Give a man a fish, he will have a meal; teach him how to fish, he will eat all his life

This old Chinese proverb amply highlights the need of user education for all branches of human knowledge.

1. Concept of User Education:

The concept of “user education” is differently understood by different people. According to Jacques Tocatlian, former Director, General Information Programme of UNESCO, user education and training has been defined in a generic way to include any effort or programme which will guide and instruct existing and potential users, individually or collectively, with the objective of facilitating:

a) the recognition of their own information needs;
b) the formulation of these needs;
c) the effective and efficient use of information services; as well as (d) the assessment of these services.

2. Components of User Education:

Generally the user education includes the following four inter-related areas: (a) user awareness; (b) Library Orientation; (c) Bibliographic instruction; and (d) Interest profiling (user profile). In the absence of credibility of libraries among the users, especially in the developing countries, users awareness
becomes an essential component of user education. User awareness aims to increase awareness of the library as a primary source of information and as an agency to which users may turn for assistance with their information needs. To meet the individual research requirements of users, interest, profiling becomes essential. Interest profiling involves coding profile terms, preparation of reader’s profiles and document profiles, and formulating research expression. The service is basically meant for specialists. Advent of information technology (IT) has opened new vistas of user education. How to use IT is a big question not only for users but also for the librarians who handle IT.

3. Information Technology and User Education in Developing Countries:

The print media, non-print media, micro-media, quantitative growth and quantitative complexity of the reading material make literature search and use difficult for the user. The information retrieval systems, and the latest modes of Information Technology transfer all make user education imperative.

Retrieval of information from various databases located at far off places involves computers, telecommunication system and electronic devices. The optimal use of online information retrieval system requires good training on the part of user/searcher. With the increase in the number of databases available in various disciplines, the need for user training becomes obvious. This education need not necessarily to be tuned to technical skills of computer hardware, but direct itself to the basic elements of utilization of the system. Training may be formal, where researcher have gone through organised training seasons/workshops, or it may be self-training or in-house training is present through programmed instructions, known as Computer Assisted Instruction (CAI), which is an effective method of training in the use of online information retrieval systems. A variety of electronic gadgets, equipments machines and techniques are involved in this process. There is a need of learning how to use modern technologies involved for the purpose. This type of training is required to be imparted not only to the end-users but also to the searchers or intermediaries who are librarians or information professionals. In fact, first of all, the librarians/library professionals should undergo this type of user education in order to handle the equipment and make searches efficiently for the end-users. Subsequently, the end-users of the library should also be provided such training by the library professionals, from time to time.

4. Proposed Types of Training Needs:

Keeping in view the literature explosion, technologies development and need of the users, there is a dire need to impart necessary training to the librarians in the developing countries to use the new technologies. In order to ascertain the type of training required for the working librarians, the author of this paper informally interviewed about 150 librarians working in different types of libraries (i.e. academic, public and special libraries) in the northern India, during the period November 2000 to February 2001. An overwhelming majority of the respondents opined that the proposed training should be imparted in the following areas. Since India is one of the fast developing countries of the world, the opinion of its librarians hold good and are applicable/suitable to most of the developing countries of the world. Proposed Areas in which Librarians Should be Given Training in the Developing Countries:

(i) Information Technologies Infrastructure:
- Software and Hardware basics;
- I.T. based library & Information Services;
- Library Automation; Bar Code Technology; etc.
(ii) Tele-Communication Technology:
- Networking basics;
- Electronic-mail
- Voice-mail
- Tele-conferencing technique;
- Multimedia;
- Fax; etc.

(iii) Electronic Publishing:
- Desk Top Publishing (DTP), etc.

(iv) CD-ROM and DVD Databases:
- Bibliographic databases;
- Numerical / Non-Bibliographic databases;
- Textual (Full Text) databases; etc.

(v) Creation of Electronic Sources of Information:
- Web designing and development;
- Cataloging of electronic sources;
- HTML and JAVA basics, etc.

(vi) Internet-based Library & Information Services:
- Electronic Journals;
- Electronic publications;
- Net-surfing;
- Search-engines;
- Web-based Database services, etc.

(vii) Online Electronic Sources of Information:
- Online databases;
- Online databanks;
- Online literature searching;
- Downloading
- Output formats, etc.

(viii) Electronic Libraries:
- Concept of Electronic Libraries / Digital libraries / Virtual Libraries: Their Merits and Demerits;

(ix) Cost-Benefit Analysis:
- Economics of online searching Versus CD-ROM Database searching;
- Suitability for Developing Countries; etc.

(x) Creation of Indigenous Databases:
- Methodology & Techniques;
- Problems & Prospects.

(xi) Online Public Access to Catalogues:
- OPAC;
5. Needs of Hands-on Experience / Practical Training:

The above mentioned areas to be covered for imparting training to the librarians working in different types of libraries and information centres are not conclusive. Various other areas / topics can be added, keeping in view the need of society at large. But it is a very essential that practical training i.e. hands-on experience to use the new technologies is emphasised instead of only theoretical teaching. Actual use of the equipment, electronic gadgets, devices, and technologies would really benefit the librarians who are intermediaries between the procedures of information and the end-users.

6. Duration of Training:

The duration of training for the above mentioned components of IT should be between 6 weeks to 12 weeks. The training should be intensive, developing skills and professionalism. The said duration can be at a stretch or in piece meals, depending upon the feasibility, staff strength, possibility of sparing the librarians from the libraries for the purpose and other related factors of the parent organisations.

7. Agencies Which Should Impart Training:

The short term training courses should be organised by certain reputed and accredited national agencies like National Documentation Centres, National Information centres, Departments of Computer Science & Applications in the Universities, Institutes of Engineering & Technology and similar other organisations / institutions possessing satisfactory infrastructural facilities. National Library Associations and State Library Associations can also undertake such training programmes provided that these can arrange the necessary infrastructural facilities and expert personnel for the purpose. Private, commercial and business organisations should be considered only very rarely when other agencies mentioned above are not available for the purpose. Hence their fees or charges are very high as compared to the outcome. But certain large libraries can also think of conducting such training programmes within their premises by hiring the experts provided that necessary infrastructural facilities are available or can be managed conveniently and to the satisfaction of the experts concerned. The training programmes being organised by certain International organisations and agencies such as IFLA-ALP Programmes, UNESCO-PGI Programmes, etc. are also being conducted in different parts of the world, from time to time, which are very useful effective and reputed.

8. Frequent Updating of Specialized Training & Skills:

Since the modern technologies are changing very fast and more sophisticated equipments and facilities are being developed very regularly, it is very essential to update the training and skills to handle and operate the same.

It is very difficult to suggest the definite frequency for updating such in-service training. But whenever new equipments with improved version are acquired, necessary training to handle the same should invariably be undertaken or arranged in order to achieve proficiency and efficiency to operate. This would lead to optimum utilization of the equipment and greater benefit to the parent organisation as well as the end-users in the long run.
9. Training for the End-Users:

The librarians handle computers, networks, databases, databanks, transmissions, communications, literature searching and operate highly sophisticated modern technologies not for themselves, but for those who need. They act as intermediaries, as information brokers, as information disseminators and as a link between the producers of information and the end-users. Such a training for the librarians is very essential, there is no doubt about it. But, after acquiring necessary training in the areas listed above, or updating the same, they should not only utilise the skills for operating themselves but also impart training to the researchers, teachers, scientists, technocrats and similar other potential users of the libraries and information centres within their organisations. Training by the librarians to the end-users would make them self-sufficient, independent, proficient and confident to handle the equipments for storage, retrieval, transmission and processing of the required information, as per need, scope, coverage, comprehensiveness, search strategy and format of output. Such a programme and arrangement should be a regular feature of the library / information centre/organisation concerned. The training of the end-users can be planned in phases, in optimal size of groups, after regular intervals. But only the potential library users should be considered for this purpose. This would not only lead to maximum utilization of the library resources, facilities and equipments, but also reduce the pressure of work on the library personnel. This would pave way for improvement of library & information services, efficiently and better results. Such trainings and user education programmes would lead to overall national developments and plans.

10. Conclusion:

To conclude the paper, it may be stated that any training programme of user education needs, for its success, an explicit statement of objectives, availability of infrastructural facilities, efficient trainers, careful choice of teaching methods and systematic evaluation. Objectives should be defined keeping in view the new developments, needs and ultimate benefits. For teaching or imparting training, hands-on experience, demonstration and practical approach should be preferred. The programme should be subjected to evaluation so far as to provide feed back for modifying and improving the teaching-learning situations. In fact, the library users should not be overlooked or relegated to a place of secondary importance. Training the librarians to use new technologies would go a long way to help the library users the end-users in the developing countries. User education should be taken as a means to an end and not the end in itself. Hence, it is the most important factor to achieve the ultimate goal i.e. optimal utilization of resources, confidence, self-sufficiency and economy leading to over-all developments at national and international level.