Introducing Electronic Information Resources through E-Learning Mechanism: A Study with Reference to Distance Education in its Environment

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Information Technology has come to stay as an indispensable tool for library operations and services. In the present era, information arena is witness to an exciting overabundance of technological advances, which have, to a great extent, been responsible for immeasurable enhancement in human knowledge. The term "Distance Education" is generally given to a form of education and training delivery in which students are remote from the institution. Distance Education is delivered through the use of various learning resources and supported by teachers using a variety of communication tools. The Net or Information Super Highway or Cyberspace or the Open Communication Infrastructure is an amalgamation of thousands of computer networks, and computers have revolutionised resource sharing and access. Distance Education programmes are increasingly using a combination of media for the delivery of teaching and training. Technology based communication has overcome all the barriers of information access. The physical walls of library are less significant. Today the concept of library is changing from bringing the learner to the library to taking the library to the user.

Technology has provided the means of managing knowledge through the strengthened capabilities of collecting, storing, processing, packaging and transmitting the information. Librarians must continuously update themselves with knowledge and skills in the areas of information resources, tools, access modes, technology, management and research and the capability to integrate all these for rendering library and information services efficiently and effectively.

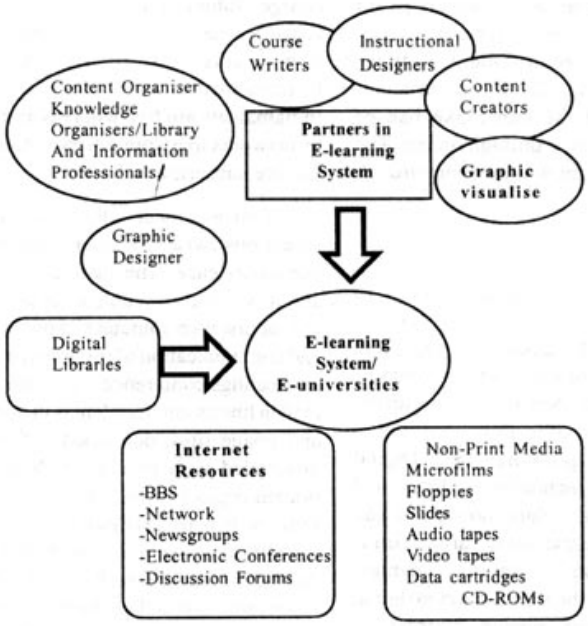
User applications on Internet cover a whole gamut of subject fields and areas like advertising, business, commerce, culture, education, research, recreation, science and technology and so on. The avenues for exploitation of Internet resources by libraries are unlimited and endless. It provides access to a variety of commercial and non-commercial information sources including bibliographic and full-text databases, table of contents of primary journals, electronic and online journals, books and newsletters, library catalogues and OPAC's, graphics databases, multimedia walk through programs, and audio visual clip art database, e-mail, directories, product catalogues, campus information systems, etc. Internet is also a test bed for electronic document delivery, electronic publishing, publicity and marketing of products and services, training and education, and integrated access to local and external information.

E-learning

E-learning covers a wide set of application and processes. It involves delivery of content of resources for learning via different communication protocols. It is a continuous process where the learner deprived to attend formal mode of education. E-learning mechanism involves a variety of professionals such as Instructional Designers, Course Writers/Content Creator, Reviewers, Graphic Designers and Knowledge Organizers/Library and Information Professionals.

Instructional Designers

E-learning is mixture of technology and education. Instructional designing is bridging the concepts / between content and technology. It is a systematic approach to planning and producing effective instructional materials. It covers instructional specifications using learning and instructional theory to ensure the quality of instruction. It is a key to any successful E-learning venture. Instructional design is a systematic approach to course development and is an iterative process that require on going evaluation and feedback. Ability to learn a good academic research background is a minimum requirement for instructional designers.



Course Writers/Content Creator

Presentation of concepts and explanations in most effective manner is an important factor. Guidelines given in the subject is a must for content creation. The development of contents requires a mature level of subject knowledge as well as the technical tools available for presentation. Text form of content is monotonous whereas multimedia content is more impressive.

Reviewers

With growing proliferation of e-Leaming, the review or audit is much important. Reviewers should have a good understanding of instructional design principles. The persons in quality review or quality auditors are required for this job.

Graphic Designers

Persons of this category are programmers. They should have formal training in multimedia creativity and is very much required for this kind of job. Graphic Designer should embed the audio, video and graphic feature while designing e-Leaming System.

Knowledge Managers

Knowledge Management is very important to share the knowledge and retrieve it for an effective use. It is a vague term stretching across many terms or spheres of influence. It becomes visible that the 21st Century information professional will basically, become a resource sharing librarian whose resources will have no boundaries such as local, national or international. Library and information professional will have to be closely associated with the networks and also be contributing information to network or number of networks.

Application of e-Learning to the libraries will be treated by most of the librarians as a threat to them and their profession. But on the contrary it is not the end of the profession but the widening of it Traditional knowledge organization techniques such as Classification and Cataloguing are no longer effective and useful for dissemination of information. On the other hand, the libraries are in track with latest development and applications of information technology skills are getting more importance, Hence it is necessary for the library and information professionals to reorient their skills.

Virtual Universities

Universities are e-Universities functioning on Internet These Universities are offering a range of academic degrees from certificate to PhD programmes.

This environment is absolutely simulation of traditional learning style. But the boundaries of University are limitless. 'A' learner may choose a course of his/her interest after satisfying the requirement of those courses. Once1 the learner enrolls into a particular course in these institution, he can make use of communication tools and interact through online. The evaluation or performance audit will be done through e-media only.

Digital Libraries

Information collection, organisation and dissemination greatly affected by technology thereby making / the predictions of Lancaster's paperless society to reality. Digital Library collections contains fixed, permanent documents. Not only that current libraries have more dynamic collections, but digital environment will enable of quick handling. Digital Libraries are based on digital technologies. These will break all the physical barrier of data transfer. IT can store the large amounts of information in various forms i.e text, audio, video and graphic material. Learners can make effective search for the information in digital libraries with sophisticated search engines. Learner can browse required material and can easily download into his/her system. Overall the digital Libraries will greatly support the e-Learning environment.

Information Technology Tools

Education and libraries are both interdependent components in the process of learning. Rapid spread of communication technologies has provided many tools to bridge between the information and the learner. The information sources around the world are getting interlinked though the webpages and webservers spread over the globe. Several projects have been initiated which focus on developing digital libraries to provide remote access over internet to very large multimedia document collection, stored on distributed servers. There are several tools available to deliver the information over the computer network.

E-mail

Electronic mail is the most commonly used service of the Internet. E-mail facilitates communication with people all over the world. It made the geographical boundaries of nations shrink, as one can send mail to anyone connected to Internet wherever he is almost instantaneously. It has become the life blood of Internet with millions and millions of messages exchanged across the globe dairy. Internet provides several e-mail programmes, many of them free of charge, subject top certain terms and conditions of usage. These facilities are in reality, put on by computer firms like Microsoft Network, Netscape Communication, etc. Hotmail, Lycosmail, Yahoo, Indiamail etc are free whereas e-mail facilities offered by networks like CompuServe, America Online, Delphi, Etc are subscription based.

E-mail in most of the cases, reduces postal delays, which otherwise is a usual phenomenon in traditional correspondence. The mail is received within seconds and it is not uncommon to receive reply in a matter of few hours(even minutes). Apart from correspondence and communication of programmes, plans, participation in meetings/conferences, etc, the important use of E-mail in library environment is in document delivery. Text and image files, downloaded from databases can be dovetailed with regular mails as attachments. Even printed pages can be scanned and sent as image files. Further E-mail facilitates online ordering, sending interlibrary-loan requested and exchange of data. Another benefit of E-mail is that it is possible to participate in a mailing list and get them free of charge. These may be used for various purposes like Surveys, Marketing of information services and products, etc.

Electronic Information Resources

Information resources include: Resources on Print-on-paper, Hard disks, Floppies, Optical disks, Online or Web resources. Print-on-paper resources may not be helpful in sharing them in the networked environment except in our traditional inter-library lending activity. Since the libraries are moving towards accessing information to serve their users, they have to equip themselves with newer media, like optical disks and web resources etc., apart from creating their own information resources in machine readable form.

The potential for distributed access of electronic resources create a situation that is different from print resources. Ownership of a publication becomes less critical than acquiring access rights and the libraries need to find out whether the access rights are free or at a fee or a mix of both. The free information can be downloaded on to paper format or electronic format. The priced information sources are available mostly on subscription or licence fee for access with a password for a local site, IP address or Institutional password etc. The new concept which is now emerging in India is common licence arrangement for a consortium of libraries

CD-ROM Resources

One of the greatest developments in the Information Technology in recent years is CD-ROMS, a digital storage media for libraries. Further development on this media resulted into the emergence of DVD technology, which can store both sides and in two layers.

The digital resource in the CD-ROM/ DVD works as standalone, a single user and a network CD-ROM Server, a multi-user facility. Several publishers are now making their publications simultaneously available in CD-ROMs apart from print versions. Several reference books, electronic journals backup resources are now available in CD-ROMS. With audio, video and graphic facilities, the CD-ROMs could become multi- media resources for the Libraries.

Web Resources

A Web consists of numerous and diversified information resources around the world. This is the reason why the net holds the interest of the information professionals. Almost all the research and academic institutions are connected in someway or the other to the net. This brings pressure upon the libraries to offer net-based services. The main bottleneck is the staggering amount of data available and also inadequate retrieval tools on the net. The time tested skills of information organisation and retrieval are needed to make most efficient use of the Web resources.

Net documents are peculiar in nature and their characteristics vary to a large extent as compared to the traditional documents. The main differences are in nature, information content and Structure.

E-Journals

In an academic environment scholarly communications is a critical component of knowledge. With the emergence of Internet, the e-journals are gaining more importance. The publishing world is undergoing a drastic change and becoming web centric. Electronic journals are serially published and distributed nationally and internationally via networks. These includes both online and also journals which have a print counterpart.

Network Newsgroups

Usenet is one of the most popular and commonly used feature of Internet and second only to e-mail. These are newsgroups or discussion groups where in queries and message's on any topic or subject can be posted. Other people (usually members) can reply to them. The topics range from very branch of human knowledge. But each newsgroup is confined to one subject and an individual may be a member of more than one newsgroup.

The top of the hierarchy denotes subjects and some of the general topics. Under each of these, many sub-groups are formed. Local hierarchies include countries or states. The number of hierarchies in a newsgroup differ from two or more.

Electronic Conferences

In recent times, e-mail based discussion groups called electronic conferences(e-conferences) have come into vogue. Here, the originator of the idea of an e-conference accepts the responsibility to maintain it and distributes the message through listservers or other special mailing list management software. Thus, these can be viewed as moderated newsgroups (as against Usenet newsgroups many of which are not moderated). Several surveys have been conducted. It was found that researchers are using e-mail communications to replace others. It was also found that those who are connected (through e-mail) are better informed as well as more productive and creative. A majority of professionals felt that e-conferences enhance other sources of professional information and are reliable sources of professional and research information for personal use.

Bulletin Board Services

An off shoot of the e-mail facility, the Bulletin Board Service (BBS) is essentially many system. A bulletin board is a medium for positing and discussing announcements and messages of interest to a community of online users. These services disseminate professional information in an open bulletin board that will be read and commented by users in the field. The views and critical comments are posted (appended) to the bulletin board which in turn will be seen by the moderator of the BBS and other professional. Further comments, if any, can be posted again. General applications of BBSs include e-mail, electronic publishing, conducting surveys, exchanging news and research finding, mailing lists, access to network resources, etc.

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