

Looking beyond our own shores, let us also be mindful of appeals that have come in recent times for assistance to theological libraries in Asia and the Pacific. The big needs appear to be resources and expertise. While we may be acutely aware that our own libraries could also do with more of both, there may also be ways in which we can both render assistance in these areas and be enriched by it.

*Respectfully submitted, (Rev) Trevor Zweck, President.  
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## INFORMATION LITERACY AND USER EDUCATION

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Increasingly, attention is being given to information literacy by both information professionals and educators. The information literate person is one who has the knowledge, skills and attitudes appropriate to living in a society which places a high value on information and its use by individuals as well as by groups of people. The information literate person is also an independent and autonomous learner who has the confidence to set his or her own learning and information goals and to pursue them. Information literacy is fundamental to continuous life-long learning.

Information literacy, or the ability to access and evaluate information linked to several levels of access that affect the use or non-use of information: societal, institutional, physical, psychological and intellectual. Dervin (1973) describes these levels of accessibility as follows:

1. **Societal accessibility.** Society must perceive the need to provide certain types of information and must allocate the resources necessary to satisfy these needs.

- 2 **Institutional accessibility.** Appropriate organisations for the provision of information must exist and must be able and willing to make needed information available to a particular individual.
- 3 **Physical accessibility.** The individual must have ready access to the information resources and to the resources they provide.
- 4 **Psychological accessibility.** The individual must be able to recognise his need for information, be willing to seek this information, and be able to convey the need to a second person (the information specialist), when necessary.
- 5 **Intellectual accessibility.** The individual must be intellectually capable of using the information provided - perhaps to evaluate it in terms of its applicability to his own needs.

At a societal level, access to information is likely to be embodied in broad policies and legislation, for example in national curriculum guidelines, in language policies, in Freedom of Information legislation and in democratic structures relying on informed decision making. The recent parliamentary enquiry into Australia as an Information Society, and the submission made to it (House of Representatives Standing Committee for Long Term Strategies, 1991) reflect an interest in access to information at a broad societal level. At an institutional level, the emphasis on access to information can be reflected in institutional policies and procedures, for example, mission statements, structures relating information centres to their parent organisations, and performance indicators. Physical access to information is associated with the availability of print and electronic technologies, for example, video cassette players, personal computers, books, magazines, indexes, videodiscs and modems. Psychological access refers to the readiness or willingness of individuals to use information, and can be fostered through education programmes, designed to enhance people's confidence in using information sources and information agencies. Intellectual access concerns the meanings which individuals can construct from the information to which they have access. The complexity of the levels of access to information means that information

literacy involves a range of knowledge and skills. Its development draws on all domains of learning, cognitive, affective and psycho-motor.

In formalised education programmes students construct meaning from their experiences, whether real, simulated or vicarious. In the process of making meaning, students require information from a range of material and human resources. Information from these resources is processed and may be assimilated into what students already know or it may be rejected if it does not mesh with students' existing knowledge structures. The construction of meaning is central to learning. So too is experience and the information which it embodies.

Because information and information literacy pervade learning, it follows that the skills, knowledge and attitudes on which information literacy is based also pervade learning. These skills can be developed in the context of attitudes to, and knowledge about, information. In university and college libraries, information literacy and information skills are an appropriate foundation for user education programmes.

### **Information Literacy**

The term was first coined in the 1970's in the United States. One of the early definitions of information literacy was provided by the Information Association of the US. The Association described an information literate person as one who knows the techniques and skills for using information tools (computers) to mould solutions to problems. (Garfield 1979) Because problem solving draws on high order skills of analysis, synthesis and evaluation, information literacy presents quite a sophisticated and complex concept to educators and information professionals.

A broader definition of information literacy comes from the literature of librarianship, where it is described as "the ability to effectively access and evaluate information to meet a need". (Tessmer in Breivik, 1985: 723). One characteristic of information literacy is an integrated set of skills, knowledge and attitudes. Another characteristic of information literacy is that it is related to competence in written and oral language, and to competence in using information technology. While these areas

of competence have some common elements they also have some distinctive elements (particularly in light of physical, psychological and intellectual access to information). The final characteristic of information literacy is that its development is needs-based. Information literacy is developed most effectively in response to a person's need for information. An information need hierarchy, based on Maslow's hierarchy of need, has been developed by Horton (1983). At Level 1 is coping information, followed in ascending order by helping information, enlightening information, enriching information, and finally edifying information. At each level of need information serves a different purpose. Higher order needs will be satisfied when lower order information needs have been met. This approach to information need has implications for user education programmes, particularly in terms of the information seeking strategies and sources which are introduced to students during their university and college courses. The information provided in user education programmes will serve different purposes for students. Diagrams of library layout may assist students in coping with a new environment, pathfinders might assist them to make sense of the resources in a particular subject area, guidance in the use of periodical indexes might raise students' awareness of the potential of a key information retrieval tool.

### Information Skills

Most education authorities in Australia have an information literacy curriculum or guideline for primary and secondary students. Typical of these is *Information Skills in the School* produced by the New South Wales Department of Education (1989). The model for the development of information literacy is based on an information process which reflects an information task from its initial generation to its final evaluation. The process is student or information user oriented. The diagram below sets out the process. It identifies objectives for students as well as questions students might ask themselves during each stage of the process. The information process is applicable to most information tasks irrespective of the age or developmental stage of information users. A diagram which outlines the information process follows.

Diagram 1.

THE INFORMATION PROCESS	
Steps in the process	Information Skills
<p><b>Defining</b></p> <p>What do I really want to find out?            What is my purpose?            Why do I need to find this out?            What are the key words and ideas of the task?              What do I need to do?</p>	<p>Students should be able to:</p> <ul style="list-style-type: none"> <li>• relate the task to their learning</li> <li>• clarify the meanings of the words of the task</li> <li>• identify and interpret key words and ideas in the task</li> <li>• state the task in their own words</li> <li>• work out the parts of the task</li> </ul>
<p><b>Locating</b></p> <p>Where can I find the information I need?            What do I already know?            What do I still need to find out?            What sources and equipment can I use?</p>	<p>Students should be able to:</p> <ul style="list-style-type: none"> <li>• recall relevant information and skills from previous experience</li> <li>• recognise strengths and limitations of current knowledge and decide whether additional information and/or skills are needed</li> <li>• limit an investigation to a manageable size</li> <li>• identify possible sources (people, organisations, places, print, nonprint materials, objects)</li> <li>• recognise the relative worth of sources</li> <li>• select the best of these sources to use</li> <li>• locate sources and appropriate equipment</li> <li>• use appropriate equipment</li> <li>• record details of sources that are used</li> </ul>
<p><b>Selecting</b></p> <p>What information do I really need to use?            What information can I leave out?            How relevant is the information I have found?              How credible is the information I have found?            How will I record the information I need?</p>	<p>Students should be able to:</p> <ul style="list-style-type: none"> <li>• begin to assess the usefulness of each source</li> <li>• use key words to locate potentially useful information within sources</li> <li>• skim each source for information</li> <li>• identify information that has links with the task</li> <li>• assess and respect privacy and ownership of information</li> <li>• decide what to do about deficiencies within information</li> </ul>

Diagram 1 (continued)

<p>Selecting (continued)</p>	<ul style="list-style-type: none"> <li>• decide whether information is closer to fact or opinion</li> <li>• assess the credibility of sources which express opinion</li> <li>• identify inconsistency and bias in sources</li> <li>• devise a system for recording their own information</li> <li>• summarise information</li> <li>• record quotations and sources of information</li> </ul>
<p>Organising</p> <p>How can I best use this information?          Have I enough information for my purpose?          Do I need to use all this information?          How can I best combine information from different sources?</p>	<p>Students should be able to:</p> <ul style="list-style-type: none"> <li>• review the purpose of the task</li> <li>• combine the information into larger units of information</li> <li>• combine the units of information into a structure</li> <li>• review the structure in light of the purpose of the task</li> <li>• adjust the structure where necessary</li> </ul>
<p>Presenting</p> <p>How can I present this information?          What will I do with this information?          With whom will I share this information?</p>	<p>Students should be able to:</p> <ul style="list-style-type: none"> <li>• identify the requirements of different forms of presentation</li> <li>• consider the nature of the audience for the presentation</li> <li>• select a form and style of presentation appropriate to the audience and the content of the material</li> <li>• prepare the presentation</li> <li>• present the information</li> </ul>
<p>Assessing</p> <p>What did I learn from this?          Did I fulfil my purpose?          How did I go - with each step of the information?            How did I go - presenting the information?          Where do I go from here?</p>	<p>Students should be able to:</p> <ul style="list-style-type: none"> <li>• review the extent to which the end product meets the requirements of the task</li> <li>• assess their use of this process in completing the task</li> <li>• examine strengths and weaknesses in specific information skills</li> <li>• identify increases in knowledge</li> <li>• set personal goals for the further development of information skills</li> </ul>

## Information Skills Transfer

Information skills underpin information literacy. They are not ends in themselves, but are fundamental to learning across all college and university course areas. Information skills are concerned with the processes of meaning, understanding, knowing, doing, thinking, imagining, expressing and communicating. They are therefore most effectively developed in an across-the-course approach.

Such an approach is consistent with principles of systematic teaching and application of skills, developed by Fraser and Johns (1963). The diagram on page 13 sets out the principles and their implications for information user use.

## Management of User Education Programmes

One of the conditions for the transfer of skills is that skills are learned in the context of subjects which students study. One of the main management challenges for university and college libraries is the planning, implementation and evaluation of user education programmes with an across-the-course focus. There are some implications for the way in which Faculties and Schools approach course development as a process and for the organisation of libraries.

In collaborative course development, appropriate university and college community are involved in decision-making. Faculty or School Liaison Librarians have a personnel role in the development of user education programmes. They have expertise in managing information and its sources, and in creating physical, psychological and intellectual access to information. They can also have a considerable part to play in promoting access to information at a library or institution-wide level.

One of the first decisions to be made in planning user education programmes relates to the information skills which will be learned.. Students' needs for information, shaped by their courses of study, are an appropriate starting point for deciding which skills are to be learned and how they might be learned. Once students' information needs are

recognised as a source of the content and process of user education, the need for personalised learning of information skills by students is clear. So too is the need for students to have access to a variety of information in a range of formats. The user education programme then extends beyond library orientation.

The implementation of user education programmes rests on collaboration among academics and librarians so that access to information becomes a reality. In general terms, librarians and academics have a responsibility for ensuring physical, psychological and intellectual access to information for their students. The provision of physical access might involve the indexing of collections in and beyond the library, inter library loan and reciprocal borrowing agreements, shelving arrangements, provision of information retrieval tools and technologies, circulation policies, as well as collection management. Because academics have some knowledge of their students' abilities interests and needs, as well as the information sources in their subjects, it might sometimes be appropriate for them to take some responsibility for students' learning of information skills in the context of subjects they teach.

The challenge then for user education programmes in college libraries is to base them more on educating students to use information and less on training them to use a particular library. The university and college library can foster the development of students by focussing on their needs as learners, ready to acquire new knowledge and skills. The contribution which the college library can make in collaboration with academics to the education of students through its user education programmes is a significant one.



## Diagram 2.

### Skills Transfer

1. Skills should be taught functionally, in the context of topics of study, rather than as separate exercises
2. Learners must understand the meaning and purpose of the skills, and have motivation for developing it.
3. Learners should be carefully supervised in their first attempts to apply the skills so they will form appropriate skills, knowledge and attitudes from the beginning.
4. Learners need repeated opportunities to practice skills, with immediate evaluation so that they know where they have succeeded.
5. Learners need individual help, since not all members of any group learn at exactly the same rate or retain equal amounts of what they have learned.
6. Skills instruction should be presented at increasing levels of difficulty, moving from the simple to the more complex; the resulting growth in skills should be cumulative, with each level of instruction building on and reinforcing what has been taught previously.
7. Students should be helped, at each stage, to generalise the skills, by applying them in many and varied situations; in this way maximum transfer of learning can be achieved.

### User Education

1. Information skills should be integrated into the colleges and universities courses and link education in lectures or laboratory with education through the library.
2. Learners need to know why they are learning particular information skills. The purpose of the skill may be related to the methodologies of particular subjects, or to the development of the learner's autonomy. Part of the learner's motivation in developing an information skill can be related to information need.
3. Supervision in first applying a newly acquired information skill means that user education programmes need to be carefully planned to take into account the availability of those who can provide careful supervision. Academics and information professionals might both play roles in information user education.
4. If learners are to practice information skills then the skills need to be developed over a period of time. The skills need to be integrated systematically into subjects in which learners build their information skills.
5. If learners are to have individual help in developing information skills, they need access to information resources and to people who are able to provide that help.
6. Cumulative skill development suggests that colleges and universities might need to consult with librarians in secondary schools to bridge any gaps in the competencies of students, and with lecturers in undergraduate and graduate courses.
7. Not only can information skills be integrated into individual subjects, but they can be integrated across subjects. Subjects have their own approach to building knowledge unique to the disciplines on which they are based. However, when skills can be generalised appropriately students should be encouraged to apply them in different subjects.

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