff development programmes that include refresher courses, workshops, seminars and conferences should be covered.

Training and development is an important aspect of personnel development for an organization. Training may be provided in the form of orientation courses, inservice training courses, and undergoing formal educational programs. In the field of library and information services, it has been realized that the impact of the information technology (IT) on information professionals has become deeply rooted that demands continuous improvement of professional skills of information professionals.

TRAINING OF USERS

Training of users too is relatively easy in the traditional library environment in comparison to the electronic environment. Training in the traditional library involved handling of the card catalogue and getting information from the same. Training of computer illiterate users in the electronic environment will take longer time. In the electronic library, emphasis on training should be as much as is on building electronic resources. Awareness of the electronic resources and methods of using them should be imparted to the users. In addition, libraries should stress on how to use the electronic resources effectively and even demonstrate their potential capabilities for solving information problems.

Some questions that need to be answered while planning a training programme include:

- How basic or detailed should the training be?
- In what areas should training be provided?

- Should training include print as well as electronic resources, particularly where the two co-exist?
- Should basic courses be mandatory for all new library users or should it be conducted only on request for specific operational areas and to specific clients?

The library staff should impart regular training to user groups on general and specific issues pertaining to library use at scheduled intervals. Provision should exist to impart training to any user who request for the same when there is no training programme actually scheduled. Training can include searching the library OPAC, full-text multi-media databases, hyper media systems, multiple search interfaces and also impart skills such as word processing, text editing, etc.

CONCLUSION

The rapid change in the delivery of library and information services including archival materials in the electronic age appear to have brought confusion not only to the organizations and the information providers but also to the library users. It is, however, the printed material that continues to be extensively used by library users. In most developing countries, inadequate infrastructure constitutes the single most salient hurdle to migrate to the electronic environment. Nevertheless, the library of the future be it electronic, virtual or digital should

aim at adding value to information resources and providing support and guidance to the management in line with collection development (electronic or print). Staffing in the electronic era should be based on knowledge and skills. Staff development should be ongoing activity in the library. Imparting training to the users will enable them to possess the knowledge and skills to retrieve and filter any information from whatever source whether electronic or print sources of information at any given time. If any search for information is beyond the user the, information providers/gatekeepers should be readily equipped to come to their rescue and provide effective alternatives.

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