

DATABASE ANALYSIS USING CD-ROM - A STUDY OF GHANAIAN FORESTRY BIBLIOGRAPHY USING THE TREECD

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ABSTRACT

An analysis of a bibliographic database (TreeCD) has been made. Bibliography relating to Ghana was assessed and the trend and rate of publishing by Ghanaians was looked at. It has been recommended that local databases should be established by including all grey material available. Also bibliographic material available on CD-ROMS may be used as a guide for setting up databases subject to copyright regulations. This would help to make local information easily available to local scientists and also avoid the over dependence on foreign databases, which are very expensive to acquire.

Keywords: CD-ROM technology, Information technology, Information retrieval, Databases.

INTRODUCTION

It has been estimated that the growth of scientific literature doubles about every 17 years [1]. This rate of information growth has made it virtually impossible for research scientists, policy makers, and administrators to keep abreast with literature published in their specific fields. Thus volumes of information continue to be published out of research efforts.

As the literature grows, it becomes increasingly difficult for researchers to absorb all the information that are being published on a given subject. The inaccessibility of up-to-date literature by scientists has resulted in the duplication of research efforts all over the world especially in third world countries. It is therefore not surprising that the growth in published information has led to new information processing techniques and ways to exchange information [2]. The use of automation to handle the tremendous information flow in the present century has increased considerably. One of the up-to-date technologies that are currently on the information market is Compact Disc-Read Only Memory (CD-ROM).

The main fields of application for CD-ROM include the following: bibliographic databases, full text journals, multi-media such as newspapers, directories, dictionaries, encyclopaedias, patent specifications, software systems, maintenance manuals and archives. Of these applications, perhaps, the most widely used by research scientists are the text and bibliographic databases. In this paper an attempt would be made to analyse this type of application with reference to specific information on Ghana.

THE TREECD

One such bibliographic database on compact disc is the TREECD developed by CAB International and SilverPlatter Inc. This disc was donated to the Forestry Research Institute of Ghana (FORIG) library by the Overseas

Development Administration (ODA) now known as the Department for International Development (DFID) of the United Kingdom, together with a CD-ROM work station. TREECD contains all the articles published in the Forestry, Forest Products and Agroforestry abstracts. It covers all aspects of the ecology and management of natural and plantation forests; agroforestry systems; plants biology and genetics of woody plants; wood properties and the marketing of forest products [3]. The information analysed for this paper spans the period 1939-1992. Publications between these years total about 329,146 citations. TREECD is updated annually, adding about 10,000 records a year.

ANALYSIS OF GHANAIAN FORESTRY DATA ON TREECD

Information on Ghana or by Ghanaians on the 1939-1992 TREECD total 459. A detailed analysis of this portion of the TREECD has been made and is shown in Table 1. A preliminary analysis on a year by year basis showed that in the early years not much information was available. There were a lot of gaps and this made the analysis difficult. Therefore an interval of 10 years was chosen to make the analysis easier.

TABLE 1: Analysis of the Treecd

Yr. of Publication	Total No. of Publication	Local Author		Foreign Author	
		No.	%	No.	%
1939-1948	6	1	16.7	5	83.3
1949-1958	32	13	40.6	19	59.4
1959-1968	94	24	25.5	70	74.5
1969-1978	200	89	44.5	111	55.5
1979-1988	87	43	49.4	44	50.6
1989-1992	40	23	57.5	17	42.5
Total	459	193	42.0	266	58.0

The first ten years of publication from 1939-1948 seemed to be sporadic and scattered. A total of six papers over this 10-year period indicates that not much research was carried out during that time. Almost all the authors were expatriates as the table shows. Out of the 6 papers, only one was published by a local author. The number of published papers however began to increase from 1949 to 1958 with a lot more local authors getting involved. This number increased to a high peak of 200 between the years 1969-1978. This trend could probably be accounted for by the fact that the Forestry Research Institute was established in 1966. The pattern of publication was therefore expected to change since research results were published.

Another pattern, which emerges, is the impression that more scientific papers were being written and published in both local and foreign journals by foreigners. Over 50% of the papers that are cited in the TREECD about Ghana have been published in external journals even though a few local journals such as the Ghana Forestry Journal, the Ghana

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Journal of Agricultural Sciences and the Ghana Journal of Science appear with some consistency up to the 1970s when their publications ceased. No specific pattern of scientific research can be deduced from the abstracts since the publications do not seem to be tracing any pattern of research. For example, a lot of work has been done by individuals on different species and in specific subject areas but a pattern of continuity in the various disciplines does not emerge.

There was a drastic fall in publications from the 1978 high figure of 200 to 87 between 1979 and 1988. An attempt at explanation could probably link this result to the recession which set in about this time and which resulted in the lack of funds for research activities in the country including forestry research.

OBSERVATIONS

It was noticed that the information on the CD-ROM gave a very misleading impression about the trend of forestry publications in Ghana. It must be noted that the citations which appear in the TREECD are those that have been acquired by CAB International. Local reports, theses and some articles published in local journals were left out probably because CAB International did not have access to them. This implies that there are a lot of local material that have to be gathered by local information personnel, so that all information produced may become accessible.

SUGGESTIONS FOR THE ESTABLISHMENT OF LOCAL DATABASES

As a complement to the local information available on international databases such as TREECD, it is being suggested that local databases should be created using information on the compact discs as a guide. The creation of local databases is very important in the developing world. Many of the established databases overlook local reports or journals, so no citations of them exist anywhere and unless a library or documentation centre takes on that responsibility at a local level, much of that country's information would be lost bibliographically and in practical terms because those who need them most would not have access to them. Roughly 3% of the citations in Medline for example comes from journals published in developing countries [4]. The local information on compact discs may be used as a reference point and incorporated into local databases subject to copyright considerations.

CONCLUSION

Creating and publishing local databases can then help to bridge the gap of local information flow that is created with the publishing of external databases. The author wishes to take the opportunity to encourage librarians in third world countries to create their own local databases in their various disciplines that would complement other sources of information available. This would in turn help to meet the needs of the local academic community and also reduce the over emphasis on foreign databases that are so expensive to acquire.

REFERENCES

1. Keylard, M. (1993) CD-ROM Databases: Subjects and formats. In CD-ROM for African Research Needs Some Basic Guidelines: American Association for the Advancement of Science. Washington, 1993. P11.
2. Broadbent, K.P. (1982) Specialised information analysis centres. In Management of information centres in China: Results of a course held in Kunming, Yunnan Province, People's Republic of China, 6-18 December, 1982. P125.
3. CAB International (1992) CD-ROM training manual, London, 1992. Pp 6-38.
4. Lippman, M.J. (1992). The library as an information producer: The case of the Ministry of Health Library and Documentation Centre in Malawi. J. of Documentation, Vol. 49 (1) pp 55-59, 1992.