

A STUDY OF INFORMATION LITERACY ON USAGE OF ELECTRONIC RESOURCES BY FACULTY MEMBERS AND RESEARCH SCHOLARS

Dr.J.Santhi^{#1}, Dr.Rm.Subbulakshmi^{*2}

Dr.P.Ganesh Kumar^{#3},

#Librarian, Arumugam Pillai Seethai Ammal College, Tiruppathur.

**Librarian i/c, Alagappa Chettiar College of Engineering and Technology, Karaikudi.*

#Professor, Dept of Information Technology, K.L.N. College of Engineering, Madurai.

Abstract--Information literacy plays a crucial role in this digital environment because a lot of transformation is happening in the information generation, access, storage, preservation and dissemination. The librarian's prime job is to make it available of all the available resources as journals, books, magazines, newspapers, CD-ROMs/DVDs, electronic resources such as e-Books, e-Journals, e-Magazines, e-Theses and Dissertations, e-Databases and so on to the user community. For effective utilization of e-Resources, the users must be aware of the electronic resources available in the Library and also they should know about retrieving the electronic resources. Information literacy is the only way through which the users can be taught about the electronic resources and utilization of the same effectively. In this connection, this study is useful to find out the behaviour of the users and to take appropriate measures to strengthen the electronic resources and to provide training on information literacy to the user community. A distributed questionnaire among the respondents. One thousand eight hundred surveys collected among the faculty members and research scholars working in all affiliated colleges located in Sivaganga and Ramanad Districts. In this study, the users are among the 34 colleges affiliated to Alagappa University. From the study, to find out the level and use of awareness of e-resources, use of various web tools, place of access, different searching techniques, hindrances, level of information literacy, and satisfaction level.

Keywords: *E-Resources, Information Literacy, ICT Technique, User Studies*

1. INTRODUCTION

E-Resources have become valuable tools for all the users who are pursuing or working in the academic and research institute. The advancement of ICT and web resources have necessitated users to change in their behaviours with regards to the use of electronic resources. Under these circumstances, the users should be in a position to handle the electronic resources in a better way for which the information literacy is very much essential.

Information literacy is the 'set of skills needed to find, retrieve, analyze and use information'. There is a need to empower the users to use electronic resources like online databases, e-Journals, e-Books, e-Theses and Dissertations, as well as other related resources. Not only the users of the institutions, but also the academic and research community, and the librarians should update their knowledge on ICT and requirements of the users.

1.1 Importance of Information Literacy Program

Following are the potential benefits of organizing information literacy programs (Mahabaseshwara Rao and Jessy, 2016)¹.

- Learn more about the web sites, tools, databases and platform used.
- To create an awareness about electronic resources available in the libraries.
- Use of advanced search skills such as Boolean Logic Operators such as 'AND', 'OR', 'ANDNOT' to retrieve the relevant information and also to narrow or broaden the search results.
- Able to use and search different databases using advanced search tips.
- Enhance academic expertise.
- Feel more comfortable with electronic resources and other I.T. applications.

- To fulfil the information needs of the user community.

1.2 E-Resources

Electronic resources can be defined as “resources which require computer access or any electronic product that delivers a collection of data such as full-text databases and multimedia products published with an aim to being marketed” (Ashikuzzaman, 2014)².

An electronic resource is a resource which requires computer network to access the electronic information which may be a collection of data, text, numerical data, image, graphics, multimedia etc.

Technology is dominating all fields of human activity, and libraries are not exceptional. The massive storage media such as high-end servers, magnetic tapes, microform, CD-ROMs/DVDs, CD Towers etc. are playing an important role in storage and dissemination of Information (Grogan,1976)³.

Electronic publishing in the digital world has made easy and convenient to resource sharing among users. The information such as journals, books, databases, theses and dissertations, software and other related materials are built-in digital libraries.

Technology-based applications have made it easy to access the data by removing the barriers.

Libraries of today are spending a significant amount for the subscription of electronic resources and which is the fact that the libraries of today can provide better service to the users. It is also a fact that most of the electronic resources have powerful search techniques through which the users can search their information effectively and efficiently. It is also evident that most of the required resources are available through the web, which helps the users to access those resources from their desktop at any time.

1.3 Impact of User Behaviour

User study in simple term means studying the user’s behaviour. It deals with various aspects of various behaviour of users such what kind of information they need, used, searched to meet their information needs and their satisfaction or dissatisfaction on the information they obtained (Muneshwar, 2012)⁴.

The impact of Communication Technology on users is tremendous access and uses electronic resources. Use of electronic resources is possible with the help of facilities available in the institution, whereas a print resource has less or no impact on Technology. Therefore, the usability of electronic resources can be improved with the help of the internet and related Technology. The use of information in the present technological environment is completely changed, and they demand the data immediately. In this critical situation, libraries adapt physically to the digital environment so that the information available through the electronic context can be accessed with the help of available tools and techniques so that the flow and search of data will be so simple and effective. There are many advantages of electronic resources when compared with print resources that e-Resources can be accessed by multiple users simultaneously from any part of the world. The use of required information by the respondents must be taken care off. If the user’s behaviour is accessing electronic resources means, the libraries should procure more electronic resources than the print one. The Information-seeking responses of users can be summed up as (Chandel and Saikia, 2012)⁵.

- They are least bothered about printed information and more reliant on electronic resources.
- Access from any place and instant availability of the resources.
- Quality of the available Information.
- Provide up to date and quick information.

1.4 Potential Benefits of Electronic Information

Digital libraries built to facilitate better delivery of information than was possible in the past. It brings a paradigm shift in the creation, distribution, management and use of Information (Krishna Kumar, 1984)⁶.

Potential benefits are listed below:

- Brings Information to the users.
- Provide advanced searching techniques and manipulation of information.
- Improved facilities for information sharing.
- Timely access to information.
- Enhanced use of information.
- Improved collaboration.
- Reduction of the digital divide.

II. METHODOLOGY OF THE STUDY

In this digital environment, Electronic resources have attracted the users and provide a solution to access the required information without losing the users' precious time.

Information and Communication Technologies advances in all fields of knowledge, including Libraries. It plays a pivotal role in procuring, organizing and disseminating the information to the user community (Konappa, 2014)⁷.

In any educational Institution, Libraries acts as a fulcrum for the academic and research community to meet their information needs (Habiba and Chowdhury, 2012)⁸.

ICT software is used to create E-Content, modify, and convert from one form to the other by using the computer and ICT devices. The Manual work involved in Libraries has been replaced with new technologies. Implementation of new technologies like RFID, Bar code, Q.R. code has taken the issue and return process of books to new heights. Through the web, all the printed information such as books, journals, database, reports, theses and dissertations can be published in many file formats.

There are different methods and procedures are adopted to collect and analyze the data collected from the respondents. There are different types of research methods to analyze the quantitative data such as experimental methods, survey methods, case study, historical and so on. Each study has its strengths and weakness. The survey method used to study and analyze the data collected from the respondents is one of the best ways that has been used in this study. If properly conducted, the survey method will give higher reliability and accuracy.

2.1 Objectives of the study

The Objectives of the work was as follows.

1. To find out the level of awareness of electronic resources within the faculty members and research scholars of surveyed Arts and Science colleges.
2. To find out the use of various e-resources among the faculty members and research scholars of surveyed Arts and Science
3. To find out the use of various web tools by the faculty members and research scholars of surveyed Arts and Science colleges.
4. To find out different searching techniques and the place of accessing e-resources used by respondents.
5. To find out hindrances faced by the faculty members and research scholars of surveyed Arts and Science colleges affiliated to Alagappa University.
6. To find out the level of information literacy among the faculty members and research scholars of surveyed Arts and Science colleges affiliated to Alagappa University.
7. To find out the satisfaction level on electronic information services among the faculty members and research scholars of surveyed Arts and Science colleges affiliated to Alagappa University.

2.2 Review of Related Literature

The researcher has collected 72 literature related to the research topic and reviewed the literature. The researcher got an idea of how to go ahead with the research topic and to identify the research problem and gap.

2.3 Methodology of the study

The study comes under descriptive type. Survey method is adopted to collect the data from the respondents. Academic and research community were the main focus of the present study because they are the users who regularly use the resources effectively. Since the affiliated colleges are located in rural areas of backward districts of Tamil Nadu, namely Ramanathapuram and Sivaganga, the researcher wanted to find out their literacy level and usage of the resources.

Random sampling method was adopted. Distributed questionnaires among the faculty members and research scholars of the said Arts and Science colleges Affiliated to Alagappa University. There were 1800 surveys have been distributed, out of which 1732 respondents have filled and returned.

A questionnaire is an essential tool in descriptive research.

The questionnaire consists of the following items:

- Socio-Demographic Information.
- Library Visit.
- Use of e-Resources.
- Searching Techniques of Electronic Resources.
- Information Literacy on Electronic Resources Search Pattern of Electronic Information.
- Satisfaction on Electronic Information Services.

To test the collected data, statistical techniques such as simple percentage, mean, standard deviation, Analysis of Variance (ANOVA), t-test have been applied.

2.4 Survey Area

Tamil Nadu is one of the states in India has many educational institutions to impart knowledge. Alagappa University, Karaikudi is one of the state universities has many departments situated in Sivaganga, Tamil Nadu state caters the educational needs of Sivaganga and Ramnad districts. The university has been accredited with 'A+' degree with the highest CGPA of 3.64. There are 41 affiliated and constituent colleges functioning under the control of Alagappa University (<http://www.alagappauniversity.ac.in>).

III. DATA ANALYSIS AND INTERPRETATION

The Total number of a questionnaire distributed among the Staff and Research scholars was 1800. Out of 1800 questionnaire distributed, 1732 survey were filled and returned by the Staff and Research scholars. The overall Response Percentage was 96.22%.

3.1 Awareness on e-Resources

From the analysis, it is observed that more than 92.6% of the respondents from all the colleges were aware of electronic resources, and 7.4% of the respondents were not aware of electronic resources. It was also noticed that vast majority of the respondents that is 98% were from Ananda College, 97.8% were from Dr.Zahir Hussain College, 96.7% were from Sri Sarada Niketan College for Women, 96.4% were from Syed Hameeda Arts & Science College, 96.3% were from Caussanel College of Arts and Science and Dr.Umayal Ramanathan College for Women, 96% were from Sree Sevugan Annamalai College and Pasumpon Thiru Muthuramalinga Thevar Memorial College. The rest of the college respondents were less than 85% aware, but overall awareness is more than 50%.

3.2 Awareness Level on Electronic Resources

In the present digital environment, whatever print resources we have for which electronic resources are also available. Awareness about electronic resources is very much essential; otherwise, without proper utilization of the electronic resources, the public money will be spent on the subscription of electronic resources. In this connection, data have been collected from the respondents, and they analyzed the results.

It is found that highest number of respondents 700(40.4%) were fully aware of e-mail followed by second-most top respondents 536(31%),480(27.8%) and 460(26.6%) were fully aware of e-newspaper and e-Books.

Whereas for e-Journals, 720(44.9%), e-Books 660(41.2%), e-Newspapers 628(36.3%) and e-Magazines 620(35.8%) were aware. On the other hand, the majority of the users were less extent with e-Directory 1060(61.2%). IR 980(56.6%), e-reports 932(53.8%), e-standard 960(55.4%), Wikipedia and subject gateways with 812(46.8%), e-Databases 748(43.2%), e-Manuscripts 720(46.6%), social media 688(39.7%) and open access resources 648(37.4%), Overall, majority of the respondents were fully aware of e-Mail and majority of the respondents were some extend aware of e-Resources such as e-Directories, I.R., e-Reports, e-Standard, Wikipedia, subject gateways, e-databases, e-manuscripts, social media, open-access resources.

3.3 Level of Using Electronic Resources

In this technological era, most of the users are utilizing electronic resources for teaching learning and research. To fulfil the information needs of the users, the institutions also spending sizable amount for the subscription of e-resources. Periodic evaluation of utilization of e-Resources will help the library professionals to know the usage level so that appropriate action can be taken.

It is noticed that with regard to usage of e-Journals and e-Mail, the highest number of respondents have stated that they were using the e-Journals and e-mail from large extend to very large extend, whereas, for other sources such as e-Books, e-Theses and dissertations, e-magazines, e-Databases, e-Newspapers, e-Manuscripts, e-Reports, e-Standards, Wikipedia, Subject Gateways, Social Media, Open Access Resources, e-Conference proceedings and e-Directories, majority of the respondent's opinion were ranged from some extent to less extent. Overall, it is found that majority of the respondents were using e-Journals and e-Mail, whereas other resources are not utilized like e-Journals and e-Mails.

3.4 Use of Web Tools and Services

At present, many web tools are used for sharing resources. To find out the usage level of web tools and services,

With regard to Blogs, the highest number of respondents 524(30.3%) followed by the second highest 464(26.8%) stated that they used some extent and large extent. The same trend was identified for Audio/Video sharing with slight changes.

Whereas for e-mail/ instant message, majority of the respondents have agreed large extend and very large extend. For discussion group, social networking and social book marketing majority of the respondents have agreed some continue and very large extend whereas for wikis, and content management system, majority of the respondents have agreed some extent and very large extend.

3.5 Place of Accessing E-Resources

E-Resources can be accessed from any place. The researcher wanted to know from where the e-Refocused are accessed by the respondents in this connection, data collected were analyzed

It is identified that for accessing audio/video recordings, out of 1604 respondents, it is noticed that audio/video records were obtained by the majority of the respondents 952(55%) from home followed by department and browsing centres. The Library was the least preferred place for accessing the e-Resources. With regard to the CD/DVD database, highest respondents obtained from home followed by the department, whereas third-most top used Library.

For e-Journals, majority of the respondents 888(51.3%) used Library. It was also noticed that the highest number of respondents used department for network-based services and internet services, whereas e-books were used mostly in the Library. Majority of the respondents used e-journals and e-books from Library whereas Audio/video recordings and CD/DVD databases were used in home and network-based services and internet services were used in department and browsing centre was the last used one.

3.6 Sources through which information is searched

There are different mediums through which information is retrieved over the web. Hence, data on this have been collected from the respondents, and the details are given.

It is found that majority of the users 836(48.3%) accessed resources through search engines, followed by 692(40%) and 516(29.8%) have located with the help of internet and blogs and directory was the least preferred medium among all the sources. Combining all, majority of the respondents have used a search engine followed by the internet.

3.7 Search Engines Used For Searching Information

Search engines are information retrieving tools plays a significant role in retrieving the documents. It is identified from Table 4.25 that majority of the respondents 984(56.8%) and 96(46%) were using Google and Yahoo for searching the information they want. Other search engines such as AltaVista and Info seek were the least preferred search engines. Thus, majority of the respondents were using Google and Yahoo for retrieving required documents.

3.8 Hindrances Faced while Accessing the E-Resources

Some of the hindrances will create problems for the users to access electronic resources. Identifying and rectifying those problems will help the users to access the information effectively.

In this regard, data have been collected from the respondents and presented in Table 1.

TABLE 1
HINDRANCES FACED WHILE ACCESSING THE E-RESOURCES

Sl.No	Hindrances	Respondents Yes	Percentage %	Respondents No	Percentage %	Total
1.	Slow access speed.	648	37.4%	1084	62.6%	1732
2.	Difficulty in finding relevant information.	388	22.4%	1344	77.6%	1732
3.	Overloaded Information.	420	24.2%	1312	75.8%	1732
4.	Lack of time.	656	37.9%	1076	62.1%	1732
5.	Lack of sufficient subject expertise.	332	19.2%	1400	80.8%	1732

6.	Lack of Infrastructure facilities.	280	16.2%	1452	83.8%	1732
----	------------------------------------	-----	-------	------	-------	------

Table.1 reveals the hindrances faced by the respondents. A more or less equal number of respondents' 656(37.9%) and 648(37.4%) have expressed that lack of time and slow access speed was the major hindrances faced by them. The next highest respondents stated overload information and difficulty in finding the relevant data were the problems and subject expertise and infrastructure facilities were the least faced.

3.9 Satisfaction on Electronic Information Services

Library procures a lot of electronic resources to meet the user needs. These resources should be periodically checked and ensured the needs of the user community. In this connection, data collected from the respondents are analyzed. It is shown in Table 2.

TABLE 2
SATISFACTION OF ELECTRONIC INFORMATION SERVICES

Sl.No	Statements	Excellent	Good	Average	Below Average	Not Aware	Total
1.	Opinion about the reliability of e-Resources	436(25.2%)	700(40.4%)	420(24.2%)	48(2.8%)	128(7.4%)	1732
2.	Opinion on the use of e-Resources for	260(15%)	800(46.2%)	500(28.9%)	44(2.5%)	128(7.4%)	1732
3.	Opinion on the use of e-Resources for	364(21%)	640(37%)	556(32%)	44(2.5%)	128(7.4%)	1732
4.	Meeting of information needs	184(10.6%)	752(43.4%)	560(32.3%)	108(6.2%)	128(7.4%)	1732
5.	Library professionals attitude in locating the Information	228(13.2%)	528(30.5%)	684(39.5%)	164(9.5%)	128(7.4%)	1732
6.	Repetition	169(9.8%)	521(30.1%)	745(43%)	169(9.8%)	128(7.4%)	1732
7.	Opinion on available infrastructure facilities	159(9.2%)	497(28.7%)	704(40.6%)	244(14.1%)	128(7.4%)	1732
8.	Opinion on I.T. Facilities	184(10.6%)	580(33.5%)	596(34.4%)	244(14.1%)	128(7.4%)	1732
9.	Awareness created by LIS professionals	164(9.5%)	568(32.8%)	700(40.4%)	172(9.9%)	128(7.4%)	1732
10.	Opinion on library services	240(13.9%)	564(32.6%)	648(37.4%)	152(8.8%)	128(7.4%)	1732

It showed that majority of the respondents 800(46.2%), 700(40.4%), 640(37%), and 752(43.4%) have opined good for the reliability of e-Resources, useful for academic purpose, valuable for research purpose, and meeting the information needs.

Whereas, majority of the respondents have given an opinion as to the average for library professionals attitude in locating the information, repetition, available infrastructure facilities, I.T. facilities, awareness created by LIS Professionals and opinion on library services.

IV. CONCLUSION

The development of web-based Technology has enhanced the acquisition of scholarly information by the students, research scholars, and faculty members. The electronic resources have become boon to the user community that they have enhanced to access the e-Resources simultaneously at a time by breaking the geographical barriers. In the present digital environment, most of the libraries attached to the academic and research are subscribing a substantial amount of electronic resources apart from consortia through which also the libraries are providing electronic information services. There are many electronic resources such as e-Journals, e-Books, e-Databases, e-Magazines, Subject gateway, Wikipedia, electronic thesis and dissertations (ETI) and so on are available to the user community through a library web portal. All the severe irrespective of their discipline have to utilize these services to meet their information requirement. At present, most of the publications and academic and research institutions have also started digitizing their collections and made it available to the users through an open access model. Thousands and lakhs of e-Journals, e-Books, e-Databases, electronic thesis and dissertations are available through an open-access model. National Digital Library of India has made it available of million e-books which can be accessed freely. In the same way, Information Library Networks (INFLIBNET), a centre of UGC, New Delhi also developed a project called Shodhganga an Institutional Repository. 2 lakh thesis submitted in India Universities can be viewed and downloaded from Shodhganga. It also provides e-pathshala digital learning programme to P.G. students and also offers open access journals through its web site. The users access electronic resources if they are well aware of the ICT tools. It is also essential that the library professionals should put much effort to access the resources equally by all the discipline users. In this study also found that the users were not happy with the library professionals' attitude in locating the information, infrastructure facilities, I.T. facilities and awareness created by the librarians. Hence, the study concludes with the remarks that the librarian should update their knowledge on electronic resources and periodically provide user awareness programme to the user community to access the data effectively.

REFERENCES

- [1]. Mahabaleshwara Rao and Jessy A. (2016). Information Literacy for users in using electronic resources: Role and responsibilities of college librarians. In P.G., Tadasad et al. (Eds.). Facets of Information Literacy.
- [2]. Ashikuzzaman, M. (2014). Definition and types of e-resources Retrieved from <http://www.lislibnet.com/definition-and-types-of-e-resources/>
- [3]. Grogan, Denis (1976). Science and Technology: an introduction to the literature, 3rd ed. London: Bingley, 1976, ch.1:14-28.
- [4]. Muneshwar, G.D. (2012). Need and importance of user studies in the Library. Global Online Electronic International Interdisciplinary Research Journal (GOEIJR), 1 (4), 104-106.
- [5]. Chandel, A.S. and Saikia, M. (2012). Challenges and Opportunities of e-resources, Annals of Library and Information Studies, 59, p.148-154.
- [6]. Krishna Kumar (1984). Reference service. 4th ed. New Delhi, vikas 1984, ch.8. p.98-112
- [7]. Konappa, K. (2014). Use of Electronic Information Resources in University Libraries of Tirupati (A.P): An Analytical Study. International Journal of Library and Information Science, 6 (1), 5-13.
- [8]. Habiba, U., and Chowdhury, S. (2012). Use of Electronic Resources and its impact: A study of Dhaka University Library Users. The Eastern Librarian, 23 (1), 74-90.
- [9]. Subbulakshmi, Rm, and Santhi, J. (2016). Impact of Electronic Resources on Students and Staff Members of aided Colleges Affiliated to Alagappa University. IALA Journal, 4(1), 66-73.

- [10].MahabaleshwaraRao.,and Jessy, A. (2016). Information Literacy for users in using electronic resources: Role and responsibilities of college librarians. Eds. T.G. Tadasad (ed.al), Facets of Information Literacy, 2-11.
- [11].Subbulakshmi, Rm, and Santhi, J. (2016).Use of Electronic Resources by Research Scholars and Faculty Members of Women colleges Affiliated to Alagappa University, Karaikudi, Tamilnadu: A Study. IJLSIM Journal,2(4).
- [12].Chikkamanju and Bharat, C. (2017). Use Pattern of Information Resources by the Students of College of Agricultural Library, Vijayapur University of Agricultural Sciences, Dharwad Karnataka: a study. International Journal of Library and Information Studies, 7 (2), 89-96.
- [13].Jayaraj, J., and Senthilkumar, V. (2017). A study on Utilization of E-Resources by the Engineering College Students in Karaikal. International Journal of Library and Information Studies, 6(4), 353-357.
- [14].Senthil, V., and Madhusudhan, M. (2018).DRDO E-Journal Consortium in Defence Science and Technology, DESIDOC Journal of Library & Information Technology, 38(1), 16-20.
- [15].Subbulakshmi, Rm, Santhi, J., and Poongodi.K (2019). Usage of Electronic Resources by Alagappa Chettiar Government College of Engineering & Technology, Karaikudi-A Study. ICSSR sponsored International Conference on Reshaping librarianship Innovations & Transformations(ICRLIT-2019) Bharathiar University,72.
- [16].Santhi, J., and Jeyachitra.S (2017). Use and impact of e-resources at the Urumudhanalakshmi College, Tiruchirapalli.International Journal of Scientific Research,3(2),235-237.
- [17].Subbulakshmi, Rm, and Santhi, J (2016).Electronic Resources and its Usage in Alagappa University. Journal of Library, Information and Communication Technology.7(3,4),43-48.