USE OF CD-ROMS AND ON LINE DATABASES AS SOURCES OF INFORMATION FOR AGRICULTURAL RESEARCH

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ABSTRACT

Information has been regarded as a vital commodity or an asset in all activities and is relied on heavily by every boby. References are made to existing information to determine the similarities of a new idea or knowledge. And this new idea or knowledge is obtained from a desire to know facts by reasoning or to solve problems. However, unless this new knowledge is disseminated, stored, retrieved and used by people, it cannot become a useful asset. Similary there is a significant barrier between the information and the users where libraries and documentalist are required. This paper discusses the importance and the use of Online and CD-ROM database searches as a useful source of information in agricultural research.

INTRODUCTION

Information has been recognised as a vital commodity or an asset in all spheres of human activity. People rely on information to do their work or carry out their research more effectively. Reliable information saves time and money. References are made to existing information in the quest for new knowledge and ideas which are often derived from a desire to engage in intellectual pursuits or the need to solve specific problems. However unless these new knowledge and discoveries are disseminated or stored and retrieved by people, they cannot become useful working tools. Similarly, it has also been argued that there is a significant barrier between the people (who are the users) and the information that exists, and that libraries and docementalists are required to remedy this situation. This paper discusses the importance and use of online and CD-ROM database searches as useful sources of information in agricultural research. It also touches on the advantages and disadvantages of sharing agricultural information through networking.

DEFINITIONS

Knowledge is defined as a collection of facts and presumes a degree of intelligence associated with human activity. Information is a knowledge or body of ideas or which the user did not have before or had not acquired through some intellectual activity. Information changes and broadens a user's knowledge on a subject. It reduces uncertainty and is essential in decision making. These discoveries and new knowledge are disseminated and stored for future retrieval when required.

Information is made available through intellectual activities. This is the driving force behind all progress. The discovery and creation of new information, increases existing knowledge and thus expands the "growing tree of knowledge". Information can also be expressed in data form. In this case, information is added onto already existing

knowledge. Information is therefore associated with existing knowledge and intellectual activities involved. For example, an agricultural scientist seeing disease symptoms on a taro would be able to provide a diagnosis based on previous experience and available information.

INFORMATION EXCHANGE NETWORK

Libraries play a vital role in providing information for professionals. To provide a wide range of information, libraries are now becoming involved in information exchange networking. Networks vary in their aims and objectives. Some aim to work directly with farmers; others just want to support people who are unable to obtain information. Still others focus on government policy or the activities of an institution or ensure that information is presented for national or international discussions.

The information exchange network is defined as "a collective process of information exchange, around a central theme, carried out by actively interested parties. They organize the exchange of knowledge and experience among people working in a same subject area, with the idea of learning from sharing of information". (Nelson & Farrington 1994).

Information exchange may be formal or informal. Informal communication includes conversations, discussions, workshops and broadcasts which can be face to face. Radio broadcasts and television have also been used as a means of dissemination information. For example, the NBC programme - "Man on the Land" deals with agricultural topics; whilst the 'Talk back program' covers news and current affairs affecting PNG.

Formal communications include personal correspondence, circulars, bulletins, newsletters, journals, books and reports. Recent technology developments have led to the use of world-wide computer networks and electronic mailing systems. Matheson Library has provided the academic department of the PNG University of Technoloby access to such facilities.

ADVANTAGES OF INFORMATION EXCHANGE NETWORK

The advantages of information exchange networking is that it helps those in isolation (especially the local farmers and those that live in the rural areas), to have access to the latest information on agricultural research and development. It facilitates the sharing of research information and ideas between individuals and groups. By making information available in a wider area it helps to reduce duplication of efforts. An effective information service can provide reliable and timely information and helps fulfil the aims and objectives of scientific research. An effective information exchange network can also help to reduce costs.

IMPEDIMENTS ON INFORMATION EXCHANGE NETWORK

Unless sufficient funding, proper coordination and infrastructure are provided the purpose of an information exchange network cannot be fulfilled. This can lead to a low level of exchange between members. Information exchange network requires funding commitment to be operationally viable.

ONLINE AND CD-ROM DATABASES

Electronic online and CD-Rom database searches have been accepted as a medium for information storage and retrieval. And this was indicated by the recent survey by the IDRC-CRDI-CIID (Beaumont 1988). These databases are designed to enable

people to retrieve references and bibliographical citations for original documents more easily. Modern telecommunications have made it possible to transmit information over long distances and thus provide wide access to online databases. Access depends on an institution being willing to pay the subscription and other costs. This can seriously affect smaller agricultural research institutions and their libraries. Smaller institutions are increasingly purchasing subject specific CD-ROMS for bibliographies and abstracts. By using keywords to limit searches, they provide a useful and locally based method for retrieving information.

A recent evaluation of the CD-ROM Project organised by CTA (Assoumou 1993), has shown that CD-ROMS play a significant role in providing information. CD-ROM helps overcome the problem of high cost in obtaining online information. The access is quick, easy, cheap, time-saving. There is also an increase in productivity. CD-ROM can provide less developed countries with a wide range of bibliographic literature for retrieving new scientific ideas and knowledge. The Matheson Library is one of CTA's CD-ROM Project sites and does subscribe to the following CD-ROM products on agriculture; Agricola; CAB Abstracts and Tropag & Rural.

CONCLUSION

Information is vital for everyone. Without the right information people cannot do their work or make proper or correct decisions. Information advances knowledge and provides solutions to problems. Information may change the nature of people's work. Until this new information is disseminated to interested groups and individuals, in practical terms it is useless. For example, if research found a new method of fighting disease in taro, until the farmers know about it and how to apply it in the field it is useless. There are several formats for disseminating information, both formal and informal, through correspondence, conversation, literature, training, seminars or conferences. Information should be shared through exchange networks so that information can be channelled to all those who require it for various reasons.

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