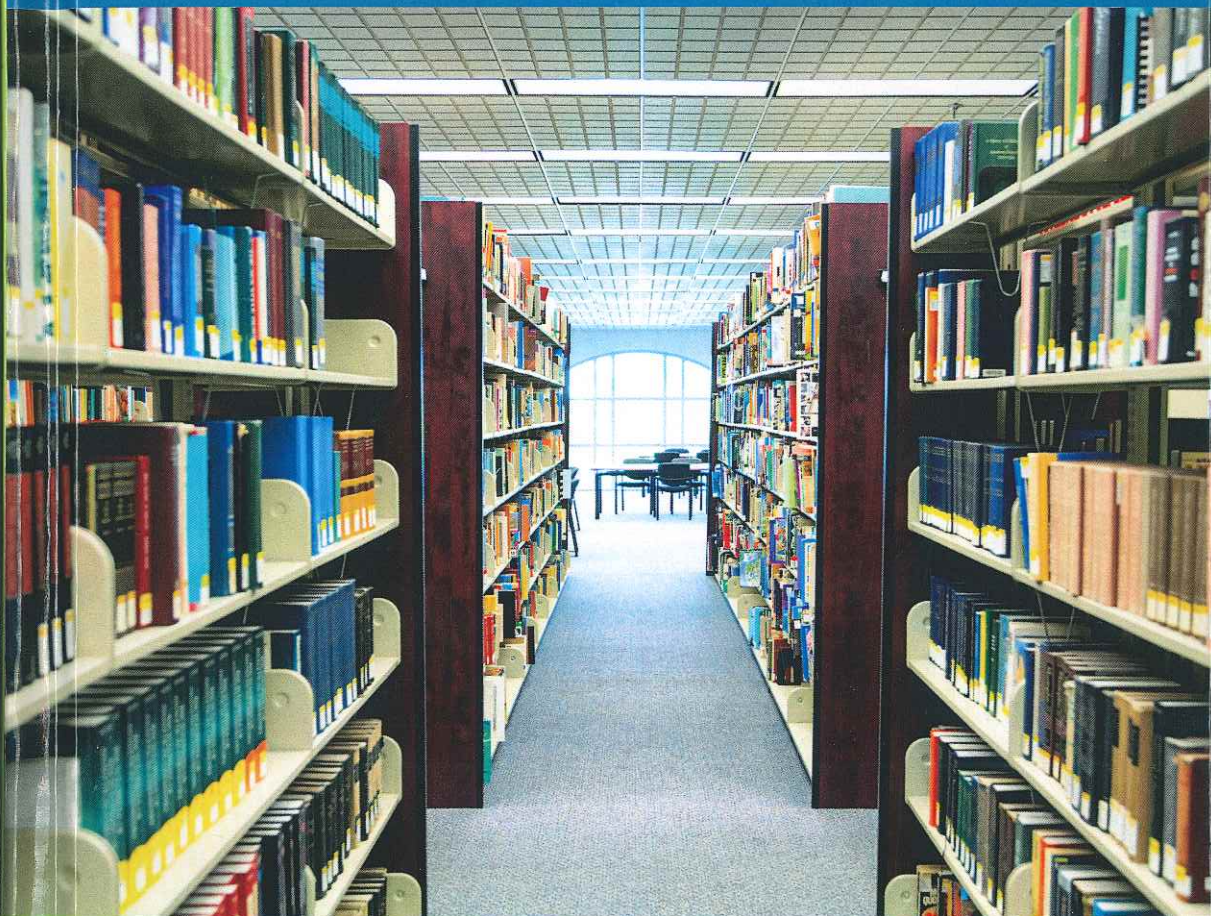


APPLICATION OF ICT IN LIBRARY AND ITS IMPACT ON LIBRARY SERVICES



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- Editors -

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2022

Daya Publishing House®

A Division of

Astral International Pvt. Ltd.

New Delhi - 110 002

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Chapter 6

Role of Libraries and Information Centres in e-Learning

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ABSTRACT

Nowadays we are living in information and technology era. Most of the people want to connect with information technology. Learning means student can learn in the classroom and e-Learning means teaching is based on out of the classrooms and in simple language we can say that learning that is enabled electronically. Typically, e-Learning is conducted on the internet, where students can access their learning materials online at any place and any time. Digital Libraries and information Centres also playing the important role in the e-Learning so every students, researchers and others have to aware about these facilities so that they can use these facilities. The article goes through what "e-learning" is, its breadth, benefits and drawbacks for learners, and the function of digital libraries and information centres in e-Learning, as well as its effects on teaching, facilities, and activities in library and information science.

Keywords: e-Learning, Digital library, Information centre.

1. Introduction

When we learn educational lecture through electronic resources such as

computer, mobile tablets, *etc.* called e-Learning. Libraries and information centres playing the important role in the e-Learning. To begin, distinguish among libraries and information centres. In many aspects, a library varies from such an information centre. Micro documents are provided by libraries, while macro documents are provided by information centres. These sorts of documents maintained, the types and classes of users, the providing of documents instead of information, and the delivery of services to both *i.e.* internal users and external users distinguish libraries from information centres. Besides gathering, processing, and distributing information, documentations/information centres also engage in information presentation and analysis. The major distinction between a library and an information centre is that a library just gives the document, whereas an information centre offers not only the document but also the particular of its components. At present the developments of information technology has changed the concept of library print version to electronic media is called digital libraries and digital libraries have a more digital collection like e journals, e books, CD, DVD *etc.* Today every library user can access any information at any time and any place. With the help of e-Learning more and more users can access same information at same time without any restrictions. In this technology era most of the activities being done with the use of internet like online training, distance-Learning, online courses, *etc.*

2. What is e-Learning?

In simple language-Learning that is enabled electronically called E-Learning. Today, when people say "eLearning", they're referring to training on any digital device. Watching an educational video, reading an interesting article, or taking a quiz, *etc.*, all that is eLearning.

The term eLearning was coined by US learning guru Elliott Masie in November 1999, when he delivered his speech at the TechLearn Conference: "eLearning is the use of network technology to design, deliver, select, administer, and extend learning."

3. Categories of e-Learning

The e-Learning are mainly two types:

- 3.1. Synchronous e-Learning
- 3.2. Asynchronous e-Learning

3.1. Synchronous e-Learning

Synchronous e-Learning is e-Learning where learner and administrator both are connected to each other at the real time.

Examples: live radio/live interactive television broadcasting video-conferencing, teleconferencing, chatting, on-line seminar *etc.*

3.2. Asynchronous e-Learning

Asynchronous e-Learning is e-Learning where learner and administrator both are not connected to each other at the real time.

Examples: Email, blogs, e books, discussion forums, CD, DVD, video or audio tapes or through web pages.

4. Infrastructure Required for Implement the e-Learning

Incorporating eLearning into an institution is now fairly simple. Depending on your needs and budget, you have a variety of options to pick from. The most difficult part is figuring out exactly what you need - how you want the system to work in terms of your institution's training and education requirements. You've completed half of your work if you can correctly address these questions. If you're using e-Learning at your company for the first time, keep the following three facts in mind:

- ☆ Hardware,
- ☆ Software, and the
- ☆ Support staff.

4.1. Hardware

4.1.1. Server Type

The most critical piece of gear you'll need is a server. Cloud servers, shared servers, and dedicated servers are all viable options, each with its own set of advantages and disadvantages. For example, cloud server maintenance is more costly than dedicated server maintenance, but it offers more capabilities and functions. You can either hire a server service provider to put up your web server or build your own data centre. This, too, is dependent on your needs and available funds. Managing a data centre in-house is costlier than procuring an account.

4.1.2. User Database and Consecutive Users

You must estimate the number of users who will access the server and the number of users who may use the server at the same time. You'll need to adjust the server's settings properly. The system may break or data may be damaged if a poorly designed server is accessed by a high number of people at the same time. Dedicated servers can accommodate up to 200 daily users or visitors.

4.1.3. Bandwidth

When selecting or setting a server, make sure it has enough bandwidth to allow users to effortlessly enter eLearning courses.

4.1.4. Additional Server Settings

You'll need goods with excellent setups like core processors for speedy request

processing, RAM for quick response time, and a hard disc with enough storage to upload e-Learning programs and save learning and training data in a database.

4.2. The Software

4.2.1. LMS - Learning Management System

The most significant piece of software is the learning management system. An LMS requires additional software to be installed on the server. There are hundreds of LMSs on the market, some of which are commercial and others of which are open-source apps like MOODLE. Examine the characteristics of each LMS and match them to your training requirements and budget. You can send RFPs with your requirements to all of the LMS providers on your shortlist and choose the one that is ideal for you.

To setup, design and execute an LMS in your Institution, you'll need to do the following steps:

- ☆ If possible, buy a new server or use an existing one.
- ☆ Set up the LMS and configure the default settings.
- ☆ If necessary, customise features and reports.
- ☆ Save time by creating user accounts via CSV upload. Alternatively, for single-sign-on, interconnect with your Active Directory.
- ☆ Upload all of the courses and create user accounts.
- ☆ Provide users with LMS access information and usage instructions via a welcome message.

4.3. Support

It will not work if you have an outstanding LMS but no support. If learners do not receive adequate support, they will become demotivated. Regardless of how attractive is the LMS, learners will still experience some common and basic issues, like not being able to alter passwords or access trainings.

4.3.1. Choosing a Team

Either you can hire an in-house support staff or outsource it. It is advisable to outsource the customer support services because it may be difficult for the in-house staff to provide enough assistance while still performing their other responsibilities. If you hire a technical staff simply to provide help, they will be able to focus entirely on their work.

4.3.2. LMS Administration Training

Following the selection of the team, the following stage is to teach individuals on LMS administration. It is not needed if you outsourcing it to an LMS company. Only in-house and third-party outsourced teams need to be trained.

4.3.3. Team Size

The number of consumers, the complexities of the LMS, and the time frames in which learners attend trainings all play a role. One principal administrator with good technical knowledge should be in-charge, while the others can be sub-administrators who do not required to know much at all about technology.

4.3.4. Manage LMS Activities

This team is in charge of generating, modifying, and deleting user accounts as well as eLearning courses in the LMS. A dedicated support team will assist in the upkeep of all criteria for fast searches and accurate reports.

4.3.5. Reports

This team will go above and above to ensure you have the reports you need for your training ROI study. The devoted support team will prepare reports for you, which will save you time.

4.3.6. Working with LMS Vendor

If the LMS has any issues or features that don't work, this dedicated team can work immediately with the LMS vendor to get them fixed. I hope this material aids you in establishing an eLearning structure in your Institution. You may always start with pilot testing to set up this structure, then scale up and go live once everything is working properly.

5. Objective of e-Learning

The main objectives of the E-Learning are as follows:

- ☆ Improve the quality of learning and teaching.
- ☆ Improve User accessibility.
- ☆ Improve the time flexibility.
- ☆ Lifelong learning.

6. Advantage of e-Learning

- ☆ E-Learning save the time of users.
- ☆ Accessibility increase.
- ☆ E learning has been converting the traditional libraries into Digital libraries.
- ☆ More users can access same information at the same time.
- ☆ Flexibility in communication.
- ☆ Users can access information from home.
- ☆ Users can store information for life time.

7. Disadvantage of e-Learning

The most significant downside of e-Learning is that it can lead to internet

connection concerns, and libraries are sometimes obliged to adopt new technologies in order to provide e-services to meet users' information needs. They are such as:

- ☆ Internet Speed.
- ☆ Lack of e-Learning resources.
- ☆ Lack of knowledge about how to use e resources.
- ☆ Face to face interaction (physically) with colleagues and Professors.

8. e-Learning during the Covid-19 Pandemic

E-Learning playing the most important role of all educational institutions like school, Colleges, Universities and as well as offices also during the covid-19 pandemic. During this critical situation government have to take serious decision for lockdown or maintain the social distancing in the country to decrease the number of Covid patient. At this time most of the companies provide work from home facility to their employees and most of the schools also teaches to the students based on online study. So, we can say at this time e-Learning is most important. During this time Libraries also provide the remote access facility to the users so that they can access their information at home without any restriction.

9. Digital Libraries

A digital library is a library, where data store in digital format (opposite to print, microform and other media) and can access through computer.

10. Traditional vs. Digital Library

Traditional library stored print collection whereas Digital libraries stored digital collection. The following points which are given below we can compare traditional and digital libraries.

- ☆ Storage Space
- ☆ Maintenance cost
- ☆ Willingness to adopt innovations in technology
- ☆ Accessibility to users
- ☆ Simultaneous access

11. Types of Digital Libraries

11.1. Document Digital Libraries

It is a dispersed network of interconnected information used mostly for electronic publication. Books, reports, printed materials, electronic files, video, and audio are all examples. Formats for digital documents (spreadsheets, word processing, digital video, audio recordings).

11.2. Data Warehouses

These are centralized data repositories that combine and store huge amounts of historical and referencing data from a variety of sources. It's the isolation of an organization's operational information systems from its decision support systems on a physical level.

11.3. Information Centres

An information centre is described as an enterprise or an organisation that chooses, obtains, and retrieves the information in response to queries, as well as prepares abstracts, extracts, indexes, and provides data in expectation of and in responding to questions.

Information Centers are often associated with highly specialised research and development organisations. An information centre provides its users with a variety of services such as literature searches, referrals, translations, bibliographies and abstracting.

12. e-Learning in Library and Information Centre

ICT has changed the role of libraries. Libraries and information Centres also playing the important role in e-Learning. In the present situation most of the libraries and information centres organising the webinars. We all aware that due to Novel Covid 19 corona pandemics online and e-Learning is the only medium where we share our experience and learn new skills and techniques through webinar, which is an effective mode of learning.

Some of the online courses and e-content offered by library and information Centres:

1. Swayam
2. NPTEL
3. E-PG Pathshala
4. Vidya Mitra
5. Shodhganga
6. KrishiKosh
7. Khan academy
8. Coursera
9. NDL
10. IEEE e-Learning library

13. Impact of e-Learning in Library and Information Centre

In the Information technology era, technology and learning has been changed. Due to Information technology library services has been also changed. Library and information centres provide lots of facility like use of computers and

internet. Technology has modified whole life including education and provider of information. IT assists libraries in developing databases of their holdings and making them accessible to users both inside and outside the library via networks. Libraries can deliver the most efficient and customised information services thanks to technology. As a result, we may conclude that ICT has a significant impact on libraries, as seen below:

1. Traditional libraries moved to Digital Libraries
2. Budget saving
3. Time saving
4. Manual work end
5. Users can access their information anywhere and anytime
6. Storage problem ended
7. Resource sharing
8. Library automation

14. Role of Librarians in e-Learning

Librarians are the intermediaries between library and users. They help the library users how to use e resources and they organise the training or awareness programme for users so that most of the people can use the library facilities. The main roles of librarians are creating the database collection and provide the library services which are given below:

1. Inter Library Loan service
2. Remote access facility
3. Web OPAC facility
4. E collection through Institutional repository
5. Provide software (like grammarly) for make the more effective of writing skills.

15. Conclusion

Based on the above study we can say that e-Learning makes efficient and effective to teaching and learning. e-Learning has changed the life totally. With the help of ICT, LIS education is changing fast. Most of the libraries adopted this technology and makes the library services more effective and creative. With the help of e-Learning users can access their information at anytime and anywhere without any restriction or shortage of resources.

REFERENCES

Jayaprasad, A., and Venkatramana, R. (2006). Role of digital libraries in e-learning, DRTC.

Khan, A.M., and Shakeel, A. (2006). Role of e-learning in library and information science, NCIMDiL.

Khan, J. (2016). E-learning and its impact on library and information services. *International Journal of Academic Library and Information Science*, 4(7), 194-197.

Mohasin, S.F., Shinde, P.A., and Khaparde, V.S. (2013). E-learning: A tool for library and information services. *International Research: Journal of Library and Information Science*, 3(2), 245-253.

Ramkumar, P., and Vinayagamoorthy, P. (2020). Role of academic libraries in e-learning, science. *Technology and Development*, 9(2).

<https://blog.commlabindia.com/elearning-design/infrastructure-for-elearning>

<https://www.ispringsolutions.com/blog/what-is-elearning>