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IBADAN UNIVERSITY LIBRARY

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EFFECT OF CD-ROM ON INFORMATION ACCESSIBILITY AND RETRIEVAL AT UNIVERSITY OF IBADAN LIBRARY

BY

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ABSTRACT

The University of Ibadan Library had experienced persistent shortage of periodicals books and other technical literature.

This is the same experience that libraries all over Nigeria is currently undergoing. The introduction of CD-ROM in this libraries has being a relief to this problem. There is an increased awareness and improved patronage of this technology among different categories of researchers including students in the library over the years. Though level of computer literacy of users is still very low nevertheless CD-ROM has provided more access to information and retrieval. This is however in the face of some constraints such as inadequate infrastructures, unreliable but pertinent electricity supply etc. Solution to these constraints are suggested.

Introduction

Libraries in Nigeria and many developing countries are experiencing a situation of persistent shortage of books, periodicals and other technical literatures. In fact acquisition of books and journals have reduced considerably over the past few years. This is largely due to down turn in the economic of this countries. Perhaps nowhere is the effect more serious than in the libraries, which is an important part of the educational sector. Declining acquisition of materials is most dramatic at the University of Ibadan Library whose journal subscription drastically dropped from 4,868 to 455 within a period of 10 years 1987 to 1997 (according to 1996/97 library statistics)

The new information technology, Compact Disc Read Only Memor, CD-ROM recently introduced in the library is ot only timely but long overdue. Ephraim¹ declared that " In spite of failed attempts by our libraries to gain sufficient acces to current journals, which scenario has inevitably led to research poverty in our intellectual community, with CD-ROM, one can now obtain from any African countries current international journal articles in practically any field of research within the past twelve months at a reasonably low fee".

Ojo Igbinoba² (1993) also asserted that "CD-ROM is a very suitable technology for Africa. It is rugged and portable. Shopping and postage cost are relatively in expensive. It is easier to store and less difficult to read than microfilm and it is more durable. Its capacity

surpasses any other, as a storage medium”.

He went further to explain the specific library applications of CD-ROM which are diverse and it includes the bibliographic database about books, abstracting and indexing database, library catalogues, union catalogues for resource sharing, retrospective conversion and cataloguing systems. Abstract and full-text information in books, journals, important thesis, projects and conference papers are now published in CD-ROM. Much has been written about CD-ROM and its usefulness in the developing countries. Ritzler³ and Vom Hartwalt⁴ explained the advantage of CD-ROM for local access to computerised database in developing countries, while Nwali⁵ explore the usefulness of CD-ROM to Nigerian libraries but also highlighted some problem areas such as lack of adequate funding, inconsistency in power supply etc.

The research questions raised by this study are — What is the effect of CD-ROM on information accessibility and retrieval at University of Ibadan Library, and to what extent has it met the needs of the users?

CD-ROM TECHNOLOGY AT THE UNIVERSITY OF IBADAN LIBRARY

CD-ROM technology was introduced into the activities of Kenneth Dike Library, University of Ibadan, Nigeria in August 1991. This followed the installation of a CD-ROM workstation donated to the Library by the Technical Centre for Agriculture and Rural Co-operation (CTA) NETHERLANDS in June 1991. CTA also donated a number of database, mainly in Agriculture. Some of these database are textual, while the majority are bibliographic in nature.

The Library also purchased CD-MARC database i.e. LC records on CD-ROM in June 1992 to facilitate the processing of new acquisition in the cataloguing section.

Presently the library holds 2 CD-ROM tower, which are able to hold up to 12 disc. Apart from this there are 3 Computer dedicated to literature search in CD-ROM with an EPSON printer to print out the search if so desired. All these hardware are networked in the library. Although there are over 20 CD-ROM current and non-current database, but only 12 can be searched at the same time. The database are used by staff and students for research works and projects. Searches are free unless a printout of items are required by searchers. The charges for printouts are minimal. Apart from the literature searching, CD-ROM technology has also been relevant and used in the library for cataloguing (i.e. LC CD-MARC) and Bibliographic citations.

CD-ROM AND INFORMATION

Is CD-ROM an information storage medium or a publishing medium or a document archive medium or a data processing medium? According to Ojo-Igbinoba⁶ “It is all of these and more” it is a tool that can meet many of library users needs when the information is properly designed for efficient access. Salanje⁷ described the impact of CD-ROM on users as the one that has improved access to multi volume indexes such as ERIC. It

has also enable users to search varieties of data with powerful search techniques at a convenient CD-ROM work station. These and many more are the benefits of CD-ROM. But in African Counties, especially at University of Ibadan Library there are some constraints of CD-ROM in the Library system. These constraints includes lack of enough computers to allow the users to have a satisfactory search, the constraints of electric power failure and lack of fund for adequate maintenance can not be over emphasized. In view of these constraints this paper has examined the impact of the application of the application of CD-ROM on information accessibility and retrieval in the library. To asses this impact, the users of CD-ROM were the focus of the study.

METHODOLOGY

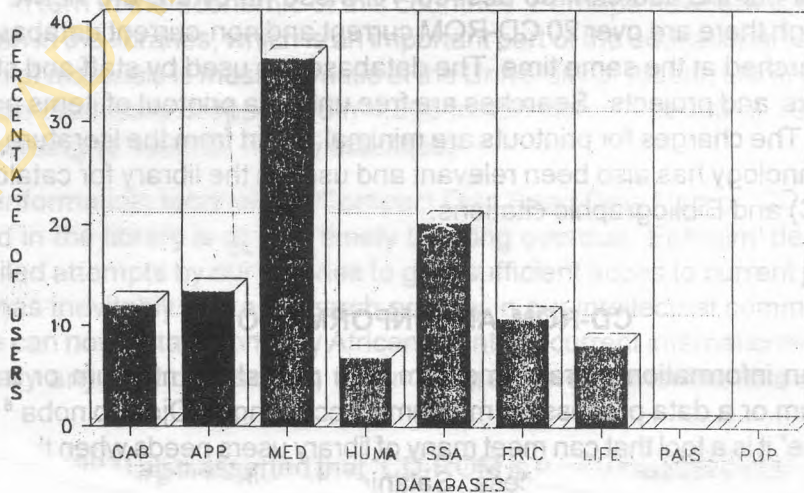
Data for this study were collected through a structured questionnaire. A total number of 100 questionnaire were distributed both at the Kenneth Dike Library and the branch library of the University of Ibadan library i.e. Latunde Odeku Medical Library. These are the site of the CD-ROM facilities at University of Ibadan Library.

Precautions were taken to ensure even distribution of questionnaire among the different categories of users. The questionnaire were distributed for a period of 2 weeks every morning taking into consideration the number from different departments faculties, students and staff. Out of 100 questionnaires, 74 duely completed questionnaires were retrieved.

RESULT AND DISCUSSION

1. CD-ROM Database and The Accessibility

It is possible to know which database is mostly used by the clients through their response to the question that was asked 'which database they often use'. Nine database were listed on the questionnaire and the response is summarised in Fig 1.



Abbreviations on Fig 1

CAB Abstract - CAB

Applied Science

Medline-MED

Humanities abstract -HUMAN

Social Science Abstract SSA

ERIC - ERIC

Life Sciences

PAIS International - PAIS

Popline- POP

Of all the CD-ROM database available at University of Ibadan Library fig 1 shows that the most consulted are that of Medline with 36.49% of users who accessed the database. Next to Medline database in use is Social Science Abstract for which 20.27% of users indicated usage. Others are Applied Science and Technology Abstract in which 13.51% of users indicated usage while 12.16% users indicated usage for CAB Abstract. As wide range of information can now be accessed through the CD-ROM. It became a great help to users especially to know about the existence of a publication and even to get its abstract in Machine -readable form.

TABLE 2: DATABASE USED IN NOV. 1996 AT DKL

S/No	DATABASE	No. Of User	Total User in 1996	% of Users
1.	CAB Abstract	18	306	5.88
2.	Applied Science and Tech. Abstract	-	6	-
3.	Social Science Abstract	5	69	7.25
4.	ERIC	13	224	5.80
5.	Life Sciences	17	101	16.83
6.	PAIS	2	36	5.56
7.	POPLINE International	63	23	13.04
8.	TROPIC & RURAL	6	58	10.34

(This data was collected from the reference section 1996 statistical record.)⁸

Since the questionnaire used to collect the data for this study was also distributed and collected in the month of November 1999, a comparison was made with the November 1996 statistical record of database used. It can be observed from the proportion of users for from Fig. 1 and Table 1 that CAB Abstract was 5.88% in 1996 but 12.16% in 1999, Social Science Abstract was 7.25% in 1996 but 20.27%¹⁹⁹⁹ and ERIC was 5.80% 1996 but 10.81% in 1999. This shows that there is an appreciable improvement in the patronage of CD-ROM at the University of Ibadan Library.

2. COMPUPTER LITERACY

The users were asked to indicate whether they were computer literate or not. It was observed that only 31.08% of them indicated that they were computer literate while 68.92% indicated that they were not computer literate.

A question that is directly related to that on computer literacy is the one which asked if the searchers can search without assistance. To this only 22.97% of the respondents indicated that they could search without assistance, while 77.03% indicated that they needed assist.

Mac Donald⁹ once reported that the use of information Technologies such as CD-ROM database by end users to retrieve information means that end-users must become information literate about the range of sources available to them, and to develop computer skills to be able to exploit these sources effectively. It may not be completely ruled out that many library users avoid using CD-ROM database to search because they are not computer literate. This finding should be of concern to the library management, especially as 68.92% of the respondents indicated that they were not computer literate and thus can not search without assistance. The library user should be trained to acquire basic skills in searching during its orientation and other users education programmes in the library.

3. THE STATUS OF CD-ROM SEARCHER

The findings of the Study indicate different categories of CD-ROM searchers. These include 6.76% diploma students, 56.05% undergraduate students, 24.32% post graduate students, 10.81% lecturers and 4.08% non-academic staff.

The majority of users who are undergraduate students who responded to the questionnaire are probably final year students as they indicated that they use the information from their CD-ROM search to conduct research work (project). It is not therefore surprising to see that undergraduate students constitute more than half of the CD-ROM searchers.

The inquisitiveness to search may be attributed to the fact that, having been aware of the advantages of CD-ROM database over the printed media, they stormed the library to look for articles for their project in the CD-ROM database. while others like to see what others have written to avoid research duplication.

The lecturers constitute just 10.81% of the respondents. All the lecturers who responded, however indicated that their major constraint to usage of CD-ROM database to search

for articles is that the library has very few computer terminals and too many searchers crowding all the time to search. Some may not want to line up with students to conduct CD-ROM search. Solution to this problem is to provide more CD-ROM terminals in the library by management. Extension of such services should be made to the faculty libraries which should be networked with the main library. This will reduce on the spot crowding of searchers. More database relevant to teaching and research should also be provided.

TABLE 2. USERS BY STATUS IN NOV. 1996 AT KDL

Users status	No of Users	% of Users
Post Graduate Students	24	39.34
Under graduate Students	12	19.67
Staff	18	29.51
Others	17	11.48
Total	61	100.00%

(Data collected from the reference section 1996 statistical record).¹⁰

Since the data for this study was collected in the month of November 1999 with the aid of questionnaire, a comparison was also made with the November 1996 statistical record of users of CD-ROM by status. It can be observed from the proportion of users for post graduate students which was 39.34% in 1996 but 24.32% in 1999. And undergraduate students was 19.67% in 1996 but 54.05% in 1999. This shows that awareness of the usefulness of CD-ROM has increased drastically among the undergraduate students in the past years. They have found the relevance of CD-ROM in their academic work. This may also be a result of shortage of current books, periodicals and other relevant literatures being experienced in the library due to shortage of funds.

4. INFORMATION ACCESSIBILITY AND RETRIEVAL

TABLE 3: USERS SATISFACTION ON INFORMATION FROM CD-ROM SEARCH

	NO. OF USERS	% OF USERS
VERY SATISFIED	6	8.11
SATISFIED	32	42.24
PARTLY SATISFIED	32	43.24
NOT SATISFIED	4	5.41
TOTAL	74	100.00

It is revealing from the analysis in Table 3 that most searchers were satisfied with the information found during the CD-ROM search. This inevitably led to printing of selected information. It was found that 8.11% were very satisfied, 43.24% were satisfied, 43.24% were partly satisfied while just 5.41% were not satisfied. From this result, it is glaring that satisfactory information can be accessed through the CD-ROM.

According to Little John¹¹ CD-ROM has enormous potential for African researcher in their effort to gain access to scholarly data and literature. Since satisfaction is achieved in the information found in CD-ROM, rather than mourning our inability to continue with our journal subscriptions, libraries should provide more access to information by acquiring CD products IN pertinent to their needs.

TABLE 4: USERS SATISFACTION WITH PRINT OUT OF INFORMATION

	NO. OF USERS	% OF USERS
VERY SATISFIED	15	20.27
SATISFIED	49	66.22
PARTLY SATISFIED	8	10.81
NOT SATISFIED	2	2.70
TOTAL	74	100.00

It was also found from Table 4 that 20.27% users were very satisfied with their print out, 66.22% were satisfied, 10.81% were partly satisfied while 2.70% indicated that they were never satisfied with their print out.

The level and quality of the print out shows the level of information retrieval through the use of CD-ROM. It is glaring that the level of information retrieval is appreciable with the use of CD-ROM in Ibadan University Library.

5. USERS PROBLEMS IN ACCESSING CD-ROM DATABASES

TABLE 4: USER PROBLEM IN ACCESSING CD-ROM

Problems	No of Respondent	% of Users
Not getting desired information	29	39.19
Very few computer	53	71.62
CD-ROM Database not covering works on Indigenous descent	29	39.19
High cost of CD-ROM search	11	14.86
Documents not printed as desired	4	5.41
Problems of constant machine breakdown	12	16.22
Problem of constant power failure	16	21.62
Not being compute literate	-	-
Uncooperative attitude of library staff	-	-

According to the information provided in the Table 4. The major constraint in accessing and retrieving information in CD-ROM database at University of Ibadan Library is the limited number of CD-ROM work stations. (71.62%) of the users indicated this problem whereas 39.19% claimed that CD-ROM database do not cover works of indigenous descent, 21.62% complain of constant power failure 16.22% also indicated the problem of constant machine breakdown, 14.86 % complaint of high cost of CD-ROM search while 5.41% indicated the problem of documentst not printed as desired.

The limited number of CD-ROM workstation has inevitably led to overcrowding and consequently a waste of time for most users. The effect of some of our acquired CD-ROM databases not covering works of indigenous descent may make this databases not useful in our line of research work. The solution to this in producing local databases on CD-ROM which will cover information on indigenous or African affairs by Africans in co-operation with international agencies which seem willing to assist in promoting the use and dissemination of this new technology. Long queues at workstations due to inadequate or limited number of CD-ROM discs and workstations can be solved by providing more workstations and staff to assist the searchers. The problem of power failure can be combated with the provision of power generating set.

CONCLUSIONS

Information is a wealth. Access to the right type of information in the right media in an academic environment is an asset which can be employed to pursue and accomplish the cardinal objectives of an institution.

Now that many University Libraries do not have enough fund to subscribe to their favourite journals, is in the use of CD-ROM which has many advantages over the use of printed media.

According to Ojo-Igbinoba¹². Lack of current literature especially in the sciences is endemic in such problems.

It is no doubt that CD-ROM technology has enhance information accessibility at Ibadan University Library, though it is glaring that the growth of CD-ROM technology is faced with constraint such as lack of adequate infrastructures, not getting desired information and the database not covering works on indigenous descent.

Adequate funding is still very necessary for libraries to provide infrastructure for efficient CD-ROM technology.

Information experts in Nigeria are being encouraged to start looking in to CD-ROM publishing in co-operation with international agencies like Technical Centre for Agriculture and Rural cooperation (CTA).

Definitely CD-ROM technology can be a tool in eradicating some of our information poverty in Nigeria.

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